



Final report of the discussion

**Global Dialogue Forum on Future Needs for Skills and Training in
the Oil and Gas Industry**
(Geneva, 12–13 December 2012)

INTERNATIONAL LABOUR ORGANIZATION

Sectoral Activities Department

GDFOGI/2012/12

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INTERNATIONAL LABOUR OFFICE, GENEVA

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Contents

	<i>Page</i>
Introduction	1
Opening statements	1
1. How could governments, employers and workers address the skills shortages in the oil and gas industry, given the general and industry-specific challenges, such as: (a) technological advancements; (b) demographic challenges; (c) geopolitical challenges; (d) the policies in relation to immigration; (e) working and living conditions in remote areas? How could governments, employers and workers with longer experience in vocational education and training (VET) promote knowledge transfer in collaboration with their counterparts who have less experience?	4
2. How could human resources development programmes such as recruitment, retention, career development schemes as well as VET programmes be adapted to attract talented workers from diverse labour supply pools that have previously not been fully utilized, so that the oil and gas industry will remain competitive, productive and attractive? Is it possible to have a global training strategy for the oil and gas industry: how could it be asserted? What roles should social dialogue play to promote career development programmes and apprenticeship, including innovative partnerships such as industry-educational and training systems partnerships?	7
3. What measures should governments, employers and workers take to ensure that training effectively promotes a “preventative safety and health culture” in a sustainable manner for all workers, including contract workers, in the oil and gas industry? How can it be ensured that occupational safety and health inspectors receive adequate training to address the oil and gas industry specificities of occupational safety and health measures, taking into consideration the advancement of technology? What roles could governments, employers and workers play in this respect?	11
4. Recommendations for future actions by the International Labour Organization constituents and the International Labour Office	14
Consideration and adoption of draft points of consensus	15
Points of consensus	17
List of participants	23

Introduction

1. The Global Dialogue Forum on Future Needs for Skills and Training in the Oil and Gas Industry was held at the International Labour Office in Geneva during 12–13 December 2012. The Governing Body of the ILO had approved the convening of the Forum at its 310th Session (March 2011). Based on the agreed points of discussion, the Office prepared the issues paper ¹ to serve as a basis for the Forum’s deliberations.
2. The purpose of the Forum was to assess the current skills and workforce structure and future needs for skills and vocational education and training (VET), as well as effective safety training for contractors and subcontractors in order to create more decent employment across the industry.
3. The Chairperson of the Forum was Ambassador Dr Riek Puok Riek (Republic of South Sudan). The Government group coordinator was Mr Shahmir (Islamic Republic of Iran). The Employers’ and Workers’ group coordinators were respectively Ms Hagen and Mr Sande. The Secretary-General of the Forum was Ms van Leur, Director of the Sectoral Activities Department (SECTOR), the Deputy Secretary-General was Mr Werna, the Executive Secretary was Mr Kamakura, and the coordinator of the secretariat services was Ms Than Tun.
4. The Forum was attended by 84 participants, including 53 Government representatives and advisers, ² as well as 14 Worker and 14 Employer participants and three observers from IGOs and international NGOs.

Opening statements

5. The Secretary-General of the Forum welcomed participants to the ILO, emphasizing the crucial importance of the issue of future needs for skills and training in the oil and gas industry. Needs would be determined by the future growth in energy demand, as well as by the availability, accessibility and ease of exploration and exploitation of hydrocarbon energy resources. To meet future demands the industry would need to address challenges regarding climate change, long-term fossil fuels reserves and the shortage of skills throughout the production and distribution cycle. Continued expansion went hand in hand with an increase in demand for more and better qualified workers, due to a decrease in skilled workers entering the industry. Promoting the Decent Work Agenda in the sector would increase the industry’s attractiveness, and promoting equal gender participation and greater investment in VET were ways to address the predicted skills shortage. The ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) called on governments to develop national vocational training and guidance policies. It also encouraged multinational enterprises to ensure that host country

¹ Current and future skills, human resources development and safety training for contractors in the oil and gas industry, is available online at http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_190707.pdf.

² Governments of Algeria, Argentina, Australia, Belgium, Brazil, Cameroon, Central African Republic, China, Colombia, Egypt, Gabon, Ghana, Haiti, Indonesia, Islamic Republic of Iran, Iraq, Republic of Korea, Malaysia, Mexico, Niger, Norway, Oman, Pakistan, Poland, Qatar, South Africa, South Sudan, Suriname, Thailand, Tunisia, Uganda, United Arab Emirates, Bolivarian Republic of Venezuela.

workers at all levels, including managers, received relevant skills training and development to benefit both the enterprise and the country. She stressed the importance of occupational safety and health (OSH) training to promote a preventative safety and health culture, grounded in the respect of tripartite social dialogue. In conclusion, she emphasized the need for a longer term perspective in the industry that recognized the skills and training of its workforce as the key to meeting challenges in the future.

6. The Chairperson welcomed participants to the Global Dialogue Forum. He underlined the constituents' shared responsibility and commitment to addressing the challenges of the global economy. While he acknowledged that the task was not easy, he was confident that the wealth of knowledge and experience brought to the Forum by Government, Employer, Worker and observer participants would result in a positive outcome.
7. The Executive Secretary presented the issues paper.³ He underlined the role of technological advances in improving and increasing the recovery of hydrocarbons. Technological innovation and differentiation would continue to be critical in ensuring safe and reliable operations in the industry. Efforts to develop a skilled workforce to address the sector's chronic skills shortage had met with limited success. The collaboration of governments, workers and employers would be necessary to formulate a global training strategy for the industry taking into consideration, inter alia, the Human Resources Development Recommendation, 2004 (No. 195), and the conclusions adopted at the 97th Session of the International Labour Conference in 2008. Strategic coordination of human resources development policies could attract and retain talented workers, drawing from underutilized groups such as women, while taking workers' needs into consideration. OSH training should focus on creating a preventative safety and health culture. To that end, training should be supported and all workers involved. He concluded by calling for governments, the oil and gas industry and workers' organizations to foster collaboration and coordination, particularly at the global level, in the areas of human resources development, VET, recruitment, retention, skills migration and OSH.
8. The Employers' group coordinator said that countries faced different challenges but shared and suffered from skills shortages at all levels. An important challenge for many countries was the lack of education programmes familiarizing young people and adults with the oil and gas industry. Companies, therefore, were obliged to recruit workers with different skills and retrain them. Collaboration with governments and trade unions to set up relevant study programmes could be a way of introducing young people to the industry through the school system. Addressing the issues of immigration and regulation could solve many problems, but they were politically complex issues that governments needed to address internally.
9. The Workers' group coordinator highlighted the need to address the issue of skills shortages within the industry itself, through investment and by making the industry more attractive. Ethical and transparent standards needed to be set to limit the use of precarious work. OSH measures were needed in view of the scale of accidents that occurred in the sector, and which often took their heaviest toll on contractual workers. Addressing the skills gap could be an opportunity to better integrate women and indigenous workers. Tripartite social dialogue was the way forward to develop the education and skills needed by the industry.
10. The Government group coordinator highlighted the importance of the oil and gas industry as a driving force of the world economy. The future of the sector was tied up with the skills of its workforce. Shortages appeared even at the highest levels, which had led to a situation

