

Report

Investigative Mission

Where do the "floating dustbins" end up?
Labour Rights in Shipbreaking Yards in South Asia
The cases of Chittagong (Bangladesh) and Alang (India)

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Where do the "floating dustbins" end up?

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I. INTRODUCTION

1. A global issue

Shipbreaking exemplifies both the potentialities and the dangers of an increasingly globalised economy. As Northern corporations delocalise their activity (and waste producers. their hazardous materials) to developing countries with a cheaper labour force, they create economic opportunities for thousands of labourers, and contribute to the economic growth of regions in need of private sector investment. In this respect, shipbreaking provides employment for tens of thousands of workers throughout the Asian continent; it also provides for large quantities of steel, and thus acts as an alternative to the non-renewable resource of ore, while representing an important source of supply for second-hand equipment. To the extent that practically 100% of the ship is recycled, shipbreaking can to a certain extent be called a "green" industry. In the terms of an 2001 OCDE report on ship scrapping: "Ship demolitions remove large volumes of obsolete tonnage from fleets, recycle many of the materials used in a ship's construction and is a major employer in the main shipbreaking areas"1.

At the same time, this delocalisation exposes workers in developing countries to dangers that would be unacceptable in industrialised countries, and sets for far lesser standards than the internationally agreed ones in terms of rights at work: in effect, it creates two classes of workers. The dangers inherent to shipbreaking are now well known and well documented: it is a highly dangerous activity, which exposes the labour force to risks of death, serious injury and chronic health problems through the exposure to toxic substances. The inability - or the unwillingness - of governments in developing countries to enforce human rights, their fear to see the industry relocate to an even lower cost country, and their vulnerability in the face of private operators, translate into power relations - at the expense of the workers. As often, economic profit takes precedence over the respect of fundamental rights and freedoms.

The issue then, as often is when human rights are intertwined with economic development, is that of responsibility. National governments of the countries where the yards are situated hold ultimate responsibility for protecting the rights of workers; but the various private or semi-public operators along the chain cannot be exonerated, and should also be held responsible for the conditions in which they sell their

ships (as it stands, the ship owner can exempt himself from any responsibility for the hazards that the ship contains, thus contravening the principle that "the polluter pays"), or, for the shipbreakers, the conditions they impose on their workers in the yards.

But if the most visible and documented story of the human rights abuses of shipbreaking workers is about the shipbreaking industry and the governments of developing countries, the second story is being played out at the international level, as shipbreaking workers are at the (losing) end of the long, but under-regulated, system of the international shipping industry.

Hence, while Western nations have been rightly criticised for using these yards as dumpsites (thus satisfying their increasingly environmentally conscious domestic public opinion), their governments seem content with merely and narrowly adopting procedures to guarantee the future "greenness" of the ships to be built. Unfortunately, the question is much broader, as governments, and predominantly Western governments have created a situation where unscrupulous States and ship-owners can evade most, if not all, regulatory responsibilities; as it stands, ship ownership and registration - the key to enforcing regulation now operates through a clandestine, confidential and nontransparent system of flags of convenience (FOCs), essentially tax havens, in which over 50% of the world's fleet is registered. Ultimately, until the anomaly of FOCs is adequately governments and addressed. intergovernmental organisations such as IMO will remain powerless to effectively regulate the industry, and namely, to ensure that shipbreaking is a secure industry.

One key issue within this under-regulated global shipbreaking system is therefore the lack of an adequate policy response from industrialised countries, from where a bulk of the ships originate. Outside of an effective regulatory framework that balances the rights and responsibilities of the various stakeholders, a disproportionate amount of pressure is being felt by the shipbreaking yards in developing countries. The first link in this chain of (de-)responsibility lies with FOCs, who neither car, but more importantly, cannot be forced to abide by a regulatory framework as a whole. Under their obligation to international co-operation, industrialised countries have to take their responsibilities seriously to help create a balanced,

effective and enforceable regulatory framework, including a systematic ship scrapping programme to eliminate over-age vessels. To this end OECD member states should use all intergovernmental institutions at their disposal, along with bilateral technical assistance programmes.

2. The importance of labour rights

The issue of human rights in shipbreaking yards came to the attention of the international community in the 1990s through the concerted actions of non-governmental organisations, above all Greenpeace, trade unions such as the International Transport Workers Federation and the International Metalworkers Federation. and intergovernmental bodies, such as the International Labour Organisation. The abysmal working conditions and the dangers to the health and safety of the workers, publicised by several investigative media reports, led to a public outcry, which in turn generated an international mobilisation on the issue. Much of the debate has thus focused on occupational safety and health issues: the massive presence of toxic substances, such as asbestos, arsenic, heavy metals, tributyl tin (TBT), polycyclic aromatic hydrocarbons (PAHs), and dioxins, in the working and living environment of the workers. the absence or lack of implementation of safety regulations, leading to hundreds of accidents each year, clearly appeared the most pressing issues.

However, as time has passed, it has become increasingly clear that any long-term improvement of the workers' situation in the shipbreaking yards cannot bypass the issue of labour rights, and in particular trade union rights. Indeed, it is extremely worrying to note that very little has been achieved to give effect to the implementation and enforcement of these rights, in particular freedom of association and collective bargaining, social protection and welfare provisions, in violation of India's and Bangladesh's obligations both under international and national law. As this report will show, the workers are in a situation of total vulnerability and dependence, as well of arbitrariness - with no contract, no union, no job security, they work under the rule of a private individual's will, rather than that of the law or of general agreed rules. The problem is not so much the lack of legislation - but, as often, the non-enforcement of existing ones, and the weakness of remedies. As the shipbreaker engages in a race against the clock to make a profit, any obstacle in the way of a quick dismantling of the vessel is removed - such as firm guarantees for the health and safety of workers, social rights, etc. The problem is aggravated by a climate of fear and intimidation, fuelled a disproportionate

local power for shipbreakers, especially noticeable in Bangladesh, which prevents prospective trade unionists from setting up unions, but also journalists and other human rights defenders from investigating the situation in the yards. The FIDH, the delegation of which was itself a victim of such harassment, takes the view that such lack of transparency and means of pressure and dissuasion not only further affect the workers but also serve to reinforce critics of the yards and feed the suspicion about the real will to make much-needed changes. The oft-reported corruption of the judiciary and of public officials does little to improve the credibility of these institutions in siding with the workers in cases of violation of their rights.

The FIDH strongly believes that the establishment of proper industrial relations procedures, the enforcement of trade union rights and collective bargaining rights is a crucial element in improving the situation in Asian shipbreaking yards. The lack of such enforcement not only obviously slows the pace of reform in the field of safety and health in the yards, but it also makes the workers more vulnerable and further weakens their position. The FIDH believes that any improvement in health and safety conditions cannot be dissociated from implementation of labour rights, most notably of trade union rights. Progress around occupational safety and health is a necessary condition for improved working conditions, but it is insufficient without an effective trade union input to represent the interests of the whole working community.

Notwithstanding the problems associated with the yards, there is little doubt that shipbreaking has represented a decisive improvement in the situation of most of actors involved, including the workers. For the workers, mostly migrants from poorer regions of the country, employment in the yards has meant a leap in wage rates: for instance, an Alang worker typically earns between 60 and 150 Rs. a day (between US\$ 1.25 and 3.10²), compared to an average of 10 Rs. (US\$ 0.21) in their home states as farm labourers. It has to be said, though, that while the workers all agree on the improvement that the job in Alang has constituted in their and their families' living conditions, they see the wage rates as far too low considering the risks involved.

Simply closing the yards or returning the shipbreaking activity to industrialised country in which the business would be safer is therefore no solution, and could well end up with bringing about more misery for the workers than they currently experience.

We therefore take the view that the issue is evidently not whether or not to close the yards. Rather, it is about how to ensure that the economic and social benefits generated by the activity are better shared by the workers and local communities. That requires progressive reform of the yards, so as to make shipbreaking a sustainable and viable working environment, based on internationally agreed standards of rights at work. We hope this report will contribute towards such a reform.

It is clear that efforts towards improving the working conditions in South Asian shipbreaking yards have to be global, and globally implemented. Much of the international debate surrounding shipbreaking yards has focussed on Alang, it being the world's largest yard. However, conditions there are undoubtedly better than in other yards - be they in India (such as Darukhana near Bombay), or in other countries, such as Bangladesh with the Chittagong yard, as this report will show. There is little doubt that more stringent legislation (or better implementation of the existing one) in any one place can only lead to shipbreaking activity shifting to other yards where such norms are not in place, thus leading to an unchecked race to the bottom. It is of paramount importance that the regulative efforts of the international community, of national governments and of civil society impose and enforce global norms.

3. Methodology

In addition to desk research (documents from governmental, intergovernmental, or non-governmental organisations) on the situation in Asian shipbreaking yards, the FIDH conducted in 2000 and 2002 two on-site missions of investigation in Alang (India) and Chittagong (Bangladesh), with a different delegation for each site. The delegations conducted interviews with a wide range of actors in the shipbreaking field: governmental and local officials, shipbreakers, traders and businessmen, fire and safety officials, doctors in and around the yards, villagers from the local communities, academics and technical experts in the field of shipbreaking, lawyers involved in the defence of the workers, NGO activists. trade union officials, journalists. Most important, the delegation conducted a long series of interviews with workers (approx. 100 on each site), outside their working environment and in the absence of supervisors or employers.

To protect workers' identities, all names have been changed.

^{1.} Report on Ship scrapping, Directorate for Science, Technology and Industry - Maritime Transport Committee of the OCDE, September 2001, DSTI/DOT/MTC (2001)12, p. 6 2. Throughout the report, we take the conversion rate of 48 Rs. for 1 US\$.

II. GENERAL OVERVIEW OF ASIAN SHIPBREAKING YARDS

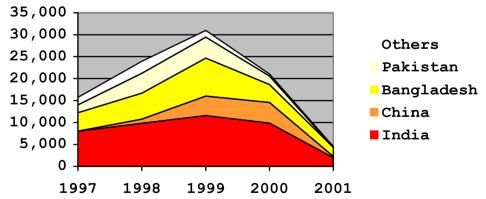
1. Facts and figures

An estimated 45.000 ocean-going ships currently operate on the world's seas. Apart from military vessels, they include cargo ships, roll-on/roll-off ships (known as "ro-ro" ships), tankers, cruise ferries, refrigerated cargo ships, tankers... They are allowed on sea after receiving a four-year seaworthiness certificate, issued by the flag state of the ship³, and which can be inspected by port state control officers. After an average of 25 to 30 years, meeting the safety requirements needed for the renewal of the certificate means extensive investment in the vessel, usually more than is deemed worthwhile for its owner. The ship is then sent to its death - sold, generally through international brokers or via cash-buyers (who buy ships to resell them to the shipbreakers), to be decommissioned in a shipscrapping yard. An average of 700 ships, or between 15 and 25 million dwt (deadweight tonnes), are sent for demolition every year. In 1999, scrapping reached its peak in 14 years, at 31 million dwt. This number is expected to increase in the coming years. as the vessels made under the large new orders in the 1980s are nearing their life's end, as general cargo ships are becoming obsolete with the emergence of container ships and as new safety regulations are being implemented. The requirement for a double hull for tankers under IMO

regulation MARPOL 13G is singularly important in this respect⁴, although its "grandfathering" clause - *i.e.* the 20-year period for the phasing-out of single-hull tankers - significantly dilutes its regulatory power. Military vessels are not included in this count, as they do not go through the international brokerage system, and the total number of ships scrapped should hence be considered as higher than the available figures.

Until the 1960s, shipbreaking activity consisted in a highly mechanised operation that was concentrated in industrialised countries - mainly the United States, the United Kingdom, Germany and Italy. The UK accounted for 50% of the industry -Scotland had the largest shipbreaking operation in the world. During the 1960s and 70s, shipscrapping migrated to semiindustrialised countries, such as Spain, Turkey and Taiwan, mainly because of the availability of cheaper labour and the existence of a re-rolled steel market. Though 79 nations in the past decade have had some form of ship recycling activity, the Asian yards, which took off in the 1980s, now account for over 95% of the industry. Alang, in India, has retained its position as the world's foremost shipbreaking industry, accounting for an average of 70% of tonnage, and an average of 50% of worldwide demolition sales. Bangladesh is the second country after India in terms of volume of recycling.

Breaking by country, in 1,000 dwt:



	1997	1998	1999	2000	2001 (as of June)
INDIA	7,972	9,812	11,583	9,853	1,960
CHINA	69	940	4,419	4,701	312
BANGLADESH	4,179	5,900	8,680	4,046	2,067
PAKISTAN	1,778	4,534	4,770	1,993	N/A.
OTHERS	1,715	2,737	1,555	445	177

Source: Informa's "Lloyds Inactive Vessels" monthly, cited by Report on Ship scrapping, OECD 2001, op. cit.

The factors behind shipbreaking's migration to Asia are of varying nature:

-The availability of an inexpensive labour force, as shipbreaking is a labour intensive industry relying on unsophisticated techniques.

-Lax implementation of social and environmental standards. Conversely, higher requirements entail a decrease in a specific country's shipscrapping activity: for instance, the 1997 decision by the Indian government to require gas-free certificates led to a significant decrease in the decommissioning of tankers in that country. Indian breakers now concentrate mainly on dry-trading ships.

-A domestic market for scrap steel. For instance, the yards now supply 100% of Bangladesh's steel. In India, steel from the yards reportedly account for 15% of the country's total steel output, at about half the cost of regular furnace-based plants.

-Suitable physical conditions that allow to dispense with much heavy infrastructure - such as the availability of dry beaching facilities, which means a lack of need for dry-docking facilities⁵, a climate in which shipbreaking can take place most of the year, and an infrastructure to transport the scrap to its market place.

-A convenient geographical location: the proximity of the main eastbound trade routes has been an important factor in the development of the South-Asian shipbreaking industry.

-Another element to be taken into account is the exchange rate movements, relative to the US dollar and to the currencies of other shipbreaking nations.

However, plans to redevelop shipbreaking facilities in Europe. and in particular in Antwerp (Belgium) are now under consideration, under the aegis of the European Union, which has ordered a study on the feasibility of ship decommissioning in existing European yards. However, Western officials agree that, as of today, there is little interest among ship owners - or, for that matter, among prospective business interests - to have ships decommissioned in industrialised countries. Indeed, the costs associated with a "clean" and safe scrapping of a vessel in the West far outweigh the expected benefits of the operation, given current market prices for scrap vessels - between 150 and 190 US\$ per ldt, depending on the market and the type of vessels, with tankers understandably most expensive due to their larger share of steel. The United States government issued a temporary ban in 1997 on the export of US Navy ships and MarAd⁶ vessels for scrapping in industrialising countries, following a public outcry on the working conditions in Asian yards. The moratorium has since then been extended. A reported backlog of 190 of such US vessels are thus awaiting disposal.

2. A highly dangerous activity

There is no disagreement that shipbreaking is a high-risk industry. "By any standards, the demolition of ships is a dirty and dangerous occupation", writes Paul Bailey in his ILO discussion paper⁷. "It is simply too risky a job for so little pay", explains a former Alang worker now in the furniture trade. Indeed, much of the international debate surrounding shipbreaking has focused on the health and safety hazards of the activity⁸. The UN Special Rapporteur on les Conséquences néfastes des mouvements et déversements illicites de produits et déchets toxiques et nocifs pour la jouissance des droits de l'homme, Ms. Fatma-Zohra Ouhachi-Vesely, denounced in her 1999 and 2000 reports the impact of shipbreaking activity on the full enjoyment of human rights.

The hazards linked to shipbreaking broadly fall into two categories: intoxication by dangerous substances [see table below], and accidents on the plots. Explosions of leftover gas and fumes in the tanks are the prime cause of accidents in the yards. In 1997, a massive explosion in Alang, which caused an estimated 50 deaths, prompted the authorities to impose gas-free certificates for all vessels, as well as to require goggles and helmets for workers. The number of explosions has since significantly decreased. Another major cause of accidents is the fall from the ships (which are up to 70 m high) of labourers who work there with no safety harness. Other accidents include workers being crushed by falling steel beams and plates, electric shocks...

Hazardous or harmful factors in ship scrapping

Asbestos - Polychlorinated biphenyls (PCBs)

Lead - Arsenic - Tributyl tin (TBT)

Polycyclic aromatic hydrocarbons (PAHs) - Chromates

Mercury - Fumes from welding and cutting

Radiation - Noise - Vibration

Air Pollution - Low-level radium sources

Organic liquids

Battery, compressed gas cylinders, fire fighting liquids

Work using plasma and gas torches

Explosives

Work using cranes and lifting equipment Saws, grinders and abrasive cutting wheels

Accident factors: falling, electric shock...

Source: ILO, Occupational Safety and Health branch

Doctors interviewed in India by the FIDH delegation, besides orthopaedic pathologies and severe burns linked to accidents within the yard, reported multiple cases of skin diseases, malaria (40 % of patients, according to a doctor in the Alang Red Cross hospital), malnutrition, diarrhoea, TB, respiratory problems, STDs. Cases of leprosy have been reported at a considerably higher rate than the average rate in India.

The inherent dangers of shipbreaking activity got another confirmation with three separate fatal accidents in July 2001 in Chinese yards reputed to be up to standard and "safe" in comparison to the ones in the Indian sub-continent. Two of these accidents involved explosions during ship demolition, and the third involved the fall of a crane in a new facility near Shanghai.

3. "Upstream": a deficient, underregulated market for ship scrapping

The fluctuations of the market of ships for scrap have a direct bearing on the conditions in the yards. As will be shown, one of the main sources of labour rights violations in shipbreaking yards stems from the absence of job security, and the possibility of dismissal overnight, which makes for a tremendous vulnerability of the workers. Without exonerating employers' responsibility in this regard, it is clear that such dispensability of workers is directly linked to the fact that the market for scrap is submitted to high fluctuations, and shipbreaking is hence reactive: it is "led by the supply of scrap ships coming onto the market, rather than [being] proactive, in its elimination of undesirable vessels"9. It is however clear that as of now, incentives to keep overage and high-risk vessels on sea outweigh the benefits of sending them for decommissioning, especially in the light of IMO's relative powerlessness to enforce compliance with its conventions on safety. The 2001 OECD report on ship scrapping highlights 12 main reasons behind the failure of market forces to ensure the scrapping of all high-risk vessels, among which:

- -The difference between the scrap value of a vessel and the price available for further trading, which can be twice the scrap value or more.
- -The lack of legal liability of the seller, who is not responsible for any casualty or damage on the ship after the sale.
- -The irresponsibility of some Flag States, which neglect their responsibility in terms of enacting international standards of vessel safety and prevention of maritime pollution. This is evidently linked to the issue of flags of convenience. Such Flag States are generally the same ones that flout international standards as far as the rights of sailors and seafarers are concerned.

- -Such neglect is also evident for some classification societies, insurers and charterers.
- -Neither Port States nor Flag States have the legal authority to insist on the demolition of unsafe ships.

A systematic international programme for ship decommissioning would be instrumental in limiting the fluctuations of the market, which directly and often adversely affect the workers - it would evidently also seriously reduce the number of sub-standard vessels operating, thus allowing for cleaner seas.

4. An inadequate international regulatory framework

While rules regulating a ship's construction as well as its life at sea are abundant, very little existed until recently at the international level on how to decommission a ship. "The established regulative regime governing international shipping covers the stages of design/construction, operation and maintenance and identifies minimum standards and norms for compliance. However, the established maritime legislative infrastructure does not take into account the final stages of a vessel's life, namely its retirement", states UNEP10. Various initiatives are now under way, that would set guidelines both for the proper and environmentally sound dismantling of a ship, and guarantee the health and safety of workers in the yards. The main idea guiding the various efforts at international level now focus on the "maker to breaker" concept, i.e., in the words of IMO secretary general William O'Neil: "A ship's death should be prepared for even before its birth. The ship's design and construction must take into account how dismantling and recycling can be carried out".

As for the already-operating ships, the idea is to proceed to some decontamination prior to the vessel's final voyage. Now, this is not possible for all hazardous substances, or the vessel would not be allowed to sail on own power to the scrap yard and would have to be towed - thereby dramatically increasing the cost of scrapping and in effect making it uneconomic.

Part of the problem and the confusion as to what organisation is to rule on the issue is linked to the debate on jurisdiction: for instance, IMO regulatory powers stop at the territorial waters; the ship is then under the responsibility of the local entrepreneurs and their governments. Here too, the need for a global regulatory framework, that would cover all aspects of shipscrapping and that would involve all stakeholders, including workers' representatives, is required to effectively improve the situation in the yards.

One of the main ambiguities about the various moves in the field of shipbreaking regulation is the issue of responsibility: indeed, it is of paramount importance to assign precise responsibilities to each actor in the shipbreaking process:

- 1. The private ship owners
- 2. The private shipbreakers
- 3. Governments of breaker countries
- 4. Flag states
- 5. Governments of builder countries
- 6. Port States

While it is agreed that ultimate responsibility for the respect of workers' rights and protection of their health and safety lies with the national governments, the chain of operators, be they public, semi-public or private, do have a responsibility to ensure that these rights are upheld, and upheld globally. International human rights law is clear: the preamble of the UDHR states that "every organ of society (...) shall strive (...) to promote respect for these rights and freedoms" (underline ours). Indeed, the UN Special Rapporteur on les Conséquences néfastes des mouvements et déversements illicites de produits et déchets toxiques et nocifs pour la jouissance des droits de l'homme, Ms. Fatma-Zohra Ouhachi-Vesely, links in her 2000 report the issue of safe shipbreaking to that of FOCs and in particular calls on to "establish the responsibility of the owner of the vessel between its original purchase and its sale for scrap"11.

However, the voluntary nature of the various guidelines concerning shipbreaking, the absence of a precise assignment of responsibilities, and the lack of clear enforcement mechanisms, are causes for serious concern.

The need for a global enforcement mechanism is no less important. It comes as no surprise that the federal, state and local authorities in the developing countries are so desperate to secure the employment and the much-needed economic boost brought by the shipbreaking, that they will often turn a blind eye to the violations committed by those who run the yards. Attempts to enforce regulations (and this report will highlight some valiant attempts) are fraught with the everpresent fear that the industry will simply relocate to a lower-cost country.

The FIDH holds the view that Western countries, from which a majority of these ships originate, simply shy away from their responsibility in this matter. It is clearly insufficient to set up procedures to ensure that future ships will be designed and built in view of minimising hazardous materials. Governments have a general obligation of international co-operation, and

could be much more active in helping developing countries in improving the situation in the yards.

Indeed, article 2(1) of the International Covenant on Economic, Social and Cultural Rights provides: "Each State party to the present Covenant undertakes to take steps, individually and through international assistance and cooperation, especially economic and technical, (...) with a view to achieving progressively the full realisation of the rights" (underline ours).

According to the Committee on Economic, Social and Cultural Rights (CESCR), this duty of international cooperation for development and thus for the realization of economic, social and cultural rights "is particularly incumbent upon those States that are in a position to assist others in this regard." 12.

The programme of assistance set up by the Dutch government in Gujarat (India), which consists mainly of a transfer of expertise, is a good example of how this duty of international co-operation could translate, and of what Western governments could do to effectively provide an input aimed at improving working, living and social conditions in shipbreaking yards. It remains unfortunately an isolated initiative.

More generally, one key issue within an under-regulated global shipbreaking system is indeed the lack of an adequate policy response from industrialised countries, that would encompass the crucial issue of enforcement mechanisms for all flag states. The need for a global and effective regulatory framework that would assign rights and responsibilities (legal as well as economic and financial), and that would lead to an enforceable regulation based on international standards, if felt particularly acutely at the end of the chain - the shipbreaking yards -, is however more pressing as overage, high-risk vessels are now increasing on the world's seas. This means in effect putting an end to the practice of flags of convenience, now flown by over half of the world's fleet.

Such policy framework should include the issues of proper norms for the safe dismantling of ships; adequate standards for the building of new ships; a global and co-ordinated programme for ship decommissioning; enforcement of labour standards; compliance mechanisms for all flag states.

It is clear that shipbreakers bear a disproportionate part of the blame in the dangers inherent in shipbreaking activity and in the disastrous working conditions of the workers in the yards. Without minimising their responsibility, it is clear that the costs associated with safer scrapping practices cannot be shouldered by shipbreakers only. The establishment of a "Global Scrapping Endowment Fund" and a "Global Scrapping Tax Fund" has been repeatedly suggested at various international conferences on shipbreaking. As Prof. N. Wijnolst writes: "The international maritime industry has a responsibility in solving the current problems in ship scrapping countries, a responsibility that should translate itself into a financial commitment, either through a mandatory levy mechanism on ships, or via the market mechanism"¹³. The FIDH believes that such a ship scrapping fund, with which the investment in safe ship scrapping can be financed, to be indispensable; it could relatively rapidly be set up, organised possibly by IMO.

A. The international legal framework

(i) General instruments covering fundamental rights at work

The focus of this report is the situation of labour rights in shipbreaking yards. We are concerned that the focus on occupational health and safety, however legitimate in view of the dangers the workers are exposed to, may detract attention from the lack of enforcement of other workers' rights, and in particular freedom of association and collective bargaining, social protection and welfare provisions, which are just as important to achieve a general and effective improvement of the situation in the yards.

These rights are covered by several international instruments:

The Universal Declaration of Human Rights (UDHR), notably articles 20, 22, 23, 24 and 25. The UDHR is now considered as customary law and legally binding for all countries, whether they were signatory to it or not at the time of adoption.

The International Covenant on Economic, Social and Cultural Rights, notably articles 7, 8 and 9, ratified by India in 1979 and by Bangladesh in 1998.

Relevant ILO Conventions, most notably:

-C87 - Freedom of Association and Protection of the Right to Organise Convention, 1948. It has been ratified by Bangladesh in 1972, but not by India.

-C98 - Right to Organise and Collective Bargaining Convention, 1949. It has been ratified by Bangladesh in 1972, but not by India.

-C18 and C42 - Workmen's Compensation (Occupational Diseases) Conventions, 1925 and 1934. Ratified by India. Bangladesh has ratified only C18.

-C118 - Equality of Treatment (Social Security) Convention,

1962. Ratified by both India and Bangladesh.

-C1 - Hours of Work (Industry) Convention, 1919. It has been ratified by both India and Bangladesh.

Though India has not ratified some of the most important ILO Conventions, namely C 87 and C 98, it cannot consider itself exempt from the obligations under these instruments. Indeed, the 1998 ILO Declaration on Fundamental Principles and Rights at Work formally states: "The International Labour Conference declares that all members, even if they have not ratified the Conventions in question (87 and 98) have an obligation, arising from the very fact of membership in the Organisation, to respect, to promote and to realise in good faith and in accordance with the Constitution, the principles concerning the fundamental rights which are the subject of those Conventions, namely freedom of association and the effective recognition of the right to collective bargaining" (Underline ours).

(ii) The Right to Health

The right to health is critically important in the context of shipbreaking yards. The human right to health is recognized in the Universal Declaration of Human Rights in its article 25:

"Everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services".

The right to health has been subsequently recognized in a number of international instruments, that both India and Bangladesh have ratified:

-International Covenant on Economic, Social and Cultural Rights, art 12

-International Convention on the Elimination of All Forms of Racial Discrimination art 5(e)(iv). Ratified by India in 1968 and by Bangladesh in 1979.

-Convention on the Elimination of All Forms of Discrimination against Women, art 11.1 (f) and 12. Ratified by India in 1993 and by Bangladesh in 1984.

-Convention on the Rights of the Child of 1989, art 24.

Ratified by India in 1992 and by Bangladesh in 1990.

The International Covenant on Economic, Social and Cultural Rights provides the most comprehensive instrument on the right to health in international human rights law.

Article 12 states that:

"1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable

standard of physical and mental health.

- 2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for: (...)
- (b) The improvement of all aspects of environmental and industrial hygiene;
- (c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;
- (d) The creation of conditions which would assure to all medical service and medical attention in the event of sickness".

Normative content:

The right to health is not to be understood as a right to be healthy but as the highest attainable standard of physical and mental health.

The right to health contains the following interrelated and essential elements:

- (a) Availability. Functioning public health and health?care facilities, goods and services, as well as programmes, have to be available in sufficient quantity within the State party. The facilities include: safe and potable drinking water and adequate sanitation facilities, hospitals, clinics and other health?related buildings, trained medical and professional personnel receiving domestically competitive salaries, and essential drugs, as defined by the WHO Action Programme on Essential Drugs;
- (b) Accessibility. Health facilities, goods and services have to be accessible to everyone without discrimination, within the jurisdiction of the State party. Accessibility has four overlapping dimensions: non-discrimination, physical accessibility, affordability, information accessibility
- (c) Acceptability. All health facilities, goods and services must be respectful of medical ethics and culturally appropriate, i.e. respectful of the culture of individuals and minorities.
- (d) *Quality*. Health facilities, goods and services must be scientifically and medically appropriate and of good quality. This requires, skilled medical personnel, scientifically approved and unexpired drugs and hospital equipment, safe and potable water, and adequate sanitation.

(iii) The Basel Convention

As far as health and safety as well as environmental norms in the shipbreaking industry are concerned, the Basel Convention is often invoked. It allows to enlarge the field of responsibilities outside the breaker countries' governments and the private shipbreakers, and encompass ship owners and Flag States. This is crucial issue with respect to the decontamination of the ships prior to sending them to their final destination for scrapping.

The 1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal came into force on 5 May 1992. 133 States are parties to the Convention, which prohibits export of hazardous waste from Annex VII countries (OECD countries, EU and Liechtenstein) to non-Annex VII countries. It also prohibits the export of hazardous waste to Parties that have prohibited the import of such waste. It is the case of India: in May 1997, the Supreme Court of India ordered the ban of import of hazardous waste as defined by the Basel Convention - to little effect, though, as the import of contaminated ships has continued unabated. Bangladesh (as well as China and the Philippines) also has a national import ban for hazardous waste.

The Convention also prohibits the export of hazardous waste from a Party "if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner".

As for the EU, the 1993 Council Regulation (EEC) No. 259/93 on Shipments of Waste, as amended by the 1997 Council Regulation (EC) No. 120/97, prohibits the export of wastes for disposal or recovery from the EU to non-OECD countries since 1 January 1998. In December 1999, the Belgian government arrested the UK bulk carrier MV Forthbank bound for scrapping in Asia. The government ruled that a European ship bound for scrapping in Asia is a hazardous waste export and subject to the EU hazardous waste exports ban in place since 1998. The vessel was only released after the owners pledged the vessel was not bound for scrapping.

Though some governments still do not share the view that the decommissioning of ships enter into the remit of the Basel Convention, the FIDH holds the view that the Basel Convention, though insufficient as the sole instrument to regulate shipbreaking, is fully applicable to ships for scrap.

Ships as waste and as hazardous waste

The term "hazardous waste" is defined in art. 1(1) of the Convention, which in particular defines it as "wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III". Annex I lists a number of substances, including waste oils / water, hydrocarbons /water mixtures and surface treatment of metals. Annex III lists hazardous characteristics, including

explosive substances, flammable liquids and solids, poisonous and infectious substances. Given the substances likely to be generated during the scrapping of vessels, it is clear that vessels as such (and not only individual substances on board) can be considered "hazardous waste" under art. 1(1).

Furthermore, vessels for scrap qualify as "waste" as defined by article 2(1) of the Convention, which states ""wastes" are substances or objects which are disposed of or are required to be disposed of by the provisions of national law". The European Court of Justice ruled in 1988 that waste "is not to be understood as excluding substances and objects which are capable of economic reutilization"14. The FIDH concurs with Prof. Geir Ulfstein: "A vessel is to be regarded as waste whether or not it still is to be considered a ship, or it is still used for transport of cargo, as long as the decision has been taken to scrap the vessel. This means that a vessel should be considered waste even if it will call at different ports with cargo, before it reaches the location for scrapping 15. The possibility of hiding the intention of scrapping (ie hiding that the ship is destined for shipbreaking), is, however, a problem: "this scenario represents a possible legal loophole which needs to be addressed", writes the UN Special Rapporteur on Conséguences néfastes des mouvements déversements illicites de produits et déchets toxiques et nocifs pour la jouissance des droits de l'homme, Ms. Fatma-Zohra Ouhachi-Vesely¹⁶.

The issue of the "state of export"

Under the terms of the Basel Convention, the "state of export" is the state from which the transboundary movement, i.e. the physical action of moving the waste, starts or is planned to start, whether or not the vessel flies the flag of that state. However, "although the port state is the exporting state under the Basel Convention, it has no jurisdiction - and little incentive - to control foreign-owned vessels as long as they retain their status as ships under international law", says Geir Ulfstein. The FIDH holds the view that flag states, which under international law are responsible for the activities of their vessels, should similarly be responsible for the scrapping of their vessels. Actually, they already are responsible for the safe dumping of vessels under the 1972 London Dumping Convention with its 1996 protocol 17 and the OSPAR Convention 18. In the terms of Geir Ulfstein, "similar obligations could be established for scrapping of vessels, which would mean that the flag state not only would have the right to exercise jurisdiction over its ships "from cradle to grave", but would have an obligation to do so"19 (underline ours).

