

National Tripartite Workshop on Improving Occupational Safety and Health - Towards a Safe and Sustainable Ship Recycling Industry in India

Mumbai, Maharashtra
26-27 September 2019

Note on the proceedings

Objectives

The objectives of the National Tripartite Workshop were to:

- 1) arrive at a common understanding of the challenges and opportunities for decent work in the Indian ship recycling industry, focusing on the improvement of occupational safety and health (OSH), but also on the potential for making the industry more productive and sustainable;
- 2) define policies and actions that will improve OSH in the sector and help bring about a safe and sustainable ship recycling industry in India; and
- 3) agree on measures and actions required by the governments of the centre and state levels, employers and their associations, workers and their organizations, and the ILO.

Programme

- Inaugural session
- Technical session I: The ship recycling industry in India and the global ship recycling industry
- Technical session II: Measures to strengthen the productivity and sustainability of ship recycling and its value chain
- Technical session III: Policies and actions to advance safety, health, working conditions and the wellbeing of workers
- Closing session

The full programme can be found in Annex I.

Presentations

- Role of the Directorate General Factory Advice Service and Labour Institutes (DGFASLI), by DFGASLI
- Ship recycling yard in Alang, by the Gujarat Maritime Board (GMB)
- Safe Alang, Green Alang, by the Ship Recycling Industries Association (SRIA)
- Global ship recycling industry, by the ILO
- Measures to strengthen productivity and sustainability of ship recycling and its value chain, by the ILO
- Policies and actions to advance safety, health, working conditions and the wellbeing of workers – a global perspective, by the ILO
- International instruments concerning the ship recycling industry, by the ILO

Group work

- Group work I: identifying opportunities and challenges to improve OSH and realizing a safe and sustainable ship recycling industry in India;

- Group work II: defining policies and action to improve OSH and to realize a safe and sustainable ship recycling industry in India; and
- Group work III: agreeing on measures and action required by the Government of India, the Government of Gujarat, employers and their associations, workers and their organizations, and the ILO

Participants

The workshop was attended by 33 representatives from the state and central government and the social partners. These included representatives from the Ministry of Shipping, the Gujarat Maritime Board, State Departments of Labour from Gujarat, Maharashtra, Pondicherry, and Kerala, the Ship Recycling Industries Association of India (SRIA), the Alang-Sosiya Ship Recycling and General Workers' Association (ASSRGWA) and central trade unions. The list of participants can be found in Annex II.

Summary of the presentations and discussions

1. Inaugural session

Dr R K Elangovan, Deputy Director General, DGFASLI, Ministry of Labour and Employment, Government of India has welcomed the participants.

Dr Avneesh Singh, Director General and Chief Inspector of Dock Safety, DGFASLI, MoLE welcomed the participants. Representatives of trade unions and employers' organizations also delivered welcoming remarks to the participants.

Ms Dagmar Walter, Director of the ILO Decent Work Technical Support Team (DWT) for South Asia and Country Office for India delivered the keynote address. She stated that the ILO has always been strongly committed to developing preventive strategies on OSH, and that it is well placed to do so. Its unique tripartite structure enables government, employer, and worker representatives to meet nationally and internationally on equal terms. As embodied in the Preamble to the Constitution of the ILO, the protection of workers against sickness, disease and injury related to their work environment has been a central issue for the ILO since 1919. This commitment has been re-affirmed in the ILO Centenary Declaration for the Future of Work, adopted at the International Labour Conference in June 2019. It marks the 100-year anniversary of the Organization and responds to the transformative change that the world of work is experiencing, driven by technological innovations, demographic shifts, climate change and globalization. The Centenary Declaration acknowledges that safe and healthy working conditions are fundamental to decent work, as well as to ensure effective action to achieve the transition from an informal to a formal economy. All workers should enjoy adequate protection, taking into account: respect for their fundamental rights; an adequate minimum wage, be it statutory or negotiated; maximum limits on working time; and safety and health at work. She also stated that the creation of safe and decent jobs as well as productive and competitive enterprises is necessary to support the ship recycling industry's sustainability.

2. Challenges and opportunities for decent work in the Indian ship recycling industry

The deconstruction of ships after they have reached the end of their seafaring life is an overlooked but essential part of the economy of the world and of India.

When older ships become too expensive to maintain or are no longer needed, they are sold for recycling. The volume of valuable materials that is recovered, repaired, re-used, refurbished and recycled makes ship recycling an essential element in the global transition to a circular economy.

According to statistics compiled by IHS Markit, in 2018, the world's fleet of propelled sea-going merchant ships of 100 gross tonnage or more was 118,525 ships with an average age of 22 years and totalling 1,333.6 million gross tonnage. New ships completed each year amounted to 2,400 ships or 57.8 million gross tonnage. Ships leaving the world fleet as losses or disposals totalled 981 ships of 19.1 million gross tonnage and an average age of 33 years.