³ GDFOGI/2012.

where large companies were “poaching” workers from one another. He praised the Office’s report for its concision and relevance but observed that the subject required an in-depth examination.

- 11.** The Government representative of Ghana said that the demography of available skills should be carefully examined, given that there were areas where abundant skills were not being used. He asked the ILO to carry out a detailed, global study of skill shortages in order to identify gaps. Technology was advancing very rapidly and, therefore, curricula needed to be set to meet the new demands of the industry, especially in countries where oil and gas production had only recently begun. He suggested that companies should engage with graduate schools to keep them up to date with technological advances, for example, by holding information sessions on research and development in universities. Companies also needed to train and retrain workers and implement gradual replacement strategies at an early stage. He noted that whereas there was no shortage of skilled workers in Africa, there seemed to be a skills shortage on a global level, which seemed to result from multinational oil and gas companies not looking to Africa as a source for skilled workers.
- 12.** The Government representative of Uganda said that countries that had recently found oil and gas reserves had greater skills shortages than others. Countries with a more mature industry could share their experience, following the example of Norway’s Oil for Development (OfD) programme.
- 13.** The Government representative of Egypt observed that training was only part of the solution in addressing the skills gap. There was also a need to identify the skill sets that were available and those required, and to develop training programmes on that basis.
- 14.** The Government representative of South Sudan highlighted the significant challenges faced by his country to meet its skilled workforce needs. Technological advances were creating new potential for exploration, which was of particular importance in developing countries, but required intensified safety measures. He observed that conflicts and geopolitical instability disrupted international energy demands and solutions were needed to stabilize international trade and labour markets. South Sudan’s 2011–13 Development Plan identified wealth from oil as a driver for rural economic recovery and development, enabling the poor to participate in, and benefit from, growth. However, for that to be possible, skilled and qualified workers were needed. South Sudan’s limited human resources were due to the lack of experience and skills caused by war and emigration.
- 15.** The Government representative of South Africa supported the statement made by the Government of Ghana. He noted that African countries had a lot of expertise and experience to share. At a political level, migration issues should be addressed to facilitate knowledge and skills-sharing. States were responsible for developing policies to create an enabling environment while the industry, with the support of governments and workers, was responsible for drawing up skills development programmes. He explained that in his country, sectoral education and training authorities were responsible for developing education and training frameworks together with the industry. Although that had been successful, the issue of intellectual parity remained, opposing skills acquired through experience to conventional learning through university curricula. Companies preferred university graduates over those that had acquired experience at the workplace level. That had seen a “glamorization” of university graduates as opposed to specialized vocational training college graduates, even though training colleges were capable of addressing skills shortages.
- 16.** The Government representative of Australia highlighted the national importance of the oil and gas industry in terms of jobs, exports and economic development. He looked forward to sharing information on the issues under discussion since they were matters that Australia had focused and worked on through tripartite collaboration.

17. The Government representative of Tunisia noted that there were various engineering schools in Africa dedicated to the oil and gas industry that were producing qualified graduates. The problem was that companies consistently required at least five years' experience at entry level. A mechanism to encourage companies to develop skills and provide experience was, therefore, needed. Responsibility for the migration of skills lay with state or semi-state companies, as the workers migrated towards countries offering higher wages.

1. How could government, employers and workers address the skills shortages in the oil and gas industry, given the general and industry-specific challenges, such as: (a) technological advancements; (b) demographic challenges; (c) geopolitical challenges; (d) the policies in relation to immigration; (e) working and living conditions in remote areas? How could governments, employers and workers with longer experience in vocational education and training (VET) promote knowledge transfer in collaboration with their counterparts who have less experience?

18. The Workers' group coordinator said that as a result of technological progress, the oil and gas industry was moving towards deeper offshore drilling, which demanded new types of skills. In view of demographic changes, the industry needed to attract more young people by setting up programmes that would encourage them to get the training required by the industry. The industry also needed to improve its image, which had been partly damaged by the precarious nature of its work. An example of geopolitical challenges had been seen in the Arctic, where several States were competing over the area, while it faced the threat of climate change. It was important to set up training programmes and establish standards to address those issues. A grave concern was that the use of precarious work and subcontracting often seemed to be particularly endemic within immigrant worker circles. Operations in remote areas created a number of challenges. In particular, a vicious circle was created as workers often wanted to work longer hours in order to benefit from a longer home leave and thus did not take part in community life. In order to address skills shortages, employers and governments should invest more in educating both the permanent workforce and subcontractors, instead of seeking cost reduction. Sharing experience across the industry was also important in that respect. In Norway, the OfD programme made funds from the oil and gas industry available to the Government for investment in programmes around the world, thus sharing knowledge with countries that had recently entered the oil and gas industry.

19. A Worker participant from Nigeria noted there was a lack of data on human resources, thereby encouraging migration and the recruitment of foreign workers. In Nigeria, for example, 80–90 per cent of the industry's workers were foreign. There was a disconnect between specialized skills training and the requirements of the industry, which resulted in poorly qualified graduates. He called for this Global Dialogue Forum to agree on a single strategy to encourage young upcoming talent. The tendency toward job "casualization", outsourcing and short-term contracts should be reversed. There was lack of regular and transparent reporting back to the Ministry of Labour, which resulted in abusive use of precarious forms of work. Oil was a finite resource and the industry should diversify into other sectors to contribute to sustainable economic growth. Finally, he noted that workers were often distanced from policy-making in national oil and gas development and that, in order to change the status quo, the right to unionization should be respected.