B. Specific guidelines for the shipbreaking industry

(i) by international bodies

Specific guidelines and regulations are being drafted under the aegis of different international agencies to regulate the shipbreaking business. As would be expected, these cover norms for an environmentally sound dismantling of ships, as well as occupational safety and health issues. We take the view that this unduly reduces the scope of the problems that the shipbreaking business needs to address. We are also concerned about the general lack of compliance mechanism brought into the guidelines, and the imprecision about the exact nature of the responsibility of each actor in the shipbreaking process.

The three international agencies specifically involved are the International Maritime Organisation (IMO), the International Labour Organisation (ILO) and the United Nations Environment Programme (UNEP)

UNEP:

UNEP is responsible for the implementation of the Basel Convention. It is currently drafting guidelines on the environmentally sound management for the full and partial dismantling of ships, in order to provide recommendations on procedures and practices to be implemented to attain Environmental Sound Management (ESM) in shipbreaking yards. The guidelines also provide advice on monitoring and verification on environmental performance. The guidelines are expected to present a "model facility", the realisation of which should be reached within 5 years. These guidelines will "make provisions for the proper removal of hazardous wastes and substances, including the collection, sorting and disposing/recycling of wastes in an environmentally sound manner"20. These guidelines will not, however, cover issues of health and safety.

The FIDH expresses concern about the "voluntary" nature of these guidelines and the lack of an adequate compliance mechanism.

IMO:

The subject of shipscrapping was brought to IMO's Marine Environmental Protection Committee (MEPC) in 1998 when Norway proposed to add the topic to IMO's agenda. The issue has since been on the agenda at every committee meeting, and a correspondence group (CG) was established at the 44th MEPC session in March 2000; its role consists in:

-Identifying all stakeholders and their perceived roles during

the life-cycles of a ship.

- -Identifying and elaborating on the role of the IMO in ship recycling.
- -Identifying the existing international, national and additional industrial and/or the relevant standards/guidelines, which possibly apply to ship-recycling within the role of IMO.
- -Recommending possible courses of action for further consideration by the Committee, and to identify the pros and cons associated with each option.

The perceived role of IMO is an overall responsibility for coordinating issues associated with ship-recycling and responsibility for monitoring issues arising during ship design, building and operation which may have an impact on recycling, including preparations for recycling on board.

At its 47th session in March 2002, the MEPC "agreed that IMO, for the time being, should develop recommendatory guidelines to be adopted by an Assembly resolution. The MEPC agreed to use as a basis for the guidelines the "Industry Code of Practice" [see below]" ²¹

A working group met during the session and developed the draft outline of IMO guidelines on ship recycling. In the long-term, the IMO is expected to draw up plans for preventive measures through the development of new building techniques and the use of environmentally sound materials. Since ships are no longer technically considered as ships once beached, IMO and Basel have agreed for the present that IMO will continue to regulate ships in all circumstances on the seas and in ports, and Basel will regulate international transportation of wastes that ships generate during the process of recycling.

As we have seen, IMO has a crucial role in implicating the responsibility flag states in the safe scrapping of vessels. Its relative powerlessness in enforcing compliance with its conventions and regulations shows, however, that stronger mechanisms have to be put in place and other institutions involved, to regulate shipbreaking and in particular to force all flag states to enforce international standards.

ILO:

The ILO covers workers' occupational health and safety issues, left out by the two other bodies. The 279th session of ILO's Governing Body in November 2000 endorsed the

conclusion of the tripartite Meeting on the Social and Labour Impact of Globalisation in the Manufacture of Transport Equipment stating that "as a first step, the ILO should draw up a compendium of best practice adopted to local conditions leading to the preparation of a comprehensive code on occupational safety and health in shipbreaking, and that governments should be encouraged to require ships to have an inventory of hazardous materials on board that is updated throughout the life of the vessel".

Basically, the ILO's responsibility is to establish standards of operation for the shore-based activities involved in shipbreaking, i.e. to set norms and standards on working conditions on and around the ship once it is beached. A vast number of already existing ILO Conventions, Recommendations and Codes of Practice could be applied to deal with occupational safety and health issues in the shipbreaking activity²².

Preliminary research has begun on developing a Technical Guide on safety in the shipbreaking industries, in line with ILO's code of practice on occupational safety and health Management Systems. A draft of the guide will be tested throughout 2002 and finalised in 2003.

(ii) Voluntary initiatives by the shipping industry

The International Chamber of Shipping (ICS) took the initiative to establish an "Industry Working Party on Ship Recycling" (IWPSR)²³ in February 1999. The IWPSR established an Industry Code of Practice on Ship Recycling in August 2001. This Code of Practice is the basis for the IMO's own guidelines. It is aimed at the ship owners, and encourages for the present all shipping companies to "initiate and complete a programme to identify and record, as far as is practicable, on each of their existing ships, any potentially hazardous material", as well as to "make every effort to minimise the amount of potentially hazardous materials on board the ship". For the future, it seeks to encourage naval architects and shipbuilders to take due account of the ship's ultimate disposal when designing and constructing a ship, and suggests the creation of a "green passport" for new ships²⁴.

Here too, the voluntary and non-enforceable nature of these guidelines seriously weaken their ambit and potential effect.

^{3.} The certificates include (with some variations depending on the type of ship): international tonnage certificate; international load line certificate; intact stability booklet; damage control booklets; minimum safe manning document; certificates for masters, officers or ratings; international oil pollution prevention certificate; oil record book; shipboard oil pollution emergency plan; garbage management plan; garbage record book; cargo securing manual; document of compliance and safety management certificate.

^{4.} Likewise, the US Oil Pollution Act of 1990 mandates the replacement of single-bottom oil cargo ships in the next decade.

^{5.} This is not true of China, which is building modern graving dock facilities, notably for VLCCs and ULCCs, near Shanghai.

Where do the "floating dustbins" end up?

- 6. US Maritime Administration.
- 7. Paul J. Bailey, "Is there a decent way to break up ships?", ILO discussion paper, 2000.
- 8. For an in-depth study of the dangers and hazards of shipbreaking, see, among others, Greenpeace, Steel and Toxic Wastes for Asia, March 1999, and ILO, Shipbreaking, background paper prepared for ILO's sectoral activities programme by A. Rahman and AZM T. Ullah. 1999.
- 9. Report on Ship scrapping, Directorate for Science, Technology and Industry Maritime Transport Committee of the OCDE, September 2001, p. A8.

 10. UNEP, Technical guidelines on environmentally sound management for full and partial dismantling of ships draft, report No. Apr/TWG 20, p.11.
- 11. E/CN.4/2000/50/Add.1, § 60, p. 18.
- 12. The ICESCR does not place any particular obligation on any one country to provide aid to another, nor does it require any particular policy choice. However, it does require that the state parties to the Covenant individually and collectively take necessary actions consistent with the Covenant to ensure, as stated in the UDHR, that international co-operation and assistance be directed towards the establishment of a social and international order in which the rights and freedoms set forth in the ICESCR can be fully
- 13. Prof. N. Wijnolst, Action Plan for the World maritime Industry and the Indian ship recycling Industry, Delft University of Technology, Dutch Maritime Network, January 2000, p. 9.
- 14. Cases C-206/88 and C-207/88 (Vessoso and Zanetti).
- 15. Prof. Geir Ulsfstein, Legal Aspects of scrapping of Vessels A study for the Norwegian Ministry of Environment, March 1999, p. 7.
- 16. E/CN.4/2000/50/Add.1, § 59, p. 18.
- 17. The 1972 London Convention monitors the disposal of ships at sea and encourages recycling as the preferable option. The London Convention Scientific group has developed criteria for disposal at sea.
- 18. The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) entered into force on 25 March 1998. Its parties are the FU members and Switzerland
- 19. Prof. Geir Ulsfstein, Legal Aspects of scrapping of Vessels A study for the Norwegian Ministry of Environment, March 1999, p. 17.
- 20. UNEP, Technical guidelines on environmentally sound management for full and partial dismantling of ships draft, report No. Apr/TWG 20, p. 15.
- 21. IMO, MEPC, 47th session, 4-8 March 2002. See www.imo.org
- 22. Among which Conventions n° 119, 127, 139, 148, 155, 161, 162 and 170.
- 23. The IWPSR consists of the following organisations: Baltic and International Maritime Council (BIMCO); International Association of Dry Cargo Shipowners (INTERCARGO); International Association of Independent Tanker Owners (INTERTANKO), International Chamber of Shipping (ICS) International Tanker Owners Pollution Federation (ITOPF), Oil Companies International Marine Forum (OCIMF) and a trade union, the International Transport Workers' Federation (ITF).
- 24. For the complete code of practice, see www.marisec.org/recycling/

III. CHITTAGONG (BANGLADESH)

1. Introduction

Lying south of the Himalayas and bathed by the Gulf of Bengal, Bangladesh has two natural environments, one vertical and one horizontal, both of which are punishing. From the Himalayas, billions of cubic meters of water and sediments are borne directly into the country by the Ganges and the Brahmaputra, feeding seasonal floods that are a disaster for the population. This land, some of the lowest-lying and flattest on the planet, is also exposed to the waters of the Gulf of Bengal. Cyclones and tidal waves, accompanied by torrential rains, regularly swamp the seaboard, claiming tens, even hundreds of thousands of lives.

Ironically it was one of these cyclones in the 1960s which sparked the beginnings of one of Bangladesh"s most thriving industries, shipbreaking. During that storm a large freighter was stranded off Chittagong. Stuck in the sand and rendered useless, it sould not be towed. The only solution was to remove this steel reef by dismantling it in situ. Wrecks were increasingly abandoned along the southern coast of the country in the wake of the India-Pakistan conflict (which preceded the partition of Pakistan and the founding of Bangladesh in 1971) and provided material for recycling. The first shipbreaking yard was set up near the wrecks. The war of independence also provided wrecks to feed the industry throughout the 1970s.

Following these tentative beginnings, the shipbreaking sector experienced a true take-off in the 1980s. Businessmen involved in the industry imported more and more ships. The growth was also supported by the countries that traditionally harbor wrecks (United Kingdom, Spain, Scandinavian countries, Brazil, Taiwan, South Korea) wanting to get rid of an industry which was not in compliance with the new environmental protection standards which had been tightened. It therefore made sense for the shipbreaking industry, which had become too dirty and unprofitable for some countries, to move to the poor countries, and Bangladesh bit by bit began to play a preponderant role.

In Bangladesh, businessmen who have invested in recycling think of the 80s as the golden age. At the time, although there was already a substantial body of legislation, particularly respecting industry, the owners of the shipbreaking yards took advantage of the laisser-faire climate.

"It was something of a mysterious business," says journalist Murtaza Ali. "The Customs authorities didn"t know how to treat

this new type of import. Importing a wreck to dismantle it was not something covered by the legal framework the Customs worked under. How could you allow in a product that isn"t really a product, which is intended for destruction?"

At the time, more than sixty shipbreaking yards were taking tankers and container ships apart, but paying no taxes or levies. Nor was there any oversight of the yards. The new industrial sector was also preyed upon by shady businessmen who bought ships for millions of takas using government (subject to corruption) loans and then disappeared with the loans.

As time went on the banks began to be more careful and the government began to tax the industry. The huge profits and scams of all types of the 1980s gave way to a less anarchical, more controlled activity. Within a decade or so the number of operating shipbreaking yards was reduced by two-thirds and today there are only about twenty left.

Despite this change, the shipbreaking yards remain an industry apart in Bangladesh. An activity which employs more than 100,000 blue and white collar workers for which it is impossible to obtain statistics, a dirty and dangerous industry which prefers to keep its secrets to itself and businessmen who generally consider themselves to be above the law.

In May 2000, the explosion of the tanker TT Dena called attention to the very dangerous nature of these yards. The death of several tens of workers caused such a shock that the shipbreaking yards were unable to keep silent. An investigating commission was set up, much attention was paid to the matter by the press, NGOs and trade unions spoke out against working conditions and environmental damage, and the owners of the yards were forced to take a different tack.

Two years after the accident - which is unfortunately not the only one in the history of the yards - the first encouraging signs of change, albeit tentative and small-scale, are appearing. But the task to be accomplished remains enormous and amounts to squaring the circle: how can an industrial sector that the country needs be reorganized to make it clean and safe without making it less profitable? How can one make sure that the only "steel mine" in Bangladesh can continue to operate without ravaging the coast and exploiting its workers to the point of sometimes killing them? Ultimately, how can a compromise be found between what is unacceptable and what is indispensable?

1. Organization and goals of recycling

A. Final destination, Chittagong...

Shitakundu, a few kilometers north of Chittagong on the Bay of Bengal, is where the ship recycling industry is concentrated.

Chittagong is the country"s largest commercial port and much of its industry is also located in its outskirts. The shipbreaking industry gradually established itself over the years in the area surrounding this industrial zone. From Baro Aulia to Bhatiari, over more than ten kilometers of coastline along the main Dhaka-Chittagong highway, there is one yard after another. There are more than sixty, although today only just over twenty are still in operation. Beyond the weather and wars that supplied the first wrecks for recycling, there are several reasons why the shipbreaking business has located along this coastline..

The first is geological: the coast north of Chittagong is an ideal setting for beaching ships: large beaches, flat terrain and above all very high tide coefficients which facilitate beaching of the ships close to the dismantling facilities.

The second factor has to do with the major industrial facilities located nearby - especially the rolling mills which are an essential outlet for the steel of the dismantled ships.

On average, according to Zafar Alam, President of the BSBA (Bangladesh Ship Breakers Association), "the operating shipbreaking yards dismantle a total of 70 ships per year," i.e. 3 or 4 ships per yard. This amounts to 5 to 6 million tons.

The number of ships dismantled is much lower than that of India"s Alang shipbreaking facilities, the largest such site in the world, but the size of the ships is often greater. The Shitakundu yards recycle tankers and cargo ships of 100,000 tons and more, whereas the yards in Alang are in general smaller in area and therefore handle ships on the order of 30,000 tons.

At Shitakundu, apart from their size and the size of the wrecks, the shipbreaking yards all resemble each other. Behind perimeter walls often topped by barbed wire, which can only be entered after a security check, hundreds and even thousands of workers are busily taking these giant ships apart. Over about ten kilometers in the country"s only "iron mine", cutters, carriers, fitters, pullers, pushers work virtually without mechanical tools. Only a few old winches in disrepair

have been taken from ships and set up again on land to provide mechanical power. Individual gas bottles are strewn around the yards to enable cutters to cut the steel. There is apparently no division of the shipbreaking yard into areas where different tasks are performed.

The workers are all engaged in dangerous physical labor, but the overwhelming majority of them wear no particular protective gear and many of them work barefoot. Helmets, goggles, gloves, boots and work suits are reserved for the privileged few, most often the cutters. The ground is strewn with steel scrap and all sorts of other materials. Pollution is visible and breathable everywhere. Masks are non-existent.

There are no statistics so an evaluation²⁵ of the number of laborers working directly at the Shitakundu yards can only be estimated at between 25,000 and 40,000. And at least four to five times that number work indirectly in the recycling business or depend on it for their livelihoods.

The business doesn"t stop at the gates to the yards and the yards are in fact only the most visible aspect of the recycling industry. The Dhaka-Chittagong highway lies less than a kilometer away from the yards and the entire stretch of road from the city limits to Bhatiari is dedicated to recycling. The smallest part or bit of the ships is sold in specialized shops. Plumbing, kitchen equipment, dishes, canned goods and food stores of all sorts, furniture, cables and electrical wiring, life preservers and even lifeboats, paint and other ship maintenance products, flags and navigation manuals, engines and boilers, etc. Alongside the road, the steel part cutting operations continue. Dangerous materials that cause pollution are stored out in the open: glass wool, asbestos, oil residues, etc.

The most insignificant object, the smallest part of a ship is recycled or resold as such. On the other side of the highway there are several hundred rolling mills with multicolored Tata trucks going in and out all the time with their loads of steel plate. Here, too, are the cement works, jute plants and other factories, many of which were closed in recent years when metal rolling became the main industry in the area.

B. The dismantling process

The shipbreaking process starts a long way from the Bangladesh coast. The tankers, container ships and other cargo ships are bought in Singapore and from there set our on their last crossing to the demolition yards. As soon as the ship is purchased the clock starts to tick for the owner who must

have it dismantled as fast as possible to recover his investment, which can amount to millions or even tens of millions of dollars. Every day"s delay means high interest charges to be paid to the bank.

(i) Selection and purchase of the ship

The owners of the Bangladeshi shipbreaking yards are kept abreast of the ships to be sold for scrap by brokers operating from London, Dubai, Singapore and Hamburg. The owners then make their selection. To do this, they have to get as much information as possible about the type and origin of the ships on offer.

All ships are sold by the ton, at a price ranging from 110 to 150 dollars depending on the market price. But after more than 20 years in service, their condition varies considerably depending on their origin and maintenance. Zafar Alam, the President of the BSBA, says, "Russian ships are less good because of the grades of steel used and the maintenance over time. On these ships, there is a loss of 20%, whereas the loss is only 5 to 10% on European ships. In terms of the steel, all ships are sound and have a design life of 25 years. The difference lies in the maintenance."

Owners also factor in any valuable alloys such as copper, and at the condition of the machinery which in the best of cases can be re-exported.

As a rule, three types of ships are bought by Bangladeshis: tankers, cargo ships and container ships.

Usually the owners of the shipbreaking yards buy their ships separately, but in 2001, a sudden rise in the price per ton (to 180 dollars) caused them to organize within BSBA to negotiate a lower price. The scheme was quickly abandoned since, as one yard owner put it, "BSBA was unable to get what the owners wanted."

Owners use bank loans to pay for the ships which can cost up to 20 million dollars.

Bangladeshi owners always buy ships anchored in Singapore or neighboring countries such as Thailand, Sri Lanka and India, because they are close to Bangladesh and this reduces transport time and the associated costs.

(ii) Transport

With a minimum crew the ship then sails from Singapore or one of the other ports in the area to the coast of Bangladesh. It takes about two weeks to complete the journey and according

to a yard owner in Shitakundu, if there is a delay the seller will be obliged to pay a penalty of one dollar per ton per day.

Once the ship arrives in the Gulf of Bengal, the ship is anchored in international waters off Chittagong and the first administrative steps are set in motion.

(iii) Administrative procedures

Administrative procedures applying to the import of ships for recycling have changed substantially over the last 30 years. The first importers did not even require a permit to beach ships on the Bangladesh coast, but today they must obtain permission from a number of different authorities and pay an import duty.

The Explosives Department issues a gas-free certificate after theoretically²⁶ having inspected the ship.

The Navy inventories and confiscates all sensitive equipment (radar, electronic navigational equipment, telecommunications equipment, etc.). No compensation is paid.

The Customs inspect the ship and its cargo and collect the import tax, set at 2,200 takas per ton.

Finally, once all the administrative formalities have been completed (which according to a number of owners who were asked about it can take about a week) the Chittagong Port Authority issues a permit for the ship to enter territorial waters and be beached. The ship"s captain puts the ship in position off the coast and waits for the ideal time to perform the beaching maneuver.

(iv) Beaching operation

Beaching operations depend directly on the tides. Shipbreakers always wait for the full moon, with its very high tides, to begin the maneuver. Where possible, they prefer to beach in the rainy season, when tide coefficients are highest, rather than the wintertime.

The crew is placed under the orders of a Bangladeshi specialist in beaching who, at the proper time, drives the ship at top speed onto the beach along a channel marked by colored flags to bring the ship to the place set for its dismantling.

The ship must be placed in this exact position and above all come to ground as high up on the beach as possible to facilitate dismantling operations. "Beaching has a crucial impact on the final cost," says Zafar Alam, President of the

BSBA. "The time needed for dismantling can be doubled if the beaching operation is not successful."

(v) Visit by buyers and first sales

Once the ship has been brought to rest, and following a religious ceremony called "Milad Mahfil" which is organized by the shipbreaking yard owner, several hundred potential buyers then board the ship. Each inspects the ship for what is of interest to him, assesses the value and makes a bid. "Electrical equipment, furniture, spare parts, compressors, engines and machinery, cold room, provisions of all types, chemicals, boilers, valves and exhaust pipes, lifeboats, cables, sinks, toilets, television sets, fans, paint, etc. - there are about 40 types of buyers," explains a buyer. "The price can be negotiated by the ton or alternatively - and this applies especially to furniture and kitchen fixtures - the buyer pays a flat rate, buying the kitchen, all the furniture, or, for example, all the plumbing for a fixed price agreed with the owner."

Rafik Uddin specializes in kitchen equipment buys all the equipment of a ship for an amount ranging from 70,000 to 200,000 takas, while a furniture buyer pays, on average, 700,000 for all the ship"s furniture.

"We look closely at the ship"s log to see when and by whom the ship was built," says another buyer. "German, Japanese and Canadian ships are the best whereas Russian ships do not sell well."

Ultimately the goods go to the highest bidder; and then the dismantling process starts, the first step consisting in removing everything that can be removed from the ship before cutting operations begin.

(vi) "Cleaning"

Before cutting gets under way, the owner of the yard must obtain a second gas-free certificate for the entire ship, which is to guarantee safe working conditions for laborers. In actual fact, the second inspection which is supposed to be carried out after the ship is beached is, like the first one performed at sea, often virtual.

Cleaning operations are more real, albeit only partial, and are carried out by workers in a very rudimentary manner.

Oil tankers and to a lesser degree other ships that are beached constitute virtual time bombs filled with gas and other hydrocarbon residues, but workers in charge of cleaning them have no training or scientific support. Using only their sense of smell, their experience and their luck to ward off disaster, they cut openings with gas torches to vent the gas and let light in so that they can work inside the ship. The openings at the bottom of the hull are also there to let seawater in (at high tide) which will theoretically wash out the residues - into the sea.

It is during this first phase of work prior to cutting proper that the risk of explosion is greatest.

(vii) Cutting

Cutting takes place at two levels. First, the wreck, on which teams of cutters work their way back from prow to stern, cutting the ship into slices that are then pulled up to the land. There, other teams of cutters, fitters, pushers, pullers, carriers, sweepers, etc. gradually reduce the tens of thousands of tons of steel to plates and pieces.

The main, and virtually only, technology used for cutting is the gas torch. The fuel is a Liquefied Petroleum Gas mixed with oxygen to increase the pressure and accelerate cutting operations.

For three to six months, depending on the size of the ship and the quality of the beaching operation, hundreds of laborers work, often around the clock, to recover the smallest part, the smallest piece, for sale.

C. The players

(i) The owners and the BSBA

The shipbreaking yard owners are businessmen who are often involved in other industrial activities, sometimes related to ship recycling. Some of them have also invested in the rolling mills. They are not present at the yards but manage their businesses from Chittagong.

The owners belong to the Bangladesh Ship Breakers Association, or BSBA. This is the only entity whose goal is the recycling of ships. Obviously the BSBA serves the interests of the yard owners without taking into account those of the other players in the industry. Neither government institutions nor, much less, unions, have an equivalent structure.

The BSBA's role is especially important because the recycling yards have now become the country's only source of steel. The association can therefore impose its prices on the rolling mills, and also apply quotas to production in the yards to forestall overproduction and a decline in the price per ton. Furthermore, with its substantial economic importance due to the fact that the yards ensure the jobs, directly or indirectly, of more than

100,000 people, the BSBA dictates its own laws to the authorities more often than it complies with the laws of the country.

In recent ties the BSBA, realizing that the ship breakers have a poor image, has been taking an interest in the working conditions of the laborers. The association agreed to attend an ILO seminar in 2001 and has promised to build a hospital to treat injured workers.

(ii) Managers and contractors

On site at the yards, where the owners are rarely to be seen, management is handled by managers and "contractors" who are responsible for operations from the time the ship is beached until the trucks leave with their loads of materials and equipment for resale.

The managers report directly to the owners who appoint them. They have overall responsibility for the yard. "Contractors", for their part, obtain a concession from the owner which involves the dismantling of all or part of a ship in exchange for a sum of money agreed in advance.

Contractors are in charge of hiring (through foremen) the workmen needed. Therefore the workmen have no relationship, either legal or physical, with the owners.

(iii) Henchmen and organized crime

Most of the yards in Shitakundu are surrounded by a galaxy of henchmen and other groups of criminals who are ostensibly there to protect the recycling activity but who obviously also gain from it. There are men who are there to chase off unwanted visitors, i.e. journalists, union people or NGO members. They are also able to put down the first stirrings of any worker protest against, for example, non-payment of wages. According to the president of the local of the Jatio Sramik Jote union, A.M. Nazimuddin, it is the contractors who are the link between the yards and local petty criminals. "The contractors are people from around here with links to organized crime. It isn"t the owners who choose the contractors but the local criminals who force the owners to take on their people as contractors. This criminal activity surrounding the recycling yards is specific to the sector. There is [in Bangladesh] no other legal economic activity in which business and crime are so interconnected."

The control of the criminal groups over the yards is so strong that they sometimes move from "protection" to "extortion". A journalist, Khasru, who was himself a victim²⁷ of these criminals explains: "Actually, under normal circumstances the henchmen are used by the shipbreaking yards but in certain

cases the situation deteriorates and they turn against their "employers". They can, for example, block off the access road to the yard to prevent the sale of oil to potential buyers, and then buy the oil themselves at their own price. These henchmen are protected by the political parties."

The yards are also regularly victimized by dacoits (delinquents), as one owner explains: "We have problems with thieves. We informed the authorities but they did nothing about it. We want a coastguard. We are protecting ourselves with our own security system. Some of the thieves are armed and when our security people run into them they cannot prevent them from stealing. We lost a lot of money with the thieves."

(iv) Laborers and employees

Because no machinery is used, the Bangladeshi yards use a very large number of laborers. Where western shipyards would dismantle a ship with a handful of skilled workers and appropriate technology, several hundred workers are needed in Shitakundu - they have no qualifications and their main advantage is their numbers.

The yard employees, who work mainly in administration and security, earn a salary, while the workers are day laborers who are generally paid twice a month.

Most of the workers - about 95% - come from the poverty-stricken northern districts of Bangladesh such as Kustia, Tangail and Sherpur. They are virtually all illiterate and come from rural families. The others, who come from the area around Chittagong, hold more skilled jobs, mainly as cutters and fitters. They also hold the supervisory positions.

There is no minimum age in the shipbreaking yards and there are many children working there.

There are six categories of workers in the yards:

- The cutters work with gas torches. This group is divided in two sub-groups, the first working on the ship, the other on shore. These are the most skilled workers, and the best paid, but they are also (those working on board the ship) the most exposed to the risk of explosions, which are frequent.
- The group of fitters who operate on board to remove everything that can be removed before cutting commences.
- The group in charge of chains and cables moves parts of the ship, especially with winches, from the point where the ship was beached to the worksite.
- The group in charge of oil empties the ship of remaining fuels and hydrocarbon residues (in the case of tankers) and stores them.

- The group of "sweepers" removes mud from all slices or segments of the ship after they have been dragged tens of meters inland.
- The group of loaders is in charge of the last stage of the dismantling operation: carrying steel plates and other pieces of the ship and loading them on the trucks that deliver them to buyers.

Every group takes orders from a foreman who takes orders from the "contractor". For certain types of job, especially loaders, the group will also have a crew leader called a maji. The foreman plays a crucial role as far as the workers are concerned because he is in charge of hiring and firing. The foreman does not participate physically in the work, but the maji does. The maji also shares the living quarters of the workers for whom he is, in a way, responsible. In case of financial or medical difficulties, he finds the solution. For example, says one worker, "if one of us is hospitalized and it costs 10,000 takas, the yard pays 2,000 takas and the maji finds a way to pay the rest. If medical treatment is too expensive the maji can also send the worker back to his village." Finally, explains trade unionist Salimullah Salim, "the majis come from the North, like the workers with whom they share their day-to-day lives, whereas the foremen mostly come from the area around Chittagong."

Workers have no organization or association to represent them and defend their rights.

(v) The authorities

A large number of ministries, departments and other government agencies are involved in the dismantling and recycling of ships.

These include the Ministry of Ports and Maritime Transport, the Ministry of Industry and Commerce, the Ministry of Labor and Employment, the Department of Customs, the Bangladesh Navy, the Chittagong Port Authority, the Department of Environment, the Department of Explosives, the Bangladesh government radio communications oversight authority, the fire department, the police, etc.

Despite the size of the industry and its dangerous and polluting nature, there is no government institution or specific structure to coordinate the jurisdictions of all the different authorities involved.

(vi) Banks and buyers

The banks play an essential role in the recycling activity because without credit it is virtually impossible to buy a ship costing millions of dollars. At the other end of the chain are the buyers, especially the rolling mill owners who are today completely dependent on steel from the ships.

(vii) International institutions and NGOs

Outside the recycling industry proper, but nevertheless stakeholders, are a number of international institutions including the ILO, the IMO and UNEP²⁸.

In addition a number of NGOs are very interested in the industry, focusing especially on working conditions in the case of the Bangladesh Institute of Labor Studies (BILS) and the Bangladesh Environmental Lawyers Association (BELA), and on the environment in the case of Greenpeace.

D. The economic stakes

Despite the lack of precise figures and statistical data it is possible to identify the crucial economic stakes which the shipbreaking industry represents for Bangladesh. While recognizing that the industry is very often dangerous and that causes pollution, most of the people we spoke to drew attention to the industry"s importance for the country, in three different areas: steel production, recovery of equipment and machines which can otherwise not be obtained in Bangladesh and the creation of tens of thousands of jobs, most of them for impoverished northerners. Finally, the government also benefits from an industry which is subject to increasing taxation.

According to the president of BSBA, Zafar Alam, the recycling industry depends on both the price of the ton of steel paid for in purchasing the ship (which fluctuates between 110 and 150 dollars, on average) and on the local market, notably the demand for steel. Thus, when there is a slowdown in the construction sector, demand for steel drops and the shipbreaking yards are directly affected.

According to a yard owner interviewed in 2000, the cost of recycling a ton of steel breaks down as follows: approximately 7,500 takas (150 dollars) at purchase, to which 2,000 takas in taxes must be added (2,200 takas in 2002), 700 takas in wage costs and 200 takas in administrative costs. Ultimately, the owner estimated, the overall cost of a ton lies somewhere between 10,500 and 11,000 takas. It will be resold, depending on the price, for between 11,000 and 18,000 takas.

(i) Steel production

With the closure at the end of the 1990s of the last remaining steel mills in Bangladesh, the recycling yards were handed a monopoly and have now become the only suppliers of "raw material" to the rolling mills. These are located near the yards and also in the Dhaka area and they produce 1.8 million tons of steel reinforcing bars for use in construction every year.²⁹

"In the Bangladesh context, the recycling yards are a very lucrative business," says a trade unionist. "We no longer produce steel, and the yards are of crucial importance. Their owners can sell steel for recycling at a high price."

And the BSBA is not shy about using its monopoly. An owner of a rolling mill says: "Six or seven months ago, the BSBA set the price of steel resold to the plants without asking the rolling association their opinion. The price we pay for steel is higher today because the yards have to pay more for the ships. We depend entirely on the yards, and we have no negotiating clout because we have no alternative source of steel. Today we are buying steel from the yards for 13,000 takas a ton and selling it for 17,000 takas a ton."

When the business cycle turns down and prices drop, the BSBA can do what OPEC does for oil, and cut back production. "After September 11, steel fell to 11,000 takas per ton and the BSBA decided to control the market by introducing a quota system and getting the association to buy the ships," explains a yard manager. "Today, I sell steel for 12,500 takas a ton. The yards stopped selling steel for awhile because they had bought the ships at the high price, 170 dollars a ton, and were obliged to sell at a loss. At it"s highest price, during the winter of 2001, steel was selling for 18,000 takas a ton." Ultimately the BSBA gave up the joint ship purchasing arrangement but the production quota system is still in use in 2002.

(ii) Re-export, recovery and recycling

The most valuable materials and machines are re-exported, while the less profitable parts of the ship are sold on the Bangladesh market. "We re-export, mainly to Greece, certain generators, engines or other mechanical systems that are still in working order. Valuable materials like aluminum, copper and brass are re-exported to Canada," says the President of the BSBA, Zafar Alam.

More important for the Bangladeshi economy than the profitable re-export business, shipbreaking makes it possible to "import" materials, equipment and technologies which are not commercially available and would have to be imported at prohibitive prices and lead times.

We sold mixers, deep-fryers, an ice maker, toasters, and such things to the Dhaka Sheraton Hotel," says an owner of a store specializing in kitchen appliances. "If the Sheraton wants to buy new equipment, it has to import it and that means obtaining a permit and also wasting a lot of time," he says. "Our appliances are not guaranteed, and we don"t take anything back. But if there is a big problem, I send my technicians. "Sitting in a forest of giant beaters, refrigerators and all sorts of kitchen utensils he concludes: "Fast-food restaurants and Chinese restaurants remain my best customers."

In a store selling spare parts (spring hooks, pulleys, etc.) the salesman defends the ship recycling industry: "The yards are very important because they enable us to sell quality products that we could not produce ourselves and would otherwise have to pay 4 or 5 times the price for. And importing these products would cost too much." He adds: "For spare parts, there are a lot of new goods on the ships. The structure of a ship arriving in Chittagong is twenty years old but not the parts that are used for repairs or for navigation. In the onboard workshops you can find a lot of parts that are still new. " His main customers are in the construction sector.

Ultimately, even the smallest part of a ship will be sold. Up to and including the scrap metal that brings in a few takas a kilo.