Between 2008 and 2017, about 12 million tonnes of ship volume were recycled in India, mostly in Alang near Bhavnagar in Gujarat. As 95 per cent of materials are re-used or recycled, the industry forms an important part of the circular economy. However, not all ship-recycling activities are green and not all green jobs constitute decent work. The industry is faced with a number of challenges and opportunities related to both the hazardous nature of the work and its environmental impact. According to the Government of India, the industry provides direct employment to about 25,000 workers and indirect employment in much larger numbers.

DGFASLI delivered a presentation on its role in advancing safety and health at work. They highlighted their work in terms of:

- Contributing to formulating Special Rule 68 H under Gujarat State Factory Rules (1963); organizing national seminars, workshops, and training programmes; suggesting personal protective equipment for different operations;
- Conducting studies on OSH, including a radiological study of workers;
- Providing inputs for the formulation of the Ship Breaking Code;
- Serving as a member of the Inter-Ministerial Committee;
- Organizing training for workers; and
- Providing inputs for the formulation of the Ship Recycling Act.

Going forward, DGFASLI it would help formulate the OSH Code; provide more training of workers; test and examine material handling equipment; medically examine workers; and ensure compliance with OSH requirements.

The Gujarat Maritime Board (GMB) delivered a presentation on ship recycling yards in Alang. GMB stated that operations began in 1982 and that the Alang–Sosiya Ship Recycling Yard now extends over 10 km up the eastern coast of the Gulf of Khambhat with 153 plots of various sizes. Recycling capacity was 400 ships per year. A maximum of 415 ships were recycled in one year (2011–12). About 15,000 workers were employed directly at the yards. The S.T. Mont was the largest ship ever recycled with 83,598 light displacement (LDT) in December 2009. The yard serves India by producing more than 3.5 million tonnes per annum of re-rollable steel without exploiting natural resources. The Government of India enacted the Ship Breaking Code in March 2013 (revised in 2017). The code provides guidelines, which draw from various statutes and rules such as rules regarding the management of hazardous waste disposal, the Factory ACT, the Explosive Act, the Petroleum rules, the Atomic Regulatory Board Act, Labour Laws, the ESIC Act, the Air Act, and the Water Act, among others. The code was prepared in consultation with DG shipping.

The role of GMB at Alang includes three major functions. First, as a landlord, GMB leases plots on the water front for beaching. It also provides and maintains basic infrastructure. Secondly, as a regulator, GMB regulates and implements the relevant rules and enforces the Ship Breaking Code (2013). GMB has appointed 10-safety officers to rigorously inspect ship recycling activities and

implement regulation as a part of a nodal agency. Periodic inspections are carried out to ensure compliance. Thirdly, as a nodal agency, GMB provides a link between the industry and the concerned competent authorities to ensure the sustainability of the industry.

The GMB has introduced compulsory OSH training for all workers. Many ship recyclers have put comprehensive safety and health management systems and safe ship recycling plans in place. Other improvements include the appointments of competent OSH officers in the yards, the provision of personal protective equipment, and better medical care and housing facilities for workers. The number of fatal accidents has decreased. The GMB Safety Training and Welfare Complex opened on 1 June 2003. All classrooms are equipped with audio-visual equipment. It offers both basic safety training (3 days) and gas cutter safety training (2 days). As per the guidelines received from central ministry, GMB has modified the basic safety training modules and increased its duration from 3 days to 6 days as of 1 January 2016. Then, the duration of the basic safety training course was increased again to 12 days as of 21 July 2017. To date, 145,588 workers have been trained at the institute, with 22,000 of those as part of the Sagar Mala Project.

GMB has acquired land dedicated to housing for ship recycling workers. At present, construction of the first phase has been completed. It includes a canteen building with capacity for 120 persons, office building shops, water and electricity supply, road access, and sanitary facilities. Almost 200 workers are residing in the colony.

The Office delivered a presentation on the global ship recycling industry. The key points were: first, India, Bangladesh, Pakistan, China and Turkey account for about 98 per cent of the global ship recycling industry; second, Indian ship recycling processed the largest volume of ships among the top five countries (India, Bangladesh, Pakistan, China and Turkey); third, ship recycling is a cyclical business, since the profitability of the industry is sensitive to steel scrap prices. The global ship recycling industry is becoming more competitive. However, there are some good prospects in the near future. First, world steel scrap prices are expected to rise and the demand for the ship recycling industry is expected to increase because offshore oil and gas facilities will need to be demolished. In order to make the industry safe and sustainable, the ILO's Decent Work Agenda must be promoted, particularly regarding OSH and worker wellbeing.