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20. A Worker participant from Brazil stated that, in view of technological innovation in the industry, education was fundamental not only to keep up production and address environmental issues, but also to train highly qualified professionals, thereby creating a situation where the industry remained in touch with society. He drew attention to the PROMINP programme (*Programa de Mobilização da Indústria Nacional de Petróleo e Gás Natural*) in Brazil, which had trained more than 81,000 workers.
 21. The Employers' group coordinator stated that one of the major challenges was to raise awareness of the industry, highlighting its positive impact and relevance. There was a need for training at all levels and for systems identifying the skills available. She pointed out that formal education was important as it empowered workers and accredited acquired skills. Many groups, such as women, did not find the industry attractive. It was considered to be male-dominated often because men tended to have qualifications that were more appreciated by the industry than many women. In view of rapid technological progress, she called on governments to engage in discussions with companies on measures to meet basic needs.
 22. An Employer participant from Norway stated that the skills shortage concerned specific professional-type skills, such as engineering, and that there was a need to stimulate young people at all levels to study sciences to give them access to the industry. Similarly, diversity should be stimulated and women encouraged to study relevant subjects.
 23. An Employer participant from Colombia stressed the importance of establishing different policies for developed countries and developing countries, respectively. Such policies should take into account the needs of the country and the maturity of its industry. Conditions to be taken into account might include a second language, namely English, computer literacy or the research and development capacity of a particular country.
 24. Speaking on behalf of the Government of the Islamic Republic of Iran, the Government group coordinator pointed out that before addressing the issue of training, the exact skills gap needed to be assessed. Multinationals retained data as confidential, thus forcing governments to rely on study results and "guesstimates". During the previous boom in the oil and gas industry, poor assessment of human resources had led to the loss of up to 1.1 million jobs. Europe was undergoing demographic change with an ageing workforce, while the population in most developing countries was growing. Training programmes in developing countries were therefore important, along with infrastructure and funding. The Islamic Republic of Iran was collaborating with other countries and companies to share knowledge, but more efforts should be made globally.
 25. The Government representative of Ghana pointed out that skills shortages needed to be classified, identifying developed and developing countries, and onshore and offshore, including deep-sea oil and gas developments. The skills needed for new offshore technologies differed from those required by traditional onshore drilling. He requested that the next Global Dialogue Forum provide an analysis of needs for offshore drilling in countries like Ghana, Namibia and Nigeria. Moreover, international oil companies (IOCs) should agree to the transfer of technology to host countries. In addition, countries with a more mature industry should be prepared to share their experience with others.
 26. The representative of the United Nations Economic Commission for Europe (UNECE) stressed the importance of training young workers through joint and common training programmes. She acknowledged that the ILO played an important role in assisting the industry to make itself more attractive to young and women workers.
 27. A Worker participant from the United States pointed to the lack of major IOCs' participation in the Employers' group and the need to involve them in discussions in order to achieve results that were based on the skills requirements in the industry.

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- 28.** A Worker participant from Nigeria said that there should be a tripartite agreement to exchange figures and information. Precarious work was not acceptable and national laws should be enforced.
 - 29.** A Worker participant from the United Kingdom said that, in view of recent accidents, the safety culture of the industry should be addressed. The practice of subcontracting a large part of the workforce dissuaded workers from entering the industry. Accordingly, independent studies were predicting a workforce shortage across the board in the United Kingdom. One of the strengths of its industry was that the United Kingdom had been able to transport skills across the world. Concerns remained, however, on how best to encourage local skills development in Africa. Governments should develop regulations to ensure that local workers were able to access jobs in the sector.
 - 30.** A Worker participant from Canada said that his country had done a lot to give indigenous people opportunities to access the industry but that more needed to be done. Canada welcomed immigration, but the Government had loosened regulations to such an extent that abuses occurred. Immigrants needed to be represented, protected and should have the same rights and benefits as Canadian workers. Employers should take workers, unions and social dialogue seriously.
 - 31.** The Workers' group coordinator emphasized the need for OSH skills development.
 - 32.** The Government representative of Oman pointed out that cooperation between organizations was important as it could effectively invest resources on training workers and avoid wasting time in retraining. Oil and gas companies needed to implement structured programmes to recruit competent people. Motivation to join the industry among local workers was low due to the recruitment of a large number of foreign workers. In that light, Oman had set up a programme guaranteeing school leavers to secure jobs in the oil and gas industry at the end of training. However, it was important to equip graduates with internationally recognized qualifications to enable mobility.
 - 33.** The Government representative of Ghana requested more information and examples. He stressed that national laws needed to be developed and implemented to ensure that local workers were able to access jobs. When Ghana built its floating production storage and offloading unit (FPSO) for the Jubilee field, only ten of the 80 welders working on the construction were from Ghana. A recurrent problem was that job applicants only had basic training that did not include the specialized skills required in the sector.
 - 34.** The Government group coordinator said that, although his group recognized the major IOCs' right to protect their intellectual property, some form of technological transfer needed to be practised to avoid a further widening of technological gaps in the oil and gas industry. Governments could only provide education up to a certain level, and they therefore expected the industry to support them by providing further specialized training. He also recalled that previous cyclical financial crises and price fluctuations showed that production growth ushered in strong increases in workforce demand, but that as soon as prices fell, jobs were lost. Such inconsistency dissuaded younger generations from pursuing employment opportunities in the sector. Major IOCs should, therefore, invest continuously in human resources development. Had that been the practice in the past, companies would not have been reduced to "poaching" from one another. He also emphasized the need for reliable statistics, calling on the Office to ensure that governments and social partners had access to dependable and verifiable benchmarks on skills shortages in different sectors. The governments claimed their prerogative to continue to use incentives and barriers to regulate the activities of major IOCs, but counted on their support to upgrade workers' skills.

