Occupational Health and Safety and the Poorest

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WIEGO Working Papers

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Contents

Executive Summary

Globalization has been associated with extensive changes in the structure of labour markets worldwide. The decline of jobs with secure and lasting contracts and work-related social benefits as well as the corresponding rise in precarious and unprotected work are phenomena affecting both industrialized and developing countries. For many, employment not only fails to secure a successful pathway out of poverty but also further contributes to vulnerability. While there have been recent optimistic signs that some of the major development agencies now recognize the role of employment in poverty reduction, a major potential source of worker vulnerability is still largely under-explored: occupationally related injury and illness. This study investigates the impact of occupational injury and illness on poverty and uses three case studies to explore possible interventions to reduce these work-related risks in capacity constrained environments.

Section 2 reviews national and international data on work-related injuries and illnesses. It summarizes available data on the rates of occupational injury and illness world wide and provides an assessment of the impact of globalization on the scale of the problem. We find that current data is of limited scope, exclusionary and unreliable. Some inherent difficulties in collecting accurate occupational health and safety (OHS) are identified including the lack of OHS awareness of both workers and medical practitioners and the inability in many cases to separate living- and work-related health problems. Aside from a small number of household surveys and a large number of small-scale workplace focused studies, there is little reliable information about the health and safety of informal workers. While globalization has widely been associated with a deterioration of work health and safety in developing countries as a result of informalization and the transfer of hazardous industries from developed countries, the data limitations prevent reliable international comparisons.

Section 3 considers conceptual and measurement issues in establishing the relationship between work-related health risks and poverty. The lack of attention given to this relationship stems from, among other things, the single-minded focus of OHS research and practice on the worker (and not his or her family) at conventional formal places of work (and not non-standard places of work) and from the lack of attention to "work" in both the poverty-and-health and disability-and-poverty debates. What is clear is that the lack of social protection in many developing countries leaves most households dependent on income earned through employment. If employment ceases for unprotected or informal workers due to occupational injury and illness and further health care costs are incurred, the risk of such households experiencing downward mobility is likely to increase. Evidence that the costs of occupational injury and illness fall on informal workers themselves is found in a number of studies.

Section 4 presents a brief overview of the mainstream regulatory mechanisms for OHS. They are under-resourced, bureaucratic and limited in scope as they have failed to adapt to the changing nature of work and the varying sources of worker vulnerability. Static institutional approaches are also failing to address the interdependent relationships between occupational, environmental and public health and the decline of trade union influence in recent years, and large-scale failure of unions to organize in the informal economy serves to undermine the development and enforcement of OHS regulatory mechanisms. Complementary nodes for regulation such as trade agreements, ethical trade initiatives and codes of conduct have done important work but cannot substitute for good country level policies and practices.

Section 5 presents case studies of interventions to improve OHS for informal workers. These are an intervention by Greenpeace and a federation of metal workers in the shipbreaking industry, an initiative by local government to promote health and safety standards for street traders in Durban,

South Africa, and an integrated approach to worker's health, combining preventive and promotive dimensions, by the Self-Employed Women's Association in India (SEWA). Case studies were selected based on the following criteria: they would allow insights about different strategies with different combinations of stakeholders that held hope of reaching large numbers of workers over time; they could capture the theme of employer responsibility; they could illuminate the emerging new role of local government in OHS; they could give lessons about worker participation and organization; and they could explore potential alliances between informal worker associations and civil society interest groups.

A number of issues and recommendations arise from the case studies and literature review. Conceptualization lessons include the need to focus on and raise attention to the important links between OHS and other development and employment issues. This may lead to more effective interventions with the buy-in of a variety of different stakeholders and to further the potential for innovative and creative OHS strategies that learn from but are unconstrained by the conventional technocratic OHS model. Further, more effective OHS interventions for informal workers simultaneously tackle other sources of risk and vulnerability including employment and income security as well as health problems arising from unpaid work and living conditions.

With regard to lessons for regulation, the free movement and power of capital associated with globalization and the impermanence and insecurity of work now require the formulation of new and innovative strategies involving powerful international stakeholders to capture the OHS responsibilities of employers and owners of capital. The Greenpeace proposal for a global ship recycling fund is a promising example of a way to do this. Further, regulatory authorities must be guided by an understanding of the limits to which informal workers can directly influence their working environment as well as the potential or even legal responsibility of other stakeholders that impact on worker health and safety. Authorities need to extend their role beyond law enforcement to provide support in the development of more creative, affordable and appropriate solutions to ensure health and safety standards are met. OHS enforcement strategies that undermine livelihoods are undesirable, ineffective and unsustainable.

Two critical institutional lessons emerge from the case studies. First, there needs to be *horizontal fit and alignment* between the policies and approaches of different departments in local government (especially, for example, between health, support for small enterprises, police and transport). And second, there needs to be *vertical fit and alignment* between different tiers of government with respect to policies and interventions for the informal economy.

There are lessons for the organization and representation of informal workers as well. The growing numbers of informal workers worldwide need direct representation, and a shift away from traditional tripartite models of negotiation is needed to achieve this.

Furthermore, as so many informal workers, especially women workers among them, have low incomes, enduring external support for building and strengthening organization will be required at least in the medium term. Organized labour and international aid organizations will need to provide direct and sustained support to such associations and to the emerging umbrella networks of informal workers to enable capacity building, programme development, and participation in key policy-influencing bodies about health and safety conditions.

The case studies have also highlighted the potential role of alliances between worker and civil society interest groups to both raise the profile of OHS as a cross-cutting issue and in the design of interventions with multiple objectives. Especially, there is a need to explore ways in which informal workers associations can form alliances with rights-based civil society movements without losing the worker focus.

Recommendations for further research to help bridge the gap between occupational health and safety and other employment and development goals, raise the profile of OHS on the international poverty agenda, and further inform practical OHS intervention strategies include first and foremost the improvement of quantitative and qualitative data about OHS in the informal economy. Such research should include the direct and indirect costs of work-related injury and illness to workers and their dependents as well as to the environment, residents and government departments.

Further research comparing different cities is recommended to explore how OHS could be effectively integrated into different local government mandates and departments. Research is also needed to investigate the potential and different governmental levels and departments, as well as other stakeholders, to tackle OHS challenges in rural areas.

Worker-oriented and OHS focused value chain analysis is recommended as one way of achieving the necessary understanding of the conditions under which what combinations of OHS promotion and regulation would be most effective. We suggest studies that allow for the following factors: a focus on large and growing industries such as construction and services; the inclusion of workers in rural areas; and the analysis of workers in both short domestic chains and longer for-export global chains.

The need to raise the profile of OHS within both the labour standards and poverty debates could be partially addressed by both measuring the impact of different OHS interventions on worker health and security and by encouraging small focused dialogues to learn from experienced organizations such as SEWA and the International Metalworkers Federation about the combination of strategies for getting representation in policy reform for OHS and the informal economy.

The conventional discipline of and approach to OHS cannot meet the challenges presented by the changed world of work, especially the growth of informal and of contractualized work and their associated vulnerabilities. The problem of "regulating of OHS in the informal economy" is simply too daunting and intimidating to tackle. There is a long-term global problem, requiring long-term global shifts in institutional arrangements and structuring. It helps to break the big problem down in at least three ways and apply a gendered lens to each part of the analysis: industry by industry, interest group by interest group, and at levels ranging from very local to widely international. The resulting analysis can then be used to identify and pursue a wide variety of manageable interventions that can be incrementally improved and institutionally integrated.

1. Introduction

Globalization has been associated with extensive changes in the structure of labour markets world wide. The decline of jobs with secure and lasting contracts and work-related social benefits, as well as the corresponding rise in precarious and unprotected work, are occurring in both industrialized and developing countries. The changing and deteriorating nature of work means that, for many, employment may not only fail to secure a successful pathway out of poverty but will also further contribute to existing vulnerabilities.

Despite the fundamental relationship between employment and well-being "little consideration is given to the poverty outcomes of different types of work" in the poverty reduction discourse (Chen et al 2004). Furthermore, while there have been recent optimistic signs that some major development agencies are beginning to recognize the importance of decent work for poverty reduction,[1] one major potential source of worker vulnerability, that of poor occupational health and safety (OHS), has been left largely unexplored.