On the Dhaka-Chittagong highway adjacent to the yards, there are also numerous furniture stores. They buy the furniture from the ships and either restore it or use the wood to produce new furniture which is sold on the spot or in Dhaka. And the scraps of wood that are not used are sold as firewood for two takas a kilo.

As far as they are concerned, the fact that their "goods" are recovered from ships is a selling point. Not so long ago you could see in the capital of Bangladesh furniture stores with large signs boasting of the origin of the merchandise. Not only does recovery from ships bring in materials that are otherwise virtually unobtainable on the domestic market, it also advertises the products.

The yards have drawn entrepreneurs by the thousands. The financial spin-off and the opportunities for commerce are so numerous that new stores keep sprouting up along the Dhaka-Chittagong highway. But the new business is also a challenge and countless stores have closed. "I lost a lot of money on recycling," explains the owner of a furniture store. "We buy goods from the ship with cash, and re-sell them on credit. It isn"t easy to get your money back." Today, he has branched out into raising chickens.

Recycling can be dangerous because materials are involved that can be tricky to handle or highly toxic. "The most profitable thing on the ships is the oil since it is re-sold very quickly," explains journalist Khasru who has published a number of investigations on the subject. According to him, many residues are used illegally to "dilute" lubricants.

Another dangerous material, glass wool, is to be seen everywhere on the side of the road lying around in yellowish slabs. Here too, economics takes precedence over the risk to the individual or the environment. "Glass wool imported from Denmark costs more than 400 takas a kilo, whereas what we recycle can be had for 20," says a salesman, to justify the practice.

Asbestos, even more dangerous, is reduced to powder by workers who have no protection and often work outdoors, between houses, stores, and chicken coops. Recycled asbestos is easy to sell, especially since the production of asbestos was prohibited by the authorities in Bangladesh.

(iii) Job creation

With the more than 100,000 people working in recycling and around the yards, there are also the families of the workers, some of whom depend entirely on the income of a son or a husband who has gone to work on shipbreaking, and therefore several hundreds of thousands of Bangladeshis live off or profit from the dismantling of ships.

This has considerable economic impact in a country suffering from a recession, particularly in industry. "Industry is doing badly. Over the last twenty years, 40% to 50% of the factories, especially those producing jute and tobacco, have closed," says Osman Gani Mansur, head of the Chittagong office of the national daily Ittefaq. "The yards are today the only source of income for the poorest people. We need a viable industry. The problem is that if we try to improve the situation in the yards, and especially working conditions, the result will certainly be unemployment."

Even though he is critical of the recycling yards because of the pollution, Mohammad Reazuddin, head of the Department of the Environment, recognizes "the positive aspect of this industry which has generated business activity. The yards created a lot of jobs. It is the second largest industry in Chittagong after the commercial activity in the port."

The overwhelming majority of workers in the yards come from the poorest rural areas in northern Bangladesh and for them the main issue is survival and feeding their families. Working conditions, the health problems inherent in recycling, are unimportant by comparison.

"You can say that the recycling yards have had a positive impact on the region. Socially and economically, the region has gained a lot," says Nawshad Sayed from the NGO Christian Service Society. This Bangladeshi NGO supplied more than a thousand micro loans (amounting on average to 7,000 takas) to the population in Shitakundu, especially to women whose husbands and sons are working in the yards. The women invested in such things as small grocery stores catering to the workers in the yards. Others chose to use their loans to build small houses and rent them to the workers who migrate from the north. "All our customers come from the yards. Without them, our small businesses would not exist," says the owner of a shop who sells food and drinks right next to a yard. "Our stores made it possible for the village economy to develop, they made it possible for us to eat better. The profits also enable us to save for our daughters" dowries and to pay for the weddings. Our daughters can now also go to school and get a better education. With micro-credit, the situation has changed a lot over the last ten years, and most of the children are going to school."

The women interviewed may be afraid of a work-related accident, but they essentially see the yards as a positive thing. "I can"t think of bad things," says one of them. "The only bad thing I can imagine is the yards closing some day. Our entire economy would be ruined. We would have to go to the hills to look for work. If the yards close we will die."

Even the most critical who would like to leave the yards are prevented from doing so by economic uncertainty.

Without minimizing the unacceptable aspects of the ship recycling industry around Chittagong, especially the working conditions of the laborers, it is important to point out that the industry is indispensable for hundreds of thousands of people. The yards kill and pollute but at the same time they feed and foster development. This is a recycling economy.

(iv) The government's tax revenues

From a sector that was a loss for the Bangladesh government throughout the 1980s when national credit institutions saw millions loaned to shady businessmen disappear altogether, the recycling yards have now become a considerable source of revenues. Today, every year, the government collects some 5,000 million takas in taxes³⁰. The first is the VAT of 2,200 takas per ton paid as soon as the ship arrives. Then, for the last two years there has been an import tax on machines and

other on-board equipment. The same applies to fuel for which the tax is 15%. Owners have protested, since this has shrunk their profit margins.

"When we buy an old ship, we pay a tax on its initial value without factoring in the depreciation, for example to take account of the fact that its weight is no longer the same. And then we pay a tax when it is sold. So there is a double tax. For on-board machines and accessories, we have had to pay a new import tax for the last two years, even when the machines are not in working order."

"Finally, there is the fuel for the beaching. When the ships wait for two weeks offshore they use fuel. But the government takes 15% of the value of the fuel before beaching, and in fact taxes more than what is truly "imported," explains an owner.

It is true that the tax burden has increased for the ship importers, but it should be remembered that they have profited and are still profiting from the informal, even secret nature of their business which enables them to make considerable profits from hidden imports (machines and materials recuperated on board and resold).

2. Dangers and violations in recycling

One of the reasons why tanker and other large ship recycling relocated from shipbuilding countries like Taiwan and the United Kingdom to South Asia more than twenty years ago has to do with the nature of the work. Demolishing a tanker or cargo ship requires mechanical tools commensurate with the ship"s tonnage - tens of thousands of tons - and also numerous precautions to protect the environment and ensure the safety of the workers performing the demolition. These technologies and precautions have a cost which was deemed too high, given the profits generated, by the shipyards of the rich countries. On the other hand the countries of South Asia, first and foremost Bangladesh and India, replaced mechanical tools with human labor and used legislation that was ambiguous or not enforced to save on the usual precautions. The result was very lucrative for the shipbreaking yard owners and catastrophic in terms of working conditions: the ships to be recycled were not given a prior cleaning, there was a lack of proper tools, worker training and supervision were completely absent, there were major shortcomings in protective gear so that the risk was constant. And the danger was compounded by the race against the clock to reap a return on the money invested as quickly as possible.

No one disputes the fact that the shipbreaking yards are

useful and even indispensable, but the catastrophic conditions in which shipbreaking operations are conducted in Bangladesh are unacceptable, especially for workers and the environment. Accidents, fatal diseases, lack of worker rights and massive pollution are rife in an industry operating outside the law whose top management enjoys total impunity.

A. A high-risk industry

There have been thousands of cases of death and injury at the Chittagong yards. Over the last twenty years more than 400 workers have been killed and 6,000 seriously injured, according to the estimates made by several NGOs and the Bangladeshi media. The explosion of the Iranian tanker TT Dena on 31 May 2000 alone is said to have caused fifty deaths. To this toll must be added thousands of cases of irreversible disease which have occurred and will occur in future due to the toxic materials that are handled and inhaled without minimum precautions or protective gear.

An ongoing danger

"Our work is very dangerous. There is nothing in the shipbreaking yards that isn"t dangerous. There is always a risk, it is there all the time. Shipbreaking yards are dangerous," say some twenty workers interviewed outside the yards in June 2000. "There is the risk of explosion because of the gas, the risks of falling from the ship. On the tankers there are fires every day and sometimes there are explosions. If something happens, the only thing we can do is run. There are constantly little explosions but these are never mentioned in the press." All the workers interviewed agreed that a day does not go by without an accident. This is confirmed by a security guard.

"There is nothing good about this work. We are afraid all the time, but it is the only work I can get, otherwise I would have left," says a 21 year old carrier. "Why do I do this work? Because I couldn"t find anything better. I don"t have any land or children," adds a fitter. The feeling of having no choice is shared by most of the workers interviewed. "It"s this or nothing," says one of them. "Being together is maybe the only good thing about it."

Every single worker at the yards is exposed to the danger. Nevertheless the risks faced by workers are closely related to the tasks they perform. The most vulnerable appear to be the workers on board the ship, especially cutters.

The (on-board) cutters interviewed virtually all said that they were sick and obliged to take medicine for a variety of pains, respiratory problems or gastric disorders.

"When you work inside the ship you have more health problems. On shore they don"t have as many as we do," explains a cutter. The danger is greater when the cutters are working in a confined area from which the toxic fumes from the gas torch cutting operations cannot be readily vented. In addition there is a risk of explosion in any compartment of the ship where gases can accumulate, particularly in the oil tanks and the engine rooms. With his torch, the cutter is essentially an involuntary pyrotechnician and is in the front line when an explosion occurs.

On shore, the loaders who lift steel plates weighing more than a ton onto trucks are less directly exposed to respiratory disease (although the air they breath on shore, where all sorts of cutting also takes place, is also highly contaminated) and to the risk of explosion, but are highly exposed to accidents.

Carrying requires perfect coordination among the dozen or even score of workers who lift the plates together, one after the other, carry them, and lift them onto the trucks. Coordination is the responsibility of a man who chants a song to ensure that the workers move in totally synchronous manner. "Those who do the carrying have to be very careful because if a single one of them makes a mistake, all of them can be injured," explains a loader.

For them, the danger varies with the seasons. "The problem is rain. During the monsoon it is very hard to carry, whereas it is much easier in the wintertime. It is much more slippery in the monsoon," explains a worker who has been injured.

Another worker says: "We loaders don"t get wages by the hour like the other workers but are paid by the tons carried. During the rainy season we earn less because we can"t carry as fast. To earn the same salary as the others we have to work longer hours. But the longer you work, the more tired you get, and the risk of accident goes up."

1- Working conditions

Lack of precautions: focus on cleaning

The first and certainly the most important precaution should be taken prior to any dismantling is cleaning the ship. When cargo ships, container ships and especially tankers are beached at Shitakundu, they contain dozens of dangerous substances and materials. These can be residues from the cargo (especially in the case of tankers), fuels and lubricants for the ship"s engines or materials used in its construction. These must be removed or cleaned before any dismantling or a fortiori cutting with gas torches occurs.

Theoretically, under the Basel Convention (note: see first part), the cleaning of a ship starts with a crucial decontamination phase prior to sale. All toxic substances such as asbestos, lead, arsenic, PCB, TBT, mercury, etc. are considered hazardous waste and it is forbidden to export such waste from OECD countries. In reality, however, the ships beached in Bangladesh have not been decontaminated, and travel to Shitakundu as they would to any other ultimate destination. Only the crew is reduced to a minimum and a few valuable or symbolic objects have been removed.

Once the ship has been anchored off Bangladesh, its new owner must perform a first gas removal operation for which a certificate is issued. A second gas removal, together with gasfree certificate, is required once the ship has been beached. In practice, the two degassing operations are never thorough and at times are not performed at all, and certificates can be "bought" from the relevant administration.

The ships are therefore highly contaminated and contain large quantities of gas when the workers start to work. They are in fact doing the "cleaning" which should have been performed long before. But they have neither the training or the technical means to do it safely.

Rudimentary cleaning

"To clean tankers, workers cut windows in the bottom of the hull and let sea water (at high tide) in to wash out the hydrocarbon residues. Other openings can be cut to vent the trapped gases," says Judge Mohammad Harisuddin who headed a board of enquiry set up by the Bangladeshi authorities just after the explosion of the tanker TT Dena. "In Bangladesh there is no clean way to empty a ship of its oil residues. Residues are collected for re-sale if their quality is good enough. In some cases, residues are simply discharged to the sea. To clean tankers you need machines. In fact, it costs a lot of money to clean a ship and the shipbreaking yard owners don"t take the trouble to do it."

And when the cleaning does take place the techniques used are often makeshift and dangerous. In June 2000, the tanker Tanko blew up as it was being "cleaned". In an attempt to burn oil residues from the tanks, the yard management decided to light a fire inside the ship. This resulted in an explosion that was heard for miles around and blew out the windows of a neighboring yard. On the Dhaka-Chittagong highway, nearly two kilometers from the yards, the walls of a religious building several centuries old were cracked by the explosion. "All hell broke loose," says the owner of a small shop whose two

refrigerators, he says, were damaged by the explosion of the Tanko. Fortunately, and despite reports from a number of witnesses that there were deaths, this time there were no workers on board.

"That "cleaning" operation was performed with no skill at all," says Chittagong investigative reporter Syed Murtaza Ali. "Some even dared to claim that that was a Chinese method."

For Judge Mohammad Harisuddin, "The cleaning methods used are very primitive and it is when the openings are cut and other rudimentary degassing methods are used that the worst explosions occur. So what is needed is technical training. For the time being there is no procedural standard in Bangladesh covering the dismantling of a ship."

The workers have neither equipment or training and they also lack information about the beached ships.

A cutter: "When a ship arrives we don"t receive any particular instructions, we just go where we are told and start cutting based on our past experience. You know there is gas when your nose and eyes are inflamed. The hair on your arms also becomes very sensitive. Some use dogs and birds as test animals to avoid the most dangerous places. The ships that come in for beaching are supposed to have been checked and cleaned. We should know where there is gas and where there isn"t."

Lack of proper tools

Paradoxically, to dismantle ships weighing several thousand tons, mechanical power is virtually non-existent at the yards. Only a few old winches recovered from ships are used to drag slices of ships, and cranes (small in size and mounted on vehicles) are few and far between. Workers use cables and ropes from the ships, with no assurance as to their strength. The only cutting tools used on ships are gas torches and sledge-hammers.

To carry and steel plates weighing more than a ton and lit them onto the trucks, the workers have only their shoulders, on which they place a little piece of foam they have recovered which is supposed to dampen the load. Asked about improvements in working conditions, a barefoot loader wearing a worn-out T-shirt said he would like to work with a heavy shirt which would protect him better from the steel plates.

The lack of technology and machines are offset by the number of workers. Where a mechanized shipyard would use a dozen qualified people, several hundred workers are needed in Shitakundu.

Lack of training and technicians

Workers not only do not have the benefit of proper tools and machinery, they also suffer from a lack of competent supervisors and from a total lack of training.

When a new worker begins work in a yard, he is "apprenticed", as it were, to a more experienced worker. For several months or even in certain cases for several years, workers learn the ropes without receiving any technical training or any minimum knowledge about the composition and dismantling of a ship. They simply watch the more experienced laborers at work and copy what they do. Also, virtually all workers are unaware of the risks they run.

The lack of skills and training also affects supervisory staff. Foremen and crew leaders receive no training either. As for the contractors, all agree that they are recruited from the local population or imposed because of their connections, especially with the Shitakundu and Chittagong politicians and organized crime, and not because of their professional skills. They are motivated by short term profits only, and the working conditions and the risks of the workers are unimportant, even if in the long term accidents can be harmful to the yards.

Lack of protective gear

"In our yards all the workers have the same protective gear. All have hard hats, but they don"t use them, perhaps because of the heat." This is the official version put forward in June 2000 by Zafar Alam, President of the BSBA at the time. The reality in the yards is quite different. In actual fact there are few hard hats. As for other protective equipment - goggles, gloves, boots, etc. - it varies depending on the type of work performed. The lowest-paid workers are the ones with the least protection, particularly the carriers and those who handle oil residues, the overwhelming majority of whom work barefoot and without gloves. At the other end of the scale are the cutters, many of whom wear goggles, gloves, boots and hard hats. Some even have overalls.

A cutter working directly on the ships says, "To work, I protect myself with a hard hat, sun glasses, gloves and boots. I bought all this myself. The other cutters have different gear. The assistants, on the other hand, do not wear protective gear."

When it comes to wearing hard hats, the answers given by the workers are diametrically opposed to the statements made by the President of BSBA. A worker: "I have only one colleague

who wears one. But it is unusual. With our wages we can"t afford hard hats. It is not true that the management gives us hard hats, in fact they prefer to re-sell them." Another worker adds: "The owners say they gave the workers hard hats? Not to me, they didn"t. If they had, I would naturally have accepted it." There may be few workmen with hard hats in the yards, but there are a lot of hard hats for sale in the shops along the road.

As a rule, any worker who wants protective gear has to buy it himself, with one exception, the cutters, most of whom receive gloves from contractors which are changed every two weeks. A year after the explosion of the TT Dena in May 2000, the owners called the workers together and promised to distribute protective gear to them. As of the spring of 2002, this promise had still not been kept.

A cutter: "Despite the promises, we received no protective gear. It wouldn"t cost them anything because there is gear like that on board the ships [especially hard hats] but they prefer to sell it. I bought my protective gear on the road from a person re-selling products that came off the ships."

According to trade unionist Salimullah Salim, "when it comes to safety, especially gear, there has been no progress. The cutters and fitters are still the ones with the best gear. Gloves are handed out by the contractors only to cutters and fitters, the rest of the gear has to be bought by the workers."

Race against the clock

The insufficient or sometimes complete absence of precautions, suitable tools, training and protective gear is compounded by the need to work fast. The dismantling operation is a race against the clock for the owner who has contracted a debt amounting to millions of dollars and has to pay substantial interest charges every day that goes by. For the owner this means that once he has the ship it must be cut up and resold as fast as possible. For the workers this mean punishing speeds, and 10 to 12 hour days. It also means that shortcuts are taken with ship cleaning, or cleaning is virtually bypassed. The lack of time is a major contributing factor in accidents.

A spare parts buyer asked to comment at a yard where he has come to buy supplies mentions the explosion of the TT Dena. "They could have emptied gas from the Iranian tanker at sea, but every day lost costs money. Interest has to be paid to the bank. Or the TT Dena I think every day cost the owners more than 100,000 takas in bank interest. Everything has to be done fast, and for that workers have to die.."

Asked, in June 2000, about improvements needed in their working conditions, twenty or so workers answered: clean the ships and slow down the pace of work. One of them said, "When a ship comes in that should take six months to dismantle, the owners and contractors demand that the work get done in three months. It is this pressure that leads to accidents. They want to break up the ships as fast as possible to earn more money. We don"t count."

Lack of awareness of dangers

Until the accident on the *TT Dena*, nothing had been done to raise awareness of the hazards generated by this type of work. And the action taken in 2001 to do so following the tanker explosion was confined to a few reassuring speeches.

Workers talk about being afraid, and about the risk of accidents, but they seem not to have realized what risks they run. The lack of awareness is particularly pronounced when it comes to the toxic materials they handle and their exposure to a number of serious diseases. Unlike accidents, which are very visible and often traumatize those who escape, the irreversible diseases which kill workers slowly are invisible, as it were. Workers mention lots of daily symptoms, discomfort, pain, days of forced rest, but these are never enough to force them to change their behavior and above all to wear protective gear.

Given the economically uncertain conditions in which they work, the workers can hardly initiate changes in precautions, protection, safety, etc. Change has to come from the top, from the yard management. But here too, management is unaware and obsessed with short term profits, which preclude worker training and the provision of suitable protection.

2- Accidents and disease

The consequence of all these shortcomings, compounded by a clear lack of awareness, is that, according to workers interviewed, that not a day goes by without an accident. Because of a lack of transparency and government oversight, it is impossible to obtain precise figures on accidents and even more so on disease. The labor administration has no statistics, and doesn"t even have access to the yards, despite the fact that regular inspections are required by law.

Accidents

When an accident occurs, even though the law requires companies to file a report with the Ministry of Labor, the recycling yards in Chittagong never volunteer the information either to the authorities or to the press. It is only in the case

of a serious accident which they cannot keep quiet about that the heads of the yards deign to speak, and the information they provide is fragmentary and generally falls short of the reality. As a general rule an accident prompts the heads of the yards to close their doors to outsiders wanting to see what is going on and ask questions.

The only figures currently available are those from the investigation carried out by the BILS in 2000 for a limited number of workers and employees of the yards. According to the organization, which polled 197 people including 160 workers, 95% of cutters have suffered burns (minor or serious) to their hands caused by the flame from the torch. 99% of the "sweepers" and workers in charge of cables have suffered cuts to their legs and feet since they work barefoot. Finally, two thirds of the loaders have been injured while moving pieces of steel in the yards. Although the number of workers surveyed is too small to provide statistical certainty, the study does give a fairly precise and alarming picture of the accident situation.

Every worker questioned in our survey had a story of one or several workers injured, and fellow-workers from the yard who had died. One cutter said, "We see accidents very often, we hear about them every day. There are accidents every day."

Another carrier, lying on a hospital bed after suffering a broken leg when a piece of steel fell him during the explosion of the TT Dena says, "There is not an accident every day in my yard, but every week. In fact the "minor" everyday accidents don"t count as accidents as far as we are concerned. As long as it doesn"t put you in the hospital or keep you from continuing to work, you don"t consider it an accident."

Although the everyday cuts and burns are sometimes serious they are not enough to worry the workers by comparison with other types of accident. The first is falling objects. The low rate of mechanization means that workers for the most part have to throw cut pieces, often heavy pieces of steel, off the ship. The practice, and the fact that there are no closed-off work areas in the yards to prevent a worker from being in the wrong place at the wrong time, means that there are many accidents of this type.

The second type of accident, no doubt the most dangerous and the least predictable, is explosion and to a lesser degree fire. Explosions and fires are caused by using gas torches in confined spaces where toxic, flammable gases have built up. The workers at greatest risk are the ones most often killed and the others can be seriously burned or injured, for example by falling after having been blown off the ship by the blast.

A cutter says, "On 14 September 1999, my brother an I were on the MT Utina, we were cutting in the back of the tanker when there was a terrible explosion. My brother was killed immediately. I was thrown off the ship by the blast. Despite falling several tens of meters I was only injured. Once I had been treated, I went home traumatized to my village. For a year my parents refused to let me go back to the yards, Finally, despite the trauma, I left without telling them. My economic situation had become intolerable."

The explosion of the tanker TT Dena

The most serious accident, the one which has had the most impact over the last several years, was the explosion of the Iranian tanker *TT Dena* which occurred on May 31, 2000 at the Z.N. Enterprise yard belonging to businessman Shaukat Ali. According to Hasan Abkar, a reporter for the daily Azadi, who went directly to the site of the accident to investigate, "there were about 150 workers on the ship at the time of the explosion, seven or eight contractors and Liakat Ali, the brother of the yard owner.

As in most cases of explosion, the *TT Dena* had just been beached and had not been degassed. The workers were cutting windows in the hull to vent the gas and negotiations on the resale of parts of the ship were also taking place on board when the explosion occurred. The presence on board of the brother of the owner of the yard Shaukat Ali, who was himself involved in recycling ships, illustrates the lack of awareness of danger, even among the yard management.

On May 31, 2000, Hasan Akbar was told about the accident by a colleague who lived near the yards and was among the first to arrive at the scene. "I had to fight physically with the guards to get into the yard. We first tried to bargain. Then there were skirmishes. Actually, the management of the yard couldn"t keep the gate closed because they had to evacuate the injured. Finally I was able to force my way in with about twenty other journalists who were waiting in front of the gate with me."

He tells what happened then: "First I saw two bodies draped over the side of the ship. It was still burning and there was a lot of heat. The firemen had come to put out the fire with firehoses from shore. I also saw seven bodies on shore. At the time of the explosion the tide was in. The seven bodies had been pulled from the mud. The workers were thrown overboard by the blast and their bodies had sunk into the mud. In addition, a number of workers and inhabitants of the surrounding area that I talked to told me that the tide had carried a large number of bodies away."

According to the management of the *ZN Enterprise* and for the President of the BSBA, Zafar Alam, interviewed three weeks after the events, the explosion claimed about fifteen dead and injured about twenty people. Many question these figures.

"The official figures substantially understate the reality," says A. M. Nazimuddin, a trade unionist from the Jatio Sramik Jote (JSJ) union. "The yard claimed that 14 had been killed, we say 60. The workers told us that bodies were taken offshore and sunk with stones." And he explains why this lie was perpetrated: "Understating the number of dead makes it possible for the yards to avoid creating panic and a poor image for their industry. It also enables them to avoid paying compensation to the families."

This view is shared by many journalists, including Syed Murtaza Ali, the highly respected correspondent of the *Bangladesh Observer*. According to him, about fifty people were killed in the explosion but there is no way to check that figure because everything was cleaned up at the scene. He also believes that making the bodies disappear after an explosion is standard practice to avoid drawing attention and to save on compensation paid to the families of those who "disappeared".

Whatever the exact number of dead, the explosion of the TT Dena caused a shock in and around the yards. For once, the yard management was unable to clam up and wait for things to calm down. A board of inquiry headed by Judge Mohammad Harisuddin was set up to establish the causes of the accident, and journalists gave it widespread coverage; NGOs and unions also condemned the practices, dangerous for workers and the environment, which were routine in the recycling yards. By July, the government had organized training for supervisory staff in the yards to remind them, and at times make them aware of, the dangers inherent in recycling and the precautions that need to be taken and are in fact compulsory, such as degassing.

In 2001, the ILO held a meeting in Chittagong which brought together all the players in the shipbreaking industry, including those who for the time being are not even allowed into the yards, the trade unions. The BSBA also promised to improve working conditions and to build a 100-bed hospital in Bhatiari for the exclusive use of those injured in the yards.

"After the explosion of May 31, 2000, some first steps were taken to improve safety," says A.M. Nazimuddin, the JSJ trade unionist. "But in 2002, there is still no union, and the yards are patrolled by criminal gangs. The workers cannot organize."

According to a cutter who works on board the ships: "There are still fatal accidents. Three workers died recently [early January 2002] in a fire on a tanker. I have seen accidents and explosions several times. There are fewer people killed now but he number of accidents is the same. I regularly see accidents but just after the explosion of the *TT Dena* I have to say that I noticed a drop in the number. Two years later, the number has gone up again. I think the owners and the contractors realized that they were on the spot and under fire from the press and the government, so they tried to change. After the explosion of the *TT Dena*, the management realized that safety needed to be improved, but what was decided was not put into practice."

Disease

There is an even greater lack of information when it comes to disease, with disastrous consequences for the workers.

The symptoms of disease are less spectacular than accidents, but the diseases contracted over the years by the workers in and around the yards ought to be a matter of grave concern because their health impact is now, and will be in future, very serious. Yet so far no study has been carried out by the authorities to determine the health status of the 100,000 workers and employees who handle or are in close contact with toxic substances in and around the yards, including asbestos, PCB, oil residues, lead-based paint, etc.

There are countless dangerous materials and substances but workers are not trained or even cautioned about them. Also, most workers who are ill are in touch with local "healers" who give them medical treatment without having the qualifications of a physician to diagnose and provide long-term treatment for the diseases contracted.

The shipbreaking yards not only refuse to inform their workers about the dangers, they also refuse to recognize the problem. "There are no workers in the yards who have fallen ill because of the work," says Zafar Alam, President of the BSBA, without hesitation.

That view is hardly shared by everyone. Judge Mohammad Harisuddin, head of the board of enquiry, says: "Some workers die of diseases contracted in the yards. When I did my enquiry, one person told me that the workers are falling ill because of the working conditions, but no study has been carried out on the issue. We should ask experts to study the various problems caused by this activity so that we can make it safe. We should draw up safety standards."

Dr. Mizan Rahman, who worked at the Chittagong hospital until early 2002, says, "There are workers who are ill because of the dust and fumes from cutting dangerous materials; some have silicosis but they don"t seek treatment. Elsewhere in the world CFCs have been banned because they are dangerous but Russian, German and Greek ships [built more than 20 years ago] have CFCs in their refrigeration systems.

On cargo ships, a lot of asbestos is used. The most common symptoms are unusual fatigue. I am treating several workers suffering from exposure to asbestos. Today asbestos is no longer produced in Bangladesh but it is everywhere, out in the open, in the Chittagong yards.

Every worker should have shoes because the toxic products and materials they walk on in the yards cause cancer. Clearly, this industry is going to produce a lot of sick people in future years."

According to Dr. Mizan Rahman, "The management wants to earn as much money per ship as possible. There is no long-term thinking. They would do well to develop a minimum level of safety, but they have a very short-term perspective."

Most of the workers who were asked "Do you have health problems because of your work?" answered "no". But as soon as the question becomes more specific, they all have something to report - a rash, a sore throat or little recurring pains that are often harbingers of the worst - a future illness that may be irreversible. They simply treat the symptoms by taking pills they buy are a neighboring shop, and continue to destroy their health in the yards.

A worker says, "When I cut steel covered with paint that is burned by my torch, the fumes make me cough. I cough in the evening too. I have inflammations, especially in the eyes."

Another worker: "When a ship arrives, nothing has been cleaned up. We have to do it ourselves. When I cut the bottom of a ship, I have a headache and sometimes nausea. There are also oil residues that make us sick. The worst place on the ship is the back with the engine and many little rooms. We often feel dizzy. When we feel too sick or too weak we take a day off [without pay]."

A 27 year old cutter who has spent 15 years in the yards says, "I was cutting inside the ship with a blowtorch when I suddenly inhaled the smoke. I had strong stomach pains. I had to stop working. My colleagues had to carry me off the ship in a chair so I could recover on shore. The foreman gave me 500 takas to go see a doctor, but the money was deducted from my wages. The foreman said, "You have to pay because it is your problem if you

have an accident." I haven"t gone back to work for two days because I feel ill. At the yard none of the managers asked me why I was sick or what was wrong with me." And he adds, "All the cutters I work with have problems and are taking medicine. Especially when we are working in closed spaces inside the ship. Usually, when I have stomach pains or feel like throwing up I take a few pills and I can continue to work, but this time it is worse."

Another worker says, "I often feel weak because of the fumes so I take medicine" And he goes on, "As I get close to the yard on my way to work every day my legs feel inflamed. It is because of the glass wool and the chemicals. Every day a lot of workers feel sick. Those who have been working in the yards for a long time are regularly sick."

A young worker who is 14 years old says he does not like his work but "has to do it to feed my family." He says he already has stomach pains and has to take medicine. And his colleague predicts that "he will soon have other medical problems because he started when he was very young."

The wife of a worker says, "My husband and the others felt dizzy on the ships. On top of the work, it is tiring to climb around on board. There is also a lot of dust. And in the winter the workers complain about working at night because it is cold."³¹ And she adds, "When there is a lot of cutting in the yards, the air here [more than a kilometer inland] is very polluted. A month ago there was an explosion and our house shook."

Even though the cutters are the most exposed they are not the only ones to suffer the consequences of contact with toxic materials. A fitter shows the scars on his legs and explains that they come from the lubricants he handled. "Those who work with oil residues and oils have skin problems. They put salve on them, and leave it at that."

Lack of awareness

Without exception, all the workers questioned said they themselves had to pay for treatment of all the cuts, inflammations and disorders of all sorts which they routinely experience. They talk about their "small" health problems without calling them diseases and many of them seem utterly unaware of the dangers.

A 22 year old worker says, "Yes, it is true that the fumes bother me, they are strong, but I have developed immunity. For you [visitors] it is hard to breath in the yards, but not for me." The same things were repeated in a village right next to a yard: "When it comes to health problems, we are used to the pollution. You can feel it but we can"t, it is part of our bodies

now," says a woman. "My son who is a cutter takes medicine for his cough. He also cuts himself regularly but it"s nothing serious." As for asbestos, the President of the BSBA is just as reassuring about it as he is about the diseases of his workers: "It is systematically buried. Asbestos is a material with respiratory dangers so it has to be buried. After 25 years asbestos crumbles almost to a powder."

Zafar Alam is right about what happens to asbestos after 25 years on the high seas, but not by a long shot about its being buried. Given its value on the Bangladeshi market, the asbestos taken by workers from ships with no particular protection is resold to shops along the Dhaka-Chittagong highway where the pieces are ground to powder and then re-sold. After the workers in the yard, those who work in these little shop-workshops who are in direct contact with asbestos. You see men and women here with no respiratory or skin protection breaking up the little blocks of asbestos or sifting it with their bare hands. Asked about the material they were working with, they had no idea it was highly dangerous. In the immediate vicinity of these shops, there are also houses and small vegetable plots and livestock pens that are obviously all getting their share of the asbestos dust.

The workers in the yards are therefore not the only ones exposed to dangerous materials, and the more than 100,000 people working in recycling and living in the immediate vicinity are all exposed. A few hundred meters away from the asbestos "sifters", men are carrying boots made of glass wool from a house. Their boss says that "It itches at first but afterwards you don"t feel it." The only remedy, says a worker, is "to wash and scrub after each day"s work."

By the side of the road there are a number of cutters and loaders who continue the work started in the yards. They are not working in confined spaces like those doing cutting inside the ships but they nevertheless suffer from the toxic fumes. "I have been working since I was 12. Very often when I go home at night I feel like vomiting and can"t eat. Before, I worked with no protection. Now I have rubber boots, gloves and goggles."

Farther along the road, a carrier says, "I am twenty and I have been working here for three years. For us, the problem is rain which causes a lot of accidents. But I also cough and my legs are often inflamed."

3- Emergency services, treatment and compensation

Accidents and injuries are a routine daily occurrence, but the emergency and treatment system is inadequate in the yards

and the immediate vicinity. To all intents and purposes, no system suited to this type of industry exists at all. In addition, in cases of death or serious injury making it impossible for the worker to continue to work in the yards, there is no established compensation system. Where compensation exists, it is granted arbitrarily on a case-by-case basis.