The Office also presented concrete measures to strengthen the productivity and sustainability of ship recycling and its value chain. The Office presented the key economic factors of the ship recycling industry as a highly cyclical and uncertain business. In order to enhance productivity and competitiveness, the government and social partners must analyse and better understand the value chain to identify key barriers and opportunities for growth. They must also invest in modern infrastructure, equipment, skills development and management systems; explore better communication and longer-term agreements with ship owners; improve OSH and working conditions; enhance the value added of scrap steel and other recycled materials; and foster an enabling environment for sustainable enterprises. The Office stressed that in order to create an enabling environment, the industry must focus on economic, political, social, and environmental elements. The Office touched on six sustainable enterprise level principles, which included social dialogue and good industrial relations; human resource development; conditions of work; productivity, wages and shared benefits; corporate social responsibility (CSR); and corporate governance and business practices.

SRIA stated that at present almost 90 per cent of the active yards in Alang hold valid Statements of Compliance (SOC) with the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (HKC). These certifications have changed the standard operating practices

of the certified recycling yards in India. These improvements included impervious flooring for secondary and tertiary cutting, cranes to lift heavy weight items, and storm water drainage and collection systems, among others. In addition, safe-for-entry, safe-for-hot work, confined-entry, working-at-height and other similar procedures to ensure safe and environmentally sound recycling were put in place. These improvements would further be supported by the Alang-Sosiya yard modernization project costing INR 730 Crore (109 million USD) funded mainly by Japan International Cooperation Agency (JICA). The infrastructure and procedural upgrades on the recycling yards in India have changed the face of the industry and ship owners have started to recognize these positive changes.

An adequately trained workforce is of paramount importance to achieve incident and accident-free ship recycling processes. For this purpose, GMB's Training and Welfare Complex has been operating in Alang. The complex was used to provide training and education to ship recycling yard workers on safe and environmentally sound operations. The total number of workers trained so far was close to about 120,000 workers since the opening of the training complex. Recently, the Ministry of Shipping has started working in close association with GMB to ensure that both Alang's business environment and the working conditions of the workers improve further. It is mandatory for a worker to undergo the 12-day skills training programme before beginning work in any shipyard. Effectively anyone who works in the Alang ship recycling yards today undergoes this basic safety training. The programme has trained more than 4,000 workers since February 2017.

The above-described training programmes were designed to improve the skill-set of the ship recycling yard workers and safety officers. More such programmes would be implemented in the near future to enhance the quality of training so that workers can be more empowered to undertake the safe and environmentally sound recycling of ships. The quality of training provided to yard workers determines how the ship recycling process goes. All industry stakeholders are planning to implement the same training programme to improve the workers' training standards. This would be a win-win situation for all parties involved because it would help prevent accidents and improve working conditions.

In conclusion, SRIA stated that its members had developed their plots/yards as per international standards. Stricter implementation of the rules by the Government of India in Alang sometimes resulted in end-of-life ships being sent to competitor countries, where the rules were not being followed as rigorously. This could negatively affect the business volume for the ship recycling industry in Alang. SRIA asked the Government to ratify the HKC at the earliest opportunity for the benefit and survival of the Indian industry, meanwhile they reiterated their commitment to comply with the Ship Recycling Code (2014).

The challenges discussed and identified included: the high turnover of low-skilled migrant workers coming from other states, a lack of reliable statistics on non-fatal accidents and diseases and reporting systems, and a lack of systematic representation of workers in OSH activities. The GMB representative said from his experience that the three major causes of the accidents were: (i) falls from a height, (ii) the electrical cushion and (iii) the collapse of heavy or dangerous materials.

Seventy (70) per cent of the yards in Alang are reported to have become green plots with concrete flooring and other measures installed to prevent leakage and protect the marine environment. Ship recyclers also highlighted how the deconstruction of ships enables steel and other parts of the ship to be recycled at a much lower cost than importing and processing iron ore. It was suggested that the industry should be able to earn carbon credits as less energy is needed to recycle materials from old ships than to extract new raw materials from the earth.

However, ship recycling remains a contentious issue. There are many negative press reports about working conditions and NGO campaigns against the environmental impact of “beaching”. Some ship owners have decided to ban ship recycling in Alang whereas others have continued the work to improve safety and health in the yards. The European Commission has introduced new regulation that requires Indian ship recyclers to pass a stringent assessment by environmental and social auditors before European ship owners can use them. So far, no Indian yards have made the so-called “European list” that came into force in January 2019.

3. Policies and actions to improve occupational safety and health and bring about a safe and sustainable recycling industry

The Ship Recycling Code of India was adopted in 2013 with a view to improve OSH in the ship recycling industry. The Code provides for multiple stages of clearance for ships at anchoring and beaching stages. It requires that ship recycling facilities formulate both a Ship Recycling Facility Management Plan and a Ship Specific Recycling Plan. It also permits the authorities to deny permission for entry or beaching to vessels that do not fulfil the requirements of the Code.