This study was designed to investigate the impact of occupational injury on poverty and to explore possible interventions to reduce risk of occupational injury in capacity-constrained environments as per the DFID Terms of Reference. The following questions will be addressed: Are there examples of successful and enforced regulation that can be adapted to those at risk in the informal sector in other settings? Is promotion (rather than regulation) of health and safety in the informal sector more realistic? What is the role of civil society, including organized labour, in advocating for improved health and safety for the most poor? How does the feasibility of regulation or promotion or health and safety in the informal economy vary according to context? What kinds of institutional arrangements are suitable for effectively promoting health and safety and protecting workers in the informal economy? These questions were to be addressed by way of, first, a review of existing literature, which led, second, to the choice of three case studies for more intensive investigation.

The first part of this report provides a review of existing research on OHS and development with particular reference to the impact of work-related injury or illness on poverty and on the regulatory agencies and mechanisms that govern OHS. The second part highlights and assesses three case studies of OHS interventions for informal workers. The report concludes with lessons and recommendations arising from both the literature review and case study analysis.

2. The Scale of the Problem

2.1 A Review of the Data

The International Labour Organization (ILO) estimates that 270 million occupational accidents and 2 million work-related deaths occur each year. Sub-Saharan Africa appears to have the greatest rate per worker of occupational injuries followed by Asia (excluding China and India) (Appendix 1). Data on occupational injuries and diseases are unreliable. The ILO collects and publishes global accident rates, but these are based on figures provided by member countries whose recording and notification systems vary widely or may not even exist. Massive under-reporting is common in general, and many reporting and compensation systems worldwide also explicitly exclude the informal economy and a number of major sectors, such as agriculture, that are known to have higher than average accident frequency rates (Takala 1998: 29). Under-reporting of "injury" is high amongst most developing countries but the under-reporting of occupational "illnesses" is even higher and is a universal problem (Kemp 2005: personal communication). Loewenson (1999) suggests that reported disease rates in SADC countries are likely to underestimate actual occupational disease rates 50-fold.

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[1] For example, efforts are now underway to develop an appropriate indicator related to informal and wage employment to be included in the Millenium Development Goals (Chen et al 2004).

Most national OHS reporting systems are restricted by other limitations: their dependence on adequate inspection systems and medical analysis to verify work-related injuries and illness; the voluntary declaration of OHS information by businesses; and the confidence of workers to report against their employers should the employer refuse to accept responsibility for injuries or illness. The latter point is of particular importance in the collection of accurate data on undocumented migrant workers (whether internal or cross-border) and informal workers more generally. In sum, if you are not already protected by OHS regulation, your work-related accident or illness is unlikely to be reported. This bias in the data results in a "systematic understatement of the *inequality of work insecurity*" (ILO 2004: 172).

A number of smaller scale studies have been conducted, however, that may prove useful in achieving more comprehensive and inclusive information on OHS rates if scaled up. One recent example is the *People's Security Survey* conducted by the ILO between 2000 and 2003 in 15 countries with sample sizes ranging from 750 to 9,400 respondents.

More general findings from these surveys include these examples: reported exposures to dangerous chemicals with no protection ranging from 6 per cent of casual labourers and wage workers in Gujarat, India to 74 per cent of workers in Indonesia; high percentages of workers reporting that their general working conditions are unsafe including nearly 50 per cent of all wage workers in Bangladesh, 30 per cent of workers in Russia, 24 per cent of workers in Argentina, 17 per cent of workers in Chile and Brazil and in Tanzania 40 per cent of all workers but 80 per cent of casual agricultural workers; in Tanzania, one in seven workers had experienced work-related injuries or illnesses while in Bangladesh, 16 per cent of rural workers had suffered a work-related injury that required them to miss a week of work (ILO 2004).[2]

A survey of 1,585 informal workers in rural and urban Zimbabwe found similar occupational injury and mortality rates to those found in the formal economy but higher rates of occupational illness (Loewenson 1998). In this and other studies in Southern Africa, informal workers reported problems of "poor work organisation, poor access to clean water and sanitation, ergonomic hazards, hazardous handtools and exposure to dusts and chemicals" (Loewenson 1999: 6). Three large-scale OHS surveys have been conducted in the Philippines, including one OHS module attached to the Labour Force Survey in 1998-99 that helps to capture information on informal workers (Taswell 2001). Numerous other small-scale studies focussing on specific workplaces, specific localities or specific occupations have produced findings that are too context-specific and detailed to summarize here. The absence of an overall framework to capture the findings of such studies clearly limits their wider reporting and dissemination.

While the information on occupational risks for informal workers is particularly poor, the impact of working conditions on women's health is even less understood. This absence is largely explained by the fact that much of women's work remains unrecognized, uncounted and unpaid. Women's work that is paid is disproportionately undertaken in the informal economy; "women may undertake paid work at home, or combine part or full time paid work with household work and the care of children, the sick and the elderly' and therefore a simple occupational category is "seldom sufficient for establishing specific health risk" (Kane 1999).

There is also evidence that women may be disproportionately vulnerable to musculoskeletal disorders that are rapidly becoming one of the prime causes of work-related injuries and diseases (ILO 2004) because more women are employed in jobs characterized by monotonous rapid-pace work that require static postures and place static loads on muscles (Rosskam 2003). Female workers may also be more vulnerable to toxic chemicals such as pesticides due to the fact that women in general have more body fat and that there is a high risk of adverse effects on unborn children if a woman is exposed during pregnancy (ILO 2004). On the other hand, the highly hazardous mining and construction industries still contain proportionately more men than women. It would take an occupation- and sector-specific analysis to get a more comprehensive picture of men's and women's different vulnerabilities at work. What is clear is that a focus on occupational injury alone at the expense of occupational illness might severely underestimate the negative impact of unsafe working conditions on women workers.

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[2] Unfortunately, the reference period for which these answers were given is not given in the synthesized report, and there has simply not been enough time to go to each individual country report.

Further, a recent study of the situation of foreign domestic women workers in a selection of Arab states (Esim and Smith 2004) paints a chilling picture of a different kind of vulnerability. Women arriving in the country are subject to a battery of medical tests to determine that they are fit for work, whereafter they as much as disappear into the private domains of their employers', beyond the reach of labour law. The impression given is of extreme vulnerability to verbal assault and ill treatment, which must have psychological effects, yet women workers trade this vulnerability off against the ability to earn salaries above what could be earned at home (Sabban 2004).

Even if OHS research is scaled up and comprehensively incorporates such previously neglected workers, there remain some inherent difficulties in collecting accurate data particularly for unprotected workers that need to be further understood. Workers themselves may not make the distinction between occupational and other injuries and illnesses. This may be because the worker simply doesn't know where the injury or illness was acquired, or "it" is due to a general lack of awareness of OHS issues. Medical practitioners may also lack adequate OHS knowledge and expertise to correctly diagnose work related illnesses. In India, for example, doctors frequently misdiagnose and mistreat byssinosis (or occupational asthma) for Tuberculosis (PRIA 2004). In the case of workers whose living conditions also present health and safety risks, it may just not be possible to isolate the cause. For people who live and work in the same environment, this issue becomes increasingly complex and has important implications for any inclusive OHS strategy. We will talk specifically about the need to broaden the definition of "place of work" later in the paper.

2.2 The Impact of Globalization on OHS

The ILO's OHS estimations cannot be accurately used to measure change over time (and therefore the impact of globalization on OHS) as they are based on dated information and adjusted using more up to date statistics from select countries (Takala 2002). If precarious or informal work is used as a proxy for the impact of globalization on the labour market, however, a comprehensive study conducted by the University of New South Wales, Australia, would suggest that globalization is having a negative impact on OHS. The study found evidence of a strong and convincing link between precarious employment and inferior OHS outcomes, including injuries, illnesses and stress (Quinlan 2003).

Globalization has also been associated with a structural transformation in industrialized countries towards relatively safe (in terms of occupational injury) service sectors and away from the more hazardous sectors such as agriculture, logging and mining (Takala 2002a). Hazardous industries have increasingly been transferred to developing countries where there are less resources to protect workers (Barten et al. 1996) or where, in some cases such as "export processing zones," employers may be exempt from labour legislation (Brown 2004). Within developing countries, increasingly dangerous work such as lead acid battery recycling, screen printing, metal stone grinding, and textile production is being outsourced to informal enterprises including small family run concerns (Kemp 2005: personal communication). New global production methods such as "Just-In-Time," "Lean Production" and "Total Quality Management" have also been associated with greater levels of musculoskeletal disorders and repetitive strain injuries that are caused by "repetitive motion, static and/or awkward postures and manipulation of heavy weights" (Brenner et al. in ILO 2004). Unfortunately, given the level and reliability of data available, international comparisons are not possible.