Emergency services

There is no fire protection system in the yards to deal with the early stages of a fire. There are many extinguishers: they are for sale in certain shops along the Dhaka-Chittagong road. They come from the ships, but as in the case of the protective gear for workers, the yard managers prefer to reap the profits from selling them rather than keep them in the yards to provide a modicum of fire-fighting equipment.

When there is an explosion or a fire, the workers have to make do with what is available, that is to say with almost nothing, or wait for help to come from outside.

In this case the problem is the absence of a fire brigade near the yards. A worker says, "There should be a fire brigade for fires. When there is a fire, by the time the fire brigade has arrived from Chittagong or even from Shitakundu, it is too late, everything has burned down or else a massive explosion has taken place." And he adds, "The fire brigade should be set up close to the yards so they can get here in less than ten minutes."

Finally, even when the fire brigade gets to the yard fast, there is a lack of resources to deal with hydrocarbon fires on gigantic ships. The Bangladeshi fire-fighters do not have appropriate equipment to fight such fires.

The lack of resources also involves first-aid for the injured. There is no real ambulance system to take the injured to the Chittagong hospital quickly. In case of accident, the injured are taken by truck or any other vehicle that happens to be available. "The thing is that in Bangladesh people help when there is an accident and someone is injured, because there is no efficient first-aid system. When the TT Dena exploded the 12 workers who were hospitalized were taken there by truck," says Dr. Mizan Rahman. The other difficulty in getting injured workers to the hospital is that the people running the yards do not want the outside world to know there has been an accident. They prefer for the workers to be treated on the spot or in a shop selling medicine nearby. "When you are injured, you are taken to the yard office and given a bandage. If that isn"t enough, you are taken to the closest pharmacy," says a worker. The wife of a worker says, "A month ago [January 2002] a serious accident

occurred, and workers were seriously injured, but they weren"t taken to the hospital so that the accident could be hushed up."

Treatment

Each Yard can employ up to 1,000 workers but none of the yards have a doctor on site. There is not even a doctor on staff for all the yards together, i.e. for 30,000 workers in a highly dangerous industry.

Nor are there first-aid stations in the yards. Injured workers are first taken to the yard office where they are treated using first-aid kits recovered from ships. Most of the time, say the workers, the wound is cleaned and bandaged. "We can also go to the nearby "pharmacy"."

"When the accident is not a serious one, an employee of the yard gives the first aid," says trade unionist Nayeem Uddin. "If need be, the worker can be sent to a dispensary near the yard, or, as a last resort to the hospital in Chittagong."

When workers have fever, headache or stomach pains, several workers say they can ask the yard managers for a few pills or can go to a shop that sells pills, but then they have to pay for them.

An additional obstacle lies in the fact that injured or sick workers are not systematically compensated. A cutter says, "I was never injured so badly that I had to be hospitalized. But I was injured, especially in the head, and treated by a local "doctor". My contractor has an agreement with a pharmacy where you can go and be treated free of charge. We first have to get a slip from the yard administration and then we can go see the "doctor"."

And the slip is not always easy to get, explains another worker: "As a rule as long as there is no blood you don"t get a slip, and you always have to go and see the management. They are never the ones to come and see us. You can bleed to death - And even blood is no always enough to get the treatment paid for." His colleague confirms this. "I was injured, I was bleeding and I had to pay for my own medical treatment." There is in other words no rule when it comes to treatment, but rather arbitrary decision-making which depends on the yard management"s willingness to help.

Coverage for medical treatment also varies from yard to yard, even from one contractor to another, as a "healer" with a shop on the Dhaka-Chittagong highway describes it. "I have agreements with the contractors. They pay for their workers. The medical costs they cover vary from one contractor to another. Some of them will even pay for long-term treatment."

Some speak of the reduction in the number of accidents since

the explosion of the TT Dena, but Dr. Mizan does not agree. "Over the last couple of years at the hospital in Chittagong I saw no improvement. I received just as many injured, even though a small dispensary has opened not far from the yards where recycling yard workers are sent on a priority basis."

The other consequence of the explosion of the TT Dena was the promise that the BSBA would open a hospital to care for the workers from the recycling yards. This hospital with 100 beds is supposed to be built in Bhatiari. According to an owner, the yards are going to invest 50 million takas (less than a million dollars) and cover operating costs.

But as of February 2002, the hospital was still on the drawing board. This makes a number of observers dubious about its imminent opening. Dr. Mizan Rahman is one: "A 100-bed hospital? It is true that they announced that. Like many other such projects, this was for show. I doubt that the hospital will open within the next five years. It will take years to build and equip the hospital and recruit the medical teams. This hospital is window dressing."

Compensation

There is a law in Bangladesh (The Workmen's Compensation Act, 1923) which sets the compensation to be paid when a worker is killed on the job. As with the other legal obligations, the one relating to compensation is ignored by the yard management which pays compensation at its own discretion.

According to a yard manager, if a worker dies his family receives 30,000 takas, and 10,000 takas are paid in cases of serious accident.

In fact, he admits, "more often than not, the contractors pay 15,000 takas rather than 30,000 in case of death, it all depends on the social status of the victim, the ties his family has with military or other important people." A buyer who knows all about the practice in the yards says that compensation can exceed 100,000 takas when the family of the dead man includes someone in the military.

But for most of the workers who come from the north, the most underprivileged rural areas, only token compensation is paid, if any is paid at all. According to trade unionist Nayeem Uddin, "When someone dies, compensation is offered for workers who come from Chittagong but not for those who come from the North."

In fact there is no register with the addresses of workers, and this is an excuse, in addition to the social discrimination, for yard management to avoid compensating the families.

For workers who are seriously injured, to whom little if any compensation is paid, it is a matter of being able to work and even of survival. Disabled for life, most of these manual laborers lose all hope of ever again finding a job.

A loader said, from the hospital bed where he was recovering from a serious leg fracture, "In future I won"t be able to work in the yards. I will try to work in the fields, it is not easy but I don"t see what else I could do." Even though he comes from Chittagong and suffers less discrimination, he does not believe he will receive compensation. "I will receive no compensation from the contractor but my colleagues from the yard will certainly give me something."

"For three years [until 1998] I worked as a secretary in the yards," says Salimullah Salim. "During those years I discovered that the workers were regularly being seriously injured. I also saw people killed. I saw workers who were disabled by a work injury forced to leave the yards. I saw the children of workers who had lost their jobs begging at the market."

4- Living conditions

Like everything else, living conditions vary according to a worker"s background. The few who come from Chittagong lie with their families in small houses in the surrounding villages. The workers who have migrated from the north, on the other hand, are housed in dormitories located, for the most part, next to the yards. The most rudimentary, built of bamboo and covered with corrugated sheet, are about ten meters long and three or four meters wide, and they house up to twenty workers. The beaten-earth floor is more or less covered with mats. The workers cook on the floor. Clothes are hung from the ceiling. The houses are stifling in the hot season that precedes the rains and cold in the winter months.

Salimullah Salim, yard secretary and trade unionist, says, "In the dormitories the workers have neither drinking water nor running water. In the winter it is too cold. There are only mats to sleep on. This is far from adequate."

The most skilled (and highest-paid) workers also live in dormitories along the Dhaka-Chittagong highway. These buildings are made of wood or concrete and are divided into small rooms of about six square meters, which are shared by three or four workers. They pay between 300 and 500 takas a month each for this housing.

As in the bamboo buildings, access to water is very limited. A worker says, "I have to wait for an hour for the toilets. And the same thing for the water pump to wash. To be at the yard at seven in the morning I have to get up at 4:30. There are more than one hundred rooms with three or four workers to a room and there are eight toilets and two water pumps. The toilets are rudimentary and regularly stopped up. When I come back from the yard I need to take a shower and so I have to stand in line for another hour."

As for meals, the workers who live in the most rudimentary dormitories have organized a common meal preparation system. "Everyone pays 30 takas a day into a purse that the "cook" [in fact one of the workers, who take turns] uses to do the shopping," says a worker. "If there isn"t enough money the workers can borrow from the maii."

The meal is most often rice, vegetables, eggs (in the morning), purée and dal, but there is little meat or fish because of the cost. "We don"t eat meat. If we want to eat meat, we have to spend our entire wages on it," says a worker. But his colleague admits that on pay day they can eat meat or fish. In a neighboring dormitory, the workers say they eat meat or fish two or three times a week.

A group of some twenty workers who were interviewed said that they spend between 40 and 60 takas a day for food, which is about half their pay.

Other workers, especially those who live in rooms, get together in groups of several workers to prepare meals. They buy the food on credit, for the most part, from shops in the vicinity and pay the money back collectively. There are a few cases of workers who prepare their own meals or eat in food stalls near the yards.

Credit is widely given by local merchants whose only clientele is the workers from the recycling yards and nearby factories. "The workers have weekly credit in the shops," explains a grocer. "We never have problems getting paid. The workers earn enough money. And besides, the shopkeepers all know each other and if a worker doesn"t pay his debts he will not be able to buy from anyone else."

B - A business with neither rights nor laws

After functioning for more than 20 years, and despite its economic weight, the ship recycling industry has retained its "informal" character.

Despite numerous existing national laws, particularly those relating to industry, laws which should allow this considerable sector of the economy to be regulated, the ship breaking yards are still above the law today. This denial of the law permits unlimited exploitation of the workers whose rights are non-existent. In spite of this most alarming situation, the Bangladeshi government has not yet shown any inclination to bring the law to bear on the yards. It is quite happy to make a profit through taxes, and in individual cases, by means of bribes.

A bad start

To try to understand the "unofficial" character (not to say beyond the law or even mafia-like) of this industry, it is a good idea to trace it back to its infancy, as indeed journalist from Chittagong, Syed Murtaza Ali is doing. This author considers that such a study makes it possible to understand the collusion between businessmen and politicians and renders any attempt to put things right today very difficult.

"The businessmen who began buying boats in Singapore were very influential people.

The sums of money needed for this business were too vast to make it possible to operate

without involving banks. It was through their contacts that the pioneers of ship recycling

were able to obtain their first credit and launch themselves in this business."

For his part, Syed Sultan Uddin Ahammed, the deputy manager of BILS, (Bangladesh Institute of Labour Studies) maintained that 'the people who began ship recycling were not "hones" but in a way "rascals".

Indeed several well-informed observers consider that these initial demolition contractors had very little interest in ships; even illegally, they simply wanted to earn enormous sums of money as quickly as possible. Syed Murtaza Ali explained: "Some went bankrupt, but often it was so that they could disappear with the credit obtained from the banks. They also gave false addresses in order to be able to escape creditors once they had received the credit".

The journalist concluded:"The yard owners established good relations with the local barons. They included politicians in their circles. In fact it was a real mafia. By giving backhanders to police, local barons, journalists and so forth, they put a system in place which avoided any publicity in the event of an explosion or an accident. This whole business is just a racket and it is conducted at the cost of workers' lives"

1- An industry above the law.

The laws exist

More than 20 years after the first yards opened, there are still no laws in Bangladesh specifically relating to recycling. Magistrate Mohammad Harisuddin explained: "Many of our laws date from the British period and do not cover the new sectors which include ship recycling."

However, many of the existing laws relating to industry, the environment, and petroleum as well as the workforce, do apply to recycling yards, even if they are not totally appropriate. Amongst the most important of these are the Factory Act (1965), texts about petroleum dating from the 1930's, (Petroleum Act, 1934 and Petroleum Rules, 1937) and more recently on environmental protection (Bangladesh Environment Protection Law, 1995 and the Environment Protection rule, 1997), and others on workers' rights, particularly employment and compensation (The Employment Standing Orders Act, 1965 and The Workmen Compensation Act, 1923). Up to this present time, not a single item of all this legislation is being applied on the recycling yards. Those responsible only observe one law, the law of profit.

B. Mondal who is in charge of the question of recycling yards in the ILO (International Labour Organisation) office in Dhaka said,"'First of all existing laws must be applied and then their inadequacies will become apparent. If necessary we must then try to revise these laws and draw up new ones"

The 1965 factory law which is applicable to all Bangladeshi industry is the law which should best encompass recycling activity. When asked why it was not being applied, the yard owners retort that the authorities do not recognise them as an industry and that they are therefore not affected. But this law proves crucial since it imposes duties particularly in matters of safety and rights for the workers. Mohammad Harisuddin explained "Without the factory law, the workers are not allowed to form a union, in fact they are not recognised as workers". And the magistrate added, "The yard bosses maintain that they do want to be recognised as an industry but they do nothing about it, they make no real effort, because in the event, they would incur many obligations such as a minimum wage and compensation following an accident. If they were recognised, they would also be liable to inspection by the government's Department of Industry". In fact, as a representative from the Department of Labour explained, the owners' rhetoric about their wish to be recognised is meaningless, in that the yards are de facto industries and consequently subject to the relevant laws.

Free gas Certificates

From the safety point of view, existing legislation should, if applied, ensure that most accidents were avoided, in fact all the explosions produced by the accumulation of gas and hydrocarbon vapours on board ship. The 1934 petroleum law and its 1986 amendment are the laws in question. As Nurul Alam, the chief inspector of Department of Explosives in Dhaka explained: "This law stipulates that nobody is permitted to dismantle an oil tanker still containing petroleum unless the ship has been certified. For people to be working on a tanker, an authorisation must first be obtained". This authorisation called Free gas Certificate is issued by an inspector from the Department of Explosives after making an inspection on board. Nurul Alam continued: "In the case of a complete dismantling, then the authorisation must be positive for the whole ship. On the other hand, if it is simply a repair, the authorisation may be partial, just applying to the part to be repaired. For a repair the certificate is valid for 12 or 24 hours, whereas for a dismantling, there is no time limit". However, for a dismantling there must be a double inspection. The first takes place while the ship is anchored offshore, before it even receives its beaching authorisation from the port of Chittagong. Then, once beached the ship is inspected for a second time. The chief inspector of the Department of Explosives gave more details: "Certain areas like the petrol tank cannot be tested before beaching. Once beached, the second inspection encompasses all areas". Nurul Alam added: "To obtain a certificate, the ships' purchasers apply to the Department and pay 300 takas for each area inspected".

In reality, the owners never ask for a certificate for the whole ship which they are going to have dismantled. They make do with a partial inspection for which they obtain a partial certificate. And they choose the most favourable part to be inspected. Magistrate Mohammad Harisuddin reported: "The free gas certificates are given for washrooms and the anchor chain locker which could neither cause problems nor represent any danger".

A further detail about which the owners are not concerned or do not know: the certificate, even for the areas inspected is not synonymous with a blank cheque given to the site. Not only do the certificates obtained by the owners only apply to one part of the ship, (often the least dangerous for which obtaining an "Open Sesame" is no problem), but what is more, these certificates most often emphasise, that the inspected rooms do not allow "entry of personnel" or are not safe to work using heat. Indeed, in no case does a free gas certificate constitute a permit to dismantle, but specifies for a given part of the ship the possibility of entering, working there and in what manner.

Magistrate Mohammad Harisuddin explained: "During my enquiry, I consulted numerous certificates and failed to find one indicating that the ship was totally free of gas. But this is the most vital condition before starting on any cutting operation. The certificates always specify that just one part of the ship contains no gas."

The ignorance of yard owners

Mohammad Harisuddin is of the opinion that the owners manifest great ignorance. "The yard owners are wrong to call them "free gas certificates" as none of them authorise "entry of personnel" or "work using heat". There are only two or three rooms which are actually "free of gas". There is a misunderstanding about the certificates. The owners do not know the sense. They have no criminal intent, but are just ignorant"! He also asked:

"Had the owner of the TT Dena known of the danger, how can you explain why his brother could have been on board at the time of the explosion?"

Following his enquiry, the magistrate concluded that there should be "a standardised method of granting the certificates, and of course, no partial free gas certificate should be issued for a boat destined for dismantling. If the owners themselves are not well informed about degassing problems, what can be said about the workers..."

At the Department of Explosives, Nurul Alam recognised the lack of information given to the ship owners. "There is a misunderstanding about the authorisation. The yard owners only know that they are authorised to cut, but what and how remains a mystery. Perhaps the inspectors do not explain sufficiently to the owners. When I began in this trade, I always sent an explanatory letter with the authorisation. Since the accident with the TT Dena, we wish to improve the system. I have asked the inspectors from the department to send an explanatory letter with each authorisation. The inspectors give no advice to the owners. Usually the yards receive a certificate stating "not safe for working with heat", but for them the certificate is a green light. Our mistake is in not making things sufficiently clear."

Regarding the tanker *TT Dena*, the results of the first two inspections by the Department of Explosives proved negative. However, cutting was allowed to begin and it provoked the catastrophe. The same goes for the third certificate issued after the explosion of 31st May 2000. But none of this prevented the yard from beginning cutting again, without taking any account at all of the negative opinion of the Department of Explosives.

Corruption

Nurul Alam also recognised his lack of means and denounced corruption in a veiled way." I believe that young inspectors have issued certificates in an "illogical" way or by reason of certain interests and not according to the clean status of the ship". Journalist Hasan Akbar enlarged on this allusion: "People in charge of the yards confirmed to me that the easiest way to obtain the necessary certificates from the Department of Explosives is to pay a bribe of a few thousand takas. Then the inspection is not necessary." The magistrate came to the same conclusion: "Unfortunately those who issue the certificates do not check properly. The inspection of an entire ship takes six to eight hours, but most often it is completed inside an hour". Mohammad Harisuddin clarified the situation: "A complete check would cost the owner between 60,000 and 80,000 takas. They prefer to pay for two or three compartments at 600 to 900 takas and slip a few thousand under the table".

Although real, the lack of means and the corruption at the heart of the Department of Explosives cannot absolve yard owners from their responsibility. It is their duty to read and understand the free gas certificate. Reading specimens of certificates obtained shows that their "complexity" is somewhat exaggerated.

The documents inspected are clearly classified as a function of the danger posed and at the bottom of each certificate the "conditions of entry of personnel and working with heat" on the boats are noted in a very readable way:

Effective ventilation is to be provided whenever men are in tanks/ spaces

Forced ventilation is to be continuous whilst hot work is in progress

Areas at and around hot work must be maintained free from oil and combustible

materials

Adequate fire extinguishing equipment must be laid out ready for immediate use

during hot work

None of these precautions is observed during the cutting of supertankers and other container ships with an oxyacetylene flame. Observing these precautions to the letter would require the complete reorganisation of an industry which does not have the financial means and would force the owners to reduce their profits excessively.

So the cynicism of the yard owners who pretend not to understand, risk their workers' lives and amass dividends is

matched by the lack of means and the easy corruption of the inspectors. In this connection Nurul Alam reported the words of a yard owner with whom he touched on the subject of certificates. He said "Why do you want me to pay a prohibitive price for a certificate and the cleaning of my ship? In the event of an accident, I'm better off paying the little bit of indemnity to the victims and their families".

The Environment Act

According to the 1995 Environment Act, each industrial site, and therefore each ship breaking yard must obtain a certificate of compliance before starting production. In order to do this, first of all an Environment Management Plan must be drawn up with a consultancy agency. Based on this Plan the Department of the Environment issues a permit valid for one year. Mohammad Reazuddin the Director of the Environment at Dhaka explained: "Our administration does not deal with every beached ship but with the yards. We issue permits to the yards when we have checked that they provide the necessary equipment for dismantling ships in complete safety. The yard must also have a storage system for the petroleum and its residue, paint and other toxic substances".

He confirmed that all the yards had requested a permit but none had received one. "The owners put on pressure to obtain a permit because then they have the right to be connected to the gas network. Without this connection they have to pay out more for gas storage".

For those who obtain the permit, it is valid for a year and its renewal is based on data about water, soil and air which the enterprise must provide for the Department of Environment.

Paradoxically, the recycling yards whose highly polluting character has been scrutinised and denounced by organisations such as the ILO or Greenpeace are not recognised as major polluters by the Bangladeshi authorities. Professor Yusuf Sharif Ahmed Khan of Chittagong University denounces the fact that the yards are not classified as a highly polluting activity.

In Bangladesh industry is divided into four categories from Green for the cleanest to Red for the highly polluting. The professor explained: "There are two intermediary categories, Orange A and Orange B. The ship demolition industry is in Orange B. In this way the shipbreaking yards avoid paying a tax specifically for highly polluting industries and only require one certificate from the Department of the Environment instead of the two required for the Red category".

The professor continued his denunciation: "While the behaviour of shipbreakers is criminal to a degree, the inspectors from the Department of Environment do not go to the yards. In Bangladesh laws exist against polluters but are not applied".

2- Workers without rights

The Bangladeshi ship recycling industry is not only ignorant of the laws but also of workers' rights. While in the majority of the industrial sectors of the country, workers benefit from rights as set out in the 1965 Factory Act and in more specific texts, in the breakers yards, they have no rights at all. From the day when they are hired on the yard to the day they leave, dead or alive, they are only answerable to the orders and arbitrary powers of the contractors. They have no way of standing up for their rights or even claiming their dues. Neither individually nor collectively, since unions are de facto forbidden on the sites.

Hiring and apprenticeship

"One of my neighbours in the village worked in the yards. He told me that I could find work there as well". For the overwhelming majority of the workers (95%) who come from the most disadvantaged regions in the north of the country, that is how the story usually begins - in the village, through a neighbour or family member mentioning the Chittagong yards. For the least well qualified, the loaders, it also happens that touts sent by the contractors come directly to the villages to look for them. But this practice is tending to disappear. It is only when there is a lack of manpower that the contractor asks the maji, or group leader, to go recruiting. Workers taken on in this way can sometimes receive an advance of more than 2000 takas.

With very few exceptions, the workmen do not choose recycling yards in the way one takes up a career. It is more likely to be their last chance, the only means of earning money and feeding a family.

"I was desperate, I couldn't eat my fill, I was ready to do no matter what work, so I came to Chittagong", said a worker. "I found work near the yards, I was clearing mud. Then I heard that work on the yards was better paid so I went there".

Another worker decided to abandon his little shop which was not bringing enough in to keep his family alive. A third told how his father, a tradesman in 'longis' and 'saris' had been trapped by credit which he could not keep repaying. "When he shut the shop, I had to find different work so I came to see my brother who was already working in the yards. I replaced him. He went

back to the village and I began to work in the yards. My brother was very pleased to go back to the village, he became the village doctor's assistant. I know that if my brother does not earn enough money in his new work, he will come back to the yards".

Because work on the yards is nearly always their last chance and their families depend on it as well (all the workers we spoke to without exception send part of their wages to their families), the workers arrive in Chittagong in a precarious situation. They are ready to do anything, accept anything as long as they manage to earn a little more than about 50 takas a day and send part of it to their close relatives. Normally their intention is to work for "a few months", a year or two at the maximum and then to return to their village. The fact is that many of the workers stay for more than 10 years in the yards where, although the work is hard and dangerous, the wages are still appealing.

The workers taken on in this way have no work contract. They sign no document which could link them to a specific yard. Their names only appear on attendance sheets which enables the manager to pay them. The workers say that the only occasion when they sign something is pay day. Without a contractual link with the yard employing them, they have no legal recourse in the event of a disagreement.

Apprenticeship

For the jobs requiring a minimum of expertise like those of the cutters and dismantlers, the newcomers begin by being the 'helper' of a more experienced worker. For several months, or indeed more than a year if their apprenticeship fails to progress quickly enough, they will be helping experienced workers in their tasks and learning in this way. The cutters we interviewed were earning 40 takas when they began as 'helpers' about 10 years ago, then about 70 takas once their apprenticeship was over.

No effort is made to train them properly in techniques, the environment or the dangers inherent in ship recycling. They say that the only way to learn is to watch experienced workers.

For many of the workers this apprenticeship takes place when they are mere adolescents or even children. During this period, they are almost as likely to be exposed to risks of accident as the experienced workers, but without wearing the minimum of protection from which the workers benefit, in the form of gloves, goggles and boots. On account of their youth, they are also more vulnerable to pollution and suffer more from work overload.

A maji said: "At the beginning the youngest workers experience difficulties and want to go back home, but because they earn less than the adults, they cannot afford to return to their village and visit their families like the other workers".

According to the BILS enquiry, on the recycling sites at Chittagong there are probably about 2000 children and adolescents between the ages of 10 and 14 who mostly work as "helpers". The enquiry points out that others are employed picking up little pieces of metal which are strewn over the ground of the yard.

Organisation of the work, hours and remuneration

The workers have no fixed employment, are not attached to a specific yard, but are taken on as and when ships are beached. A cutter said: "I couldn't possibly count the yards where I've worked. I follow the work and stay for about 6 months in the same place". Others state that they only stay for two or three months in the same yard. A trade unionist explained: "In general, the best qualified workers like the cutters enjoy greater stability than those without qualifications like loaders". Another practice noted - when the workers change yard they frequently stay in the same group under the direction of the same foreman

The workers do not necessarily work every day. The timing depends entirely on the needs of the yard. Each foreman receives his "order" from the contractor every day, works out how much work there is to do and takes on his workers accordingly. When there is less work, many workers are automatically "laid off". This practice is also bolstered by the desire of the foreman and contractors to reduce the number of those employed in order to keep down the cost of breaking.

On the other hand, when the ship has just arrived and the yard needs to operate at full capacity, the workers labour every day without any rest day.

In general, the workers depend totally on their foremen and contractors whom they always have to satisfy if they hope to obtain work, a dependency synonymous with duty, but involving no rights at all.

The workers are in reality condemned to accept any demand, any rate or hours of work, even at the risk of their lives. A worker explained: "When there are fewer of us, the contractors drive us on to work harder. If we want to have a rest we are not paid, and the same if we are injured or fall ill". Another worker said: "In bad weather, carrying things

becomes very dangerous but the contractor forces us to work. He threatens to sack us if we refuse". And a third worker added: "If you don't work the way they want you to and as much as they want, they don't pay you like the others but make you wait".

Salimullah Salim, an office worker in the yards, was finally sacked in 1998 because he had upheld the claims of a group of workers. (see the testimony of this unionist below).

He complained: "The contractor always wanted to use fewer workers, making one man do a job which required three. There were several reason which could be used to justify the sacking of a worker: tiredness, working too slowly according to them, or protesting about orders. As the number of workers needed diminished, usually when the breaking of a boat was completed, the sackings increased".

The working day

According to the workers interviewed coming from various yards in Shitakundu, the working day begins at 7 o'clock for those working on board and one hour later for those staying on shore.

A work day lasts 8 hours to which, nearly always, several extra hours must be added. The workers have a short tea break at 10 o'clock and have lunch from 10'clock onwards. During that half-hour, some eat on the spot, others return to their huts. However, some workers maintained that the yards do not automatically permit a lunch break. The afternoon is also interrupted by a short tea break, and for the lucky ones, work stops around 6pm. Actually, as they explained, the day is more likely to end between 8 and 9pm. A worker said: "There is no limit; it depends entirely on the work to be finished. The days vary between 8 and 14 hours per day, with an average of 10 hours". A porter added: "Most often from 8am to 6 pm". A group of about 30 workmen maintained that the minimum working day is longer than 12 hours.

Several yards operate night and day. In this case, the workers do not do "3x8" but more like "2x12". One worker said he worked from 8pm to 8am. Several work alternately one week days and one week nights.

Holidays

The yards operate throughout the year, 7 days out of 7 and some 24 hours out of 24. The only closing days are on principal religious festivals like Aid el-Titr during which the workers go back to their villages. These non-working days are unpaid.

There is no day off in the yards. The workers mention a possible half day's rest on Fridays. As a worker said: "When we are taken on at a yard for a ship, we have no day off. The only rest is Friday afternoon, but it's not paid. And when there's lots of work, we do not stop on Fridays". Another worker stated: "We never have a paid rest day. Actually, we have no guarantee of work, rest or even wages"...

Remuneration

The workers without contract are considered as day workers except for their remuneration which is not paid daily but fortnightly....No wage scale exists, the workers' pay being decided unilaterally by the contractors and foremen. Moreover, no statistical information is available concerning wages. The figures presented below are only the result of conversations with about 100 workers and many other operatives in the ship recycling business, interspersed with information already published as, for example, the BILS report.

A cutter with 10 years of experience said: For 8 hours cutting on a boat I earn 140 takas. Extra work is paid when it goes beyond an hour. I receive my pay every second week"

The cutters are the best paid workers in the yards receiving between 120 and 140 takas per day for those working on board and on average 90 takas for the others. The night workers do not receive a bonus. Another cutter said: "I work nights from 8pm to 8am. My wage for 8 hours is 120 takas. I'm also paid for the extra 4 hours". Extra hours are paid at the same rate as normal hours, in spite of the law stipulating double pay.

At the other end of the wage scale are the apprentices who earn between 50 and 60 takas. Just above them are the jobs requiring the least qualification such as salvage and storage of petroleum residues, mud clearing or dragging and shifting of parts of the ships. The daily wage for these jobs fluctuates around 60 to 70 takas. As for the fitters working on board, they earn between 80 and 100 takas. Finally the loaders are the only workers who are not paid on a daily basis but according to the quantity of steel they move. They manage to earn about 70 takas a day. Obviously for them, extra hours do not count.

Furthermore each yard has a small number of salaried workers, mainly members of the managerial staff, who are paid on a monthly basis, in particular the foremen whose salary can reach 5000 takas. The employees in charge of security on the yards earn between 1,300 and 1,500 per month.

The workers are paid fortnightly for the number of days worked. In a slack period, the workers can be dismissed before the end of a day. This amount of time when they are laid off is withheld from their pay.

According to the statements gathered, there are no named pay slips for the workers and this is despite the Bangladeshi law making it a legal requirement. The workers just sign on a list of names when they receive their dues.

The most frequently found practice was the rule of the "5th and 20th of each month". This means that the pay for 5 working days is kept in hand permanently. The workers interviewed stated that this delay in payment means that the contractors can hold on to them. "Because of this we're trapped, we are not free to leave". They said that in certain cases the 5 days can be negotiated with the contractors, or another worker who would then have 10 days held back. On top of this established system of delaying payment, from time to time the workers have to face late payment which forces them to borrow. "Most of the workers have debts with other workers. They are in debt because of delayed payment. On average it's 10 days late".

Claims and trade unionism

As victims of disastrous working conditions, the workers have no possibility of organising themselves to defend their rights. Any claim means dismissal or even being banished entirely from all the yards. This is too great a risk for workers whose salary may be keeping an entire family.

The obstacle posed by the contractors

The first obstacle faced by the workers is the actual organisation of the yard: they have no direct link with the legal body on the yards, only with the contractors. Asked about working conditions and workers' rights, certain proprietors had no hesitation in saying words to the effect: that does not concern us, they're not our workers. Magistrate Mohammad Harisuddin confirmed: "There is no direct relationship between the workers and the owners. Everything is negotiated through the contractors on a 'hire and fire' principle".

Because they delegate the complete breaking to the contractors who undertake to arrange the employment of the hundreds of necessary workers, the owners have no contact with the workers. They stay apart from the daily running of the yards where they do not put in an appearance, only recognising a legal link with those employed in management, and in no way with their workers.

The ILO which has been trying for several years to initiate a dialogue between the different operatives in the ship breaking business, recognises that in Dhaka, the obstacle posed by the contractors is crucial to any possible improvement in the situation.

A worker said: "In fact the whole of the yard management is not under the owner's control and it is a problem. The owners do not even know the names of those who work directly beneath the contractor. So the owners do not feel responsible because they do not control the yards. Their only concern is that the ship should be broken and the money put in the bank".

The obstacle of the contractors is aggravated by the fact that they do not appear to be men who have the owner's trust. Most often they are people imposed from outside, chosen for the skill in handling people and their links with local barons, but in no case for their professional competence or integrity.

Mohammad Harisuddin reported: "It is impossible to have a contractor who is not from this area. You have to employ a man from around here who has the advantage of great local influence. The yard owners could use professionals but local pressure is too strong. The locals use their influence to obtain contracts. Some owners told me that they are not free to choose their contractors. And once they've been brought in from outside, they decide everything".

According to the magistrate, the contractor can also be imposed by the owner of the land where the yard is set up. Not only does the yard owner pay rent but he is also obliged to supplement it with juicy contracts.

An official from the local administration ironically voiced his opinion: "The contractors have links with political parties - in fact with just one party - the PGP or Present Government Party" [the ruling parties].

So many links and therefore so much self-interest which help to perpetuate the system and ruin any vague hopes of change.

Workers' lack of job security and fear

The other obstacle to any claim stems from the precarious position of the workers. With no contract nor a single right to assert, the workers live in permanent fear of losing their jobs. For the vast majority of them the only thing that matters is the money they receive; any other consideration is superfluous or even dangerous

The workers complain about their working conditions but

leave it to fate rather than turn these complaints into claims. Securing what is owed to them, their wages, is already problematic enough, so for the workers the idea of talking about their rights seems well beyond their scope. As a worker said: "One day I didn't receive my wages so I went to ask for them. They threatened to sack me. Another time I dared to ask for a rise and once again I was threatened with losing my job".

After the serious incident on the TT Dena, the yard officials made promises about safety, in particular the provision of protection for the workers, but they are still waiting. A cutter explained: "We don't dare go and speak to the officials to ask for what they promised. If we did dare to speak, not only would we be wasting our time but we would also have something deducted from our wages. If we went to complain to the contractor we would immediately be sacked because he doesn't want to have any problems with the owner. There has never been a trade union organisation here. If we demanded an organisation or some rights, we would be sure to lose our jobs".