The Code furthermore promotes OSH by listing basic facilities that must be available at the yards. These include but are not limited to fire-fighting equipment, water hoses, sand-boxes, and personal protective equipment. Additionally, it contains specific instructions for training workers on occupational safety and health, and calls for the installation of barriers and fencing to prevent falls.

Importantly, the Code commissions the implementation of an OSH management system to prevent work-related injuries and diseases, including by establishing emergency-preparedness measures as well as a system of reporting, recording and notification of work-related injuries, deaths and ill-health.

In 2018, the DGFA SL and GMB signed a Memorandum of Understanding to improve OSH for all workers in the ship recycling industry. This sets out a number of ways in which the Government of India aims to improve OSH in the industry.

The Government of India is in the process of formulating and adopting a new Ship Recycling Act, potentially paving the way for India to ratify the HKC. The HKC references and incorporates a number of relevant international labour standards including those concerning OSH and the fundamental principles and rights at work and other relevant ILO instruments.

In collaboration and consultation with the SRIA and the Alang-Sosiya Ship Recycling General Workers’ Union (ASSRGWA), the national and state governments have introduced measures to improve OSH and the wellbeing of workers as well as diminish the environmental footprint of the industry. Building on these measures and achievements, further steps can be taken to advance occupational safety and health and the sustainability in the sector.

The Ministry of Shipping delivered a presentation on the rule and activities of the Ministry of Shipping in the Mumbai area. The representative specifically mentioned the Indian coastline development projects (Sagar mala project). He stated that Gujarat could become a global recycling hub.

The Office delivered a presentation on the policies and actions to advance safety, health, working conditions and wellbeing of ship recycling workers. The Office suggested that the ship recycling industry promote joint employer-worker safety and health risk assessments and organize regular employer-worker OSH committee meetings. They also encouraged efforts to reach all workers in the

ship-recycling supply chain, for example women home-based workers and contractors; and the development of a national OSH programme that could include ship recycling industry action plans.

The Office also delivered a presentation on international instruments concerning the ship recycling industry. The key points were that the ILO Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey (2004), were adopted unanimously by the Interregional Tripartite Meeting of Experts on Safety and Health in Shipbreaking for Selected Asian Countries and Turkey, in Bangkok, in October 2003. The Guidelines adopt a modern OSH approach as well as comprehensive preventative and protective measures for the competent authorities, employers' and workers' organizations. They emphasize prevention; prescribe a systematic policy approach with the ILO-OSH 2001; and describe the rights, duties and obligations of governments, employers' and workers' organizations. Finally, implementation of the guidelines must be based on tripartism – governments, employers' and workers' organizations – and would be most effective through a holistic and integrated approach combining OSH with International Labour Standards.

Policies and action to improve OSH and bring about a safe and sustainable recycling industry were discussed within the following categories:

- Formulating and agreeing on a long-term vision and sustainable industrial policy for ship recycling in India;
- Ratifying and implementing the HKC and relevant international labour standards;
- Investing in the infrastructure needed for a safer and more sustainable industry to grow;
- Creating an enabling environment for sustainable enterprises along the value chain;
- Facilitating access of ship recycling enterprises to finance, technology and markets;
- Increasing the productivity of the industry and competitiveness of its enterprises;
- Investing in skills development, upskilling and reskilling of workers;
- Improving occupational safety and health;
- Ensuring decent working conditions for all;
- Expanding the coverage of employment injury insurance and all other forms of social protection;
- Strengthening the capacity of labour inspector/factory inspectors;
- Recognizing and realizing the fundamental principles and rights at work in the sector; and
- Enhancing the quality and effectiveness of social dialogue.

Conclusions

During two days of intense deliberations and innovative group work exercises, the Government of India, employers' and workers' representatives jointly developed, discussed and adopted a comprehensive set of conclusions. These conclusions summarize achievements to date as well as future challenges and opportunities for making the ship recycling industry safer and more sustainable. They also contain detailed recommendations for future action by the government, employers and their associations, workers and their organisations, and the ILO. These conclusions can be found in Annex III.