The clear lack of reliable and large-scale data on OHS risks in developing countries and for informal workers in particular highlights the need to invest more resources in OHS and development research. The failure to do so will mean that the frequently reported negative impact of globalization on OHS will continue to go largely unsubstantiated by rigorous and comparative data while at the same time the very real presence of occupational risks and the negative health burden on informal workers are unlikely to be factored into the design and implementation of national OHS programmes. This would seem to be getting the worst of both worlds: repeatedly stating how awful everything is under globalization, yet coming up with no practical way of addressing the problem.

3. Assessing the Relationship Between Work-related Risk and Poverty: Concept and Measurement

3.1 Limitations of Conventional Approaches

A review of the international evidence of the impact of occupational injury and illness on poverty reveals that the limitations of OHS data collection methodologies extend far beyond issues of resource and scale. Current approaches tend to concentrate either on measuring the number of injuries or illnesses, as in the national and ILO reporting systems, or on examining the specific causal relationship between working environment and worker health, as in the methodologies used by OHS practitioners. While models do exist in some developed countries to measure and estimate the aggregate costs of occupational injury and illness to different stakeholders, to date we have not been able to find any study that has attempted to extend such methodologies to directly measure the impact of the costs of occupational injury or illness on the income and living standards of workers and their dependents.

Industrialized Country Focus of OHS

There are at least three contributing factors to this lack of attention to the worker's social and environmental context. The first has to do with the disciplinary isolation of OHS, whose fundamental principle is the focus on the worker and his/her right to occupational health and safety. Research in developing countries seldom goes beyond measuring the impact of working conditions on the health of the worker. Nuwayhid (2004) argues that this limited focus is an outcome of an imported approach to OHS from industrialized countries that is dependent on a functioning political and regulatory process that "translates" the scientific findings of OHS professionals into policy.

Secondly, the "workplace" focus is problematic as the conventional idea of "workplace" has become outdated. "Fixed premises" is usually taken to mean enterprise, factory, office, or shop. Yet, millions of the world's workers now work out of their own homes (as own account workers or as industrial outworkers) and in public places such as on streets or in parks. Both these workplaces fall beyond the scope of labour regulation, thus pointing to a to a potential new role for local government in OHS, which we return to later. A recent classification (Lund and Ardington 2005) has attempted to include the variety of places where work is done, each of which will carry different risks (see Appendix 2).

Third, the "workplace" focus of the majority of mainstream OHS research methodologies prevents the data collection from those workers worst affected by poor health and safety who are no longer able to work.

Health and Poverty

Research on chronic and transitory poverty has identified health shocks generally as one of the primary causes of "descents into poverty" (Sen 2003). In a review of the research, Hulme and Shepherd (2003) find that a common "cause" of chronic poverty in many parts of the world is the chronic or terminal illness of a household's main income earner. The loss of income, rising expenses and the liquidation of assets are all commonly associated with the withdrawal of the main breadwinner from the labour market (Hulme and Shepherd 2003) or with productivity declines for those breadwinners continuing to work while unwell (Sen 2003).

However, while the OHS literature largely neglects issues of poverty, the poverty and health literature has also failed to illuminate the specific impact of work-related injury or illness and the need to redress hazardous working conditions in order to reduce health problems. This failure appears to be the case even in research where the evidence itself clearly demonstrates the negative health impact of poor working conditions.

In the time available for this report, we could only find two exceptions to this apparent blindness to occupational health and safety issues within the health and poverty research. One is a study of urban Rickshaw pullers in Bangladesh (Begum and Sen 2004) that found the majority of illnesses and injuries experienced by workers was connected to their occupation, and that in the case of major illnesses, 30 per cent of the sample liquidated their savings, 16 per cent disposed of assets, and 27 per cent incurred debt. The second more practical example is the Self Employed Women's Association (SEWA) in India, whose inclusion of OHS insurance in their Integrated Insurance Scheme is indicative of the organization's understanding of the potential detrimental impact of work-related accidents and ill-health.

Disability and Poverty

Most countries have little data and information on disability (Metts 2000), and research on the impact of disability on poverty has been hampered by the severe lack of internationally comparable statistics (Yeo 2001). Despite this, the research that has been undertaken indicates that disabled people are over-represented amongst those living in extreme or chronic poverty (Yeo 2001). Given the lack of comprehensive data on disability, it is perhaps unsurprising that there is little evidence of research that has focused on the relationship between causes of disability (including work injury and illness) and poverty.

Another possible explanation for this lack of focus is that the disability rights discourse is primarily focused on removing the social, economic and political barriers experienced by disabled people rather than on analyzing the vulnerabilities that may have caused disability in the first place.

While the empirical evidence on the impact of occupational injury or illness on poverty is lacking, a number of "common sense" conceptual models have been developed within the health and development and disability and development research paradigms that emphasize an inter-dependent or cyclical relationship between ill-health or disability and poverty, and these often include an acknowledgement of the role of work health and safety. An example of one of the chronic poverty/disability and disability/chronic poverty models (from Yeo 2001) is included in Appendix 3. With regard to occupational health and safety, this model argues that chronic poverty reduces options to refuse hazardous working conditions, which then (in combination with other factors) heightens the risk of illness, accident and impairment, which in turn, as a consequence of discrimination against disability and loss of earning ability, contributes to further exclusion and loss of income.

3.2 Informal/Unprotected and Low Income Workers

Even without empirical evidence, one can intuitively argue that injury and incapacity to work are likely to have a greater detrimental impact on unprotected or informal workers. The lack of adequate social protection in many developing countries leaves most households dependent on income earned through employment. If such employment ceases for any length of time due to illness or injury and is unprotected in terms of insurance or compensation, and if additional costs are incurred for necessary health care, the risk of such households experiencing downward mobility is likely to be increased. Those workers least likely to be compensated are those least able to afford the costs of lost income and health care (ILO 2004).

Evidence that the burden of costs associated with occupational injury and illness fall on informal workers themselves and their households was found in a number of the ILO PSS surveys (ILO 2004). Such evidence includes the following findings:

- the majority of workers themselves in Bangladesh, Brazil, Chile, China, India, Indonesia, Moldova, Pakistan, the Philippines, Tanzania and Ukraine bear the costs of work-related injuries or illness;

- workers in Africa are among the least likely to have insurance against accidents or injury at work (in Tanzania 93 per cent of workers said that they would have to pay for treatment themselves, but this figure was even higher for those in casual or other irregular labour relations);

- in Gujarat, India 93 per cent of workers have no insurance against wage-work risks. Where employers do pay the medical costs of work accidents, payment only covers 22 per cent of work injury costs for male workers and only 7 per cent of such costs for women;

- and 60 per cent of workers in Hungary are entitled to employer-provided medical services for work injuries and illness but more than 20 per cent never actually receive such services.

A study of working people in KwaZulu-Natal, South Africa, found that "in 70% of the cases where self-employed respondents took time off (in the previous 12 months) due to illness the business was not able to operate" (Lund and Ardington 2005: 27). Sixty percent of the self-employed said that in the event of a long illness, their business would close down.

The inability of many informal workers to bear such costs associated with poor health was found in the PSS surveys in Ghana (ILO 2004) and the ILO supported surveys in the Philippines (Taswell 2001) where despite ill-health or injury and resulting restricted activity, workers continue to work. The consequences of people continuing to work despite being sick or injured have not been measured in this context but are straightforward. If workers do not take time off to recover or to seek necessary health care, their illness or condition is likely to deteriorate, possibly causing more long-term productivity declines or more long-term absenteeism in the future. Workers who continue to work while unwell and infectious also increase the risk of occupational illness for other workers with whom they come into contact.

3.3 What Has Been Measured?

While the direct implications of the costs associated with occupational injury and illness for the poverty status of households have not been measured, a number of models for developed countries try to measure the *extent* of associated costs for different stakeholders. One good and well used example is the model developed by the Health and Safety Executive in the UK. A number of more simplistic models have been employed in some developing countries to cost lost work time at national level due to occupational injury and fatality. For example, Loewenson (1999) estimates that the cost of occupational injuries amounts to 3 per cent of GDP in Zimbabwe.