Salimullah Salim, an office worker in a yard and a trade union man, tried to encourage those working with him to claim their rights. He said: "When I spoke to them about the need for an organisation they replied: We are alone. We've nobody to talk to. We've got financial problems in our families. We are here to support our families. We don't feel safe, we have no confidence. How can we organise ourselves?"

One of the rare workers in the Chittagong yard who is a union member explained: "The workers make no effort to improve their situation, to band together. All the yard workers are convinced that it is impossible to organise a union in the yard. The younger ones are convinced by the older ones that a union is unimaginable in the yard. Personally my involvement in a union is absolutely secret. About 50 workers in my yard are union members but that takes a lot of courage. Two years ago we were hoping for unions in the yards but that's all over now. There are lots of frustrations, we can't do anything, our union (outside the yards) can't do anything. There is also a lack of motivation among the workers who are union members. We feel that we have no way of changing things. There is a general feeling of discouragement among those who wanted to do something".

However, many workers agree that a union would bring many improvements in their situation.

The case of Salimullah Salim

In 1998 Salimullah Salim had been working in a shipbreaking yard for three years. As an office worker, he had been hired by a contractor and dealt with workers' pay. After spending

several years in a local carpet business where he had tried in vain to set up a union, he tried discretely to heighten the workers' awareness on the yards. "I explained their rights to them. First of all I spoke about wages being according to the number of hours worked. I also explained to them that they should negotiate to have a fixed day for payment and should sign a work contract". Following a fatal accident Salimullah Salim also suggested to the workers that, with a union, they would not be obliged to start work again the same day as the contractor insisted, wanting to avoid drawing attention to the mishap. They would have the benefit of a day of mourning for their friend. Furthermore, he regularly invited the workers in secret to take part in political meetings in Chittagong where they would be able to meet other workers and share their problems.

This underground awareness-raising work turned into open protest in October 1998 when workers from the Namreen yard demanded their three last wage packets which had not been paid. Salimullah explained: "They had no more money to live on, couldn't pay off the credit from neighbouring stalls nor pay their rent". Faced with this intolerable situation, he suggested to the workers that they stop work. On 9th October a strike took place for the first time in the history of shipbreaking yards. Faced with the slogans chanted by the workers, the contractor promised to pay the wages but the workers asked for an exact date. There being no reply, they started their action again the next morning. The trade union man reported: "At 8 o'clock we went with other trade union leaders to the yard entrance, workmen lay down on their mats to block the exit, then they built a barricade. They were asking to be paid immediately".

Confronted with a refusal from the yard officials, workers and trade union members decided to go and demonstrate on the road from Dhaka to Chittagong and at another yard belonging to the same owner, Shaukat Ali. There were more than a thousand workers protesting against the unpaid wages. Towards the end of the day, the decision was made to take the same action again. But when the workers and the union members including Salimullah Salim had gathered at a stall, the musclemen men of Namreen yard burst in. After threatening the group with their weapons, they dragged off Salimullah Salim and another unionist, Nayeem Uddin, by main force.

When they reached the yard office Salimullah Salim was subjected to the first threats from Shaukat Ali, the owner: "I could accuse you of having tried to steal money. I could also take photographs of you with weapons and prosecute you for illegal possession of weapons". Tied to their chairs, Salimullah Salim and Nayeem Uddin were beaten with shoes and chairs.

Then the contractor addressed Salimullah Salim: "You know I can kill you. I can make out that your death was a road accident". And the owner shouted to the contractor: "If they come back, kill them". The yard officials also mentioned the possibility of detaining them on one of the ships being demolished. "It was mental and physical torture" recalled Salim, two years after the event.

At the same time, the workers began to agitate for the release of their leaders. With a weapon stuck in their backs by the owner's henchmen, Salim and Uddin were forced to tell the workers, "We have made a mistake coming here. We must remove the barricades and go back to work".

"We did it in order to be freed" explained Salim. "We were forced to sign a promise never to come back and not to incite unrest among the workers again. If I am alive today, it is because hundreds of workers protested. Otherwise they would have killed us on a ship and thrown our bodies in the sea. Because of the torture one of my ears was bleeding and I was deaf for several hours. Then I received medical care for a fortnight. Finally my contractor dismissed me and I was obliged to sign a promise never to go back to the recycling yards".

After that, the yard's henchmen went to the school where Salim's wife works to threaten her. He explained: "They wanted her to leave her job and force us to leave the region. In 1998 we nearly did leave. Everything was against us. Financially it was very difficult. We were boycotted socially. With a very small amount of capital I was able to open a little shop selling school books".

After being persona non grata in the yards for three years, Salim was finally approached by a contractor. Since July 2001 he found another job in a yard on the condition that he keep a low profile concerning his union activity.

Other attempts at trade union activity

Following the strike of October 1998, in spite of a lot of pressure and many threats from a world extremely hostile to any claim, a few workers tried in vain to defend their rights. A cutter explained: "When we demand our unpaid wages, we are threatened by the bosses' musclemen. Six months ago I tried to form an association, but they threatened me saying that I would be beaten up and lose my job. Six of us tried to set up an association but we all failed. The contractors threatened us".

Another worker said: "I tried to collect money from the workers to form a union but I was threatened. Those who wanted to

join the union were also threatened. We were obliged to disband the group. I had to stop motivating the other workers who were interested in the plan. But we must have a union to defend us and save us from being threatened or sacked. Improvements in the work situation are impossible without a union. But if we try to set up a union we are immediately sacked. In the port of Chittagong, there is a union organisation for the dockers. If we could have the same organisation here, the situation would be far better".

Trade union attempts can also come from outside. The JSJ unionist, A.M.Nazimuddin recalled how an organisation of social security began: "The idea is to organise the workers first and afterwards create a union. There are about 150 workers involved in this social security project. All the Chittagong unions take part but not the BSBA".

Salim recalled the attempt by cutters from several sites to create an association to which the members paid a subscription of 20 takas a fortnight. "It was a type of contingency fund to help the injured. But it all collapsed", he said with regret "I don't want to condemn anybody in particular over the situation on the yards. The government in its role as upholder of the law is certainly responsible. Obviously the owners and contractors are responsible as well because of what they make the workers suffer. But the workers are also responsible because they do not know their rights". However he added: "For the workers who cannot know what the next day will bring, who live from day to day, it is difficult to understand the sense of a movement making social claims. And it is even more difficult to group them together within a trade union".

Some of them also see a legal obstacle to the setting up of a union. How can workers who are unwaged and do not even have a work contract but work as day labourers set up a union"?

In spite of the risks they would run, for them the possibility remains of joining an existing union, but one having hardly any power to defend them without access to the yards.

Anowar Hossein, the general secretary of the JSJ in Chittagong agreed: "Even the workers without contract can be members of the union. The problem lies with the owners' hostility and our inability to access the yards which makes any attempt to organise the workers very difficult, the more so as they make no move towards us. The owners are very rich. If we were to go to the yards to organise the workers into a union, they would appeal to the local authority to prevent us from

doing so, and what is more they would engage henchmen to prevent us from pursuing our union activities".

A unique industry

For the unions in the country, the yards fall into the category "unorganised sector" because none of them appears there, explained Anowar Hossein. This is a euphemism synonymous with all imaginable abuses. Evaluating the situation, Syed Sultan Uddin, assistant manager of BILS said: 'From the point of view of working rights, the ship breaking industry is the worst in the country. For example, the construction sector exists in the entire country, but this is not a little group which exercises a 'mafia-like' control on an industry restricted to an area. In normal industry, there is a time-worn union practice, the bosses are used to it. This is not the case in the breaking yards. The situation is also very critical in the clothing industry, but in that sector we can set up a union, and if the bosses refuse we can start legal proceedings. For the unions, the most difficult sectors of activity are agriculture, the civil service and above all the clothing industry. But of course, the situation is far worse in the breaking yards.

Workers coming from all the industrial sectors asking us about setting up unions but nobody comes from the breaking yards. Fear is there. The work is precarious and they can lose it at any moment'.

The absent government

In the face of a semi-secret industry which in no instance respects the rules of the game, in this case a multitude of laws and measures pertaining to working conditions, respect for the environment or even workers' rights, the Bangladeshi authorities, local as well as national, appear absent. In fact until the present time they are doing little more than collect the taxes.

Journalist Syed Murtaza Ali reported: 'We have asked the local authorities whether

they control the shipbreaking yards and they admitted that they do not have the financial means'. In fact, the Departments of Explosives, of the Environment or even of Work Inspection cannot afford to insure that the laws for which they are responsible are applied.

It is indeed difficult for these administrations with a seriously limited workforce to control an industry which has more than 30,000 workers directly involved.

However, this lack of finance does not explain everything.

Corruption also plays a role. The recycling yards represent a very large field of activity but geographically grouped in a relatively small area. This is not an industry scattered all over the country. This concentration should make it easier to control.

The corruption, which in varying degrees is the gangrene of most of the administrative bodies of the country, represents a serious obstacle. In effect, everything is negotiable in return for a bribe. In most cases the yard officials conduct negotiations 'under the table', from the renting of a piece of shoreline from the State to the obtaining of free gas certificates, which implicates police silence. And this practice is just as acceptable to the administrative authorities as to the ship breakers. A site owner said: 'Each year, as well as the ground rent we have to pay a fee for the use of the shore-line which belongs in the public domain. This fee is not substantial, but at the same time we have to pay a sizeable amount under the table to the same people'.

The other obstacle to the imposition of existing laws stems from the relationship which the yard owners have with the local barons.

Mohammad Ismael, the director of the Department of the Environment at Chittagong complained: 'We can try to get the law respected but we face many difficulties. The yard officials have very good connections. Draconian measures should be taken against those who pollute. The government should be tougher, intransigent. The political will exists but

but we must acquire the means of making it come about'.

According to journalist Syed Murtaza Ali the politicians are always favourable to the owners with whom they maintain privileged links. The ship breakers have very good relations with the local authorities and the government. They pay bribes instead of taxes.

This weakness of the Bangladeshi authorities is all the more prejudicial because they are the only people at the present time who hold the keys to change. Neither the workers who have no finance nor the owners obsessed by profit will do what is necessary to improve working conditions in the yards.

Many people interviewed spoke of the need for fresh laws or directives to control more easily a new industry for which existing legislation is not always appropriate.

A cutter and union member said: 'Today the initiative for change should come from the government. Then the yard officials will have to conform to the official directives. It's up to the government to assert itself'.

Dr. Rahman Mizan said: 'I can speak from the point of view of a doctor, but have no power. If something is going to change in this set-up, it can only come from the government'.

Journalist Hasan Akbar said: 'To improve this set-up, of course the first thing would be to improve safety in the yards, particularly to ensure that the inspections for obtaining the necessary certificates are systematic. But the government must also recognise that the yards make up a complete industry in themselves, and on this account develop the necessary infrastructure. In a way, the state must take over this industrial activity'.

Finally, the ultimate brake on any change is linked with the economic importance of the yards. In a poor country, and above all in a capitalist system, the one who produces and creates employment is difficult to attack. As a union member said accusingly: 'Because they employ tens of thousands of workers and produce 100% of the national steel, the directors of the shipbreaking yards think they are above the law'. And with the same concern for economics, the Bangladeshi government is careful not to impose the slightest sanction which might have a negative effect on the economic activity of the yards. Most of the officials interviewed admitted the problems posed by the yards, but only after referring to the economic importance of this activity.

C. An activity cloaked in silence

Although they constitute a weighty industrial sector in Bangladesh, the Chittagong shipbreaking yards remain a semi-secret activity. The traces of recycling are visible everywhere on the Dhaka-Chittagong road for about 20 kilometres between Chittagong and Bhatiari, but anybody seeking information concerning the activity inside the yards always finds the door closed.

Journalists, NGO members, trade unionists or, of course, workers, all refer to the silence imposed on the yards. The workers find that they are advised against speaking to 'visitors'. They can only speak freely about their work once they are far away i.ein Chittagong. Several union people who attempted action in favour of the workers were threatened or even attacked. Finally, journalists have known for a long time that trying to conduct an enquiry into shipbreaking can be very risky, as they also have been targeted by the yard officials.

To maintain silence concerning the yards, the first method is to restrict access to the minimum. As it is impossible to make the yards totally inaccessible to the exterior gaze, particularly in the event of bad accidents, the officials 'clean' their yards as well as they can so as to present an acceptable façade. So they have to eliminate any unfortunate trace of the unsavoury, including if necessary the bodies of dead workers.

1- The press in our sights

Without any real desire on the part of the authorities to control the yards, journalists are part of that rare group able to denounce and apply pressure to get things changed. However, scarcely any articles are published describing the situation in the yards.

Indeed, conscious of the power represented by the press, yard officials are permanently anxious to control journalists, to sift out some good news for a few handpicked ones (who are also 'thanked') and to reduce to silence any who would attempt an honest enquiry.

In a country where journalists are as much feared as threatened, the shipbreaking yards act in the same way as everybody else.

The journalist Hasan Akbar from Chittagong said: 'I don't think that the yard owners are telling the truth. They don't give us enough information. They tend to hide things. Clearly there is a gulf separating us. The journalists do not believe the owners who, in their turn, avoid the journalists. The relationship between the two is not good. I don't suffer physical violence but it's a cold war. When I phone the owners, I can never get hold of them. And the workers refuse to speak to us.'.

Yard owner Sultan Ahmed Showdaghor described the situation thus: 'All the people who come with cameras and note books want to say negative things about the yards. We think it is an international conspiracy'.

The work of the journalists becomes particularly difficult in the event of a fatal explosion for which the owners want to avoid all bad publicity.

Mohammad Dulhaq, general secretary of the press club of Shitakundu said: 'When we go to a yard following an explosion, the doors remain closed to us, and the first thing the henchmen do is to snatch the cameras from the hands of the photographers.

Journalist Syed Murtaza Ali explained: 'I wrote an article about the explosion of 31st May 2000. I am convinced that the

number of dead was far higher than 16, the official figure. I think it was more like 50, but it is impossible to check. Finding precise figures about this industry is not possible because of the secrecy surrounding it.'.

A worker who had travelled to Chittagong in order to be able to testify freely acknow-ledged: 'Every time a journalist arrives the foremen and contractors tell us to keep quiet. As for us, we do sometimes try to talk, but immediately the foremen or the contractors tell us that it is not our job to talk and send us back to our task'.

Another worker, who was also interviewed at Chittagong said: 'In the event of a big accident, the yard officials show two or three dead bodies and hide the others. It's easy because we are not registered on the yard. We do not exist. Even if somebody came to mount an enquiry, it would be very difficult for him to find out the truth. Each time there is a serious accident, everything is done in secret. For little accidents it's not worth the trouble, nobody knows about it'.

As for Salimullah Salim, he explained: 'When a worker died accidentally, my first job was to dispose of the attendance sheet for the day and then compile another one without the name of the deceased. At the time of a death, I didn't deal with the body. The foreman took charge of it. Neither did I have any contact with the police who were not informed. The first thing to do was to make the place where the man died look as normal as possible'.

Corruption

According to Syed Murtaza Ali: 'There are murmurs. No real reaction, no great waves. After the explosion of 31st May 2000, the yard officials merely cleaned up as quickly as possible to remove all proof. The journalists could not do their work. I can't blame them, it's very difficult and even risky to make enquiries. Young journalists are not well trained and badly paid. It's also possible that they connive with the culture'. In other words, certain journalists, on pain of retribution, keep silent about certain things, deaths in particular. 'Once journalists came to the yards and spoke to the workers, but the next day there was nothing in the press. I suppose that the journalists were given some money', said Salimullah Salim.

Several journalists interviewed gave details themselves of affairs of corruption involving colleagues. On this subject Hasan Akbar referred to a ship explosion in the 90's which, according to him, caused 28 deaths, while officially there was only one. 'At the time, the two journalists who were the first to

be notified of the accident, returned from the yard confirming that one single worker had died. The press printed a short report. A few days after the tragedy I saw these two journalists riding brand new motorbikes while they were only in receipt of modest salaries. I alerted the manager of their daily paper who made enquiries. In fact the motorbikes had been bought with money given by the yard. In this way the yard had 'bought off' the journalists and disposed of the bodies of the other victims. I was personally able to speak to the workers and confirm the deaths of 28 of them'.

According to Hasan Akbar, after each accident the 'contractors' offer money to the journalists of the big local dailies. I have already been offered money several times. For the petrol tanker TT Dena there were four contractors in charge of the cutting. Two of them offered me money. In fact, when I went to the yard to investigate they offered me cash, telling me to go to the bosses' office ' to settle my expenses'. Later I learnt that some journalists had received between 10,000 and 30,000 takas'.

According to the journalist from the daily Azadi, the owners never offer money, they keep out of the way. It is the 'contractors' who do it but, in his opinion, the sums distributed definitely come from the owners. 'The contractors don't pay out of their own pockets because the deaths are of no importance to them, whereas for the owners it can make for very bad publicity'.

Journalist Atahar Siddique Khasru, a correspondent from Ittefaq, the Shitakundu national daily, went even further in his accusations. 'There is a list of journalists who receive a second salary every month, sometimes more than the first. I know at least six local journalists who receive a minimum of 5000 takas a month. There are about 20 journalists who cover current events at Shitakundu of whom ten are permanent correspondents. So only four salaried journalists out of the ten do not receive any money'. Furthermore, he recalled the case of a journalist from the daily Prothom-Alo who was dismissed in January 2002 for corruption.

The unionist Salimullah Salim gave details of press silence about the blows and death threats suffered at the time of the sequestration on the Namreen site in 1998. 'At the time we published a communiqué complaining about press silence. I presume that journalists are controlled by ship breakers and that newspapers, particularly Azadi and Purbakon, the two big local dailies, receive pages of publicity from the yards. All the owners need to do is control these two publications. On the other hand, it is very difficult for them to control the press in Dhaka'.

Violence

For the few incorruptible journalists, the yards also know how to use strong-arm tactics. Atahar Siddique Khasru explained: 'Most of the owners have a budget to pay local politicians, the police, journalists and of course their henchmen. As a journalist, if you do not listen to the yard officials especially after a fatal accident, you can easily become the victim of violence'.

The journalist from Ittefaq is in a good position to know this. In 2001, after writing several critical articles about shipbreaking yards, especially denouncing links with criminal groups, he was abducted, detained, tortured then left for dead on the verge of the Dhaka-Chittagong road.

'During my detention I was forcibly kept kneeling with my hands tied behind my back and bound to my feet. During the twelve days I was permanently blindfolded. I was hardly fed and instead of water they gave me hooch. I was kicked, and my hands, shoulders and knees were beaten with sticks. They also stuck needles under my nails. They asked me, "Which hand did you use to write the article?" When I replied the right hand, they began to stub out their cigarettes on it and hit it with a stick. After three days, when the press campaign began in my favour, they increased the torture and began to beat me over the head. One of them said, "Let's kill him" but another replied, "We haven't received the order". I was absolutely sure that I was going to die. I just wanted to know whether my death would be painful or not. I had got to the point of thinking that it would be better to die than undergo their torture. They kept asking me who had asked me to write and why'.

In his enquiry, Khasru had dared to detail the pillage of the two boats immobilised off the port of Chittagong which criminal groups had diverted to the yards in Shitakundu so that they could get on with their work. According to the journalist it was an all-out carving up operation with the complicity of certain yards.

A yard official agreed: 'Khasru tried to expose the hidden story of the pillage of boats implicating some yards. It wasn't the fact of denouncing the pillage itself which was the reason for his abduction, but the fact that he got close to exposing too much about the underworld of the shipbreaking yards. The pillage had begun three months before Khasru published his enquiry. And strangely, not a single journalist had mentioned it whereas everybody was discussing it in the bars'.

According to Osman Gani Mansur, the head of the Ittefaq office in Chittagong: 'The incident had an important impact on

local politics as the people involved in the kidnapping were linked to the previous governmental majority. The son of a Member of Parliament was mixed up in it and he was also involved in the breaking of the ship which Ittefaq had exposed. Khasru had also published articles denouncing the salvaging of oil residues, waste oil which they used to dilute lubricants sold on the market. They offered Khasru money to keep him quiet. As for me, I was not offered financial inducements but I was advised to dissuade my reporter from continuing to delve into the affairs of the yards'.

Khasru also denounced the case of the journalist Mahmud Abdullah whose brother was attacked at his home and beaten so violently that he was hospitalised. 'The attack happened because Mahmud Abdullah had written an article about the henchmen on the yards. At this very moment, in one way or another eight journalists are victims of henchmen'.

Atahar Siddique Khasru and Syed Murtaza Ali are privileged journalists; one has considerable family support and the other a solid reputation. This is not the case for the overwhelming majority of their colleagues who earn their living modestly and do not have the benefit of sufficient support to shield them from all forms of corruption, pressure or threat.

2- The police without a voice

A potentially disturbing element in the silence imposed by the yards, is the fact the police also have the right to receive bribes. There again, this corruption is not a particular case which is the preserve of the yards, but a wide spread practice on a national scale.

Hasan Aksar complained: 'The police are also paid regularly. They receive protection money paid to the local police station. Three years ago in 1997, the 20 active yards had collected 1000,000 for the police. Today it is certain to be more. To this contribution must be added little sums for each accident, each death'. The journalist explained that, at the time of an accident, the yards pay for the report on the police enquiry to be doctored. 'They also pay 'case file expenses', an illegal contribution levied on anybody in Bangladesh who wants to make a complaint or obtain some service or other from the police'.

When dead workers are officially reported, their bodies are taken to the hospital for autopsy. Hasan Akbar made it clear that this transportation is paid for by the workers, adding that this contribution is normal as the Shitakundu police have no

budget to cover their transfer...

On the other hand, when silence is imperative regarding corpses, the yards pay.

Salimullah Salim who has had to face this type of situation many times explained: 'As for the police, there was a price to pay for silence. At the time of a fatal explosion, it was 50,000 takas to have the names removed from police registers'.

Journalist Mahamud Abdullah told of the death of two workers buried without autopsy. 'I published this story in my paper and the next day the police went to the yard to ask for an explanation. The yard was ready to pay 100,000 takas compensation to the two families. But because of this visit, the site had to give 60,000 takas to the police and the rest, only 40,000 to the two families. They came to see me furious saying that I'd done them a disservice because they had lost money.....'

Generally, faced with yards which are supported by local political men, the police stand to attention and can only pocket the fruit of their own silence. Nayeen Uddin, the union man, told of how he went to the Shitakundu police after being sequestered along with Salimullah Salim in 1998. 'I asked them to do something and they replied, "The only thing we can do is to summon the yard officials, but we would have to hear their version of the story and do what they asked" '

In fact, as Syed Murtaza said: 'The only people who can do anything against the ship breakers are the media, even if it is very little. Local politicians are never going to oppose the yard owners, all the more so as the workers are not from around here, they come from a long way away and have no weight'. But he recognised that unfortunately the journalists hardly do anything.

This admission of weakness often emerged among the people interviewed, as with Professor Yusuf Sharif Ahmed Khan whose denunciation of the yards is supported by his studies on the environmental impact of ship recycling. 'I am very free, but have no power. I am a toothless tiger'.

D. The environment ignored

The environment and development

Despite the assurances given by the BSBA, a simple visit to the yards and the immediate vicinity makes it possible to assess the gravity of the situation. In fact, the other victim of ship recycling as it is practised on the coast of Bangladesh is the environment. As well as the shore, the sea which washes the yards and its air are seriously polluted by the various operations of shipbreaking. Pollution is visible everywhere: the ground is covered in all types of debris, the sea water glistens with all kinds of oil and petroleum residues, the air is difficult to breathe - and so on. And it is not just the part you can see. Other materials which are just as dangerous like asbestos are not detected by the naked eye.

Several studies, among them from the ILO, Greenpeace or from the Norwegian Certification Office, DET Norske Veritas (DNV - May 2000 - 'Decommissioning of Ships - Environmental Standards, Ship-breaking practices/On site assessment, Bangladesh-Chittagong), listed dozens of highly polluting substances present in the yards.

Since the situation is extremely worrying, the BSBA prefers to ignore it. In June 2000, Zafar Alam confirmed: 'Nowadays there is no problem of pollution in our yards because we take care. Here it is very different from in India as we take precautions. What is more, in our country residues of oil and petroleum have commercial value so we don't throw them away as they do in India'. If it is true that the residues of petroleum and other very polluting substances are for the most part recycled, it still remains the case that the ships are 'washed' in the sea and that all the toxic components of the ships undergo no special treatment, they are simply dismantled like the rest. What is more, if dangerous material is to be recycled and sold on, it has to be stored. And this storage is undertaken without the slightest concern for the environment.

Pollution is also easy to recognise on the approaches to the yards and around the Dhaka-Chittagong road, where the second stage of the recycling activity takes place. Stored barrels of petroleum residue without any special protection and every kind of piled up scrap iron can be seen. All these unauthorised depots exist side by side with cultivated fields, farm animals and dwelling houses.

An official from the Department of Environment interviewed in Chittagong in June 2000 said: 'I am disgusted by the situation existing in the recycling yards. It is one of the main problems of pollution here in Chittagong'. It is a colossal task to resolve the problem and with very limited means. 'In all we have a workforce of 173 people in charge of the environment and we are expected to do all the work in a country of 127 million inhabitants. How can we begin to tackle it?' asked the director of the Department of Environment, Mohammad Reazuddin.

Whereas the Department of Environment had never

manifested any great activity with regard to the pollution of the yards, the explosion of the TT Dena forced it to change its ways. So the day following the accident, the manager of the Chittagong office sent a report to the administration in Dhaka asking that penal proceedings be initiated against the owner of the petrol tanker and the contactors involved its breaking. This was a good intention which unfortunately, two years later, has withered away.

B. Mondal from the ILO office in Dhaka reckoned that: 'The Environmental Minister ought to be more active in the yards but all he does is issue declarations. His work never gets further than the paper stage'.

According to Mohammad Reazuddin 'sending messages calling for order and formal demands does not work. What is necessary it to prosecute them. But right now we still don't have a framework. A special court to try violations relating to the environment should be set up and directives should be published'. The director of the Department of Environment considered that, in the first instance, the yards should be given technical assistance and training should be provided. The yard owners should be clearly informed of the rules and new directives, and after that legal action should be taken if an offence is committed.

Mohammad Reazuddin, like many other people interviewed considered that: 'We must also take the context into account and the economic needs. We've got laws about food which, if applied, would ban everybody from eating....'In other words, in Bangladesh the law does not count for much when the feeding of dozens or even hundreds of thousands of people is concerned. 'We must find a compromise between losing jobs and making the yards safer. It is the country's socioeconomic situation which is responsible for the state of pollution prevailing on the yards, not the department of the Environment. If this industry had to respect the standards to the letter, it couldn't function at all'.

Magistrate Mohammad Harisuddin, while denouncing the unacceptable practices and abuses current on the yards, also called for the economic context of the country to be taken into consideration. 'The law should be respected, especially with regard to the environment, but we must be careful not to sacrifice jobs. We must strike a balance'.

The owner of a recycled furniture shop on the Dhaka-Chittagong road uttered his own apt pragmatism: 'When people do not manage to earn ten takas a day, why bother to mention the environment?

The fishermen who are victims of the sites

Although we must question the ecological and human cost, it is undeniable that the Chittagong shipbreaking yards have created many jobs. What is discussed less often is the situation of the villagers living around the yards. Progressively, many have lost their means of subsistence - to wit - fishing.

In February 2000 Mohammad Ismael, director of the Department of the Environment in Chittagong complained: 'Ship recycling is a highly polluting industrial activity. Fishing is directly affected. Some species have already disappeared and generally the fish are not so big nowadays. Near the yards the fish resources are disappearing. The fishermen have lost their means of subsistence and some of them no longer have anything to eat. From now on, some of the inhabitants of the area will lack protein'.

Once again, it is impossible to gauge the size of the disaster in figures. No exhaustive study has been made of the impact of the yards on fishing. But evidence gathered allows us to form an idea of the situation faced by the fishermen around Shitakundu.

In the village of Jelepara in Bhatiari which is next to several shipbreaking yards, about 100 families live mainly from fishing. This is seasonal. The village chief said it was from mid-June to October when the fishermen earn the most money, particularly from the highly prized hilsha, a type of salmon. During the remainder of the year, in theory they can catch little fish with smaller nets nearer the shore. Actually many of the villagers abandon their boats to go and work in the neighbouring yards.

A fisherman said: 'There is less fish because of the petrol and oil thrown in the sea near the coast. Even in the open sea, oil and petrol from the yards can be seen. The hilsha is a very fragile fish which dies very easily. With all this pollution, they do not come here any more. They can only be found by going out much further into the open sea. But I do not have the right, I must stay in my fishing zone. No zones apply on the high seas, but with my boat it is impossible to go so far. With our little boats we are obliged always to fish in the same place. It's different for the big trawlers'.

In under 20 years the yard set up nearby has completely disrupted the economy of the village, as a fisherman explained: 'The yard opened in 1985. Before that we caught much more and much bigger fish. The price of fish was lower then but we could catch far larger quantities. We have been suffering poverty in the village for about five years. Some

villagers also catch shrimp fry for breeding because there is no longer enough fish. The yards ruin our community and our economy'.

The yard owners pay no attention to the fishermen. This is not an unbalanced cohabitation but total contempt. As the village chief explained: 'For the most part, the yard owners install buoys where the ships are going to run aground, without taking any account of our fishing zones. Often they beach their ships right in the middle of a fishing zone and we can't go back there for months. These "dead ships" bring death here'. During the beaching operations, it often happens that the nets are torn. ' Hundreds of our nets are destroyed. In August 2001 we formed a committee of fishermen and lodged a complaint with the Shitakundu police. In order to find a solution, a local MP arranged an arbitration. The MP asked the police to claim compensation for our nets. We received 600 takas for each net whereas they cost 10,000 takas'.

This was the first complaint lodged collectively by the fishermen. Individually a few have sometimes tried to negotiate compensation directly with yard officials. But it is a difficult task. The chief said: 'We cannot go into the yard. We are ignored by the owners. In fact we are afraid of them. Most often we speak to the contractors. In the yard they ask us stupid questions like for example "What proof is there that you have had a net destroyed?" We are too small to defend ourselves. There has never been violence against us, they just shout at us, that's all'. And if more ships arrive in the future? 'I don't even dare think about it... The most important thing for us is the education of our children so that they can be employed and not depend on fishing. My son will not be a fisherman, he's going to finish secondary school and continue his studies. I am going to be the last fisherman in my family'.

But for the majority of the village children, studying or even just going to the secondary school, is quite simply impossible.

Bangladesh - the rich countries' dustbin

Apart from the irresponsibility of the yard owners, we must consider the responsibility of rich countries that prefer to see their detritus - especially the biggest pieces - ocean going ships - disappear in the direction of far-off destinations like Bangladesh. The Basel Convention is permanently ignored, and it doesn't matter what happens to these enormous deposits of floating toxins providing that the disaster occurs somewhere else.

Mohammad Reazuddin considered that: 'In the domain of shipbreaking, we are unable to impose the rules of the game.

If they complied with the obligation to clean the ship before it went to auction, then most of the problems here would be solved. There must be a monitoring system for cleaning before auction. The ships should arrive here containing only fuel for their engines'.

Finally, as the Director of the Department of the Environment explained: 'The poor countries are fighting to get their share in the global market. They are unable to fight in the market of clean and trouble-free products. So here in Bangladesh are the dirty, polluting industries, like leather and textiles which require the use of chemicals. Here the fast expanding industries are the 'sick' industries of Europe like leather, textiles and shipbreaking. We accept this because it is the only way for us to develop'.

3. Conclusion: the first changes?

The 31st May 2000 can be considered a turning point in the shipbreaking yards of Chittagong. In fact, the tragic explosion on the tanker TT Dena produced such a shock wave and gave rise to such protests that it has become impossible to continue with the business without questioning the situation.

For the first time, the government has instituted a commission of enquiry aiming to clarify the context in which the accident happened. In July 2000 through the Department of Explosives, it also organised a training workshop on the cleaning and cutting of ships as well as the measures to be taken to avoid the risk of explosion. The foremen and supervisors who took part in the workshop were supposed to train their workmen afterwards. A second workshop is planned for December 2002.

For its part, in March 2001 the ILO organised a seminar which was able to bring together all those involved in the ship recycling industry including unions which otherwise have no access to the yards. This meeting was not without tensions given the differences in view points. But the mere fact that questions as crucial as working conditions, workers' rights or even the environment could be tackled, constitutes progress in itself.

Mohammad Ismael, Director of the Department of the Environment in Chittagong said: 'It was a 'first' for the yards. The participants recognised that everybody's thought processes had to change, that training was needed on technical aspects as well as legal questions. Today the situation is changing in a positive way, but very, very slowly.

The ILO expressed the same optimism. B. Mondal said: 'The situation has improved. The majority of the workers are still not wearing hard hats but, nevertheless, we can speak of progress. Before, workers who were cutting with blowlamps had no eye protection. Today some can be seen wearing goggles. You also see shoes and gloves'.