Annex I

Programme

Thursday, 26 September 2019

09:00-10:30 hrs	<p>Inaugural Session</p> <p>Welcome:</p> <p>Dr R. K. Elangovan, Deputy Director General, Directorate General Factory Advice Service and Labour Institutes (DGFASLI), Mumbai</p> <p>Inaugural address:</p> <p>Dr Avneesh Singh, Director-General and Chief Inspector of Dock Safety, DGFASLI, Ministry of Labour and Employment (MoLE)</p> <p>Keynote address:</p> <p>Ms Dagmar Walter, Director, ILO Decent Work Technical Support Team for South Asia and Country Office for India</p> <p>Address by:</p> <p>Representatives of the employers and workers' organizations</p> <p>Vote of thanks:</p> <p>Mr Shailesh Borkar, Deputy Director, DGFASLI, Mumbai</p>
10:30-11:00 hrs	Tea break
Technical Session I	<p>Chairperson: Dr. A. Singh, Director-General, DGFASLI, MoLE, Mumbai</p> <p>Briefing on the agenda of the workshop:</p> <p>Mr C. Edmonds, Head of Unit, Extractives, Energy and Manufacturing (E2M), ILO Sectoral Policies Department (SECTOR), Geneva</p>
11:00-11:45 hrs	<p>The ship recycling industry in India:</p> <p>Captain Chadha, Gujarat Maritime Board, Gujarat</p>
11:45-12:30 hrs	<p>The global ship recycling industry:</p> <p>Mr Yasuhiko Kamakura, Senior Technical Officer, Heavy Manufacturing Industries, E2M, SECTOR, ILO</p>
12:30-13:30 hrs	Lunch break
Technical Session II	Chairperson: Trade Union representative (Mr. V. V. Rane, ASSRGWA)

13:30-14:30 hrs	Measures to strengthen productivity and sustainability of ship recycling and its value chain: A global perspective: Mr Casper N. Edmonds, Head of Unit, E2M, SECTOR, ILO A national perspective: Representative from Ship Recycling Industries Association
14:30-15:00 hrs	Tea break
15:00-17:00 hrs	Group work I: identifying opportunities and challenges to improving safety and health and realizing a safe and sustainable ship recycling industry in India
17:00-17:30 hrs	Wrap-up of the first day session: Mr Casper N. Edmonds, Head of Unit, E2M, SECTOR, ILO

Friday, 27 September 2019

Technical Session III	Chairperson: Employers representative (Mr Chintan Kalthia, SRIA)
09:00-10:00 hrs	Policies and actions to advance safety, health, working conditions and wellbeing of workers Dr Tsuyoshi Kawakami, Senior Specialist on Occupational Safety and Health and Labour Inspection, DWT/CO-New Delhi, ILO
10:00-11:30 hrs	Group work II: defining policies and action to improve safety and health and to realize a safe and sustainable ship recycling industry in India (including tea break)
11:30-12:30 hrs	Policies and actions to advance safety, health, working conditions and wellbeing of workers (continued) Mr. S. N. Borkar, Deputy Director, DGFASLI, Mumbai Mr. H. S. Patel, Joint Director, Directorate of Industrial Safety and Health, Gujarat Mr Yasuhiko Kamakura, Senior Technical Officer, Heavy Manufacturing Industries, E2M, SECTOR, ILO
12:50-13:45 hrs	Lunch break
13:45-15:00 hrs	Group work III: agreeing on measures and action required by the Government of India, the Government of Gujarat, employers and their associations, workers and their organizations, and the ILO
15:00-15:30 hrs	Tea break

	Chairperson: Government representative (Mr. Shailesh Borkar, DGFASLI)
15:30-16:30 hrs	<p>Conclusions of the Workshop – towards a safe and sustainable ship recycling industry</p> <p>Mr Casper N. Edmonds, Head of Unit, E2M, SECTOR, ILO</p>
16:30-17:00 hrs	<p>Closing remarks:</p> <p>Mr. V. V. Rane, ASSRGWA</p> <p>Ms Dagmar Walter, Director, DWT/CO-New Delhi, ILO</p> <p>Mr Casper N. Edmonds, Head of Unit, E2M, SECTOR, ILO</p> <p>Dr Avneesh Singh, Director General & Chief Inspector of Dock Safety, DGFASLI/MoLE</p>

Annex II

List of participants

1. Dr Avneesh Singh, General, Directorate General Factory Advice Service and Labour Institutes (DGFASLI), Mumbai
2. Dr Elangovan, Deputy Director General, DGFASLI, Mumbai
3. Mr Rajkrishna, DGFASLI
4. Mr D. Nagasamy, DGFASLI
5. Mr Bhupendra Chakradhari, DGFASLI
6. Mr Surendranath Amalakanti, DGFASLI
7. Mr Ravi Raju Veluvali, BMS
8. Mr Vijay D. Kulkarni, AICCTU
9. Mr P. K. Raman, NMGKS (INTUC)
10. Mr H. S. Patel, JT. DISH, Rajkut (Gujarat)
11. Mr S M Borkar, DGFASLI
12. Mr K. Durai, DGFASLI
13. Dr Vivek Monteiro, CITU
14. Ms Minal D Trivedi, SEWA
15. Mr Sarat Kumar Nahak, NFITU
16. Mr Ankush Babasaheb Kharade, DISH Maharashtra (Factory inspector)
17. Mr M. R. Patil, DISH Maharashtra
18. Mr R. Sooraj Krishnan, Government of Kerala
19. Mr K. Natarajan, LPF
20. Mr Ashok Ghosh, UTUC
21. Mr S. B. Nair, AITUC
22. Mr Rakesh Kumar Rampat Pal, ASSRGWA
23. Mr Mr Ram Murat Ram Patel, ASSRGWA
24. Mr Vidyadhar V Rane, ASSRGWA
25. Mr Sanjay K. Singh, ASSRGWA
26. Mr Vikas Damodar Nalawade, HMS
27. Captain Mr S. Chadha, GMB
28. Mr Ramesh Aggarwal, SRIA
29. Mr Haresh Parmar, SRIA
30. Mr Ashutsh Pratap Singh, Associate Ministry of Shipping
31. Mr Chintan Kalthia, SRIA
32. Mr Anil Tyagi, AJUTUC (AIUTUC)
33. Mr B. N. Jha, DGFASLI