35. The Government representative of Australia said that there had been a massive surge in investment and development in the sector in recent years, partly through programmes to ensure future workforce needs were met. In Australia, major resource projects covering the period to 2015 would require an extra 70,000 skilled workers, with 14,000 in the extractive sector alone, including the oil and gas industry. A project to meet that demand was the National Resources Sector Workforce Strategy, establishing collaboration between the Government, industry skills councils, training organizations and other stakeholders. Under that project, 31 actions had already been taken in seven areas, including workforce planning and information sharing, training, immigration initiatives, and ensuring an affordable supply of housing and infrastructure. Significant progress had been seen and almost half of the measures had been integrated as part of normal business practice. It was hoped that measures would result in cultural change aligning worker supply and demand. The need to meet such a strong demand in such a short period of time highlighted the importance of collaboration between the tripartite partners, in particular on education and training.

2. How could human resources development programmes such as recruitment, retention, career development schemes as well as VET programmes be adapted to attract talented workers from diverse labour supply pools that have previously not been fully utilized, so that the oil and gas industry will remain competitive, productive and attractive? Is it possible to have a global training strategy for the oil and gas industry: how could it be asserted? What roles should social dialogue play to promote career development programmes and apprenticeship, including innovative partnerships such as industry-educational and training systems partnerships?

36. The Employers' group coordinator observed that the industry was seen as predominantly masculine, entailing offshore work, long working hours and dangerous conditions. All stakeholders had a responsibility to change that image by raising awareness of the industry in different countries and of the types of jobs it had to offer. It was important to encourage people, especially younger people, using role models in the industry. Companies could partner with schools to help young people develop an informed interest. Women should be paid particular attention given that six out of ten university students in Western countries were women in almost every programme except for engineering and vocational training programmes, such as electronics and mechanics. Discussions needed to be held with universities to understand why those programmes were not attracting more women. Training was essential and her group agreed that stakeholders were responsible for supporting training costs. There were, however, various forms of training and, while companies had a certain responsibility to keep workers updated, some responsibility fell to workers themselves.

37. The Workers' group coordinator said that his group believed that VET was primarily a government responsibility, if not to deliver it at least by setting standards. Workers and employers needed to exert pressure on governments to participate in tripartite collaboration. Social dialogue was important in determining the nature of VET, and standardized training should be extended to all, including contractors and subcontractors.

Global standards could be developed for some kinds of training but not all. Such an initiative would help the industry to remain competitive and attractive to potential workers.

- 38.** The Government representative of the Islamic Republic of Iran said that his country had extensive experience in skills training and had provided training for neighbouring countries. He suggested that global training strategies could be carried out through the use of IT-based virtualization technologies. The Islamic Republic of Iran was the focal point on virtual training for the Organization of Islamic Cooperation. His country could provide virtual training portals that also included evaluation and testing tools and could be accessed from any country.
- 39.** The Government representative of Uganda said that the oil and gas industry in his country was relatively new and therefore required cooperation from more experienced countries. Uganda had no problem in attracting people to the industry. The challenge was rather to ensure that the few training institutions that existed were not tempted to undermine quality by taking on more people than they could teach. Recruitment was not necessarily a challenge across the world; in countries like Uganda there was a lot of interest, even among workers trained in other sectors. He acknowledged, however, that working conditions in the sector were not attractive to women, especially at the time of family formation.
- 40.** The Government group coordinator offered a broader perspective on training by summarizing each of the key skills levers. First, sourcing and recruitment of new workers should tap into non-traditional sources including women and people with disabilities. Governments needed statistics and talent assessment procedures to identify the skills and talents required by the industry. More candidates were recruited to IT now than to the oil and gas sector, partly due to perceived risks and tough conditions in the sector, and the job precariousness caused by oil price volatility. Second, development and skills management needed to be discussed. During the discussions in the Government group, a Government representative of Thailand had observed that, although Thailand had a skilled workforce, it was difficult to provide continuous training and to retain the workers in the sector. The Government group happily accepted the workers' encouragement to invest in VET, but they suffered from economic limitations and competing training demands made by other sectors. Third, performance should be supervised and regulated with governments providing leadership in that regard. Finally, he observed that retention in the industry depended on the incentives and conditions provided by major corporations. As the Government representative of Brazil had indicated during the discussions in the Government group, workers were often initially attracted to the oil and gas sector, but then moved on to "greener opportunities".
- 41.** The Government representative of Algeria presented four issues that governments should insist upon to ensure the sector's sustainability. First, all companies must provide training for all workers. To that end, governments should provide encouragement through instruments such as tax incentives. Second, companies and training centres should cooperate on recruitment and training programmes. Third, governments and the industry should support training institutions. In Algeria, there was no shortage of workers due to successful training and specialized university courses. Fourth, companies should develop replacement programmes to ensure the sustainability of the sector and price stability.
- 42.** The Government representative of Australia provided detailed information on three government initiatives to meet the target of 70,000 new workers in the sector by 2015. First, the National Apprenticeship Programme was a practical solution targeting adult workers with years of experience but no formal training in the sector and saving the industry 320,000 Australian dollars (AUD) per participant. Second, the Australian Government was focused on attracting women to the extractive sectors to address labour demands, improve working environments and increase retention. To that end, a joint

initiative named “Attracting and retaining women in the resources and construction sectors” had been launched in 2011. The programme would run until 2014 and covered issues such as remoteness of worksites, flexible work practices, return to work and pay equity. One achievement had been the establishment of the Australian Women in Resources Alliance (AWRA), a network of high-profile, experienced stakeholders collaborating to encourage employers to improve workplace practices. Third, the Government had launched a number of indigenous workforce participation initiatives to increase employment of indigenous workers in the extractive sectors. In November 2012 a report on indigenous engagement published key findings stating that 76 per cent of those companies that had responded carried out indigenous engagement activities, and that there had been an increase of more than 2,000 indigenous workers and 1,200 indigenous trainees over the previous 12 months. The largest increases in indigenous participation had occurred in sectors registering the fastest overall employment growth, such as the mining sector.