While there has been an historical preoccupation within the OHS discipline with demonstrating the business benefits of OHS by measuring the direct and indirect costs of injury and illness to employers, Loewenson argues that there is now a growing interest in such economic costs linked directly to rising concerns about "investments in human development, allocation of production costs and returns to spending on areas of production"(1999: 18). A large body of literature exists on this topic, and the ILO, in partnership with the Department for Occupational Safety and Health in Finland (nd), provide a useful overview of relatively simplistic methods to calculate the costs of OHS to employers. However, while the measurement of costs to productivity is likely to be important to motivate employers to improve occupational health and safety, it seems that the current emphasis on calculating such costs has diverted attention away from worker and worker dependent costs. In addition, there is little evidence that such economic cost measurements have been applied or are indeed applicable to informal enterprises in developing countries.

4. Regulation of Occupational Health and Safety

In this section, we give a brief overview of the main regulatory agencies and mechanisms and then outline some of the constraints to extending regulation to people in precarious work.

4.1 Major Regulatory Agencies and Mechanisms

The ILO

In the last ten years, the ILO has developed a new and inclusive orientation towards people working in the informal economy. Under the banner "Decent Work For All," the ILO has sent strong signals about the need to accommodate new and changing forms of employment arrangements in the conceptualization and measurement of work. From within the ILO, Trebilcock (2004) argues that many of the conventions do indeed apply to the informal sector and informal economy. A number of ILO country initiatives have dealt with workplace improvements for informal workers.

While there are numerous ILO Conventions, guidelines and codes of practice for OHS, it is widely accepted that the four core Conventions that set norms for safe work and managing occupational health and safety and promote OHS policy convergence are 155 (tripartite occupational health systems, rights and responsibilities), 161 (occupational health services), 170 (chemical safety) and 174 (prevention of major industrial accidents).

Without ratification and implementation, ILO Conventions lack impact, and recent ILO data show that many major industrial (including the UK and the US) and industrializing countries have failed to ratify any of the core ILO OHS Conventions. As of February 2005, only 42 countries had ratified Convention 155 – the most important and general ILO Convention on OHS. Levels of ratification of the other three core OHS Conventions are even lower (see Appendix 4).

The ratification figures are indicative of the already low priority given to OHS by the majority of ILO member countries. The establishment of the ILO's core labour standards in 1998 that exclude OHS Conventions have been accused of even further downgrading the level of attention given to OHS "when regular budget resources and issues such as international technical cooperation are discussed" (Takala 2002). While there is not necessarily a causal relationship between ratification and a well established, well functioning national and inclusive OHS system, Kemp (2002) argues that Convention 155 forms a fundamental basis for progressive OHS legislation in its commitment to equity, prevention, and participation. Indeed, she argues that the widespread lack of ratification of 155 is perhaps due to its comprehensive resonance as well as the inclusion of these potentially controversial but important Articles: the right of workers to leave their workplaces if they feel they are in imminent danger without suffering any recrimination; the right to OHS training and to representation in negotiations to improve health in the workplace; and that OHS measures should not involve any costs to workers (Kemp 2002).

The World Health Organization

While the ILO plays an important role in promoting uniform policies and setting minimum standards, the WHO is responsible for the technical aspects of occupational health and safety such as the promotion of medical services, medical examinations, and hygienic standards (LeDou 2003). World Health Assembly Resolutions are the key means through which the WHO encourages national occupational health policies and strategies; however, LeDou (2003) says that the OHS programs promoted for developing countries have been much criticized for simply replicating models from resource rich countries that are ill-suited for application in developing countries due to poor resources and vastly differing socio-economic contexts.

The WHO has a world wide network of OHS collaborating centres. The centres have been divided into a number of different task forces that appear, on the surface, to be developing a more nuanced approach to occupational health and safety for application in different settings. Task Force 8 in particular has been given the responsibility of exploring OHS approaches to small-scale enterprises and the informal economy. To date, it has not been possible to access any information on the progress made within this task force.[3]

Another interesting and relevant development is the launch of a "Global Commission on Social Determinants of Health" by the WHO Health Equity team in March 2005. One of the priority themes for the Commission will be working conditions. The Commission will aim to gather evidence on inequities in working conditions and occupational health outcomes and will work towards identifying and advocating interventions and policies that can address these factors (Solaro 2005: personal communication).

The WHO and the ILO are required to provide assistance in the development of health and safety programmes to those developing countries that request it, but in reality both agencies have such limited budgets and staffs that they are often unable to provide the direct services required (LeDou 2003). In addition, while the services of both agencies are fundamental to the progress of OHS strategies, neither have the necessary enforcement powers to ensure standards are upheld.

National Policies

Ratification of ILO OHS conventions and recommendations by national governments are the first small steps towards the practical regulation and enforcement of OHS standards. National policies and strategies must be developed in line with such guidelines, but the extent to which this goals has been achieved varies widely developing countries varies widely.

The ILO (2004: 173) traces the history of the dominant national approaches to OHS regulation during the 20th century and finds that the model of statutory regulations (where governments subscribed to ILO Conventions, passed comprehensive laws, and established labour inspectorates) has been increasingly replaced by an emphasis on market and self-regulation with the rise of neo-liberal thinking since the 1980s. Structural adjustment policies have been associated with severe reductions in government spending with consequent cutbacks in regulatory apparatus and state funding for OHS (ibid.). This problem has been exacerbated by the large number of other health issues competing for funding within developing countries (LeDou 2003); not least of these is the increasing burden of HIV/AIDS on public health systems. There have also been recent outflows of occupational health professionals from developing countries (Loewenson 2001), so there is a lack of technical, financial and human resources required to develop adequate OHS regulations (Brown 2004). Overall, developing countries have fewer experts, less safety equipment, less monitoring equipment, fewer inspectors, and worse enforcement than developed nations (Giuffrida et al. 2002).

Some countries don't have national OHS legislation at all. Many of those that do have largely "contradictory, unwieldy, overcomplicated, and essentially unworkable" OHS laws and systems with unclear administrative processes and complex lines of responsibility (Kemp 2002). An excellent example of this is China where in practice, despite government concern with OHS and the passing of new, largely progressive and locally developed laws and regulations in 2002, there have been serious gaps between planning and execution largely due to a complex and un-coordinated system of responsibility that most local officials do not understand (Pringle and Frost 2003). Since labour laws did not exist in China until 1995, China cannot blame a long history of labour legislation for this complexity. Indonesia's system, on the other hand, reflects the problems of many former colonies, with new laws simply being added to the statute books without

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3 We made extensive efforts to contact the major stakeholders involved in Task Force 8, as well as those more specifically responsible for the ILO-WHO Joint Initiative on Occupational Health and Safety in Africa, but there has been little response. Those who did respond were largely involved at the periphery of these initiatives and report that they are unaware of any practical progress made. The Cape Town and Johannesburg pilot projects that were due to be launched in 2000 have apparently been abandoned.

removing the old, archaic, and inappropriate OHS regulations imported by colonial administrations (Kemp 2002). As in other countries in Asia, interviews with labour representatives in Indonesia reveal that they commonly do not understand the resulting strata of labour laws and supporting regulations (ibid.). For regulation to work, it must be backed by effective enforcement mechanisms. OHS law enforcement is, however, frequently uneven and inconsistent, and criminal sanctions for breaking such laws are rarely invoked (Loewenson 2001). Power asymmetries, rising unemployment, and the need for foreign direct investment have all been blamed for the lack of action taken against corporations and employers for OHS violations by developing country governments. A serious institutional problem is that those institutions inspecting standards are often not the same bodies as those that have the authority to invoke penalties against OHS offenders (Pringle and Frost 2003).

A potentially useful Index to measure the level of regulation and protection of OHS standards within countries has recently been developed by the Socio-Economic Security Programme of the ILO (ILO 2004). The National Work Security Index is comprised of a number of input indicators (level of political commitment measured by ratification of ILO Conventions and existence of national laws), process indicators (the level of government expenditure on OHS benefits and compensation) and outcome indicators (including the work-related fatal injury rate, level of under-reporting, average working time, etc.). While there are several limitations to the Index from an informal economy perspective, including the fact that it is the existence of laws rather than their application to all workers that is measured in the input indicators, it appears to be the first index of its kind and holds much potential for identifying broad performance levels at a national level. The results of the first application of this index by the ILO are provided in Appendix 5.