Salimullah Salim added: 'The essential change is to do with the fact that the owners and contractors take new precautions to reduce the number of deaths and accidents. Of course, the precautions are not of a scientific nature, for instance, they just have more holes made in the hulls'. (This is for light, ventilation and possible escape routes. Translator's comments, gleaned from previous reading)

Moreover, a brigade of firemen has been installed not far from the yards and in January 2002 it was announced that a 100 bed hospital would soon be opened.

For many observers, this development has less to do with a change of heart among the yard officials than the guarantees they are obliged to give, following the numerous criticisms aimed at them. As a union man said: 'Previously, yards could hide accidents but now they have realised that it is no longer possible. Nowadays the owners and contractors are aware that NGO's, journalists, unions or even certain government departments exist, all of them ready to expose what happens in the yards'.

In fact, the signs of improvement proliferate, but in practical terms changes are slow to materialise. Two visits from the FIDH (June 2000 and February 2002) showed that changes are still infinitesimal. It is all intentions and promises.

The training organised in each yard has not impressed the workers. A cutter said: 'They assembled the workers in the yard. By loud speaker we were told that safety is important, that measures would be taken, that each yard would have a doctor and a hospital would be built. We were also promised all necessary protective gear for working. There were lots of promises. In fact, the training was nothing more than advice'.

Another worker said: 'They announced training for everybody but it didn't really take place. One morning they gathered us together to listen to speeches from the owners and contractors. They promised us protection (boots, gloves, helmets etc.) and a hospital. We're still waiting'.

Salimullah Salim explained: 'To reduce the pressure (after the accident), the yards have organised 'training' by loud speakers

Where do the "floating dustbins" end up?

which they used to shout safety instructions to the workers, but no training has been undertaken'.

Doctor Rahman Mizan voiced his opinion: 'Nothing has really changed. There was the seminar, the distribution of a few hard hats, goggles and boots, but all that just makes them feel that their conscience is clear, that they look good. There are minute signs of change, but basically the situation remains the same'.

Khasru, the journalist, said: 'There is no change concerning the working conditions. There's just one change - nowadays, if there's an accident, a seminar is organised. They have even announced that a hospital will be built but nothing practical is done'.

Nearly two years after the commission of enquiry was set up, the report has still not been made public. An official from the Chittagong administration complained: 'In this country there are lots of commissions and reports...but concerning the ship breaking yards, I have not seen a perceptible change on the ground. There's just been words, promises but nothing concrete'.

Finally, faced with an industry which has grown so much in 20 years and which could grow still further, some people are talking about the need for an authority especially created to

supervise the ship breaking yards. One authority ad hoc to approve and implement the necessary changes.

Three decades after its inception, the ship breaking industry has become essential to the Bangladeshi economy. Responsible for hundreds of deaths and serious environmental pollution, this activity has also become a source of revenue for several hundred thousand Bangladeshis, of whom a large majority are amongst the poorest in the country. If today the State of Bangladesh should change its attitude so as to supervise and support an industry which is still allied with an immense unofficial sector, the international community should also support this development. Making ship recycling in Shitakundu acceptable, as much for the workers and yard employees as for the environment, will need a material investment that Dhaka could not afford alone.

What is more, these ships to be recycled which become floating toxic mines are, above all, the product of a northern capitalist economy, which has not yet managed to integrate into its production planning the processing of these extremely large and dangerous waste products. This putrid fruit of the globalisation of market trading, the recycling of wrecked ships, should be taken in hand collectively, and especially by those businesses and States which profit most from trading by sea.

^{25.} Based on the figures provided by trade unionists, the BSBA, journalists, academics and representatives of the administration, who all have some involvement in the recycling of ships.

^{26.} See the discussion of problems in the Department of Explosives in Part II.

^{27.} See his testimony in part two.

^{28.} See introductory section for more details about the role played by international institutions.

^{29.} Figure taken from the report published by the BILS, "Ship breaking industry of Bangladesh: Status of the occupational health and safety and Worker"s Rights at Shitakunda". September 2000.

^{30.} Figure published by BILS, in the report referred to above.

^{31.} During the winter, temperatures can drop to 10 $^{\circ}$ C in Bangladesh.

IV. ALANG (INDIA)

Introduction

If Alang, situated on the eastern coast of the Gujarat state in India, has come to symbolise all the horrors of shipbreaking, it is to some extent illegitimate. The mobilisation of the international community has indeed triggered policy and regulatory changes in the last few years, as has been witnessed by the FIDH delegation between its two visits to the yard (2000 and 2002). It is now fair to say that the situation in Alang is comparatively better to that in other Asian shipbreaking yards. This relative difference is to a large extent attributable to the vast media attention brought on Alang in the 1990s, and structurally, to the existence of a public regulatory body, the Gujarat Maritime Board (GMB), responsible for the administration of all ports in Gujarat, and which serves as an intermediary between the private operators - the ship owners -, the state authorities and the workers. Although it is far from being exempt of problems of its own - essentially a bureaucracy, slow to deliver, sensitive to power play and often corrupt - it nonetheless has taken its responsibility increasingly seriously in providing constructive responses to the problems that have been brought up.

However, much more needs to be done. Improvements in the field of health and safety have been slow, due to the resistance of shipbreakers and the slowness of the GMB, and crucial steps, such as the building of adequate medical facilities by the yard, are being delayed under various - and often incomprehensible - pretexts. More worrying yet is the situation of labour rights - simply non-existent, and completely disregarded by the relevant authorities. Though the average wage of 2 US\$ a day represents a significant increase of the income for most of the workers, usually migrants from poorer areas of India, one still wonders how it can be considered as "a just and favourable remuneration ensuring for himself and his family and existence worthy of human dignity", in the terms of the Universal Declaration of Human Rights. The lack of trade unions to represent workers' interests cannot merely be explained by the fact that the workforce is largely migrant, uneducated and mobile, though it is a factor to be taken into account. There is above all a clear will on the shipbreakers' part to prevent the formation of any union, as it supposedly "would kill the business", in the words of a shipbreaker. The workforce thus remains at the mercy of their employers, who hire and fire them at will. The same arbitrariness applies to social benefits, which invariably depend on the employer's

good will. Very little is attempted to remedy the situation and enforce the existing labour laws or provide guarantees for the workers, both because any such attempt is immediately quelled, and as a result of a pervasive climate of fear and intimidation. Legal remedies are not readily available. While some workers have filed - and, in some cases, won - cases in the state's labour courts, the legal system is "heavily biased against the workers", says a lawyer specialised in such labour cases. According to a report by The Baltimore Sun in 1997, the Bhavnagar labour court, which has just one judge, had a backlog of 10,000 cases.

The de facto social stratification of Indian society in castes and the local power enjoyed by ship owners certainly do not help to guarantee equality before the law. Their tremendous economic power at state level amounts to "a de facto impunity, says a unionist, they represent a real mafia in Gujarat". A Gujarati, now Bombay-based, journalist explains that this power is felt throughout the media as well: "If a local journalist wants to take up the issue of Alang, the shipbreakers invite him to a fine restaurant somewhere in Bhavnagar, and somehow, he comes out with the idea that everything is fine in the yards..." A local activist curtly summarises: "Both the media and the judiciary are corrupted by the shipbreakers. That's the situation". The helplessness and vulnerability of the workers was expressed by one of them: "What can we do? We are poor and don't understand very much of the laws. They have power and money, and they know that, in the end, we need to work or else all our family starves. We just have to be silent, pray to God, and work".

1. Facts and figures on Alang-Sosiya Shipbreaking Yard

A. A short history of the world's largest shipbreaking yard

In a little more than a decade, Alang has grown from a small coastal village, populated with fishermen and farmers, to become the world's largest shipbreaking yard. Until the 1980s, shipbreaking activities in India were limited to the breaking of barges, small sized ships and casualty ships³². It was concentrated in Darukhana yard, near Bombay, which is still in activity³³. At the end of the 1970s, a decision was made to invest in this sector (shipbreaking was officially recognised as an industry by the Indian government in 1978).

The Metal Scrap Trade Corporation (MSTC) of the government of India then started importing non-usable ships from foreign countries, and the government decided to set up a "shipbreaking development fund". In September 1981, a delegation of shipbreakers, along with government officers from Index B (the Industrial Extension Bureau) visited several coastal locations in Saurashtra, Gujarat. While the industrial belt located in south Gujarat, referred to as "the golden corridor", was reaching saturation in terms of industrialisation, the Saurashtra coast was on its way to become "the silver corridor", as the industrial development is shifting from the central plain to the coastal area³⁴.

Alang offered a unique combination: the highest tidal range in the country (10 m - 30 ft), seaward slope and firm seabed, and was thus ideally suited for shipbreaking activities. In January 1982, the Gujarat Chamber of Commerce and Industry (GCCI) organised a meeting with shipbreakers; the Gujarat government then decided to allocate an initial fund of Rs. 250.000 for the shipbreaking industry.

On February 13th, 1983, the first vessel, the MV Kota Tenjong, was beached. Since then, Alang shipbreaking yard, which stretches over 15 km and actually covers two yards (Alang and Sosiya), has become the world's largest shipbreaking yard, with a total of 183 plots. Out of these, ten $120 \times 50 = 6000$ sqm. plots are earmarked for breaking

VLCCs and ULCCs. Other than those, most plots are $30 \times 50 = 1500$ sgm.

The Gujarat Maritime Board (GMB), a semi-public institution running all Gujarati ports, was given the responsibility for developing the shipbreaking yard. At the time a two-phased scheme was envisaged:

-The development of infrastructure (acquisition of land, plotting and allotment of land to the shipbreakers, setting up of roads and means of communication, installing water and electricity facilities...)

-The construction of a finger jetty, provision of gas through pipelines, and building residences for the workers. As of April 2002, this second phase has not yet been implemented.

Before 1990, the GMB played a direct role in the business, as it would buy the vessels on the world market, and then dispatch them to the shipbreakers on a first-come, first-serve, basis. Since the early 1990s, the market has been opened, and shipbreakers compete directly on the international market.

As of 2001-02, the number of vessels beached at Alang was 3377, totalling 24.68 million metric tons of ldt. An estimate 6000 metric tons of steel come out of Alang every day - basically a ship a day.

Number of ships beached at Alang shipbreaking yard:

YEAR	NUMBER	LDT (IN MILLION METR IC TONS)
1997-98	347	2.452
1998-99	361	3.038
1999-2000	296	2.752
2000-01	295	1.935
2001-02	333	2.727

Source: Gujarat Maritime Board

A new ship demolition facility has been opened at Pipavav, Gujarat, in June 2001, following the public outcry on the conditions at Alang. Pipavav has been constructed to allow demolition to take place in sheltered dock areas, rather than on open beaches; two such docks are now in operation, with tank cleaning and modern recovery facilities provided.

B. Final destination - Alang

Once a vessel's seaworthiness certificate has expired, it is put on the international market and sold through international brokers to the highest bidder for delivery on site in an "as is" condition. Alang shipbreakers reportedly tend to work more with Dubai or Singapore-based brokers. Depending on its nature, size (for instance, Bangladesh specialises in VLCCs and ULCCs, scrapping some 52% of all vessels above 200.000 dwt in 1998), location at the time of the purchase and, obviously, market competition, it ends up in one of Asia's main shipbreaking yards. The cost of the voyage to the beaching site of the ship, as well as the cost of transport for the last crew, are indeed shouldered by the shipbreaker. The vessel is then sent with a minimal crew to its final destination; the crew usually gets a short-term visa and is transported to its home country the day after the beaching.

The essential factor determining the price of the vessel is the quantity of steel aboard. This explains why oil tankers and military vessels are particularly prized, while cruise ships are less regarded. Generally, 95% of a ship's body is made of mild

steel, 2% of stainless steel, and 3% of miscellaneous metals, such as aluminium, brass, copper... These non-ferrous metals, which sell at a much higher price than steel, are important elements to be taken into account when purchasing a ship for scrap. The price of the steel hovers around 10 Rs./kg (US\$ 0.21) - as of April 2002, it stood at 8 Rs./kg. Non-ferrous metals sell at around 100 Rs./kg (US\$ 2.1), which means that the benefit expected from the ship depends for a large part on the quantity of non-ferrous metals. In some cases, they might make a difference between a profit-making and a loss-generating operation, as the percentage of lost weight in a ship - usually due to rust - is on average 10%. Consideration is also given to the existence of an extra propeller (hélice), and the quantity of fuel left in the vessel which can be sold back on the local market.

Once the vessel is purchased, a race against the clock starts for the shipbreaker, as the interest on his bank credit accrue. Any obstacle in the way of a quick dismantling of the vessel therefore has to be removed - such as firm guarantees for the health and safety of workers, social rights, etc.

The shipscrapping process

Once all the administrative formalities are cleared (gas-free certificates, naked-light certificate, etc...), the actual process starts with the beaching. During high tide (which occurs during 8 to 10 days each month), the ships run at full steam onto the beach. High tides and low beaches (together with a cheap labour force and a domestic market for rerolled steel) account for the success of Asian shipbreaking yards. The beaching is a most delicate operation, both because of the narrowness of the plots, and, in Alang, because of the strength of the currents (reportedly the second strongest underwater currents in the world after the Mississippi delta). The Port Officer always conducts the beaching. A badly handled beaching, in which the ship ends up too far from the coast, translates into a dramatic increase in expenses for the owner, as the price in Alang for towing the vessel using a motorised winch is approx. Rs. 100,000 (approx. US\$ 2100) for each 100 ft on the beach. As the dismantling is under way, the vessel is brought closer to the beach at every high tide, or with the help of winches (often recovered from earlier vessels).

Indian regulations require that all telecom and computer equipment be destroyed, which is done under supervision of a customs officer upon arrival of the ship.

The ship is then emptied of all its movable goods, which are sold by auction to the local traders. Everything is sold, from the lifeboats and lifebuoys (bouées) to the engine, generators, motors, furniture, kitchen appliances, cutlery... Emptying the ship takes a fortnight.

The ship is also emptied of all its fuel, which is also sold on the market. The waste oil is disposed of, either by being pumped directly into the sea, or burned on the shore. In Alang, the yard has to prove to the GMB that the fuel tanks have been secured before the final authorisation to proceed with the scrapping is given.

The process of scrapping then starts, by hundreds of workers using gas torches. The ship is dismantled in slices, from front to back, and from top to bottom, in a symmetrical way so as to maintain the ship in balance, and following a plan drawn by an expert according to structural aspects of the vessel. The structure of the ship is an important consideration, as it affects the way the sections will fall and how the cutting work should be performed. The engine room is the last part to be broken down.

Openings and windows in the hull are created in the early stages of the scrapping operation. Such openings allow for light for the gas cutters working inside the vessel, air to vent the fumes, and escape routes in cases of fires.

The winches and cranes serve to bring large chunks of the ship to the shore. Once ashore, these large chunks are reduced to plates and sections of approx. 400 pounds, the limit that can be lifted onto a truck by manpower. The recovered steel is then sold to re-rolling mills, usually in the vicinity of the yard. There are approx. 70 re-rolling mills in the area, each employing between 80 and 120 workers. The metal plates are re-rolled into reinforcing bars for concrete construction, metal roofing, or other products. Others are sent to re-melting furnaces, where new products are made.

Each plot uses on average 250 to 300 oxygen cylinders and 35 to 40 LPG cylinders per day. Between 250 and 300 labourers are needed to break down a 5000 metric ton vessel.

While a ship can be broken down in two weeks in a mechanised facility equipped with modern machinery, it takes 3 to 5 months to dismantle it in the labour-intensive, manual facilities in third world countries.

C. Financial and economic aspects of the shipbreaking yard activity in Alang

Alang represents a sizeable source of revenue for shipbreakers and for the state of Gujarat. India's domestic shipbreaking industry has an annual turnover of Rs. 25 billion (US\$ 521 million), most of it from Alang. The GMB reportedly earns a revenue of Rs. 7 billion (US\$ 145 million) each year. Undoubtedly, the gap between the revenues earned by the GMB from the yard and the infrastructure, let alone the social investments to benefit the workers, leaves much to be desired.

The shipbreakers' woes: too many taxes, too little profit

Likewise, there is a deep-seated resentment of the shipbreakers against the GMB, which they feel earns a sizeable income from their business without providing for an equivalent level of services. "The GMB is a major hindrance for the business", says a shipbreaker. Indeed, the shipbreakers have complained to the GMB in a written memo about the non-availability of necessary services, such as water and electricity, though they were planned in Alang's development scheme. The business, though successful, has now become a highly competitive one in India, with a close balance between costs and revenue, since the ship cost to the shipbreaker is erratic, varying between 120 and 190 US\$ per ton, as is the price he receives for steel. This has a direct impact on working conditions, as a race against the clock starts for the shipbreaker as soon as the ship is purchased: every day the work is delayed means bank interests running, with no profit. In particular, the Memorandum of Understanding between shipbreakers and the GMB [see below] imposes that "major fire accidents will suspend all cutting operations for two days", and "any accident involving the loss of human life will entail a suspension of five days" (art. 8 a and b) - a suspension which the shipbreakers are singularly eager to avoid, if need be by means of corruption. Under the proposed revision of the Rules of safety, the suspension after an accident entailing the loss of human life will be raised to 15 days. According to a GMB official, this is one of the proposed changes that the shipbreakers most vehemently oppose.

Ironically, the Alang shipbreakers bitterly resent their Bangladeshi counterparts, who "do not have all these social and environmental regulations, such as the gas-free certificates, and who have a complete monopoly on the output of steel in the country, and thus control its price", in the words of one of them. The shipbreakers' ever-present complaint hence concerns the level of taxes levied on the shipbreaking activity, which add up to more than 20% of the shipbreaker's costs.

<u>Duties paid to the GMB by shipbreakers</u>: (It is to be noted that varying figures have been provided to the FIDH)

 $\begin{array}{lll} \text{Basic custom duty} & 5 \% \\ \text{Additional custom duty} & 10 \% \\ \text{Landing charges} & 1 \% \\ \text{Central excise duty} & 16 \% \\ \end{array}$

Sales taxes on steel 2 % on central sales 4 % on local sales

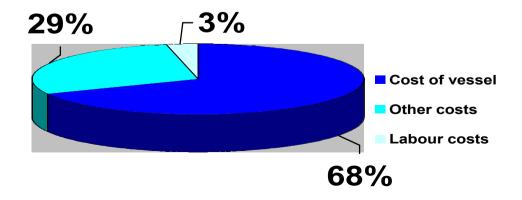
To this should be added port charges, which approximate 12%, and plot rent, which amount to 87 Rs. annually per sqm.

For illustrative purposes, we will take the example of a ship paid at US\$ 150 a ton, with a conversion rate of 48 Rs. to 1 US\$. Suppose the shipbreaker to be breaking three average

sized ships (around 5000 metric tons) a year, in a 30 x 50 m plot, i.e. a 1500 sqm plot. The costs per ton break down as follows:

	Rate	In US\$, per ton	In Indian Rs., per ton
Cost of vessel		150	7,200
Custom duty	5%	7.50	360
Additional custom duty	10%	15	720
Landing charges	1%	1.5	72
Central excise duty	16%	24	1152
Sales taxes	2%	3	144
Sub-total 1 – total cost of vessel		201	9648
Port charges		0.25	12
Beaching		0.54	26
Wharfage		1.46	70
Sub-total 2 – port charges		2.25	108
Plot rent	60 Rs./sqm/yr	0.13	6
Premium (right to use)	27 Rs./sqm/yr	0.06	2.70
Sub-total 3 – rent	87 Rs./sqm/yr	0.19	8.70
Electricity and water charges	750 Rs./mth	0.01	0.6
$LPG + O^2$		6.25	300
Misc. banking charges		4.17	200
Labour charges		6.25	300
<u>TOTAL</u>		<u>220.12</u>	<u>10,565.30</u>

Costs for the shipbreaker



The striking factor here is that labour costs account for only 3% of the total costs.

In spite of the shipbreakers' complaints, the government appears to be more attentive to their demands than to those of the workers. In 2000, for instance, the federal government announced a tax break for ship acquisition for the fiscal year 2000-01: 50 % of the profits earned by shipbreakers during this fiscal year would be exempt from income-tax if they set this amount aside for ship acquisition.

2. The Workers' Travails -very little security, no Rights

"No security, no handgloves, no holiday, no Sunday pay, no water, no school, no quarters, no rooms, no medical facilities, no provident fund, so many dangers and very little pay... Who would come to this hell if he wasn't forced to?" Rajandra, 31, from Karnathaka.

A. The organisation of the work at Alang

Estimates of the number of skilled and unskilled labourers directly employed at Alang varies between 25 and 40,000. The total number of people directly and indirectly employed is estimated between 150 and 160,000. This includes the downstream industries generated by the shipbreaking yard, such as re-rolling mills, foundries, oxygen plants, transportation companies, local scrap good stores (about 350 of them, called "Khadas") and other small local businesses, and upstream activity, such as brokers, service sectors (insurance business, postal services, communication...).

(i) An impoverished, lower-caste, migrant population

The vast majority of Alang's workers are migrants, mainly from the three Indian states of Orissa, Uttar Pradesh (UP), and Bihar. An estimated 70% worked in agriculture before moving to Alang³⁵. It is a largely uneducated workforce, relatively young (between 20 and 40), and mostly male: only a few hundred women are estimated to be working in Alang, essentially as helpers to carry small items out of the vessel. Most workers (95 %, according to V. Joshi's survey of Alang workers, based on a total of 361 workers³⁶) migrate to Alang on their own, without bringing their families, to whom they send money back every month - on average 50%, but sometimes up to 80%, of their total earnings. Many workers return once a year to their home state, usually during monsoon.

Though child labour does not appear to be a general problem at Alang, several cases of under-age labourers were noted by the FIDH delegation. Some workers were as young as 15. According to V. Joshi's survey, 2.5 % of workers were below 15, and 0.55 % between 15 and 18³⁷. According to another study presented as annex to the case presented to the Supreme Court of India, 6% of workers surveyed were minors.

Moving to Alang is mainly an economic decision for the workers, either facing unemployment or barely eking out a living in their home states. Prakish, from Bihar, says that "rather than being unemployed at home, its is still better to work here, even if we're far from our families, even if we get low wages, even if we live in terrible conditions, and even if it is such a dangerous job..." His friend confirms: "The main reason to come here is certainly not because it's a good job it's just that there is simply no work at home". It is estimated that approx. 85% of Alang workers earned between 500 and 1000 Rs. (between US\$ 10.4 and 20.8) a month before migration. By contrast, an estimated 74% earned in 1999 between 1000 and 2500 Rs. (US\$ 20.8 and 52), and an estimated 22% earned above 2500 Rs. (vs. 1% before migration in that last range)38. The study done by V. Joshi shows that, while close to 24% of the workers surveyed are illiterate, 32% have had an education up to high school. This means that the literacy rate among Alang workers is higher than the average literacy rate of India, and considerably higher than the average in UP, Bihar and Orissa. V. Joshi writes: "This is indicative of the fact that these people have migrated in search of better opportunities. This may not be forced or "push" migration" 39.

As would be expected, migrant workers are often from the lower castes of Indian society; though legally banned, the caste system remains pervasive in India, and still in many ways holds sway over a person's destiny. It further aggravates the imbalance between employees and employers, who generally come from higher ladders of society. At best, the owners tend to have a paternalistic approach to their workers. The relatively few Gujarati workers tend to have the lighter jobs, whereas the riskier and heavier ones go to the migrants.

According to NGOs working in the area, the presence of this massive population of mainly single men has generated a dramatic increase of prostitution in the area. HIV-AIDS has also now been recognised as a growing source of concern, and an AIDS centre has now been set up in Alang to provide information and help to the affected workers.

(ii) Getting a job at Alang

Workers are hired either on a daily or monthly basis, or on a contract basis, for a specific task on a vessel. In the latter case, they tend to have longer working hours.

The workers fall into several categories, following the different stages in breaking down the ship. The *Battiwala*, the gas

cutters, especially the ones on the ship, are the most highly skilled and consequently the best paid (apart from the labour contractor, the *muqadam*). Their work is to cut down the steel plates; the *helper* accompanies the gas cutter, and helps in changing gas cylinders, for instance. The *malpani* dissects the various non-ferrous metals, while the jodiwala lifts the plates from the ship and loads them unto the trucks bound for the re-rolling mills.

Functions	% of labour
	force
Battiwala – Gas cutter on the ship	28.7 %
Battiwala – Gas cutter on the field	5.7 %
Malpani – Extracts and grades	22.7 %
precious metals	
Jodiwala - loads and unloads steel	19 %
plates	
Cylinder lifter	7 %
Helper	6.7 %
Muqadam	3.3 %
Irregular labourers	4.3 %
Others	2.6 %

Source: "Sociological study of unorganised workers of Alang shipbreaking yard".

The muqadam

The workers are usually hired through a labour contractor, called the muqadam, who also supervises their work in the yard, with whom the owner "places orders" for the workforce. Above the muqadam is the supervisor, whose role is strictly technical. Above him is the yard's owner, who does not deal directly with the workers nor with the strictly technical aspects of the scrapping process, but oversees the whole process.

In many ways the muqadam is the key person in the labourers' working life. In most cases, he hires them from their local villages⁴⁰ (he often comes from the very same region); he thus acts as their contractor. He is also the one who assigns them their specific job on the plot, according to their skills, and decides on their promotion. Amil, a 25-year old gas cutter (in the field) from Bihar, explains that he is "very ambitious. I want to progress and become a gas cutter on the ship, which is the highest and best-paid position. I have to show my skill to the muqadam, by cutting thinner plates, and then he will decide". A muqadam can have a team of up to 100 workers, though the groups are generally smaller. The work in each plot is thus divided into several teams headed by up to 5 different muqadams.

But the muqadam is also the workers' day-to-day supervisor on the plot. He also mediates between the employer and the workers in cases of grievances, since the workers very often never have direct access to the shipbreaker. Ramanuj, from Madhya Pradesh, explains:

"We are allowed to talk only to colleagues and to the muqadam, but not to the owner, visiting officers, or foreigners. I once went to see the owner, and he scolded me and said I should not address him directly."

As will be shown, the muqadam is not only a key element in the chain of command - he is also a key element in the climate of repression which prevails at Alang, designed to maintain the workers in a position of obedience and subordination.

Each plot employs approx. 250 to 300 workers. No employment-related training is provided, though a training institute is being built. It is expected to train all Alang employees (including supervisors, muqadams, and owners) mainly in health and safety issues, though.

The workforce in Alang is very mobile - also within the yard.

Workers regularly change plots, depending on the arrival of ships and the workload. Their mobility might also be due to disputes with a muqadam in their previous location, or to get closer to fellow villagers, or because of reportedly higher wages elsewhere. According to a GMB official, the mobility of workers within the yard and outside is the main reason for the difficulty in systematising the registration of workers.

B. Terms and conditions of employment - a culture of intimidation and arbitrariness

Though improvements have been made in the area of occupational safety and health, the implementation of labour rights remains wishful thinking in the Alang yards. This is particularly striking as regards freedom of association and collective bargaining, in clear violation of both international and national law (in particular art. 19 of the Constitution of India and the Trade Unions Act, 1926). Most shipbreakers interviewed view the possibility of a trade union as nothing less than a threat that could "kill the business". Meanwhile, GMB officials find it "not particularly relevant", even with a view to improving the poor safety and health record of the yards. A governmental labour officer is posted at Alang, supported by an assistant: his task is to oversee the implementation of Indian labour laws. However, as most observers have noted, serious questions surround the labour officer's commitment or ability to enforce labour laws and regulations. The (social and professional) proximity of the Officer to the yard's officials certainly does not enhance his credibility.

Enforcing labour rights is a legal obligation under Indian and Gujarati law, as well as under the various international treaties India has ratified, notably the International Covenant on Economic, Social and Cultural Rights. Importantly in India, labour is a subject for the Central authorities but the States are allowed to amend or even to enact their own laws, according to the typical conditions of labour in their states. Besides, the state governments are generally the chief administrative authority for enforcing the legislation.

Respect for labour rights is not just an obligation, it is also a matter of economic efficiency. Making the workers part of the process whereby the issues raised by the yards - be they economic, environmental, social - are dealt with is the only way to create a climate whereby the negotiated solutions are appropriated, promoted and furthered by all of Alang's employees.

Today, this is very far from being the case. An atmosphere of fear and intimidation has been created in the Alang's yards, thereby ensuring that workers remain obedient and submissive. This is supplemented by a lack of guarantees as far as wages, hours, and contracts are concerned, in clear violation of Indian legislation, and an utter contingency of their working life, depending on the personality and working habits of the owner and the muqadam. The discretionary power of the owner as well as of the muqadam is immense. The workers agree to say that there are wide ranging differences between the employers, be it in the wages, in general working conditions, in medical benefits... "In the same way that the hand's five fingers are all of different sizes, likewise the shipbreakers are all different in the way they treat us", says Bhajwati, from UP. Arbitrariness rules. Mukesh, a worker from Bihar, says that "some owners follow the rules, some don't. You just have to pray to get one who does".

It is particularly unacceptable that the working life of thousands of labourers should be suspended to the contingent good will of an employer, with no legal guarantees and very few recourses (in this respect, the outcome of the case currently in front of the Supreme Court of India on the issue of working conditions and housing conditions at Alang will be a test). In that sense shipbreaking yards appear to be a flashback in time - the rule of the individual, not of law.

Indian unions, such as the All India Trade Union Congress (AITUC) and the Centre of Indian Trade Union (CITU) have made attempts to push for better respect of labour laws in Indian shipbreaking yards, and have set up a Joint Action Committee with NGOs involved in the issue, such as the Basel Action Network of India - to little avail.

(i) Job security - "disposable workers"

The absence of job security, and the possibility of dismissal overnight, is at the core of the vulnerability of the Alang workers. There is no written contract of employment. The labourers can in effect be fired at any time, with no prior notice, and with no reasonable grounds. Ramhaval, a 40-yearold muqadam from UP, readily acknowledges it: "I can fire the workers if they don't work properly, or if they don't obey me, or if there's not enough work for them that day. I decide." The shipbreakers acknowledge this "flexibility", which they deem necessary to remain competitive. A shipbreaker explains that he employs his workers by the day, so that he can decide every morning the number of workers needed for the expected workload. "Do you know what disposable tissues are? Well, we are disposable workers. It's the same thing. You can just throw it out when it is used, and it is so cheap you can use as many as you want!", says a worker.

The discretionary power of the employer, based on the ability to hire and fire any worker any time, is felt in every aspect of the labourers' life, whether it is working hours, wages, benefits... Likewise, he can benevolently decide to provide them with, say, water for their kholis, or grant them loans in case of emergencies, but is never under any obligation to do so. At best, such "extras" come under a paternalistic approach by some employers, says one who "feels like a father to his children". The inequality of the employment relation is further aggravated by the caste distinctions, with the workers generally originating from "lower" castes, and owners, from the "upper" ones. As noted above, the immense local power enjoyed by the shipbreakers, and the possibilities of corruption that this entails (as some of them informally acknowledge) plays heavily against the workers.

Valji summarises: "A worker's life has no value because there are so many of them. The owners know that they can find as many workers as they want, any time, so those who have a job keep quiet and hold on to it. We are so easily replaceable, you see, so we really can't say anything"

Though the Memorandum of Understanding signed between the Shipbreakers' Associations and the GMB [see below] provides for registration of all Alang workers, such registration has not taken place systematically. Some workers interviewed had been registered, most had not because, as they explained "we were absent from the yard the day they did the registration, and after that it was too late". The workers are handed attendance cards, which they hand back at the end of each month, and thus do not keep any written record of payments, of working hours or of service.

(ii) A climate of fear - The absence of trade union and of collective bargaining rights

Workers are not allowed to organise trade unions in the shipbreaking yards. In India, this is not specific to shipbreaking yards (see ILO reports on the issue). However, the lack of unionisation is particularly condemnable in the yards, given the extremely perilous nature of the work. The dangers involved in shipscrapping make it even more unacceptable that workers be prevented to collectively defend their rights. As stated by advocate A. Bhat in her case in front of the Supreme Court on working conditions in Alang, "until the workers are really [organised in a union], their rights and interests cannot be protected fully only by the government or the Gujarat Maritime Board".

The de facto prohibition of unions in Alang is in clear violation

of article 19 of the Constitution of India, as well as of the Trade Unions Act, 1926 and the Industrial Disputes Act 1947. It is contrary to art. 20 and 23 (4) of the UDHR. It further violates India's obligations under article 8 of the ICESCR. Though India has not ratified either ILO Convention 87 on Freedom of Association and Protection of the Right to Organise, nor ILO Convention 98 on the Right to Organise and Collective Bargaining, it nonetheless cannot consider itself to be exempt from the obligations under these instruments. Indeed, the 1998 ILO Declaration on Fundamental Principles and Rights at Work formally states: "The International Labour Conference declares that all members, even if they have not ratified the Conventions in question (87 and 98) have an obligation, arising from the very fact of membership in the Organisation, to respect, to promote and to realise in good faith and in accordance with the Constitution, the principles concerning the fundamental rights which are the subject of those Conventions, namely freedom of association and the effective recognition of the right to collective bargaining" (Underline ours).