43. The Government representative of Tunisia explained that most Tunisian oil companies had their own training centres. Considering that specialized training was expensive, companies should cooperate with governments by making experts available to universities and by offering scholarships for young people.
44. An Employer participant from Brazil explained that high investments in the oil and gas sector meant that Brazil had no difficulties in recruiting workers. Salaries were competitive and many young men and women chose to study engineering at university specifically in order to enter the industry. There were a number of women working at the highest levels of oil and gas organizations and the President of Brazil herself came from the sector. The PROMINP programme aimed to increase the number of local workers in the sector, produce qualified professionals, further technological development and stimulate competitiveness in the supply chain. The programme had provided free training for many workers at the basic, medium, technical and university levels. Since the programme’s launch in 2007, US\$350 million had been invested and 85,000 people had achieved qualifications. The main problem in Brazil was that many candidates lacked the basic education levels to qualify for the programme.
45. Two Employer participants from Norway stressed that governments were primarily responsible for training across all sectors. The Norwegian Minister of Education had launched a national forum, representing both employers and trade unions, aiming to increase interest in science studies. The industry could work with governments to define the skills needed by workers and encourage young people through apprenticeships. They, however, queried whether the challenges being considered by the Global Dialogue Forum could be addressed similarly.
46. An Employer participant from Gabon said that companies in Gabon had established training institutions for young people, but that the Government had also played an important role by integrating broader training modules to provide workers with additional and transferable skills.
47. The Workers’ group coordinator announced that a Colombian trade unionist had been assassinated for trade union activities and asked participants to join him in condemning such acts.
48. A Worker participant from Nigeria said that much of the reporting in the sector was bogus. Companies tried to convince governments that they had spent given amounts but the information was not verifiable and few benefits were seen in host countries. Governments were responsible for ensuring that VET and recruitment provided quality jobs for local people, thereby preventing capital flight. The industry should comply with regulations and respect labour laws.

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- 49.** A Worker participant from the United Kingdom referred to the negative experience of a student who had received a scholarship to get training in the oil and gas industry. Nine months after her graduation she had still not succeeded in accessing the sector. Companies should do more to absorb trained workers and thereby promote dedicated study programmes. He considered that developing a common training strategy was a “big ask” in an industry where no standard emergency procedures existed and OSH measures varied from region to region. Some oil companies and contractors were collaborating with unions to develop broader standards, but those could not be applied worldwide. Regarding the use of social dialogue to promote career development programmes, he referred the Forum back to the conclusions of the 2009 Tripartite Meeting on Promoting Social Dialogue and Good Industrial Relations from Oil and Gas Exploration and Production to Oil and Gas Distribution.
- 50.** A Worker participant from Brazil said that training was important, but better working conditions were also necessary to attract people to the industry.
- 51.** The Government group coordinator stated that all governments agreed on the importance of skills-upgrading and investing in training and would spare no collaborative effort in that regard. However, governments relied on constructive contributions and the transfer of technology by major oil and gas companies.
- 52.** The Government representative of the Republic of Korea said that the differences in national situations and industries would make setting global training standards very difficult. He requested the Office to provide examples of similar initiatives in other sectors. He also stressed the importance of engaging in social dialogue to bring about changes in the industry. Some unions in the Republic of Korea had not been willing to negotiate with employers regarding the adoption of new technologies in the sector. He, therefore, wondered whether there were similar experiences in other countries.
- 53.** The Government representative of Mexico shared a number of the experiences of the oil industry in his country. Entering the international market had led to the implementation of a number of OSH measures in line with international standards, thereby improving the conditions of Mexican oil workers. After the oil expropriation in 1938, many specialists had left the country, requiring Mexico to implement an internal strategy to develop skills at all levels. Again, when Mexico began exploiting deepwater hydrocarbon reserves, it did not have the skills needed and was obliged to approach other countries. The oil and gas industry in Mexico still faced numerous challenges, including raising the extraction quality, meeting international safety standards, developing an appropriate management system and becoming more environmentally friendly. Skills shortages were a cyclical problem, which should teach countries to provide sufficient time and resources for training. The challenges in the oil and gas sector required the social partners to assume their responsibilities, providing the necessary facilities and engaging in social dialogue to develop the industry in line with the highest safety standards. Companies should provide mentoring for graduates and set up replacement systems, also collaborating with governments to supervise training and education centres.
- 54.** A Worker participant from Nigeria reiterated his concern at the poor representation of multinational oil and gas companies at the Forum. He appreciated the involvement of companies from Brazil and Norway and noted that they were also among the signatories of international framework agreements. However, not all multinationals respected the rules in the same way and he called for a change in the way that such companies conducted business.

3. What measures should governments, employers and workers take to ensure that training effectively promotes a “preventative safety and health culture” in a sustainable manner for all workers, including contract workers, in the oil and gas industry? How can it be ensured that occupational safety and health inspectors receive adequate training to address the oil and gas industry specificities of occupational safety and health measures, taking into consideration the advancement of technology? What roles could governments, employers and workers play in this respect?

- 55.** The Workers’ group coordinator emphasized the importance of OSH. Whereas governments had the overall responsibility to make rules and regulations, it was critical that in the industry both shop stewards and workers were involved in the design as well as delivery of training. Also, it was important what type of OSH culture was developed. Employers often focused too much on aiming to change the behaviour of workers, putting great pressure on them, while leaving the workplace itself unsafe. Since it was impossible to teach people to behave safely in an unsafe environment, this approach was not successful.
- 56.** A Worker participant from Norway referred to paragraph 66 of the issues paper, where the Deep Water Horizon disaster in 2010 was compared with the BP Texas City refinery explosion in 2005. The Norwegian energy trade union, Industri Energi, had reviewed the Deep Water Horizon accident and their recent report concluded that there had been a serious failure of the entire OSH management system. He quoted from the report that “the main cause was a poor safety culture, resulting in: serious safety system failure; poor and lacking equipment; continuous lack of maintenance; lack of knowledge; lack of training; lack of safety drills; lack of emergency preparedness to avoid and deal with disasters; inefficient decision-making processes; and disconnection of alarms and shutdown systems”. These circumstances were the result of prioritizing short-term profit over safety. As the report had demonstrated, safety paid off, as occupational accidents, such as the Deep Water Horizon accident, created significant costs.
- 57.** A Worker participant from the United States remarked that although the United States was one of the ILO’s largest donor countries, it was not promoting social dialogue sufficiently. The Deep Water Horizon accident exemplarily demonstrated this. If workers had been better trained, their ability to survive could have been better, even given the poor OSH culture on the rig. The pressures on workers to not make use of their right to collective bargaining and freedom of association had, thus, catastrophic outcomes.
- 58.** A Worker participant from the United Kingdom added that trade unions needed to be involved in the development of OSH training, given that they represented the large majority of workers in the sector.
- 59.** A Worker participant from Canada pointed out that a safety culture needed to start from the top: unless management made OSH a top priority and recognized the workers as equal partners, it was impossible to improve the OSH culture in an enterprise. Given the focus in the discussion on large and fatal accidents, he asked participants to not lose sight of occupational diseases and less serious injuries, such as scratches and cuts, which were prevalent in the industry.