Annex III

CONCLUSIONS

1. Challenges and opportunities for decent work

The deconstruction of ships after they have reached the end of their seafaring life is an overlooked but essential part of the economy of the world and of India.

Between 2008 and 2017, about 12 million tonnes of ship volume were recycled in India, mostly in Alang in Gujarat. Deconstructing old or redundant ships enables steel and other parts of the ship to be recycled at a much lower cost than importing and processing iron ore. Less energy is needed to recycle materials in old ships than to extract new raw materials from the earth. Since up to 95 per cent of materials are recycled, the industry forms an important part of the circular economy.

The Gujarat Maritime Board (GMB), the Ship Recycling Industries Association of India (SRIA) and the Alang-Sosiya Ship Recycling General Workers' Union (ASSRGWA) have introduced good practices to improve the occupational safety and health (OSH) and wellbeing of workers as well as the environmental footprint. Acknowledging these achievements, the industry is faced with challenges and opportunities related to both the hazardous nature of the work and its environmental impact.

	Achievements	Challenges	Opportunities
Employment	<ul style="list-style-type: none"> - Direct employment ranges from 25-35,000 workers - Indirect employment for ≥100,000 women and men 	<ul style="list-style-type: none"> - Job continuity for migrant workers - Cyclical nature of recycling and volatile employment 	<ul style="list-style-type: none"> - Begin dialogue about regular employment - Other materials could be brought to Alang for recycling
Sustainable enterprises	<ul style="list-style-type: none"> - Large investments made in infrastructure and equipment - Industry supports a number of small and medium enterprises - Productivity has improved 	<ul style="list-style-type: none"> - Further strengthening the enabling environment for sustainable enterprises - Cut-throat competition from Pakistan and Bangladesh due to lack of level playing field 	<ul style="list-style-type: none"> - JICA project will invest in new infrastructure and facilities - Conduct ILO assessment of the enabling environment - Call on all ship owners to use HKC-compliant yards only
Skills	<ul style="list-style-type: none"> - 100,000s of workers have acquired key industry skills - As many trained in basic OSH 	<ul style="list-style-type: none"> - Low literacy and skill levels of workers - Trained migrant workers often do not return 	<ul style="list-style-type: none"> - Develop skills strategy for the industry
Safety at work	<ul style="list-style-type: none"> - OSH management systems and ship safety plans in use - Competent OSH officers appointed in the yards - Compulsory OSH training - Personal Protective Equipment (PPE) provided - Ships certified before arrival 	<ul style="list-style-type: none"> - Fatalities have declined but continue to occur - Workers not systematically represented in the workplace - Skills learned in training sometimes not applied - Basel Convention requirements outdated 	<ul style="list-style-type: none"> - Strengthen and enable OSH committees in all yards with worker participation - Continuously raise awareness of the importance of OSH - Update OSH training programmes and tools - Conduct safety audits
Health at work	<ul style="list-style-type: none"> - Multi-Speciality Hospital inaugurated - Mobile health clinic introduced 	<ul style="list-style-type: none"> - Upgrade health facilities to match the size of the industry - Health monitoring 	<ul style="list-style-type: none"> - Explore ways to invest Employees' State Insurance Corporation (ESIC) resources in improved health services