4.2 Selected Alternative Regulatory Mechanisms

Trade Agreements

While there has been strong resistance to WTO involvement in the setting and monitoring of labour standards from both developing countries and multinational corporations, there are examples where labour standards, including workplace safety, have been incorporated into international trade treaties. The North American Free Trade Agreement (NAFTA) and its side Agreement, the North American Agreement on Labour Cooperation (NAALC), went into effect in 1994 and was the first ever formal attempt to do this. The Agreement does not oblige the parties (Canada, Mexico and the USA) to modify their national labour legislation but requires them to guarantee the effective application of their own legislation. The Agreement also creates an institutional scheme to ensure compliance, including a special system for dispute resolution in cases of compliance failure, which includes OHS (Lopez-Valcarcel 2002).

However, a decade after the Agreement, a number of published reviews have reported that none of the labour rights of Maquiladora workers were protected by the NAALC due to "inherent weaknesses of the agreement, a lack of political will to implement either the letter or the spirit of the agreement, and the economic disincentives for Mexico to enforce labour rights that would 'discourage foreign investment'" (Brown 2004). None of the 28 labour standards complaints submitted to the National Administrative Offices has got beyond the second stage of a seven step investigative process and "not a single workplace hazard has been corrected as a result of NAFTA and the NAALC" (ibid.). While there were clear scope, enforcement and public participation problems within the NAALC and other labour agreements within trade treaties, Brown (2004) and the Maquiladora Health and Safety Support Network remain optimistic that these can be overcome if a number of essential components are incorporated into future trade agreements (see Appendix 6).

Codes of Conduct

As traditional forms of state regulation have proved limited in the context of rapidly expanding globalization and as production chains have increased in length and complexity, there has been an increasing emphasis on voluntary codes of conduct to manage compliance with labour standards across value chains.

Labour standards feature prominently within many company or sector voluntary codes and often include issues of health and safety. However, as Chen et al. (2004) note "other basic rights in the workplace, particularly the right to organise and bargain collectively, remain controversial and do not feature in many codes." This trend presents an important barrier to the effective achievement of worker health and safety given the evidence that better OHS standards are associated with strong labour movements (Takala 2002, see below).

The Ethical Trading Initiative (ETI) in the UK is an important example of a collaborative effort between companies, NGOs and trade unions to develop and promote labour codes of conduct in both developed and developing countries. While the ETI's base code corresponds closely with the ILO core conventions, it actually also recognizes the fundamental importance of OHS and includes measures to ensure safe and hygienic working conditions.

However, due to the importance of consumer pressure in the development and enforcement of such mechanisms, Brown (2004) argues that voluntary codes have a limited impact on labour standards within non-consumer product sectors, such as the export of primary resources. In addition, those workers not involved in export-oriented production chains are inherently excluded from the benefits of voluntary codes. Likewise, Heeks and Duncombe (2003) find that while there is evidence of positive outcomes of ethical trade initiatives, including improvements in health and safety conditions in footwear factories in South-East Asia, the successful cases are vastly outnumbered by those that have little or no impact. Such limitations are caused by both "design-reality gaps in planning and implementation of initiatives" as well as major institutional problems on issues such as underlying stakeholder interests, regulatory incentives, asymmetries of power and information, and trust (Heeks and Duncombe 2003).

The limitations of voluntary codes of conducts and their uneven impact lend support to many OHS practitioner arguments that there is no substitute for national and international laws and enforcement systems to create the necessary background regulatory environment to hold employers and governments to account (e.g. Loewenson 2001; Kemp 2002). However, while a more nuanced approach to national and international OHS regulation systems that, for instance, include more genuine stakeholder and especially worker participation may help reduce some of the limitations of such mechanisms, there are a number of other inherent problems within current mainstream regulatory approaches discussed below, that serve to limit the improvement of occupational health and safety for all workers, especially those in informal and precarious employment.

4.3 Constraints to Broadening Regulation to Precarious Workers

Enterprise Size and Employer Responsibility

The ILO estimates that only 10 per cent of the population in developing countries are covered by occupational health and safety laws (LaDou 2003). Poor coverage can partially be explained by the technical, financial and human resource constraints already discussed in the design and implementation of regulation at both national and international level and in some cases by the asymmetrical power relations between major employers (such as multinational corporations) and governments. However, a large proportion of the workers are also explicitly excluded in many countries because most laws regulating OHS apply only to medium- or large-scale industries (Barten et al. 1996) while the vast majority of poorer informal workers work in much smaller enterprises, typically less than five. In the Philippines, enterprises with 20 workers or less are exempt from most existing labour laws in the expectation that this will encourage more enterprises and create more jobs (Reverente 1992 in Barten et al. 1996), and in Korea, the 1990 OHS Act only applies to those enterprises that employ 50 or more workers (Park et al. 2002). The agreement between the ILO's member states, employer organizations and worker organizations was that enterprise size criterion could be set at individual country level. This unfortunately creates the space for countries to perpetuate the pattern that small-scale workers and enterprises are not included in OHS regulation.

In addition, and as serious, deeply embedded in the conceptual approach of most mainstream regulatory mechanisms is a reliance on easily identifiable employers for the enforcement of OHS. This leads to the exclusion of many workers who are in disguised, concealed or objectively ambiguous employment relationships. Even for those nations that do in theory protect all workers, regardless of size of enterprise, this conceptual approach leads to a failure to satisfactorily protect the health and safety of those working quasi-informally such as piece-rate workers or sub-contracted wage workers. Here, goods and services are supplied in terms of a commercial contract rather than an employment relationship, and, as such, the "scope for all forms of regulation premised on an employment relationship is correspondingly reduced" (Theron and Godfrey 2000: 12). Of course, this conceptual approach does not begin to address the regulation and protection of OHS standards for the genuinely self-employed and their employees within the informal economy. Given the rapid increase in worker numbers in these informal forms of employment, this conceptual approach is undermining the effectiveness of regulatory mechanisms in reaching workers.

Broader Sources of Vulnerability

Another limitation of current approaches is the narrow conceptualization of worker vulnerability to occupational injury and illness. Occupational health has largely been practised as a scientific and technical discipline (Nuwayhid 2004) – that is, assessing the relationship between working conditions and worker health and then designing technical solutions to prevent injury or illness. However, the source of worker vulnerability to injury or illness goes far beyond what is technically fixable within the work environment – i.e. the causes are not only hazardous work conditions, and the consequences are not only ill health or injury to an individual. There is a social, political and economic context to that risk that must be understood if prevention strategies are to be effective. There are also social, economic and political consequences of poor OHS that will impact on a variety of different people/institutions. Unless the sources of vulnerability to injury or illness are tackled, then any narrowly defined package of practical measures to improve OHS will be undermined.

Potential sources of vulnerability that might undermine current OHS strategies *may* include some of these examples:

- that health and safety is a low priority for workers because the urgency of earning a living takes priority over other concerns, there is a lack of awareness of the links between work and health, and there is a lack of understanding of the negative impact of poor health on productivity;

- that the economic imperative to earn leads to overcrowding in advantageous trade or production locations with important consequences for service delivery, such as refuse collection and water supplied, and results in a general hazardous environment for all who live and work in the area. Barten et al. (1996) suggest that overcrowding may also occur where workers take a "safety in numbers" approach to protect themselves from officious local authorities who consider informal workers/ enterprises a nuisance or even illegal;

- that "illegal" status of informal enterprises undermines the security and permanence of work premises/ location. Without such security, there is little incentive to invest in the improvement of working conditions (Rongo et al. 2004);

- that the nature of payment for work, e.g. piecework, may lead to self-exploitation in terms of pace of work and number of hours worked. For example, if pace of work is crucial to earn sufficient income and the recommended protective equipment slows productivity, then workers may choose not to protect themselves. Excessive hours worked may increase exposure to dangerous chemicals despite following safety guidelines given that such guidelines are based on average hours worked in industrialized countries;

- and that pre-existing health problems, particularly those that compromise the immune system such as HIV/AIDS, may increase risk of ill-health and injury even if internationally accepted guidelines on dangerous products are strictly followed.

Institutional Positioning

The practical application of OHS is limited not only by its narrow conceptual approach in most countries but also by its institutional position relative to other professional health domains (Nuwayhid 2004). Furthermore, while norms and standards are set at national level, implementation takes place "on the ground" and often by a different level of government.