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- 60.** A Worker participant from Nigeria reiterated that good OSH paid off and that being proactive in, and conscious about, OSH would keep costs down.
 - 61.** The Employers' group coordinator opened her statement in underlining that the oil and gas industry was a leading industry in terms of OSH. The Employers agreed that a preventative safety and health culture, leadership and clarity on roles and responsibilities were needed to achieve good OSH records. Management systems were important, as was a safety culture shared by all in each company. The responsibility for safety lay with all and was not just that of a specific group. In relation to the role of the State, the Employers were of the view that it was the obligation of governments to provide a regulatory framework, develop rules and regulations and provide for their enforcement. In training inspectors, governments needed to involve companies, to ensure that it was relevant and reflected technological advances. All enterprises should fulfil national laws and in cases where companies had internal standards that were higher, these should be followed.
 - 62.** An Employer participant from Brazil shared her organization's experience in using technology to deliver safety training to the industry. They had good experiences in training the workforce for the industry by using physical and virtual simulators. By training workers in their own centre in Rio de Janeiro instead of sending them abroad, they had been able to provide state-of-the-art training, while keeping costs down.
 - 63.** An Employer participant from Norway stated that competence levels needed to be raised throughout each company in the oil and gas industry. Governments were responsible to set regulations; employers were responsible for training and for building up a company safety culture. Changing all workers' mindsets was important, but needed to be complemented by concrete activities, such as the organization of forums that helped all in the company to prepare for major accidents. In addition, her company strived to have the best technology available, both onshore and offshore: for example, telemedicine was used to treat workers that had been injured offshore.
 - 64.** An Employer participant from Spain shared experiences made in his company. The company looked at OSH along the entire supply chain, upstream and downstream. The company thus required all new workers to be trained in a 650-hour training course, which included modules on OSH, before they started working on their jobs. The course had been developed in collaboration with government and workers. It was the company's goal to motivate and train its workers so well that they could follow all standards established.
 - 65.** An Employer participant from the Islamic Republic of Iran reiterated the view that it was the role of the government to set the minimum standards and added that the business case for safety could be reinforced if countries adopted measures such as those existing in his country, where tenders in bidding procedures needed to provide separate figures on the budget reserved for OSH measures.
 - 66.** An Employer participant from Norway noted that their report on the Deep Water Horizon accident contained 45 recommendations to the Norwegian oil and gas industry with the aim of having them incorporated into industry standards and practices. Among these, they recommended that adjustment be made to VET systems in order to find the best solutions for Norway, such as the introduction of scenario-based team behaviour training as well as training and emergency exercises that included oil rig workers as well as management onshore.
 - 67.** The Government group coordinator provided an overview of the rich discussion in his group. All speakers had underlined the crucial importance of OSH and concluded that no task should be performed at the risk of health and safety. Governments recognized that every incident provided an opportunity to learn and were therefore interested in ensuring that each incident would be captured and analysed to help disseminate the lessons learned

to achieve continuous improvement and to reduce future incidents and accidents. Despite testing the limits of modern technology and operating in hostile environments, the industry's safety record was better than that of other industries, including mining, construction or transport sectors.

- 68.** While governments retained their prerogative and supervisory role to ensure safety and health at work, governments called particularly upon social partners in the industry to continue to work collaboratively to deliver significant improvements in safety performance. In fulfilling their role, governments would exercise their prerogative by frequently updating standards to ensure that improved technology was introduced and that training in respect of OSH was regularly adapted and effective communication between companies and their workers maintained.
- 69.** The design of each oil and gas project was unique, requiring tailored oversight and, in cases where the industry did not meet regulations, heavy enforcement measures. In this context, it was also important to note that the industry had environmental responsibilities. Before new projects were undertaken or new equipment introduced, the required planning needed to be carried out. Whereas some technological developments had provided opportunities to boost productivity, safety had sometimes been neglected. For this reason, his group called upon high-performing companies to routinely seek every means to enhance safety performance and make it an integral part of their business.
- 70.** Communication between the industry and governments was essential to success. The work of OSH committees through which many governments shared their experience and promoted high standards of OSH and operational efficiency among oil and gas explorers, producers, contractors, workers and the government should continue. His group also considered committees to be helpful that would allow governments to exchange ideas on regulations and standards with the social partners. Through such bodies yearly reviews could be undertaken, which could define priorities in relation to OSH, assess resources and look at emergency management to make sure that, through measures such as public-private partnerships (PPPs), competence was further built throughout the industry.
- 71.** In closing, he emphasized the importance of a safety dialogue between workers, supervisors and managers, as well as of the availability of self-audit tools such as checklists for onshore and offshore operations before starting a project, in order to ensure that safety management systems were aligned.
- 72.** The representative of the Government of Norway said that a preventative safety and health culture, continuous improvement and tripartite cooperation were fundamental principles that needed to govern the industry. Health, safety and environment regulations needed to reflect these and set out clear requirements in this respect. Her Government encouraged the use of a risk-based systems approach and attached great importance to finding the right balance between personal responsibility and companies' duties to provide for a safe working environment. In order for regulations to reflect this approach, tripartite consultations were central to the regulation- and law-making in her country. In addition, great importance was given to sharing of information. Workers and companies would be informed through web-based services, seminars and publications. For example, audit reports were published in order to allow others to learn from identified weaknesses. Norway had paid special attention to subcontracted workers, in particular in the most dangerous occupations, such as scaffolding, to make sure that their right to attain the same level of safety training was fully respected.
- 73.** The representative of the Government of Mexico explained that cooperation between governments and workers had resulted in the incorporation of an OSH appendix for subcontractors into the national regulations. It was the Government's aim that all companies of the oil and gas industry in his country would have this document to ensure

that the services provided to the industry were carried out by workers that had sufficient training. Having learned from the painful experience of accidents, his country was promoting a culture of responsibility on all levels, including management. To this effect, consultations between workers and employers were encouraged and all managers were trained extensively in all safety and health aspects for workers under their supervision. He acknowledged that workers and managers were committed to these steps and to improving OSH in the industry.