Labour inspection	<ul style="list-style-type: none"> - 10 GMB Safety Officers inspect all ship recycling activities - Systems in place for reporting fatalities 	<ul style="list-style-type: none"> - Limited capacity of State labour inspectors - Systems for reporting fatalities, injuries and especially diseases can be further improved 	<ul style="list-style-type: none"> - Strengthen numbers and capacity of labour inspectors - Review and implement further improvements to OSH reporting systems
Working conditions	<ul style="list-style-type: none"> - Minimum wages are paid - No forced or child labour in the yards - Water and sanitation provided in the workplace 	<ul style="list-style-type: none"> - Precarious conditions further down the value chain where self-employed and home-based workers operate in the informal economy 	<ul style="list-style-type: none"> - Promote cooperatives and encourage self-employed home-based workers to join these
Social security	<ul style="list-style-type: none"> - Social security provident fund - Most workers covered by ESIC 	<ul style="list-style-type: none"> - Coverage of seasonal and short term migrant workers 	<ul style="list-style-type: none"> - Reinforce dialogue with ESIC on improved social security - Explore feasibility of establishing a welfare board
Well-being	<ul style="list-style-type: none"> - Housing colony constructed - Cultural and sports activities organized 	<ul style="list-style-type: none"> - Workers reluctant to use newly built dormitories - Current residential areas are illegal and unhealthy - No schools for workers' children 	<ul style="list-style-type: none"> - Analyse reasons for this and engage in dialogue with workers and ASSRGWA - Provide clean water and basic amenities in residential areas
National laws	<ul style="list-style-type: none"> - Shipbreaking Code (2013) and Factories Act (1948) in force - Compliance with host of environmental regulation 	<ul style="list-style-type: none"> - Implementation of the labour law in practice - Complexity of national laws and regulatory frameworks 	<ul style="list-style-type: none"> - Enact new Ship Recycling Bill (2018) - Review, revise and update rules
International instruments	<ul style="list-style-type: none"> - Steps taken to ratify the Hong Kong Convention (HKC) - India has ratified key ILO Conventions - ILO 2004 Guidelines on OSH in Shipbreaking still relevant 	<ul style="list-style-type: none"> - Not all ship owners will be able to provide required inventory of hazardous materials - Effective implementation of ILO Conventions in practice 	<ul style="list-style-type: none"> - Ratification of HKC - Ratification of ILO OSH Conventions (Nos 155 & 187) - Implement training to apply ILO Guidelines in practice
Other standards	<ul style="list-style-type: none"> - Number of yards compliant with HKC has increased - Some yards considered for European List 	<ul style="list-style-type: none"> - Ship owners impose conflicting standards beyond HKC - EU regulation goes beyond national law and practice 	<ul style="list-style-type: none"> - Advocate against duplication in auditing and monitoring
Social dialogue	<ul style="list-style-type: none"> - All ship recyclers represented by SRIA - Majority of workers have been organized by ASSRGWA 	<ul style="list-style-type: none"> - Social dialogue can be further strengthened at all levels 	<ul style="list-style-type: none"> - Enhance frequency and effectiveness of dialogue - Explore options for collective bargaining agreement
Greener recycling	<ul style="list-style-type: none"> - Increase in green plots with concrete flooring - Waste Treatment, Storage and Disposal Facility (TSDF) in place 	<ul style="list-style-type: none"> - Ships not designed and built for green and safe recycling - Additional investments needed in waste management systems 	<ul style="list-style-type: none"> - Advocate for environmental costs to be covered by ship builders and owners - Upgrade TSDF - Explore carbon credits
Government coordination	<ul style="list-style-type: none"> - DGFASLI and GMB signed Memorandum of Understanding (MoU) - Ministry of Labour consulted on Ship Recycling Bill (2018) 	<ul style="list-style-type: none"> - Number of other government agencies involved, based on different mandates, sometimes working in isolation 	<ul style="list-style-type: none"> - Reinforce implementation of GMB and DGFASLI MoU - Ensure SRIA and ASSRGWA are consulted on all relevant government initiatives
Stake-holders	<ul style="list-style-type: none"> - Relations built with ship owners globally and in Alang - Other stakeholders are identified and positions known 	<ul style="list-style-type: none"> - Few ship owners demand/ support improved performance - Biased press and NGO reports threaten the industry 	<ul style="list-style-type: none"> - Improve communication and coordination between ship owners, builders and recyclers and the industry

The creation of safe and decent jobs as well as productive and competitive enterprises is necessary to support the ship recycling industry's sustainability. If the challenges related to decent work and

the environmental sustainability of the ship recycling sector can be addressed, the industry can make an important contribution to the achievement of the 2030 Agenda for Sustainable Development, particularly Sustainable Development Goals 3 (Good Health and Well-Being) and 8 (Decent Work and Economic Growth).

2. Bringing about a safer and more sustainable recycling industry

Policies and action to improve OSH and bring about a safe and sustainable recycling industry fall into the broad categories of:

2.1. Upgrading the ship recycling value chain and creating an enabling environment for sustainable ship recycling enterprises:

- Investing in the infrastructure needed for a safer and more sustainable industry to grow;
- Analysing the ship recycling value chain to identify areas for economic and social upgrading and to identify barriers and bottlenecks;
- Identifying concrete ways to creating an enabling environment for sustainable enterprises and decent jobs;
- Investing in skills development, upskilling and reskilling of workers to increase productivity and competitiveness;
- Promoting cooperatives as a means to organize self-employed and home-based workers further down the value chain; and
- Facilitating a dialogue between the tripartite constituents of India and ship owners, ship builders and key international organizations and other industry stakeholders to bring about a level playing field.