With regard first to the lateral linkages with other health domains, there are clearly inter-dependent relationships between occupational, environmental and public health. For instance, with the increasing number of small-scale industries in developing countries and with few, if any, effective restrictions on the health and safety of their enterprises (Barten et al. 1996), such industries may contaminate local environments with dangerous refuse, including toxic chemicals. Where these industries are located within residential areas or even within homes, there are clear spill-over and cost implications for both environmental health and public health services. The impact of such spill-over effects has been measured in a number of studies (Matte 1989; Barten 1992; Shukla et al. 1991). Likewise, if environmental and public health and safety are poor in areas where work is being undertaken, this clearly also has implications for the health and safety of the worker. In some cases, occupational, environmental and public health become impossible to distinguish (Van Eerd 1997).

With regard to governance of the places where people work, the local state directly controls and influences the workplaces of those who trade on streets and other public places and of those who work inside their own homes. It makes a great deal of difference to the security of such workers as to whether and under what conditions the local government allocates resources to, for example, good sanitation, good street lighting, garbage removal, and affordable water provision. Local government has a critical role to play both in assisting with small enterprise development and with improving health and safety conditions. The municipality in Durban, South Africa, has made bold attempts to engage with street vendors in improving these conditions in the interests of public health as well as in the health of the traders themselves and the customers that they serve. The institutional problem is unsolved though. Durban's department of occupational health and safety is there to deal with workplace issues for its own employees; it has no institutional mechanism to deal with hazardous work being done in people's own homes.

Decline of Trade Union Influence

While trade unions may benefit from the "global spread of information and global pressures for occupational health standards" (Loewenson 2001: 866), their level of influence has fallen markedly in many countries in recent years. This decline can in large part be explained by the challenges to worker organization presented by the deregulation of the labour market, its "destabilization" caused by the "introduction of new components (women, youth, migrants of different origins) in sectors without trade union tradition, and the increasing pressure for maximum profits" in a context of fierce global competition (Gallin 1999). While the tripartite context within which trade unions have traditionally operated has largely been removed by such global trends as outsourcing and sub-contracting, the decline in trade union influence can also be attributed to its own static conceptual and institutional approach in the face of such changes. Despite dramatic declines in membership numbers, most unions have been unable to see that if they are to win new members, new approaches must be developed that do not hinge on establishing clear employer-employee relationships. Only a handful of unions and federations have attempted to organize unprotected workers or form partnerships with existing informal worker organizations.

This trend is very problematic for extending and enforcing OHS given the clear relationship between worker organization and improved health and safety. Countries where unionization rates are high are those that have ratified the greatest number of conventions on health and safety. These countries also rank highest in terms of occupational injury and illness prevention and of health and safety (Takala 2002).

5. The Case Studies

We return to the purpose of this exercise as stated in the Terms of Reference:

> to investigate the impact of occupational injury on poverty and to explore possible interventions to reduce risk of occupational injury in capacity constrained environments.

Case studies were selected to allow insights about different strategies with different combinations of stakeholders. We sought interventions with the following criteria: they held hope of reaching large numbers of workers over time; they could capture the theme of employer responsibility; they could illuminate the emerging new role of local government in OHS; they could give lessons about worker participation and organization; and they could explore potential alliances between informal worker associations and civil society interest groups. The first phase of the assignment included a wide scoping exercise to review likely case studies that met these criteria.

The following three case studies were selected:

- **Shipbreaking in India: Interventions by Greenpeace and a Federation of Metalworkers**
  This case study was chosen primarily to explore the potential of informal and formal workers linking with other civil society interest groups, and there is a clear potential synergy of interests with the environmental movement.

- **Street Vending in Durban, South Africa: A Local Government Initiative on Promotion of Health and Safety Standards**
  During the transition to democracy, the health department of the local government in Durban engaged in constructive health and safety training with street vendors in the central city. The work has continued over a period of more than ten years. This case study was chosen to explore the role of local government as an actor in OHS.

- **The Self Employed Women's Association in India: An Integrated Approach to Informal Employment, Health Insurance and Promotive OHS**
  The work of the Self Employed Women's Association (SEWA) in India has been well documented as has its Integrated Social Insurance Scheme, in which more than 100, 000 of SEWA's members participate. SEWA also has a community health worker programme of co-operatives, which has been introduced as the preventive and promotive component of OHS. A case study was developed to bring the preventive, promotive, and insurance sides of this approach to OHS together.

Case studies are summarized in the following pages; the full studies appear in Appendices 7, 8 and 9.

5.1 Summary of Shipbreaking in India: Interventions by Greenpeace and a Federation of Metalworkers[4]

Introduction

It is generally recognized that shipbreaking is unsafe and environmentally unfriendly. These conditions are due to both the hazardous substances and materials used to construct ships and because of the unsafe working conditions of those whose job it is to break down and recycle ships that have been sold

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[4] See Appendix 7 for the full study.

for scrapping. Shipbreaking is done manually in developing countries, and thus worker contact with the hazardous and toxic substances used to construct ships in unavoidable. In India, where 70 per cent of the world's shipbreaking takes place, the industry directly employs over 60,000 workers, and a further 160,000 workers are employed in downstream activities (IMF 2004-2005). Unsafe working conditions and inadequate training and protection of workers result in high occupational injury and death rates. Compensation is not provided in the majority of such cases. The lack of basic facilities such as toilets and drinking water and poor living conditions close to work sites further contribute to the poor work health standards.

This case study aims to highlight two interventions that have attempted to impact on shipbreaking worker health and safety either directly or indirectly at international and at national/local levels.

The International Intervention

Greenpeace and the Basel Action Network (BAN) have been heavily involved in campaigns to ensure cleaner and safer shipbreaking practice by pushing for a strengthening of international regulations. The focus of the campaigns has been to ensure that ship owners take full responsibility for the safe and environmentally friendly dismantling of their ships and, on the basis of international law established by the 1992 Basel Convention, both organizations insist that it is the legal responsibility of ship owners to pre-clean or decontaminate their ships of all hazardous substances before exporting them for recycling. The rationale is that such action will ultimately protect both the environment and the workers where shipbreaking takes place. The joint campaigns of both organizations led to the official decision in 2004 to clarify that a ship may be defined as waste under the Basel convention and therefore must not be exported to developing countries without confirmation that it will be disposed of in an environmentally safe manner. Important campaigns are also underway to ensure that hazardous materials are eliminated at the point of ship construction. Greenpeace and BAN have successfully raised the profile of the poor environmental and worker health practices of the industry as well as the industry's consistent refusal to comply with the Basel Convention. Their work has also directly encouraged the development of international guidelines from both the ILO on worker health and safety in the shipbreaking industry and the Basel Convention guidelines with respect to environmental safety.

While worker health and safety is a frequently mentioned aim of the Greenpeace and BAN campaigns, there is lack of evidence of this in available documentation – the documentation shows a much greater preoccupation with environmental concerns at the expense of a concern about the impact that the pre-cleaning of ships in OECD countries would have on employment of workers in developing countries. A lack of worker focus in this particular campaign has overlooked the possibility of finding strategies to insist that the employment remains in developing countries while still being regulated to ensure compliance with health and safety standards.

A recent and arguably more progressive (from the worker point of view) approach of Greenpeace is the research and campaign for a global ship recycling fund in which ship owners are forced to directly pay for the safe dismantling and recycling of their ships. Payment to the fund is recommended through additions to insurance premiums, a registration tax, or a tax at the point of construction rather than at the point of sale to the shipbreakers. The fund would cover the costs of pre-cleaning ships by certified shipbreakers in developing countries. The proposed fund holds great potential for regulating worker health and safety in the industry, but again, Greenpeace's discourse and research is dominated by environmental concerns and costs. A possible but mistaken assumption here might be that worker health and safety will simply be an automatic by-product of the process to improve environmental practices.

The National Intervention

The International Metal Worker's Federation (IMF – note this acronym as representing something different from the other IMF), in partnership with the FNV, has committed itself to a programme of intervention to support the organization and representation of shipbreaking workers in India and to encourage employers and government to fulfil their responsibilities with regard to the protection of worker health and safety. In partnership with local union affiliates, the IMF instigated a pilot project in Mumbai in July 2003 with a view to roll out the project at full scale in both Mumbai and Alang in July 2004. The main aims of the projects are as follows:

- to collect information on the problems of workers in shipbreaking;

- to provide essential services to help workers and to develop their confidence in the union;

- to use a health specialist to provide first-aid and ambulance services;

- to involve local organizers in the activity;

- to liaise with government agencies, employers and other social organization/activists for "better outreach" and to improve OHS;

- to share the achievements of the Mumbai project with Alang workers by conducting joint activities and discussing workers problems;

- and to emphasize the importance of self-reliance and collection of union dues.