74. The representative of the Government of Australia pointed out that his country had worked on harmonizing health and safety laws across industries, with the only exception being the offshore oil and gas industry, for which specific measures continued to exist. For offshore oil and gas development, the onus was on operators to take all reasonable steps to ensure the safety and health of any other person on or near the operation. Based on an assessment of tasks that each worker could be asked to carry out, they were trained in order to ensure that these workers could indeed respond to all these possible demands. Operators were encouraged to adopt best practices and follow the *ILO Guidelines on occupational safety and health management systems (ILO-OSH 2001)*. Moreover, operators were also required to demonstrate that there had been consultations with the workers. In addition, workers were approached by authorities to ensure that training was delivered on the ground.
75. The Government group coordinator, speaking on behalf of the Government of the Islamic Republic of Iran, stressed the need for all in the industry to be proactive in taking responsibility for dealing with hazards. Prevention could be considered the cheapest insurance policy. For this reason, the oil and gas industry of the Islamic Republic of Iran had heavily invested in the promotion of sound OSH principles. The Government was constantly updating the respective regulations, and had put emphasis on initiatives such as conducting firefighting manoeuvres. As one of the most experienced countries of the oil and gas industry, his people knew of the dangers of the industry and continued to further advance OSH.

4. Recommendations for future actions by the International Labour Organization constituents and the International Labour Office

76. A Worker participant from the Russian Federation explained that the Workers' group had discussed possible items for follow-up based on an informal draft. To this informal draft, they had a couple of amendments. The first one was on the second bullet point of point 1(a), where they suggested replacing the word "promotion" with "establishment". The second amendment was to point 1(c), where workers proposed to state the following: "... the ILO and its constituents will step up efforts to ensure decent work in the oil and gas industry ..." instead of the original statement that read: "... will continue to promote efforts ...". The third amendment was to add a new point 2, that would state the following: "All the points referred to above, and including the design and delivery of education and training, should be implemented through social dialogue."
77. Another Worker participant from the Russian Federation added that the Workers' group also wanted the Forum to recommend that a code of practice for the oil and gas industry be adopted in the next biennium. The proposed working title for that code was: Code of practice for sustainable development and decent work in the oil and gas industry in the Arctic and Antarctic regions. He explained that they focused on both regions because these were harsh environments for human living and working, and massive operations would likely take place in these regions in the coming decade.

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78. In order to allow for further consultations between the groups and in response to requests from the Employers' and Government groups, the Chair proposed to continue this discussion on the basis of the draft points of consensus to be submitted to the Forum.

Consideration and adoption of draft points of consensus

79. Having reviewed an initial Office draft, prepared on the basis of discussion in plenary, the Global Dialogue Forum adopted points of consensus, which included amendments agreed during the closing session.
80. When reviewing this section of the draft, the Workers' and Employers' group coordinators proposed that the Global Dialogue Forum should recommend that a meeting of experts should be held instead of a tripartite sectoral meeting on technical aspects, skills and OSH in extreme climatic conditions in the oil and gas industry, as had been envisaged by the advisory bodies.⁴
81. In response to a request for clarification from the Government group coordinator, the Workers' and Employers' group coordinators explained that the intent of this amendment was to give the Governing Body the possibility to choose between either convening a meeting of experts or a tripartite sectoral meeting. It was not intended that two meetings be held. Instead, the Governing Body, when taking the decisions on what activities should be undertaken in the Sectoral Activities Programme for 2014–15, should be given the opportunity to choose between the two formats, of which the two groups preferred a meeting of experts on the subject, rather than a tripartite sectoral meeting.

⁴ At the request of the Forum, the discussion on the last paragraph of the recommendations for future actions by ILO constituents and the International Labour Office was put on record.

Points of consensus

Points of consensus

Introduction

1. Government, Employer and Worker representatives participated in the Global Dialogue Forum on Future Needs for Skills and Training in the Oil and Gas Industry held at the ILO, Geneva, on 12–13 December 2012. The Forum examined strategies and policies to help constituents in ILO member States ensure the needed levels of qualified workers in the industry, as well as to promote a preventative safety and health culture.

The nature of skills shortages in the oil and gas industry

2. There is a perceived shortage of qualified workers in the oil and gas industry globally, due to an increased demand for energy and a projected wave of retirements from the sector which will most likely make this situation worse. However, the situation varies widely across the countries depending on their economic development, length of experience with the oil and gas industry, and types of industrial processes they are engaged in. Some countries have a supply of qualified workers who are not being absorbed into the industry.
3. To attract new entrants, particularly young workers and women, into the oil and gas industry, there is need for appropriate skills development and increased competences in the fields of occupational safety and health and environmental sustainability.

Roles of the constituents in addressing skills shortages

4. Data on the types of skills needed and the workers required by the industry are insufficient. More reliable data would enable adequately assessing skills shortages in developed and developing countries, taking account of the different length of experience countries have in the industry. Furthermore, skills shortages could be assessed separately in onshore and offshore operations. Full engagement by constituents in the oil and gas industry in the establishment of such data is needed.
5. Governments in countries where oil and gas production takes place have the prerogative and special responsibility to ensure that local regulations and relevant agreements with companies provide for skills transfer and job opportunities for local populations at all levels, as well as decent working conditions, occupational safety and health, and environmental protection. Governments are encouraged to ratify and implement international labour standards.
6. Governments and major players with long experience in the oil and gas industry should help fill the knowledge and skills gap by sharing positive experiences in skills and technology transfer as part of wider development efforts. Licensing agreements are powerful tools to ensure this.
7. Governments have the responsibility to provide basic education and oil companies have the responsibility to provide specialized training to enable workers to enter the oil and gas industry. Tripartite social dialogue can help to ensure that skills training matches industry needs and follows technological developments. Oil and gas companies have the responsibility to continue supporting such efforts through apprenticeship and knowledge

sharing. Workers should be provided opportunities to engage in the process of continuous training, skills upgrading and lifelong learning.