2.2. Further improving OSH, working conditions and worker well-being:

- Strengthening workplace OSH committees in all yards;
- Enhancing and upgrading OSH training based on available data and evidence;
- Ensuring stricter compliance of the permit-to-work system;
- Carrying out safety audits and ensuring full compliance with recommendations given;
- Strengthening reporting of all accidents, injuries, near misses and diseases, including through online platforms;
- Better diagnosing occupational diseases;
- Further improving health facilities and services;
- Conducting pre-employment and periodical medical examinations;
- Ensuring decent working conditions for all, including access to clean water and sanitation;
- Including the ship recycling industry in the national OSH profile, policy and programme; and
- Better understanding emerging issues such as violence at work and sexually transmitted diseases.

2.3. Strengthening labour inspection and labour law enforcement:

- Strengthening the capacity of labour and factory inspectors and increasing their numbers as well as maintaining their competencies and expertise;
- Communicating and raising awareness of existing labour law provisions;
- Ensuring full independence of labour inspectors;
- Better coordinating inspections carried out by different agencies; and

- Reporting gaps and outdated provisions to law makers with a view to improving existing laws and regulations.

2.4. Enhancing social dialogue and coordination with key industry stakeholders:

- Ratifying ILO Conventions on collective bargaining and freedom of association (Nos 87 and 98) and OSH (Nos 155 and 187);
- Enhancing social dialogue institutions and processes at the national, state, district, sectoral and workplace level, including through the establishment of tripartite committees;
- Improving floor-level bipartite dialogue between employers and workers on OSH;
- Engaging employers' associations and workers' organizations in promoting a transition from the informal to the formal sector downstream in the value chain;
- Ratifying the HKC and enacting and implementing the new Ship Recycling Bill 2018;
- Strengthening dialogue and cooperation between the tripartite constituents and international organizations such as International Maritime Organization (IMO), European Union (EU), Organisation for Economic Co-operation and Development (OECD) and other stakeholders;
- Enhancing cooperation between relevant government agencies at central and state level;
- Ensuring employers' associations and workers' organizations are consulted and engaged in the formulation and implementation of all policies and actions relevant to the industry; and
- Facilitating further dialogue and improved cooperation between the ship owners, ship builders and the tripartite constituents of the ILO in India.

3. Recommendations for future action by the government, employers and their associations, workers and their organizations, and the ILO

To improve OSH and to bring about a safe and sustainable recycling industry, concerted action is required by the government of the centre and state (Gujarat), employers and their associations, workers and their organizations, and by the ILO and other industry stakeholders.

Government

- Advance ratification of ILO Conventions concerning OSH, freedom of association and collective bargaining as well as the HKC;
- Further invest in the infrastructure and facilities needed for a safer and sustainable industry to grow;
- Continue and strengthen OSH training and tools for all workers in the industry, including training for trainers;
- Upgrade and improve health facilities and services;
- Engage in dialogue with ESIC to explore ways of financing health facilities and extending the coverage of social security in Alang;
- Review and harmonize the rules and requirements in the Factories Act (1948) and Ship Recycling Bill (2018);
- Carry out pre-employment and regular medical examinations of workers;
- Increase the number and strengthen the capacity of labour inspectors for the ship recycling industry at the state level to ensure fullest possible compliance with the Factories Act (1948);
- Further facilitate an enabling environment for sustainable recycling enterprises, including small and medium enterprises and cooperatives, along the value chain;

- Enhance technical and vocational education and training (TVET) and skills training for workers in the industry;
- Systematically engage employers' associations and workers' organization in the formulation and implementation of laws, regulation, policies, measures and initiatives concerning ship recycling;
- Explore the feasibility of creating a recycling hub in Alang and attracting other related waste management and recycling industries (e.g., electronic and electrical equipment, construction materials, oil and gas installations) and generating more decent work opportunities in the circular economy.

Employers

- Further invest in OSH management systems and continuous workplace improvements;
- Continue to share good OSH and environmental sustainability practices among ship recycling yards; and
- Strengthen dialogue with workers and their representatives.

Workers

- Continue to provide basic OSH training, tools and services for workers;
- Share information about developments and issues affecting the industry with all workers; and
- Contribute to the formulation and implementation of OSH measures and actions proposed by the government and employers.

International Labour Office

At the request of the Government of India and the social partners, and depending on resources available, the ILO could:

- Support the Government of India in the ratification and implementation of ILO conventions and recommendations concerning OSH, freedom of association and collective bargaining;
- Support ILO constituents by conducting research and collecting good practices with regard to the implementation of safety and health measures in order to determine appropriate strategies to further promote transparency and a preventative safety and health culture in the ship recycling industry and its value chain;
- Support the Government of India by conducting training sessions for and supporting the capacity building of the labour inspectors, employers' associations and workers' organizations to improve OSH in the ship recycling industry, including on ILO Guidelines on OSH Management Systems (ILO-OSH 2001); and
- Facilitate a dialogue between ship owners and ship builders and the tripartite constituents of the ILO in India.