Tangible progress to date includes the training of workers in first aid, OHS and HIV/AIDS, and the provision of basic and emergency medical services by St John's Ambulance and the Rotary Club of Bombay. Less tangible progress has been made in the lobbying of regulatory authorities and in the promotion of the concept of worker organization as well as harmony and solidarity amongst workers from different socio-economic, cultural and political backgrounds.

A major challenge to progress is the seasonal migration of workers back to their rural homes, which interrupts programme activity and undermines many worker organization strategies. The continuing fear of job loss is another significant barrier to organizing, and the unions can currently provide no protection against this. The major reported challenge, however, is the negative attitude of shipbreakers, contractors and sub-contractors towards the union and their activities to date. A continuing imbalance of employer-employee power and active employer strategies to discourage and sometimes prevent organization constitute further challenges to progress.

From literature made available to us, it appears that up to now the federation's research has failed to gather adequate and comprehensive information specifically on the needs and priorities of the workers themselves. We also have to question whether the approach taken to encourage membership of workers in an existing union provides enough space and flexibility to ensure the full and genuine representation of informal workers' needs and concerns. The federation clearly decided to underplay their organization intentions, and this may be justified given the shipbreaking workers' scepticism of unions. Still, this suggests a top-down rather than inclusive worker-oriented approach.

Finally, there appears to be only a minimal and superficial level of co-ordination between these two interventions – the international and the national – to improved health and safety in the shipbreaking industry and only at the level of acknowledging and supporting the work done by the respective stakeholders. This apparent lack of integration of activities seems to be a missed opportunity to achieve greater impact on raising the profile of worker health and safety as well as to further inform the individual interventions of each stakeholder.

5.2 Summary of Street Vending in Durban, South Africa: A Local Government Initiative on Promotion of Health and Safety Standards[5]

Introduction

This case study describes an intervention that was initiated in 1994, a time of transformation of all levels of government in South Africa, with particularly heavy new demands being placed on underfunded local governments. The initiative to provide health and safety training for street traders in inner city Durban constituted a creative and innovative exploitation of new institutional and legislative space to promote and protect street trader activity. At the time, the initiative was a significant break from the usual control and exclusion approach of apartheid local governments to street traders.

Public and environmental health and not occupational health and safety (OHS) were the primary concerns and mandated objectives motivating the health and safety intervention. Durban is a hot and tropical city: food gets contaminated quickly; disease spreads rapidly; pavements are unsafe when littered with traders' waste; and rats become a problem. The need for street management to ensure free pedestrian and traffic flow was also a driving factor. However, the department involved realized the fundamental and interdependent link between achieving its own mandated objectives and the improved health and safety of the individual work practices of street traders.

The Intervention

Following an initial scoping survey of traders in the inner-city Durban area and the development of a set of minimum health standards and code of practice for the selling of food items, a health and safety training programme was initiated in 1994 by the environmental health team responsible for street traders within City Health. The standards were adapted from formal business environmental health requirements to ensure their appropriateness to both the work environment and to the implementing capacity of low-income traders. Every Wednesday morning (the quietest trading period of the week) workers from a specific trading sector, such as perishable food or traditional medicine, have been encouraged to attend a training session on issues of personal, food and environmental health. The code of good trading practice is disseminated. Training is conducted in Zulu and is not dependent on participants being literate or numerate. The sectoral approach is employed in recognition that different types of produce and services present different challenges to health and safety.

Following the training, environmental health officers visit the workplace of the traders to further advise and assist in the improvement of work practices. If the officers find that the traders are successfully implementing the code of good practice, then a certificate and identify card is issued by the department. If it is found after a period of time that a trader is failing to meet basic minimum requirements, he/she is given two warnings to upgrade practices before prosecution. On the whole, the warning system has worked to raise awareness of the need to upgrade work practices and rarely leads to prosecution.

On the demand of traders, the training has evolved over time to meet a broader range of health and other needs and has therefore involved other departments from City Health as well as other external trainers and representatives. Such training has included banking and business skills as well as produce care. The variety of training offered as well as new hazards within the work environment mean that many of the traders return to attend further training sessions. Certificate award ceremonies have also been used by City Health to encourage links between the formal and informal economy by providing space for formal business sponsors and prize-givers.

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[5] See Appendix 8 for full study

The Achievements

The now ten-year-old training programme has reached well over 1,000 traders (estimated in 2000). The major achievements identified by the officer in charge are varied. Food sample tests reveal the dramatic improvement of food safety to levels that frequently surpass those found in formal businesses. Methods employed to achieve this improvement have not only directly improved the health and safety of traders in work practices but also their health as consumers of the same food items. Environmental health, and therefore work environment health, has also improved as traders upgrade their sites and dispose of waste correctly. Certificate holders also feel that the improvements implemented have helped to secure more customers and have therefore had a positive impact on productivity.

The intervention faces a number of continuing challenges and limitations. Firstly, there is an institutional problem that is profoundly important, which will probably be found in most local governments across the world and which is difficult to solve. The "health and safety template" that determines how the city health department is organized in terms of tasks and functions is no longer adequate to address health problems thrown up by changing forms of work. There is no institutional mechanism that can deal with hazardous work done in people's own homes; for example. Durban's occupational health and safety division deals only with OHS for its own employees.

Secondly, there are contradictory responses from other local government departments, including open hostility towards traders. These responses serve to undermine the trust and rapport building methods of City Health that are required to motivate traders to attend training. This undermining was a particular problem at the start of the programme but continues to some extent today, particularly for so-called "illegal" traders without official permits. Thirdly, many of the factors impacting on traders' health within their public work environment are beyond their own direct control. Progress has been made in providing basic necessities such as potable water, shelter and waste removal services by other government departments but has not proceeded without its own problems and is still only delivered in some limited specific areas. In recognition of these problems, some more recent programmes have been initiated to improve the necessary co-ordination between these different government departments.

Fourth, there is a danger that without further institutionalization, the training programme will remain dependent on the dedication of a few individuals. Finally, there are a large number of traders who are not being reached by the training programme due to limited resources but also, and perhaps more importantly, a continuing negative attitude within many important government departments towards so-called "illegal" traders, including migrants, itinerant traders and others without permits. These negative attitudes have culminated in a fast-track and retrogressive plan to target "illegal" traders due to be launched in April 2005 (see Appendix 10). The understanding achieved at the initiation of the project – that insecurity of trading position undermines investment in upgrading work practices – has clearly not been institutionalized and applied in more recent approaches towards such informal workers.

5.3 Summary of The Self Employed Women's Association in India: An Integrated Approach to Informal Employment, Health Insurance and Promotive OHS[6]

Introduction

This case study draws on some of the main SEWA activities that impact directly or indirectly on occupational health and safety (OHS). SEWA recognizes that a lack of OHS is both a cause and a consequence of employment and income insecurity, and its incorporation of this into a holistic and integrated approach to simultaneously tackle other sources of risk and vulnerability distinguishes SEWA's

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[6] See Appendix 9 for full study

intervention from the majority of other OHS interventions for informal workers. While the health of women, including occupational health, has always been given priority attention within SEWA and especially so since the recognition that poor health was the main cause of loan default (Chatterjee and Ranson 2003), the movement has explicitly avoided what it considers a limited approach that advocates health and health education above all else in community development (Crowell 2003). Instead, SEWA focuses on understanding and tackling health issues at the point at which health interacts with and impacts on employment and income security. In addition, SEWA also participates at a national level in state and federal commissions on employment policies, child care, health services and social insurance.

SEWA's members suffer numerous work-related illnesses and injuries associated with their long hours of work in often hazardous, repetitive and arduous occupations. Muscular-skeletal, skin and respiratory problems are all common problems as are reproductive health problems, eye strain, headaches and fatigue. SEWA's members work in a wide variety of occupations, however, which present their own specific work-related health problems.

The Intervention Programme

SEWA's OHS related activities are divided into three broad and sometimes overlapping categories of research and prevention, promotion and care, and insurance. Its research into OHS began in the 1970s with the support and expertise of the National Institute of Occupational Health (NIOH). Several studies were undertaken within different sectors to further the understanding of the risks and impacts of occupational injury and illness to informal women workers. The research influenced some concrete prevention action by other organizations such as the re-design of work tools; however, most of these proved too costly for the workers to implement. From the early 1990s, SEWA began to use its research more proactively to prevent occupational injury and illness of its members. Examples of such interventions include the provision of personal protective equipment and the re-design of work tools for garment workers, embroiderers, salt workers and tobacco workers. A series of consultations-come-health education workshops by SEWA, with NIOH's technical assistance, have been carried out to inform women rural workers on the hazards of working with pesticides, and OHS is also promoted through the distribution of simple communication materials.