Human resources development strategies to improve the skills supply

8. Joint policies and actions by central and local governments, employers and workers can help diversify the workforce to include, for example, more women, disabled persons and indigenous peoples.
9. There have been positive experiences with policies and programmes such as the promotion of studies in science and engineering, distance learning programmes for the industry, facilitation of dialogue between enterprises, workers and training institutions, training funds co-financed by governments, employers and workers, and apprenticeship programmes.
10. Measures need to be taken to improve gender equality and occupational safety and health in the industry. Such measures would go a long way in improving the public image of the oil and gas industry, which is perceived as predominantly masculine and hazardous.
11. Rights-based migration policies can help facilitate the supply of needed skills to the industry. There should be no undermining of local wages and employment conditions. Measures should be taken to ensure equal treatment for migrant workers and protection from unfair practices, and to ensure skills training and job opportunities for local populations.

Promoting a preventative safety and health culture in the oil and gas industry

12. Governments are encouraged to ratify and implement relevant international labour standards and have the responsibility for establishing regulations and policies on occupational safety and health in the industry, as well as in relation to environmental protection. Governments also need to ensure adequate numbers of trained inspectors to enforce policies and regulations. Sanctions should be applied in cases of violations.
13. Operators have the responsibility at all levels of ensuring best practices in compliance with regulations and policies, and of establishing a preventative safety and health culture. In cases where international oil companies (IOCs) have higher standards than local ones, the higher standards should prevail. Governments need to work with oil and gas companies to ensure that labour inspector training reflects developments in the industry.
14. Social dialogue should be utilized in the design and implementation of policy and training on safety and health, and it is an essential ingredient in a preventative safety and health culture.
15. Safety and health policies and regulations in the oil and gas industry should include all relevant workers, including those employed by contractors, as well as workers in the downstream sector. Regulations and policies should also address occupational diseases associated with the industry.
16. Occupational incidents involving security, safety and health need to be fully and jointly investigated, analysed and reported. Lessons learned from such incidents should lead to improvements in policy and practice.

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17. There have been positive experiences applying a systems approach to safety and health in the industry, as set out in the ILO *Guidelines on occupational safety and health management systems, ILO-OSH 2001*. Experiences with innovative approaches to promoting safety and health, such as scenario-based training, simulator-based training, risk-based approaches to policy development and major accident forums should be shared between constituents.

Recommendations for future actions by the International Labour Organization constituents and the International Labour Office

18. In view of the discussion at the Global Dialogue Forum in December 2012 and bearing in mind the proposed ILO Tripartite Sectoral Meeting on the Oil and Gas Industry to be held in the biennium 2014–15, aimed at addressing challenges in oil and gas exploration and production in extreme climatic conditions and environmentally sensitive areas, the following future action was recommended:
- (a) In order for the industry to remain competitive, productive and attractive, the social partners in the oil and gas industry in collaboration with governments will join forces to work towards the development of global guidance on:
 - recruitment, retention and career development schemes including apprenticeship programmes and industry-specific VET strategies; and
 - the effective promotion of a preventative safety and health culture in the industry and of decent working conditions.
 - (b) The ILO and its International Training Centre (ITC/Turin) could provide support services to the development of this global guidance based on the relevant ILO standards, instruments and tools. For this purpose the ILO, in consultation with the Organization's constituents, could explore options for innovative approaches to draw on the experience and knowledge of tripartite constituents to build capacity, share knowledge, enhance interregional cooperation and exchange experiences and best practices.
 - (c) The ILO and its constituents should continue to step up efforts to ensure decent work in the oil and gas industry through effective promotion, implementation and use of all relevant ILO standards, instruments, declarations, codes of practice and tools as well as engage in action-oriented research and dissemination of relevant information on trends and development in the oil and gas industry.
 - (d) A meeting of experts to adopt a code of practice or guideline or a tripartite sectoral meeting on technical aspects, skills, OSH in extreme climatic conditions in the oil and gas industry could be considered by the March 2013 session of the Governing Body.

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Liste des participants
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- Mr Prashant MODI, President and Chief Operating Officer, Great Eastern Energy Corporation Ltd., Haryana, India
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Additional members representing the Employers
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- Ms Houda CHIGUER, Consultant Employee Relations, CSO CHR EMR, Statoil ASA, Stavanger, Norway
- Sra. Ana Milena GAVIRIA GÓMEZ, Líder programa formación para el futuro, Ecopetrol S.A., Bogotá, Colombia
- Mr Pedro MAGARREIRO, Human Resources Manager, Galp Energia, Lisboa, Portugal
- Mr Lutz MÜHL, General Secretary, International Chemical Employers' Labour Relations Committee (LRC), Bundesarbeitgeberverband Chemie (BAVC), Wiesbaden, Germany
- Ms Siv OFTEDAL, Vice-President, Human Resources, Statoil ASA, Stavanger, Norway
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Miembros representantes de los trabajadores

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- Mr Jim LEFTON, United Steelworkers International Union, Baytown, United States
- Mr Walter MANNING, Director, CEP Canada Communications, Energy and Paperworkers Union of Canada, Ottawa, Canada
- Mr Lev MIRONOV, Russian Oil, Gas and Construction Workers' Union (ROGWU), Moscow, Russian Federation
- Mr Bayo OLOWOSHILE, General Secretary, Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN), Lagos, Nigeria
- Mr João António de MORAES, Coordenador Geral (President), Federação Unica dos Petroleiros (FUP), Rio de Janeiro, Brasil
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and other official international organizations**
**Représentants des Nations Unies, des institutions spécialisées
et d'autres organisations internationales officielles**
**Representantes de las Naciones Unidas, de los organismos especializados
y de otras organizaciones internacionales oficiales**

United Nations Economic Commission for Europe (UNECE)
Commission économique des Nations Unies pour l'Europe
Comisión Económica para Europa

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Representatives of non-governmental international organizations
Représentants d'organisations internationales non gouvernementales
Representantes de organizaciones internacionales no gubernamentales

International Organisation of Employers (IOE)
Organisation internationale des employeurs (OIE)
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