The fact that the workforce in Alang essentially consists of a migrant population makes unionisation particularly difficult. But this does not appear to be the main reason for the absence of unions in Alang. Most workers agree that a union would be instrumental in improving their working conditions and express their readiness to join one if allowed. All workers interviewed concurred: it is impossible to unionise in Alang, with the Damocles' sword of dismissal hanging above their heads. "Anyone who initiates anything, even if it is just a demand for a small wage rise, is fired right away. How do you want to start something as big as a union?", explains Santosh. Rajoo, of Andhya Pradesh, says that "if anybody tries to do anything, he is immediately fired, and then owners pass the word around so that he can't find a job anywhere in the yard".

Intimidation is a commons means to ensure the workers remain quiet. Vinod explains having tried to form a plot-sized union after a strike in 2000, but failed: "The muqadam went to see my friends and relatives and put pressure on all of them to make sure I would stop doing anything". Corruption is a further tool of employers to halt unionisation. Samsurat explained in 2000: "Trade unions are not allowed. If somebody tries to organise the workers, they bribe him so that he stops. It happened to my brother-in-law last year".

The ever-present - and ever-reminded - threat of dismissal prevents the workers from taking systematic steps to make demands, individually or collectively. "We don't ask for anything, because the shipbreaker will fire us. They say 'if you

want work, don't ask'. And we need to work", says Santosh, from Bihar. "We don't ask for anything anymore. We quietly go back home and sleep", adds Lalchand, from UP. Katik, 17, of UP, tells a similar story: "I once went to see my muqadam to ask for a loan, and he fired me right away".

A pervasive climate of intimidation can be felt throughout the workforce in Alang. Real or imagined, the risks associated with daring to make demands to improve working conditions lead to fear. "If anyone misbehaves with the owner, then he sends them to jail - or maybe worse. That's why we are afraid", explains Harishandran, 24, from Orissa. Rambandan says that "we are much too afraid of the owners to do anything but work". Another worker adds that "whenever we asked for anything, the owner threw us out. So now, everybody understands that if you don't want trouble, just keep guiet". Intimidation is supplemented with suspicion: the workers are checked when they leave the plot in the evenings to ensure that they have not stolen goods from the plot. There are reportedly "guarantors" who give information to an owner about any new employee. Pradeep simply states: "The whole system works against us. We have no recourses, nobody to talk to, nobody who listens to us. It's as if we were not human beings, and we should just be happy to be alive. They think it's enough for us". Another worker says that "everybody in the world knows about our situation! And yet nothing ever changes, no-one ever does anything, and our demands are never met".

The role of the muqadam

The repression of trade union rights is made particularly easy through the hierarchy set up in the plots. The employees have virtually no direct contact with their employer, as it is all conducted through the muqadam. The muqadam seldom has any particular professional qualification other than his ability to gather and supervise workers. The FIDH notes that most muqadams operate in violation of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970, which makes it mandatory for labour contractors to hold a licence "issued in that behalf by the licensing officer".

The *muqadam* is indeed a key element in creating this climate of intimidation. In effect the employer "subcontracts" the power over dismissals, repression and intimidation. The muqadam hence has inordinate power over the workers, while himself being in the position of an employee submitted to similar pressures from the shipbreaker. The precariousness and the vulnerability of the workers are grounded in this very tenuous link to their owner through the mediation of another

employee whose discretionary power remains almost unchecked.

It comes as no surprise that the muqadam is most often perceived as siding with the shipbreaker in case of disputes rather than with the workers. "The muqadam is far worse than the owner, and he is under his control. How do you want him to be on our side?", asks Pradish, 24, of Bihar. Rahul says:

"Obviously the muqadams are more loyal to the owners than to the workers, just because they are paid by the owner. Also, if a worker loses his job, he can find another one, whereas when a muqadam is fired, it's much more difficult for him to find a job elsewhere".

Most of the workers interviewed expressed the view that working conditions essentially depended on the muqadam, who "can make it OK for us, or who can make it hell". "Some harass the workers, overload them with work, yell at them, sometimes slap them...", says Santosh, from Bihar. "Some are nice, but some make us work even during holidays".

Ramanuj says he is currently trying to change muqadam, as his present one "is a real tyrant. We can't even go and have a drink of water - he would just shout at you for leaving the job and threaten to fire you if you dare do it again. But we are so thirsty in this heat". Another worker adds that he "would be overjoyed if the whole system of muqadams was eliminated. They treat us like slaves, steal our money, make mistakes in the cutting procedures so there are more accidents - they are less competent than us and still bark orders around, and fire us if we object".

As we will see, it is not uncommon for muqadams to retain part of the workers' wages.

However, in law the shipbreaker cannot evade his ultimate responsibility to respect labour law, nor "outsource" that to a muqadam. In a landmark judgement, the Supreme Court of India has stated that the ultimate responsibility of enforcing labour laws rested with the principal employer, who cannot default on the contractor in case of non-enforcement.

The non-enforcement of labour laws translates into serious restrictions of freedom of expression: numerous workers reported being given strict orders not to speak with foreigners about their working conditions, or about how to answer questions by labour officers or safety supervisors during their occasional visits. Santos explains:

"Every once in a while, a labour officer comes to the plot - and invariably, both the supervisor and the muqadam instruct us to tell him that everything is fine, that we earn much higher wages than what we actually do. They have prepared answers to whatever questions might be asked, but it is all lies".

Ram, from Bihar, who works in a different plot, tells a similar story: "We have orders not to talk to foreigners. The owner said he would immediately fire anybody who did".

Ramavatar agrees:

"Some officials come every five or six months to the plot. The owner told us to tell these outsiders that he gave us bonuses and paid for all our medical expenses, otherwise we would be fired. Then again, the officials usually don't ask about that, they just want to know whether we wear helmets".

Adds another worker: "Last time the officers came, the muqadam asked all of us to say that we were very happy in this plot, and that the owner was very generous". Mangal: "When there is an official delegation, we are warned not to talk to them, but stick to our work and lower our eyes. And the muqadam stays close to us to make sure we do". Himmat adds: "Anyway, when they come, the officials usually just sit in the air-conditioned office drinking Pepsi and talking to the owner, then they take a picture, smile and leave again. Nobody's interested in us".

Such restrictions violate the right to freedom of expression as guaranteed by article 19 of the Constitution of India. They also violate India's obligations under the International Covenant on Civil and Political Rights, ratified by India in 1979.

Amir, from UP, summarises: "The yard is in the hands of big and rich people, how do you want us poor workers to say anything?"

(iii) Strikes

Paradoxically, strikes are relatively common in Alang, even though most workers readily acknowledge that they seldom yield concrete improvements of their working conditions. Many strikes occur as a sign of solidarity for deceased workers - though there seems to be an ambiguity on this use of "strikes", as the plot has to close down anyway after a fatal accident, according to the provisions of the MoU signed between the GMB and shipbreakers.

Other strikes aim to improve working conditions, most often a

wage increase. Most strikes are limited to a single plot or a few adjacent plots - very few encompass a majority of Alang workers. According to a study by K. R. Shukla, 66,3 % of the workers interviewed have never joined a strike (mainly for fear of being fired, or because the strike did not happen in their plot), though half of workers acknowledge having witnessed one. Many workers interviewed explained that the owners would most often just wait for the strike to ebb out, since "we need the money anyway, so we have to get back to work".

Following a strike in February 2000 which lasted three days and which eventually realised an increase of between 2 and 5 Rs in daily wages, Rajendra, 30, from UP, explains that though the owner did not retaliate against specific workers, he did attempt to identify the organisers of the strike. Sumit, of Bengal, who observed the strike, says that "it had no result - as a matter of fact, it turned out worse than before, because we had a small pay rise for three or four days, but then we came back to the old pay and the muqadam got much harsher than before".

(iv) Working hours - working days - leaves

The working day at Alang usually starts at 8 am and finishes at 5 p.m., with two compulsory overtime hours till 7 PM, every day (paid at regular rate). Since there is no difference between overtime hours and regular hours, the working day is de facto from 8 to 7. One hour is allowed for lunch, along with a 15-minute morning and afternoon tea break, at or around 10 and in the afternoon at or around 3 p.m. Some workers start at 7 am; depending on the workload. This means that labourers work on average 57 hours a week, in violation of Ch. VI, sections 51 and 54 of the Factories Act, 1948, which respectively provide for a maximum of 48 hours work a week, and nine hours a day. Since workers provide their own food (no canteen is provided in Alang, contrary to section 41 of the Inter-State Migrant Workmen Act 1979 and section 46 of the Factories Act), it means that their daily routine starts around 5 am, when the workers get up to prepare their meals for the day, before leaving for work at 7 or 8 am.

Section 59 of the Factories Act further provides that any work beyond these nine hours a day or 48 hours a week shall be paid overtime at twice the ordinary rate. This is not the case in Alang, where the so-called "overtime" is paid at ordinary rate.

Several workers stated being denied entry to the yard if they arrived even five minutes after 8 am, thus losing a day's work. The practice of working till 7.30 or 7.45 but without counting

it as a whole extra hour is widespread in Alang. This is contrary to section 14 of the Minimum Wages Act, 1948, which provides for the payment of any overtime hour or part of an hour.

Night-time work is no longer practised in Alang. However, work up until 9 or 10 pm (sometimes later), especially for plate lifters, is common. Munna, who loads and unloads LPG cylinders on trucks, says he regularly works until late at night, sometimes past midnight, as he and his colleagues depend upon the arrival of the trucks. Contrary to the provisions of section 57 of the Factories Act, he does not then get a full day of rest.

Overtime is mandatory, and the workers comply, for fear of being fired. This would qualify as forced labour under international human rights law, and is in violation of the Factories Act, which provides that no worker can be required to work overtime.

Sundays are free time, but are not paid. It is hence sometimes perceived as a blessing in disguise. Ramanuj laments:

"It is nice to have Sundays off to do some washing and shopping, but it is one day without pay, and sometimes we so desperately need the money that we would prefer to work on Sundays. Or have Sundays paid".

This contravenes the Weekly Holidays Act, 1942, which, in its section 6, provides that "no deduction or abatement of the wages of any person employed in an establishment to which this act applies shall be made on account of any day or part of a day on which the establishment has remained closed (...). If such person is employed on the basis that he would not ordinarily receive wages for such day or part of a day he shall nonetheless be paid for such day or par of a day the wages he would have drawn had the establishment not remained closed". It also violates ILO Convention 14 on Weekly Rest, 1921 ratified by India.

There is no paid leave at Alang. Many workers return to their home state once a year for several weeks during monsoon. As it is always at their own expense, they generally need to take a job back home during their leave, most often in farming. This is contrary to Ch. VIII, sections 79 and 80 of the Factories Act, which provides for annual paid leave in conditions that apply to the Alang workers. It further violates art. 24 of the UDHR, which states "everyone is entitled to (...) reasonable limitations of working hours and periodic holidays with pay". This obligation is equally to be found in art. 7 of the ICESCR,

ratified by India. Furthermore, it appears shipbreakers do not comply with sections 14 and 15 of the Inter-State Migrant Workmen Act, 1979, which provide for a displacement and a journey allowance.

(v) Wages

Alang workers are paid monthly, usually upon the basis of a daily rate. Each worker is handed an attendance card at the start of each month. It is filled every day with the hour of arrival and of departure from the plot. Occasionally, the payment is by task, or piece rate. For instance loaders, whose task is to load and unload gas cylinders on the trucks, are paid between Rs. 5 and 5.50 per cylinder. The wages range from Rs. 60 or 70 a day for helpers, up to Rs. 150 to 170 a day for experienced gas cutters. This means between US\$ 1.25 and 3.50 a day. Muqadams by contrast are paid approx. 300 Rs (US\$ 6.25) a day. No pay slip is ever given to the workers.

Some of the pay rates, especially for unskilled workers, are below the minimum wage as required by the Minimum Wage Act. As of April 2002, the minimum wage in Gujarat was fixed at Rs. 89 (US\$ 1.85) a day for skilled workers, and Rs. 79.3 (US\$ 1.65) a day for unskilled workers.

Wage rates at Alang, though undoubtedly higher than those earned by most workers prior to arriving there hardly ensure "a just and favourable remuneration ensuring for himself and his family and existence worthy of human dignity", in the terms of article 23 of the Universal Declaration of Human Rights. Neither would such pay rates constitute "fair wages" as understood by article 7 of the ICESCR. While most employers argue that such rates are far higher than the workers - mostly migrants - would get in their home states, this cannot be considered as a valid argument, as the Inter-State Migrant Workmen Act, 1979, provides in its section 13 that "the wage rates (...) of an inter-state migrant workman shall (...) be the same as those applicable to such other workman (...). An inter-state migrant workman shall in no case be paid less than the wages fixed under the Minimum Wages Act".

The low level of wage is the most common grievance issued by the workers, especially, given the extreme dangers they are exposed to. A recent survey highlighted the following grievances:

Workers' grievances	% of labour force
Insufficient wages	46.7 %
Too many hours of	13.3 %
work	
Insecurity	20 %
Physically injured	15 %
Others	5 %

Source: "Sociological study of unorganised workers of Alang shipbreaking yard".

There is often a delay in the payment of wages. "Sometimes we have to wait several days, even a week, before they pay us our wages. Then they say it's because of a problem of accountability. But we still have to wait", says Dinkar. Sometimes when payment is delayed the workers would be handed 50% of the total on the date, but then have to wait several weeks before being paid off. Such practice violates section 5 of the Payment of Wages Act, 1936, which states that payment of wages is due at the latest at the expiry of the seventh day after the last day of the wage period.

Overtime is compulsory and paid at the normal rate, contrary to the Factories Act, which provides for overtime to be paid at twice the regular rate.

Workers do not receive written contract of employment. Not only does the employer unilaterally decide the wage, but the amount agreed upon at the beginning of the month can be modified arbitrarily, for example in response to financial losses. The vast majority of the workers interviewed stated that they had often not been paid the original amount decided upon, or been subjected to retainers - either by the owner or the muqadam, on various grounds. This appears to be extremely common in Alang - "a least once a month in one plot or another", says Gohil, "they say it's because of the recession, they can't pay us what they first agreed to". Valabhmohan explains that he is "very lucky - my owner pays me what had been decided". Nahar says that when he asked why he was being paid less than agreed, the owner replied that "this is the way it is done everywhere, and you just have to adapt. If you are not happy, you can just go elsewhere". Kailash explains that it just happened to him a couple of months ago:

"Before I started, the muqadam said I would be paid 75 Rs. a day. But when the end of the month came, all they gave me was 70 Rs. per day. But we cannot complain, we have to take whatever is given".

Sachin says that on the very day of the interview with the FIDH delegation, a strike was occurring in a nearby plot, because the field labourers, who had been employed on the basis of 105 Rs. a day, later had been paid only a rate of 90 Rs. / day. Aashih and Pradash, who work under the same muqadam, explained how he would often deduct 10 Rs. of their monthly wage when he deemed that their work had not been satisfactory. Hammit's muqadam often retains 5 Rs. of his 85 Rs. a day wage. "The muqadam keeps part of our wage every month. I don't know why, but there's nothing we can do anyway. He can fire us anytime, you know", says a worker.

Ramesh from Orissa tells his story:

"A couple of months ago, the master took my attendance card away the day before I was supposed to be paid. They owed me 2600 Rs. Then the owner said they had lost the card, and that all he would agree to pay me was 2200 Rs. I could not do anything. So I had to settle for 2200 Rs. I got cheated".

A former office clerk who worked as accountant for a shipbreaker confirms: "Of course we know that the muqadam cheats the workers! Do you think we are blind?". Sometimes the workers do not get paid at all, though this appears to be infrequent. Moreover, several workers (as previously noted) said that they would not be paid for the day if they arrived late - even by 15 minutes - at the yard.

Many workers interviewed by the FIDH delegation said that they did not even know their wage rate, because they "had not dared" to ask the muqadam beforehand "for fear of being fired right away". Ram, a quiet 50-year old man from Orissa, who has worked 15 years in the yards, sighs: "If any worker says anything, he's out of the plot in the same second. So I am not sure about what I will get, I didn't want to ask. But whatever the others are given, I'll be given too; I'm sure I will be treated like all the others". Another worker says that "we never know the salary beforehand, we only find out when we

get the money". The discretionary nature of the wage-setting and wage-paying system is a major element of insecurity and vulnerability for Alang's workers. Ramsurat says "the wages are always different - it depends on the plot, the owner, the season, the mugadam, the other workers..."

Besides violating art. 7 of the Payment of Wages act, 1936, which prohibits any deductions from the wage except in very precise circumstances, such practice is also contrary to art. 21 of the Contract Labour Act, which states "in case the contractor fails to make payment of wages within the

prescribed period or makes short payment, then the principal employer shall be liable to make payment of wages in full or the unpaid balance due, as the case may be".

Conversely, bonuses are given for good productivity or, for example, for the minimum use of LPG cylinders. The wage level is also dependent on the economic situation prevailing in the yard: e.g. in case of recession, the wages are lower; in case of labour shortage, the wages are higher. Similarly, it seems customary to increase wages by Rs. 10-15 in the summer. Workers acknowledge a seniority increment.

Seniority increment:

Monthly wage (in Rs.)	When started	At present
500-1000	37.3 %	3.3 %
1001-1500	52.7 %	20.7 %
1501-2000	6.7 %	19 %
2001-2500	1.3 %	35 %
2501-3000	1 %	13.3 %
> 3000	1 %	8.7 %

Source: "Sociological study of unorganised workers of A lang shipbreaking yard".

(vi) Medical expenses - Social benefits - additional benefits. The rule of arbitrariness

As for medical expenses and social security, here too the practices vary according to the shipbreakers - one more area where the discretionary power of the employer and his mugadams can be felt.

In cases of accidents, the owner provides transportation to the Red Cross Hospital within the yard or, if the situation requires it, to the general hospital in Bhavnagar. The more general rule appears to be for the owners to pay for first treatment and immediate medical expenses. They do not pay for expenses linked to chronic diseases, even when contracted at work. Several shipbreakers disputed the fact that they have an obligation to pay such expenses ("there is no direct link between such diseases and their work on the plot" says one of them, while the other argued that "these are mostly diseases they caught before getting to Alang"). But physicians interviewed by the FIDH delegation, whether in hospitals and private clinics in or around Alang (with numerous patients from the Alang workforce) were adamant about the direct causal link between most of the diseases they treat and the nature of the job in Alang.

Workers generally do not receive any wages when absent on medical grounds. Various scenarios are possible, though: some workers stated that the owners would let them choose between having either their wages, or the medical expenses, paid. The wife of an Alang worker who had three fingers amputated in 2001 explains that the owner paid for half the medical expenses, while a worker whose leg was injured when a steel plate fell onto his foot stated that the owner had refused to pay anything - neither medical expenses nor wages. Another worker forced to take a month off after a serious burn on his leg received just one-day pay. Another shipbreaker was said to pay for food during a medical leave, but not for either wages or medical expenses. For most of the injured workers, a medical leave is therefore a catastrophe - many generally get by with loans from friends and relatives, and occasionally, from their employer. Ranil explains having been injured on his head in 1999. The injury required 7 stitches and he had to take a leave for 18 days: "When I got injured, the owner did not want to pay anything - neither the wages nor the medical expenses. I argued with him, and he finally agreed to pay me half of the medical expenses; and he added that he never wanted to see me again".

The worker has thus no guarantee of re-employment when he returns from medical leave. Kanji explains: "Not a single owner

pays for sickness, though when there is an accident they usually take the worker to hospital, pay for first treatment - and then forget all about it. And when the worker gets back, the owner doesn't want an injured worker, so he does not hire him back".

Bhupat recounts the story of a colleague who had his leg amputated after a steel plate fell on it while at work. "We went to see the owner to ask for compensation on behalf of this colleague, who could no longer work. The owner said no and threatened to fire us if we asked for anything again. So we just raised money among ourselves".

Both the shipbreakers and the GMB assert the existence of a Provident Fund, though GMB officials acknowledge that there is "no proper follow-up" to guarantee its validity: "We know it is a problem - some owners give the workers the money when they leave, some just keep it". Most workers are ignorant of its existence. Vikram and Rajandra explain that in their yard, the owner has been deducting Rs. 100 every month for the past eight years, supposedly for Provident Fund, "but we have no proof of it and this PF has never been used when somebody retired, left, or died". The study presented in the case to the Supreme Court of India confirms that "most of the [Alang] workers are not given the benefit of a Provident Fund scheme". A 55-year-old retired worker says he never got any pension after having worked at Alang for 15 years.

When workers are killed, though, the employers usually pay some compensation to the family back in the village. However, the lack of written and contractual guarantees makes compensation and its amount contingent on the owner. Several workers reported the lack of compensation in cases when bodies were not recovered following explosions at the yards. Several others stated that they sometimes had to threaten to go on strike to have the compensation paid to the family of the deceased worker. Furthermore, it appears that such insistence from the workers can be of no avail, in which case the colleagues of the deceased might themselves collect a fund on their own. There is no proper procedure for next-of-kin notification - the colleagues and friends of the deceased often have to call the relatives themselves, and at their own expense.

The lack of a systematic insurance and compensation scheme is all the more surprising since an insurance covering both the assets and the workers has been made compulsory prior to breaking down the ship [see annex].

Such arbitrary practices stand in clear violation of the Workmen's Compensation Act, 1923, the Personal Injuries (Compensation Insurance) Act, 1963, the Gujarat Unprotected Manual Workers (Regulation of Employment and

Welfare) Act, 1979, and the Employees State Insurance Act, 1948, which includes provision regarding social security, financial help in case of injuries or fatal injury occurring during the period of service. They also contravene the Employees - Provident Fund and misc. Provisions Act, 1952, which provides for the arrangement of such amount to be used after the workers' retirement. The act, which is applicable to the shipbreaking yards, provides for such a fund to be set up during the service of the workers, with 10% of the basic pay being deducted from the salary of the worker, to which is added an equivalent amount from the employer. The amount is then to be deposited in the provident fund account of the concerned worker, who gets access to the fund (with interests) at retirement. The Act also provides for a family pension scheme, and an insurance scheme in case of death. to be paid to the family. The lack of guarantees for the relatives of a deceased worker - often the sole breadwinner of the family - also contravenes the Fatal Accidents Act, 1855.

The ongoing practices in Alang further violate India's obligations under the various ILO conventions India has ratified, most notably

-C18 Workmen's Compensation (Occupational Diseases) Convention, 1921, and C42 Workmen's Compensation (Occupational Diseases) Convention (revised), 1942

-C19 Equality of Treatment (Accident Compensation) Convention, 1925

-C118 Equality of Treatment (Social Security) Convention, 1922

These practices also violate workers' right to social security as guaranteed by article 22 of the UDHR and article 9 of the ICESCR, as it violates the "right to security in the event of unemployment, sickness, disability", as provided by article 25 of the UDHR.

The absence of a coherent social security system and proper medical insurance is a serious concern given the extremely dangerous nature of the work, and hence the frequency of occupational diseases and work-related accidents. An adequate and consistent regulatory framework for shipbreaking cannot simply encompass health and safety issues, without simultaneously creating an effective social security system for the labourers.

Marginal benefits are sometimes provided to the workers, such as water or material for their kholis, or a small bonus during Diwali or other festivals, but again, this is contingent on the owner's benevolence. The wife of a UP foreman, who has just arrived to stay with her husband, says that "my husband's employer is a real miser - we have no facilities, no amenities, he doesn't even allow

us to get a bit of water. The conditions here are far worse than in UP!". Ramchandra says that he and some colleagues "have gone to see our owner several times to ask for better facilities - we asked for water, housing, medical expenses; he has always refused". Some owners give loans to their workers on special occasions (such as weddings or funerals).

(vii) Labour Inspection

It is far from being efficient, in spite of the presence of the Labour officer, a civil servant detached from the government of Gujarat, permanently posted at Alang, supported by an assistant. India has ratified ILO Convention C81 on Labour Inspection, 1947, which states in its article 3 (1) that "the functions of the system of labour inspection shall be (a) to secure the enforcement of the legal provisions relating to conditions of work and the protection of workers while engaged in their work, such as provisions relating to hours, wages, safety, health and welfare (...) (b) to supply technical information and advice to employers and workers". None of the workers interviewed by the FIDH delegation had any knowledge of the specific existence of the labour inspector.

There seems to be an overlap between the duties of the labour inspector and that of the various safety officers and team of experts on safety [see below]. Such an imprecision in the definition of tasks does not serve an effective enforcement of any of the regulations involved.

(viii) The case of women workers

Around 400 women work in Alang shipbreaking yard. Most come from the nearby villages. Their work is of lighter nature than that of men; most are employed to carry the unloaded goods from the vessel. They are generally younger than the men. They work for a female muqadam, and are on average paid at slightly higher rates than men - 70 to 80 Rs. a day for 5 hours work. The female workforce is even more mobile than the men, as they go from one ship to the other according to their arrival.

Cases of sexual harassment have been reported, though they appear to be infrequent. Some cases of female child labour have been reported.

Accidents at Alang shipbreaking yard:

	Accidents	Deaths
1997-98	33	48
1998-99	41	25
1999-2000	60	31
2000-01	18	16
2001-02	21	12

3. A high-risk business - health and safety measures

Alang's health and safety record has undoubtedly improved in recent years. For example, the prohibition of night time work, the imposition of gas free certificates, the provision of helmets and boots for the workers (most workers do indeed wear them, though there appears to be no systematic policy of who should pay for these - some owners give them free, others make the workers pay, contrary to the legal obligations, and in particular of section 38 of the Inter-State Migrant Workmen Act 1979) have contributed to a decline in accidents in the yard. The workers themselves acknowledge that safety conditions have improved, and that accidents happen less often. The GMB has played a key role in this respect, and the changes are noticeable, if not sufficient. Unfortunately the shipbreakers do not seem to share the same willingness to invest in proper measures so as to insure a safe and healthy environment for workers.

A. Health and safety hazards

The hazardous and toxic substances found in Alang are common to all shipbreaking yards. [See above, p. XXX]. Thorough studies by other institutions have been made, and this report will not dwell on these well-known issues.

Physicians interviewed in and around Alang and who treat numerous Alang patients report two major categories of pathologies: (i) those linked to accidents - which, when not fatal, translate into orthopaedic problems, minor injuries (cuts...), burns;

(ii) occupational diseases, such as skin diseases, malaria (40% of patients, says a doctor in the Red Cross hospital), malnutrition, diarrhoea, TB, respiratory problems, STDs. Cases of leprosy have also been reported, at a higher rate than the average rate in India⁴¹. The work goes on during monsoon, which entails an increase of fevers at this time of year. Though alcohol is prohibited throughout Gujarat, it is widely available in Alang; the poor quality of the locally distilled alcohol is the source of numerous liver problems, according to doctors in the area.

Source: Gujarat Maritime Board

However, non-governmental sources report the number of fatal accidents to be much higher than official figures suggest, possibly ten times higher. The saying goes in Alang "every day one ship, every day one man". Yet, while the number of fatal accidents has significantly decreased, the total number of accidents does not indicate the same ratio of decrease. All the workers are keenly aware of the risks involved in their activity. Says one: "When we go to the plot in the morning, we know that we might not come back alive at night". Santos from Bengal explains: "It's a very dangerous job. The risk is everywhere, it's at every step. The gas is risky, the fumes are toxic, the cranes are dangerous, the steel plates fall... It's such a risky job, I really don't like it". A former Alang worker explains having witnessed three major accidents, including two fatal ones, and scores of minor ones, in the course of the two years he worked in the yard. He personally had been injured three times. As noted above, the heavier and riskier jobs go to the migrant workers, whereas the local, Gujarati workers tend to get safer positions; according to social workers, part of the reason is that "in cases of accidents, it is easier to deal with a family far away - as a matter of fact, it means you don't have to deal with them at all - than have problems with local villagers and the Sarpanchs [heads of villages]"

Most of the accidents occur due to an explosion of the gas when the ship is cut open. In 1997, a massive explosion in Alang, which caused an estimated 50 deaths, prompted the authorities to impose gas-free certificates for all vessels, as well as to require goggles and helmets for workers. The number of explosions has since significantly decreased. Another major cause of accidents is the fall from the ships (which are up to 70 m high) of labourers who work there with no safety harness. Other accidents include workers being crushed by falling steel beams and plates, electric shocks...

In spite of the 1997 imposition of gas-free certificates, which has indeed reduced the number of accidents, a shipbreaker states, on condition of anonymity, that "the gas-free certificate is very easy to obtain... if you pay the right kind of money". A muqadam confirms that "the gas-free rule is not always applied... For instance, when the ship is beached later than planned, then the owner is in a hurry to start the cutting operations". The table below shows that a majority of workers have had an accident at least once while working at Alang.

Nature of accidents	% of labour force	
Lifting heavy plates	51 %	
Foot injuries	22 %	
Head injuries	11 %	
Burns	10 %	
Others	6 %	

Source: K. Shukla, "Sociological study of unorganised workers of Alang shipbreaking yard".

Number of injuries	% of labour force	
Once	36.7 %	
Twice	13.3 %	
Three times	3.3 %	
More	3.3 %	
Not applicable	43.4 %	

Source: K. Shukla, "Sociological study of unorganised workers of Alang shipbreaking yard".

Cases of fires:

	Fires	Deaths in fires	Injured
1996	104	8	21
1997-98	82	23	25
1998-99	58	1	14
1999-2000	57	4	1
2000-01	42	/	/
2001-02	38	4	9

Source: Fire officer, Alang

Alang's fire department has 11 vehicles - but only 3 drivers, and 15 fire fighters, which obviously reduces the effectiveness and speed of their interventions.

The lack of proper medical facilities is appalling. Says, disenchanted, a local activist: "In Gujarat animals get better treatment than Alang workers". The main facility is the Red Cross Hospital, on the premises of Alang, which treats an average of 100 patients per day, with just 9 beds and 5 doctors working in shifts. Two smaller private clinics exist in Alang, but are too expensive for the workers to use, and are thus used mainly by the owners. There is no ambulance, so an injured worker will be taken to hospital in the owner's private car. A full-fledged hospital is urgently needed at Alang; the closest large hospital is at Bhavnagar, an hour away. Says a doctor working at Alang:

"There is no doubt that a great number of workers who have died could have been saved had there been a proper hospital within the yard".

The shipbreakers recently financed a mobile medical van for first aid, with an X-ray machine, and a laboratory for urine and blood tests.

A new hospital is planned, financed by the GMB (one third), by the GSBA (one third), and the Iron, Steel, Scrap and Shipbreaking Association of India (one third). It will cost Rs. 40 million (US\$ 830,000). Land has been acquired for the erection of the hospital. It raises the question of whether the hospital should have been built prior to the safety-training institute.

The FIDH wishes to reaffirm to right to health as a fundamental human right. The human right to health is recognized in the Universal Declaration of Human Rights in its article 25^{42} , as well as by subsequent international instruments that India has ratified: International Covenant on Economic, Social and Cultural Rights, art 12; International Convention on the Elimination of All Forms of Racial Discrimination art 5(e)(iv) (Ratified by India in 1968); Convention on the Elimination of All Forms of Discrimination against Women, art 11.1 (f) and 12 (Ratified by India in 1993) and the Convention on the Rights of the Child of 1989, art 24 (Ratified by India in 1992).

We wish to underline the fact that the right to health is not to be understood as a right to be healthy but as the highest attainable standard of physical and mental health; this translates into the following interrelated and essential elements:

(a) Availability. Functioning public health and health?care

facilities, goods and services, as well as programmes, have to be available in sufficient quantity within the State party.

- (b) Accessibility. Health facilities, goods and services have to be accessible to everyone without discrimination
- (c) Acceptability. All health facilities, goods and services must be respectful of medical ethics and culturally appropriate, i.e. respectful of the culture of individuals and minorities
- (d) *Quality*. Health facilities, goods and services must be scientifically and medically appropriate and of good quality.

The lack of proper medical facilities also contravenes several national laws, such as the Factories Act and the Inter-State Migrant Workmen Act, among others. The right to medical treatment is also an integral part of the right to life as provided in article 21 of the Constitution of India. In 1994, the Supreme Court of India ruled⁴³ that "the right to health and the protection of the health and energy of the workers during the service, and the right to get medical treatment have been provided in article 21. (...) As per the provision of Article 38 of the Constitution the worker should be provided necessary facility and opportunity to protect his life (...). It is the moral, legal and constitutional responsibility of the industry-owners and administration to provide medical treatment's facility during the service and after retirement".

(i) Rules and regulations on occupational safety

Applicable law on safety is plentiful - the central issue is its non-enforcement. It includes:

- International instruments such as the UDHR, the various ILO conventions relative to occupational health and safety, and the Basel Convention.
- National laws such as the Factories Act, 1948, the Hazardous Wastes (Management and Handling) Rules, 1989, the Environment (Protection) Act, 1986, The Dangerous Machines (Regulation) Act, 1983, the Inter-State Migrant Workmen Act 1979.
- Gujarat state laws. The Gujarat legislature has adopted special provisions applicable to shipbreaking: e.g. the addition of schedule 24 to the rule 102 of the Gujarat Factories Rules 1963 on the safety provisions for gas cutting, effective from 2 March 1987; the addition, to the same Gujarat Factories Rules, of rule 68H on ship building, ship repairing and shipbreaking. Made effective from 19 February 1995, it contains 23 sub-rules covering almost all aspects of safety during shipbreaking operations. Rule 66 A of the same text provides protection against fire. On 4 December 1997,

the government of Gujarat issued a notification to appoint one safety officer to each shipbreaking industry.

Decrees by the Central Pollution Control Board and the Gujarat Pollution Control Board are also applicable.

Furthermore, specific instruments have been drafted to regulate health and safety in Alang, most notably, the Memorandum of Understanding.

(a) The Memorandum of Understanding (MoU)

On June 7th, 1997, a Memorandum of Understanding (MoU) was signed between the GMB on the one hand, and the Gujarat Ship Breakers' Association (GSBA) and the Sosiya Ship Breakers' Association (SSBA), on the other. The overall objective was to "lay down general guidelines of safety and precautions during the cutting operations in the shipbreaking yard". Originally intended as a two-month interim arrangement (before a final codification of all safety regulations), the MoU is still valid, in spite of the fact that it has been complemented by other Rules and regulations, which are currently under revision.

However, the MoU has never been fully implemented, and it lacks effective enforcement powers.

- Section 1 provides for security arrangements to be made in order to get beaching permission. In particular, it states in its \S a) that a gas free certificate has to be obtained. (See annex 1)
- Section 2 states the requirements in order to get permission for cutting: a man entry certificate and hot work certificate (see annex 1) are made mandatory (§ a), as is the emptying of all kinds of petroleum oils (§ c).
- <u>Section 3</u> provides for security arrangements within the shipbreaking plot; in particular, LPG and Oxygen cylinders are to be stored in separate safe areas (§ a and b). §g states that "minimum fire fighting equipments like fire extinguisher, fire fighting suit, mask foam sprayer, liquid foam care, oxygen mask, sand fire hose reel with complete attachments has to be compulsorily maintained in the yard". This is clearly not enforced in all plots in Alang. The same goes for §j, which provides that "all workers should be provided with helmet and boot. Gas cutters and labourers should be provided with welding goggles". Though it is undeniable that in the space of two years, the number of workers wearing boots and helmets has sharply increased, it is still not totally enforced.

Furthermore, the MoU does not specify who is responsible for providing these items to the workers, or whether the employer should provide these items freely to the workers.

- <u>Section 4</u> makes provisions for cutting operations, and states that all cutting operations should be undertaken under the supervision of a technically qualified individual.
- Major fire accidents will suspend all cutting operations for two days, and any accident involving the loss of human life will entail a suspension of five days (sec. 8 a and b). Under the revised Rules of safety, the suspension after an accident entailing the loss of human life will be raised to 15 days which is, according to a GMB official, one the proposed changes that the shipbreakers most vehemently oppose.
- <u>Section 6</u> provides for registration of all workers. The GMB has spent 4.6 million Rs. on the procedure, according to a GMB official, but with little success. Indeed, it appears to have been a most random process.

The following are among the provisions never implemented:

Each plot should have a qualified safety supervisor (art. 5a), and "minimum proper training will be provided to labourers in cutting operations in their own mother tongue" (sec. 5c). Also, sec. 7e specifies that the "GMB will recruit six supervisors (...) to monitor the safety conditions on the plots". As of April 2002, only three of such supervisors were employed at Alang.

A worrying element is the admission by several shipbreakers that officials of the Explosive Department can easily be bribed into issuing the certificates, notably the gas-free certificate, without any effective checks. Several muqadams acknowledged that in effect, the gas-free rule is not systematically enforced, as the cutting would be delayed for too long if a proper cleaning of the vessel was to be made. "But skilled workers know how to avoid explosions anyway", added one of them.

Likewise, the rule whereby a plot should close down for 5 days following a worker's death is easily circumvented, explains a shipbreaker.

(b) The rules and regulations

The MoU was formalised in 2000 into Rules and Regulations. Strongly criticised by the shipbreakers for being inapplicable and impossible to enforce, a Rules Forming Committee intended to revise the Rules and Regulations was formed,

which included both GMB officials and representatives of the Shipbreakers' Associations. The result of their consultation is expected in late 2002.

(c) Means of implementation

One key weakness in the rules set up at Alang to improve safety is, as could be expected, an effective enforcement procedure. The obligation for there to be in place a permanent, plot-based, safety supervisor is far from being implemented. Two inspection schemes have been set up: (i) the regular inspection by GMB safety supervisors, of which there are only three for the entire yard; and (ii) inspections by a team of experts.

the GMB mechanism

Alang 's Port Officer is assisted by an Assistant Port Officer (APO), in charge of the administrative aspects of the shipbreaking process, a Traffic Officer, and a Fire and Safety Officer. The latter supervises three safety supervisors (whereas the MoU provided for six supervisors), whose task is to supervise the enforcement of the MoU as well as the Rules and Regulations in ASSBY. Alang's Port Officer, Capt. Deulkar, is expecting an answer regarding the employment of a Safety officer (distinct from the Fire Officer), who would oversee the safety supervisors.

The operational plots in Alang are divided between the three safety supervisors. They check an average of 5 plots a day, and report to the Port Officer every night. They then return a few weeks later to the same plots, to measure the implementation of the recommendations.

However, outside of a meaningful compliance system that includes a sanction-based approach to breaches of the MoU, the workforce and external monitors can have little confidence in this mechanism to effectively guarantee the workers' health and safety.

the team of experts

The team includes representatives of the GMB, of the shipbreakers, experts and members of NGOs. The FIDH regrets the absence of directly elected workers' representatives in the inspection team, and finds it a major obstacle to the improvement of safety conditions in Alang.

The team (which comprises between 5 and 7 members) has five areas to check:

- the use of safety appliances
- the precautionary measures
- the fire safety devices
- environmental conditions and housing conditions
- facilities to be provided within the plot

A handbook on safety is currently under preparation to be handed out to each plot holder, which includes guidelines for the workers.

The team usually conducts two inspections per plot, the second one occurring several weeks (or even several months) after the first one. Each inspection is based on a checklist (see annex), and the report for each plot is handed both to the owner and to the GMB. The inspection team is currently in the process of writing up a general report, which is expected to be released by August 2002.

Here too, the ad-hoc inspection process, and more importantly, the lack of enforcement mechanisms greatly reduces the effectiveness of such inspections. Moreover, there are no penalties planned for breach of the safety measures.

(d) The safety training programme

The GMB, together with international partners, such as the Netherlands Ministry of Transport, Public Works and Water Management, has set up a safety-training programme with the Industrial Training Institute in Bhavnagar, currently being run in Bhavnagar. It is designed for all actors in the shipbreaking process - workers, muqadams, supervisors, and owners. In order to systematise this process, a safety-training institute is currently under construction in the premises of the yard, the completion of which is due in September 2002, though some administrative problems with the government of Gujarat momentarily stopped construction in February 2002. Entirely financed by the GMB for an amount of Rs. 35 millions, it will cover approx. 3500 sqm, with an auditorium, an amphitheatre, and an institute proper. The objective is to train the whole of Alang's workforce on safety issues: workers, supervisors, senior managers, and owners.

Moreover, a yearly "Safety Week", held in April, has been inaugurated, with conferences and events destined to raise awareness on safety issues.

A hospital is planned. Like the housing colony, for which land has been cleared, the financing will divided into three partners: 1/3 GMB, 1/3 GSBA, 1/3 ISSAI.

One can question the choice of building a safety-training institute prior to the construction of the hospital.

(e) Waste and environmental hazards

Besides its impact on the health and safety of the workers, shipbreaking directly affects the environment. According to the Central Pollution Control Board, Alang produces a total of 2428 metric ton of hazardous waste a year, and 5072 mt of non hazardous waste a year. The wastes result in severe contamination of the seabed; heavy metals on the seabed then enter the marine food chain. A study by the Gujarat Ecology Commission (GEC) concludes that a host of pollutants, such as asbestos, paint, scrap debris, glass wool, gaskets, oil, grease and cement, have found their way into the marine environment near Alang. Tests conducted on the sea water indicate a grease and oil concentration of 22 mg/litre. According to S. Bandyopadhyay, senior ecologist at the GEC, "pathogens which are normally killed after coming into contact with saline water manage to survive in the area. It means that the pollution load is high. If it keeps on increasing at the current pace, the region may be in for an ecological disaster"44.

Besides violating the Basel Convention, and the Indian Supreme Court judgement of 5 May 1997 relative to the illegality of import of hazardous waste, shipbreaking in Alang further violates the Coastal Regulation Zone Notification, decreed on 19 February 1991 by the Ministry of Environment and Forests, which prohibits in its para 2 the "handling or storage or disposal of hazardous substances", as well as the "Environmental Guidelines for shipbreaking Industries" emitted by the Central Pollution Control Board. These guidelines state that "Old vessels containing or contaminated with any of the above substances [PCBs, waste asbestos dust and fibre, lead and lead compounds] are accordingly classified as hazardous materials. The customs authority and/or the concerned State Maritime Board should ensure this and issue a certificate to this effect that the vessel is free from the prohibited materials".

The GMB has conducted an EIA for a site to be developed for final disposal of the waste. In 2000, the government of Gujarat set up two commissions for the notification of the proposed site. It seems that the project has been stalled since then.

4. Housing and living conditions

The living conditions do not fare better than the working conditions. It is actually one of the more scandalous aspects of life at Alang.

Most Alang workers live in small shacks adjacent to the plots, and are thus exposed to the toxic substances and fumes throughout day and night. The shacks, called Kholis, are separated from the plots by the main road. Made of wood and iron sheets, or plastic (sometimes recuperated from the ships), they are 10 x 10 ft, sometimes 10 x 15 ft, and house between 10 and 15 workers each. Some larger kholis exist, which house up to 120 workers. A third of the labourers have either purchased or built their own kholis⁴⁵, while the others rent it, for a rent of 40 to 50 Rs. per person per month. The lack of space means that most of the workers sleep outside the kholi, or in shifts. According to V. Joshi's survey, 93% of workers slept on the ground, as only 7% had purchased a cot. Some workers have moved to nearby villages and rent, for an average of 300 Rs./month, a small house or a room. They say that rents tend to increase, as does the rate of electricity. which is now up to 250 Rs./mth.

The kholis have no amenities - no running water, no drainage, no sewage system, no electricity (though the yard is provided with electricity). A group of workers told the FIDH delegation that they purchased electricity from a nearby shopkeeper for a fee of 500 Rs./month; they thus get light a few hours every night. None of the kholis visited had attached toilet facility. Water is a serious problem in the Alang area, and the workers either have to purchase water from nearby villagers (at a price usually around 300 to 350 Rs. for 5000 litres of water), or, most often, use contaminated water from cement water tanks built in between plots, and refilled by mobile water tankers. This is most often the only source of water for the workers, and is used for all purposes. Doctors in Alang explain the high rate of diarrhoea due to the use of such foul water. Furthermore, the kholis are without ventilation and adequate air circulation.

Some owners have provided some material to build the kholis (usually the wood from the ship), or water, around two buckets a day. A few provide residential facilities to their labourers, but these facilities are usually reserved for the foremen and managers.

The main road is lined with small shops, where the workers do most of their food shopping (they prepare their own meal every day). The meals generally consist of two items, usually roti (bread) and shak (vegetables), roti and dal (lentil pulse) or rice and dal. They can only seldom afford green vegetables or fresh fruits: "it is a treat - like going to a very expensive restaurant every once in a while", says Ahmid. "Are you crazy? A kilogram of tomatoes is 20 Rs.! I would never be able to save money to send back to my family if I started eating tomatoes!", adds another worker. According to nutritional experts, the food is, in quantity and in nutritional quality, insufficient given the physical work exerted by Alang workers.

There are four currently operating cinema theatres in Alang, for a price of 10 Rs. per show. But as a worker says, "at the end of the day we are so, so tired - sometimes I think I will die, I am so tired. It's very rare that we have the strength to go to the movies, however much we would like to". A few shops in Alang have televisions, which workers sometimes go to watch. In effect, and apart from rare excursions to Bhavnagar and even more rare outings to nearby villages, it means that an Alang worker spends literally all his time in the yard.

A housing colony for 5000 workers has been planned for several years, but legal wrangles between the GMB and the GSBA (Gujarat Ship Breakers Association) about the financing of the project has delayed construction. After a lawsuit filed at the Supreme Court by the shipbreakers' association, it was eventually decided that the shipbreakers would participate at the level of 100,000 Rs. per shipbreaker for the colony, through the Gujarat Shipbreakers Charitable Trust, which is an emanation of the Gujarat Ship Breakers Association.

The FIDH reaffirms the right to a decent housing ((droit à un logement convenable)) as a human rights, and as guaranteed by no less than 12 different international texts, including the UDHR and the ICESCR. It is also the object of ILO Recommendation 115 of 1961, which states that "la politique nationale du logement devrait (...) [avoir pour objectif] que tous les travailleurs et leur famille puissent disposer d'un logement adéquat et convenable et d'un milieu d'habitat approprié".

Furthermore, the Supreme Court of India ruled in 1990⁴⁶ that "in all the modern societies security of the right to life is given. Food, clothing, a clean environment and a reasonable arrangement for housing are part of this fundamental right to life (...). The residence of the human being should be a fit place where he can make development in all ways, including physical, mental and intellectual".

The FIDH also notes that the Inter State Migrant Workmen (Regulation of Employment and Conditions of Service) Act

1979 imposes the obligation on the employer or the contractor to provide drinking water, latrines, urinals and washing facilities (sections 39 and 42), rest-rooms (section 40) and residential accommodation (section 45). According to this section, a migrant workman accompanied by any other member of his family is to be provided with a "room having at least a floor area of 10 sqm, a verandah and adequate additional covered space for cooking food", and in case he is unaccompanied, "a suitable barrack so as to accommodate not more than ten such migrant workmen, having at least a floor area of not less than 6.5 sqm for each such workman (...), a verandah and adequate additional covered space for cooking food". Under these rules provision is also made that arrangements should be made for full air-circulation as well as sufficient protection against cold, sunshine, wind and rain. Section 46 of the Factories Act and section 41 of the Inter-State Migrant Workmen Act 1979 both provide for a canteen for workers in conditions such as exist in Alang.

5. Impact on the broader community

The development of Alang has had a dramatic impact on the neighbouring communities. While experts and villagers agree that Alang's environmental impact is clearly negative, its sociological, political and economic consequences are more complex.

Before the development of ASSBY, the villagers in the area were mainly small farmers. Social relations were limited, organised by and within the prevailing caste system, essentially the Koli caste. Politically, the sarpanchs (heads of village) were the elders, a function then passed on to their son. Women had no social or political role. Economic development was low and aggravated by a very low literacy rate.

According to the study by Prof. Dube and Joshi, the development of the yard has spurred economic growth in the 10 nearby villages (defined as the ones less than 12 kms away from the yards: Alang, Sosiya, Manar, Sathara, Kathwa, Bharapana, Mathavada, Takhatgadh, Jasapara, and Mandva). While some villagers work in the yard or in related industries. such as re-rolling mills, many of them have engaged in activities, such teashops, ancillary as eateries. transportation... Many villagers have also started renting out houses or rooms to the labourers (for an average of 4 to 500 Rs. a month), especially those having brought their families. The income for those who directly or indirectly benefited from Alang's presence has risen from an average of 20 to 25 Rs. a day to 70 to 100 Rs. a day. The economic development of the surrounding villages has translated into an improvement in

Where do the "floating dustbins" end up?

housing conditions, education, facilities and material means. For instance, 84% of villagers now have acquired a radio, as compared to 49% before ASSBY. The possession of motor cycles and three-wheelers has jumped by 43.5 points to reach 54% of the villagers surveyed. Small banks have sprung up in the area.

This has in turn induced sociological changes in the villages, and notably, according to Prof. Dube and Joshi, a progressive breakdown of caste barriers and an empowerment of women, who have in some cases become sarpanchs (e.g. in Alang village and Jaspara), and whose economic and social status has increased commensurably. The average age of marriage has also risen, though 15% of women still marry between ages 15 and 17, contrary to the provisions of the Social Marriage Act, 1954, which sets the minimum age for marrying at 18 for women.

Economic development has translated into a school building programme, leading to an increase in literacy rates, currently standing at 43 % for women and 68 % for men. Welcome as this is, the authorities could do more to promote educational attainment for women.

This positive change in the socio-economic conditions around Alang has to be qualified. Prostitution has dramatically increased, and tensions between the locals and immigrants are recurrent. Similarly, the rates of HIV-AIDS have increased, as have other sexually transmitted diseases. "Unless provisions are made to tackle these problems, ASSBY may turn into another mega semi-urban slum", warn Prof. Dube and V. Joshi.

The issue of water

Water has always been a scarce commodity in the region; the average rainfall in the area is as low as 15 to 20' per annum. Due to the proximity to the coast, the potable ground water resources are extremely limited. The development of Alang has seriously aggravated the shortage of water, entailed a massive depletion of water resources, and contaminated ground water with chemicals. According to research by Utthan, a NGO working on educating villagers on water supplies, there are 18.000 villages in Gujarat, including 12.000 with no source of drinking water. A dam had been planned by the GMB, which was later abandoned. The Gujarat Water Supply and Sewage Board is in charge of building the necessary infrastructures, but, according to several NGOs working on the issue, is addressing the issue in a global and systematic manner. "The local water management is no doubt a failure" says the director of one such NGO.

On their own 20% Through a muqadam 54.33% Through friends and relatives 25.67%

^{32.} On the history of Alang, see the Unesco pilot project on "Coastal management of Alang and Sosyia shipbreaking yard", final report of the work done from February 1999 to January 2000, by Prof. V. Joshi and Prof. H. Dube, Dept. of Life Sciences, Bhavnagar university, Gujarat.

^{33.} Other Indian yards in activity are Sachana, also in Gujarat, and Calcutta. A shipbreaking site is planned in Tamil Nadu.

^{34.} Indeed, up to 1991, 92% of the total investment in Gujarat was made in the central belt, and only 6% in the coastal region; by 1994, this proportion had risen to 28%, totalling 400,000 million Rs. Economists estimate that by 2025, 60% of all industry (and of population) in Gujarat will be located on its 1660-km long coast. 35. Source: Kaushik. K. Shukla, "Sociological study of unorganised workers of Alang shipbreaking yard", PhD submitted 15.6. 1999, University of Sardar Patel, Vellabhvidya Nagar.

^{36.} V. Joshi, A quick survey of workers at ASSBY, submitted to the Gujarat Ecology Commission, Vadodara, undated, p.4.

^{37.} V. Joshi, A quick survey of workers at ASSBY, op. cit., p.2.

^{38.} Source: K. Shukla, "Sociological study of unorganised workers of Alang shipbreaking yard".

^{39.} V. Joshi, A quick survey of workers at ASSBY, op. cit., p. 4.

^{40.} How workers got a job at Alang:

Source: K. Shukla, "Sociological study of unorganised workers of Alang shipbreaking yard".

^{41.} See Manish Tiwari in "Bare Facts", in Down to Earth, March 15, 1998, p. 32.

^{42. &}quot;Everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services".

^{43.} In the case of Consumers Education and Research Centre vs. Central Government.

^{44.} Quoted by Manish Tiwari in "Bare Facts", in Down to Earth, March 15, 1998, p. 32

^{45.} According to V. Joshi's survey, p. 7.

^{46.} In the matter M/s. Shanti Star Builders vs. Narayan Totme.

V. RECOMMENDATIONS

TO COUNTRIES WHERE SHIP BREAKING YARDS ARE LOCATED

According to Art.2.1 of the International Covenant on Economic, Social and Cultural Rights, India and Bangladesh have the fundamental obligation to ensure the satisfaction of, at the very least, minimum essential level of each of the rights contained in the Covenant, irrespective of the availability of resources in the country, including the right of everyone to the enjoyment of just and favourable conditions of work (art 7) which includes safe and healthy working conditions (art 7-c), the right of everyone to form trade unions and join the trade union of his choice (art 8), the right of everyone to social security, including social insurance (art 9), the right of everyone to an adequate standard of living for himself and his family (art.11) and the right of everyone to the enjoyment of the highest attainable of health (art. 12)

The FIDH recalls that the Covenant imposes three different types of obligations on States: the obligation to respect the rights contained in the Covenant, the obligation to fulfil them and the obligation to protect them by preventing violations by third parties. India and Bangladesh have therefore the obligation to regulate the behaviour of ship breaking yards' owners.

The FIDH finally recalls that India and Bangladesh - as members of the International Labour Organization - have an obligation, arising from the very fact of membership in the Organisation, to respect and to promote the set of principles contained in the ILO Declaration on Fundamental Principles and Rights at Work, which include freedom of association and the right to collective bargaining.

To Indian authorities and /or the government of Gujarat

The FIDH recalls that it is India's primary responsibility to protect, respect and fulfil the rights contained in the international instruments it ratified even though it is the State of Gujarat's responsibility to implement labour rights at the national level.

The mission recommends:

- -to ratify ILO Conventions 87 (Freedom of Association) and 98 (Right to Organise and Collective Bargaining)
- -to ensure the full respect and the effective implementation of

the national legislation regarding migrant workers, and notably the relevant provisions contained in the Migrant Workmen Act

-to ensure the full respect and the effective implementation of all relevant international and national norms, and most notably the Trade Unions Act (1926) and the Factories Act (1948), related to labour rights and particularly, freedom of association and the right to collective bargaining, just and favourable conditions of work (minimum salary, overtime payment, salary deductions, working hours, holidays and benefits, weekly rest...) adequate compensation for victims of accident and their families, social security...

-to set up an effective and reliable system of labour inspections, with the participation of elected workers' representatives,

-to clarify the scope of the various rules and regulations applicable to ship breaking yards.

To the Gujarat Maritime Board

The mission recommends:

-to ensure the full respect by the yards owners of the various obligations contained in the texts relating to labour rights, and most notably the Memorandum of Understanding (MoU)

-to increase the number of labour inspectors, as planned in the MoU, and to include elected workers' representatives in the inspection teams

-to set up a control mechanism with appropriate sanctions in case of violation of a MoU provision

-to complete the construction of the new hospital as well as residential accommodation for all workers in Alang surroundings

-to increase the number of firemen in Alang fire station

- -to establish systematic registration of all workers, as planned by the $\ensuremath{\mathsf{MoU}}$
- -to provide all necessary amenities (running water, drainage, sewage system) and infrastructure (roads...) where the workers' accommodations are located.
- -to ensure a strict control on the delivery of gas-free certificates
- -to respect the provisions contained in the MoU regarding the immediate suspension of activity, in case of fatal accidents
- -to set up a proper and systematic procedure for next-of-kin notification in case of fatal accidents
- -to make all investigation reports public when accidents occur on the yard.

-to put in place an open dialogue with all the relevant stakeholders from the neighbouring communities

To Bangladeshi authorities

The mission recommends:

- -to ensure the full respect and the effective implementation of the international and national norms, and most notably the Trade Unions Act (1926) and the Factories Act (1948), related to labour rights and particularly, freedom of association and the right to collective bargaining, just and favourable conditions of work (minimum salary, overtime payment, salary deductions, working hours, holidays and benefits, weekly rest...) adequate compensation for victims of accident and their families, social security...
- -to formally recognize ship breaking as an "industry" as defined by the Factory Act, 1965
- -to set up efficient and reliable labour inspection procedures, involving elected workers' representatives
- -to plan a systematic inspection of the whole ship before a gas-free certificate is being issued
- -to set up a systematic inspection of the whole yard before a certificate of compliance is being issued by the Department of Environment
- -to systematically set up a multipartite commission of enquiry
- with the effective participation of elected workers' representatives in case of accidents occurring in the yard -to make the report of the National Commission of Enquiry on the *TT Dena*'s accident public
- -to establish a fire brigade, based next to the yards
- -to open a hospital in the surrounding areas of the yard, as planned after the *TT Dena* accident

TO THE INTERNATIONAL COMMUNITY

The FIDH recalls that according to art. 2.1 of the International Covenant on Economic, Social and Cultural Rights, western countries which have ratified the Covenant have the obligation to take steps, through international assistance and co-operation with a view to achieving progressively the full realization of the rights recognized in the Covenant.

The mission recommends:

- 1. to set up a multipartite dialogue between the IOM, the UNEP, the ILO and the OECD Committee on Maritime Transport in order to work towards the drafting of a binding international instrument regulating the ship breaking and recycling activities. A special attention should be given to:
- -the respect of environmental and social standards, including safe and healthy working conditions

- -the identification of the respective responsibilities of all the actors involved in the process, from "the maker to the breaker"
- -the planning of a systematic ship scrapping programme to eliminate over-age vessels
- -the setting up of a proper enforcement mechanism
- 2. to envisage a global solution to tax havens in order to adequately address the issue of flags of convenience,
- 3. to finalize the guidelines being currently drafted at the IMO, ILO and UNEP on the issue of ship breaking in order to contribute to the discussions regarding the international instrument mentioned above
- 4. to establish a ship scrapping fund, financed by contributions from OECD countries and private ship owners, possibly under the auspices of the IMO.

TO YARD OWNERS

The mission recommends:

- -to use all appropriate means to ensure the full respect of all the relevant national and international instruments covering labour rights as well as the various agreements they signed especially in the field of wages, working hours, working contracts, health and safety, and freedom of association and the right to collective bargaining.
- -to set up control mechanisms of the full implementation of these texts and norms, with the participation of elected workers' representatives
- to put an end to the various acts of intimidation and harassment towards journalists, unionists and NGO representatives.

ANNEX 1

- Gas Free test Certificate, Bangladesh
- Gas Free test Certificates, Alang
- Insurance Certificate, Alang
- Safety evaluation Checklist, Alang

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· ·	ment of Explosive, Chittag	ong Circle.
No 3 (92) 7115 - 7212		GAS FREE TEST CERTIFICATE (Rule 18 of the Petroleum Rules-1937) Fee: Taka. 300/2 × 98 = 29
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Gross Tonnage :		
Port of Registry :		
Name & address of owner :		
Test requested by :	, , ,	
This is to certify that I have examined and found each to be as indicated in to conform to the standard assigned to then	est result column and that	in my opinion the examined tank
Tanks/spaces examined	Test result .	Standard
F.W T. (Ergine Room)-3	Free from dangerous Petroleum vapour	Safe for men-entry
Reom-1, Coffeedin-4	Free from dangerous Petroleum vapour	Safe for men entry Not safe for hot work
EP-1, A.P.1, CL-2	Free from dangerous Petroleum vapour	Safe for men entry Safe for hot work
Constant Tallast Tarks	Not free from dangerou Petroleum vapour	s Not safe for men entry Not safe for hot work
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Fisher-I, Fuel Notice-I, Explored	2	
Note: In the event of any steaming, opening vi- the space, this certificate becomes void. Nothing boundaries of any enclosed space not certified appurtenance shall be considered "Not safe" unles	"Safe for hot work" All lines.	vents, heating coils, valves and similarly
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THE NEW INDIA ASSURANCE CO. LTD.
BHANAGAR DIVISIONAL OFFICE(212000)
MADHAV DEEP, KALA NALA,
BHAVNAGAR

05/04/2002

TO,

STEEL & ROLLING INDUSTRIES ,SCSIYA S.B.Y,

AT-SOSIYA(ALANG) DIST-BHAVNAGAR

DEAR SIRS,

WE THANK YOU VERY MUCH FOR TAKING OUR W.C. FOLICY FOR YOUR EMPLOYEES LABOURERS VIDE YOUR CHEQUE NO: 1837521 DT.03.04.2002 FOR RS.51,083/- FOR PERIOD STARTING FROM 63.04.2002 /TO \$2.08.2002) FOR SUM INSURED RS.5,00,000

THE STAMPED RECEIPT AND INSPOLICY FOLLOWS SEPARATELY.

THANKING YOU,

YOURS FAITHFULLY,

DIVISIONAL MANAGER



Gas Free Certificate for entry in dry or wet dock



Government of India Department of Explosives

Barrodow Circle

I certify that in pursuance of rule No. 43 (e). I have today examined the following

tanks and spaces mentioned below physically and with the aid of an approved gas detector (Explosimeter) on board the vessel | berthed at Bharneyer and found them free from dangerous petroleum vapor. I am of Bharneyer of the opinion that provided there is no other space or tank which contains any, dangerous petroleum or its vapour, the vessel is fit to entre's dry or wet dock immediately. This certificate is subject to the observance the provisions of the Petroleum Rules 19.76 and the condition given below.

Tanks or Spaces tank, for speak deep tank, Coffredon forward RAH
examined.

Pup roson 182.

@ This certificate states the condition of the above martioned toutes of the time of inspection rip them is deligned change in other of tentes the cartificate should be obtained.

Condition of the tanks in general regarding ullage; ballast, cleanliness, presence of eludge, forward and alt draughts atc. as can be ascertained visually. Forward peak to 20, 78, 90, 12 85 hours water bellest lillage gas free. Forward depo talk hours heavy oil in traces ullage gas free. Above mentioned offer timbes empty a gas free. have a common against most force and to constant

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28	100	the laborers.		10	7 Pipes/Hoses for the supply of Oxygen/flammable gas should	
	- 11		- 1	1	the space	
ŏ	20	_	21		The free end of which is held by a person standing outside	-
-		system shall be installed in each plot		-	suitable breathing appratus & a safety belt secured to a rope	-
ŏ	20		3	7	S No ontry in confied enace in a weekel unless he is wearing a	-
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ŏ	20	_	19	6	5 Procautions to avoid falling of material on workers/persons	
-	-	only perform the work that is mentioned in the ID Card	_		person in authority	_
		shall be permitted to work in the yard and the laborers will	_	_	should be done undeer the direct supervision of a competent	_
0	B 10	_	8	_	I conveyed &area should be cordoned. The entire operation	_
-	-	should be noted in a register.	٢	Ġ	4 Cuttings at height conspicuous warming notice to be posted	
_	_	replaced when not fit for use. Details of such replacement	_		lowered	
0	10	Nozzle of the cutting torch and rubber hosepipe shall be	17		not be thrown down from a height but shall be properly	_
10	10	LPG cylinders shall be stored in a safe area	16	10	3 Any articles, materials, equipments, LPG Cylinders etc. shall	_
-	-	equipment.	-	_	pilot ladder	
_	3	ctions by the authorised person shall be displayed on such	_	30	2 Every ladders which affords a means of access shall be	-
_		maintained as per factory act. Marking regarding its inspe-	_		height of 100 cms	Т
0	20		15	_	secured and fenced throughout on each side to a clear	-
+	+		Т	10	1 Access hole not less than 60X100 cm and property	-
0	10	_	14		PART - II PRECAUTIONARY MEASURES	T
0	10	Empty CO2 Cyl. Shall be destroyed so as to avoid re-use	13	295	DTAL MARKS	T
-	-	as per the instructions of expert and qualified supervisors	-	20	11 Appointment of qualified Safety Supervisors	T
_		days and hours onlyand shall be done in the presence and	_	10	10 Use of aprons/boller suits for cutting / welding operations	L
		ng CO2 cylinders shall be undertaken during non-working	_	20		Т
-	10	_	12	30	ders	
-		sludge of other deposit in the tank shall be removed		30	80	
	_	accordance to the relevant rules. All residual oil and any	_	25	6 Use of masks while Gas cutting or Fummy operations	
-	10	_	1	40	5 Use of safety belt while working at heights	Т
-		that they can't open accidentally			ordinary shoes by others	Т
_	10	_	10	30	4 Wearing of safety shoes by the loaders and	_
-		able gas cylinder	-	30	3 Wearing of gloves by the cutters and loaders	
_	10	Efficient reducing & regulating valves on oxygen & flamm-	9		/ welding operations	Т
-		or clamps	Г	30	2 Wearing of goggles by the workers while cutting	_
		appratus and other connections by means of suitable clip		30	1 Wearing of helmets or head shield by the workers	T
_	10	Such pipes or hoses shall be securely attached to the	8		PART - I USE OF SAFETY APPLINCES	
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ANNEX 2: GLOSSARY

BSBA - Bangladesh Ship Breakers Association

Cargo - Freight loaded into a ship.

Displacement - The weight, in tons of 2,240 pounds, of the vessel and its contents. Calculated by dividing the volume of water displaced in cubic feet by 35, the average density of seawater.

Dry-Bulk Container - A container constructed to carry grain, powder and other free-flowing solids in bulk. Used in conjunction with a tilt chassis or platform.

Dwt - Deadweight Tonnage - weight of cargo plus fuel and consumable stores

EIA - Environmental Impact Assessment

GEC - Gujarat Ecology Commission

GMB - Gujarat Maritime Board; the government authority in charge of all Gujarati ports.

Grt - Gross Registered Tonnage

GSBA - Gujarat Ship Breakers Association

ICS - International Chamber of Shipping

ILO - International Labour Organisation

IMO - International Maritime Organisation

ISC - Indian Shipping Chamber

ISSAI - Iron, Steelscrap, and Shipbreaking Association of India

IWPSR - Industry Working Party on Ship Recycling

Ldt - Light Displacement Tonnage. Weight of the hull including machinery and equipment.

LPG - Liquid Petroleum Gas

MarAd - US Maritime Administration

MARPOL - IMO International Convention for Prevention of Pollution from Ships, 1973 (including 1978 protocol)

MoU - Memorandum of Understanding

OECD - Organisation for Economic Co-operation and Development

OPA - US Oil Pollution Act 1990

PAH - Polyaromatic hydrocarbons

PCB - Polychlorinated biphenyls

SSBA - Sosiya Ship Breakers Association

ULCC - Ultra Large Crude Carrier (320,000 dwt and over)

VLCC - Very Large Crude Carrier (200 to 319,999 dwt)

ANNEX 3

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