SEWA's approach to health promotion and care is multi-faceted and multi-layered. While the early health work of SEWA focused on organizing health camps and education sessions for workers by health professionals, there was an increasing understanding that local women can best take care of the holistic health care needs of other members but that this can only be achieved with "appropriate, continuous capacity-building inputs and back-up support…and with district-level people's organization as a support and source of strength" (Chatterjee 2000). Since 1985, SEWA has trained a cadre of local health workers who provide members with health education and preventative health care and are promoting the use of protective equipment. The workers also provide curative care from their homes or a health centre run by them where low-cost generic drugs are dispensed at cost to members (Raval 2000). OHS related activities are integrated, including tuberculosis screening, eye check-ups and a monthly mobile van to remotely located salt-workers. Other activities such as improving access to water and the promotion of stress relief activities are undertaken and also indirectly reduce the risk of occupational injury and illness associated with fatigue and stress caused by paid and unpaid work activities.

In recognition that occupational injury and illness are difficult to entirely prevent and that the national compensation system fails to cover unorganized workers, SEWA has provided insurance for occupational injury and illness as part of its integrated insurance scheme (IIS) since 1994. The health insurance works to help cover the cost of seeking necessary medical attention. In so doing, it helps to avoid further loss of income in addition to that already caused by the illness or injury such as loss of earnings. The reduction in cost of treatment is an important incentive for workers to seek medical attention when needed rather than risk continuing to work and further compounding health problems. The provision of maternity benefits also helps women workers to stop working for a longer period around the delivery time and therefore helps protect the health of members and their children.

The Achievements

The low cost, quality and trusted integrated health care provided by SEWA at the level of community helps to ensure that health services, including occupational health promotion and care, are affordable and accessible to working women, especially given the reduced cost of employing safer working practices and the reduced lost working time in seeking medical attention. As such, women are more likely to seek health services for all health problems earlier and more regularly. The health insurance has helped to address members' concerns that the majority of what they earned was spent on health care and to reduce the personal income costs associated with occupational injury and illness. The IIS had over 102,000 members in 2003.

In recognition of the fact that there is often a gap between the provision of protective equipment and its use in the workplace, further work is needed by SEWA to assess the impact of its preventative interventions in OHS. It is also not clear from literature found to date how well the health workers are trained in OHS, to what extent OHS is integrated into SEWA's community health systems, or how information from occupational health problems encountered at the level of community health is then fed back into preventative measures. Finally, one major concern of the IIS is that even though it is oriented to poor women, some of SEWA's poorest members cannot afford even the low premiums charged, which have to be set at a rate that ensures viability over time (Chatterjee and Ranson 2003). There is also concern that while the health insurance provides access to hospitalization, in some cases the standard of care provided is "frankly dangerous" (ibid.). SEWA is very aware of these limitations and through a process of constant innovation and experimentation is attempting to tackle them.

6. Discussion and Recommendations

6.1 Reconceptualizing OHS in the Changing World of Work

The case studies have clearly demonstrated that OHS for informal workers is an interdependent issue, especially in its relation to employment risk and vulnerability. The implication for intervention strategies is that those who conceptualize and tackle OHS as an isolated issue are likely to have limited success. What is the evidence for this?

First, all of the interventions described tackled OHS at the point at which it interacted and impacted on the primary focus of the organization's work: for SEWA, this was employment and income security, for the Durban City Health department, it was environmental and public health as well as street management, and for Greenpeace and BAN, it was environmental health and safety. Second, the creative and innovative OHS strategies employed by stakeholders were unconstrained by the conventional technocratic model of OHS developed in industrialized countries, and we suggest that, ironically perhaps, it was precisely the absence of a specialist OHS background which led to the "freedom to move."

The implication for policy and intervention of these two points is that to gain buy-in from a variety of stakeholders, it may be effective to focus on and raise attention to the important links between OHS and other development and employment issues. This might help to raise the number of stakeholders who might be willing to participate in the promotion and regulation of OHS and to further the potential for innovative and creative OHS strategies from a range of new and different perspectives.

Linking OHS to development more broadly, however, carries a possible risk of the potential to lose the worker and employment focus. The Greenpeace and BAN campaign to pre-clean ships in OECD countries at the risk of job loss in developing countries is an example. We will return to this in the later section on stakeholders.

The IMF strategy to improve OHS for shipbreaking workers showed how health services needed to recognize how enmeshed the health status of workers was in both their living and their working conditions. However, it is the SEWA case study that provides the best insights about the benefits of a genuinely integrated approach. SEWA recognizes that a lack of OHS is both a cause and consequence of employment and income security. It incorporates OHS into a holistic and integrated approach that simultaneously tackles other sources of risk and vulnerability. This distinguishes SEWA's approach to other interventions described here and found in the literature. Its distinctive strategy illuminates the interdependence of OHS and general health as it works to target all health problems affecting women's ability to work safely and productively. SEWA's gendered approach specifically recognizes that there is a need to tackle health risks associated with women's unpaid work, such as the fatigue and muscular strain caused by carrying water over long distances, in order to also decrease the risk of occupational injury and illness during paid work activities.

This is not to claim that approaches targeting OHS as a primary objective will fail; it does suggest that OHS must be understood and tackled in terms of the realities of the changed world of work and the realities of the poverty of many of those in precarious and informal work. There is a need for a broader conceptualization of OHS – one that benefits from the technical expertise and knowledge of the occupational health profession but is not constrained by its often technocratic and conventional work-place focused approach.

6.2 Regulating OHS in a Global and Insecure World

Globalization is characterized by rapid movements of capital and (some) labour and by the impermanence and insecurity of work. These very characteristics undermine the successful regulation of OHS. With no security of worksite, there is no incentive for making the investments necessary to upgrade work sites or work practices or to attend training for either street traders in Durban or shipbreakers in India. In Durban, the lesson learned was the need to provide more permanent trading sites for workers. The challenge for Durban local government now is to apply this lesson to the large number of traders without permits rather than returning to the old and ineffective approach of control and exclusion of those seeking economic opportunities in the city. In the shipbreaking industry, the cyclical nature of work will ensure the continuation of short-term leases to shipbreakers. In such a context, more creative solutions to uphold health and safety standards that still hold those responsible for worker health and safety to account will be required. For example, port authorities could be required to provide basic health and safety infrastructure and then recover costs through leasing arrangements. However, in the past, the mobile shipbreaking industry has shown its ability to avoid such additional costs by simply moving to another coastline. Therefore, proposals along the lines of the Greenpeace global recycling fund to capture payments from ship owners themselves would help to overcome the obstacles to regulation of OHS that are presented by the free movement and power of capital associated with globalization.

Enforcement strategies that undermine livelihoods are undesirable, ineffective and unsustainable. The Durban City Health approach has demonstrated that by working in partnership with informal workers, it is possible to achieve simultaneously the protection and promotion of livelihoods and the improvement of environmental, public and occupational health. On the other hand, in the Greenpeace and the BAN campaign to insist on the pre-cleaning of ships in OECD countries before exportation to developing countries, the lack of a worker perspective presents an unnecessary dilemma between employment protection in developing countries and the environmentally safe dismantling of ships. The proposed Greenpeace global ship recycling fund holds the potential to simultaneously regulate both worker and environmental health and safety standards as in the Durban case. Greenpeace's current approach to workers, however, remains contradictory and unclear.

Regulatory authorities have a fundamental role to play in the enforcement of OHS. However, given the limited willingness of employers to upgrade working conditions, the regulators need to extend their role beyond law enforcers to include the provision of and/or support in the development of more creative, affordable and appropriate solutions to ensure health and safety standards are met. Regulatory authorities would need to develop an understanding of the limits to which informal workers can directly influence their working environment at the same time as understanding the potential or even legal responsibilities of other stakeholders that impact on informal workers health and safety. In Durban, it was the regulatory authority itself that provided training and support to workers to meet appropriately adapted health and safety standards and was later a key organizer in the co-ordination of other local government departments to contribute to this agenda. The proposed Greenpeace recycling fund also holds potential for local regulatory bodies to use funds to assist in the upgrading of worker health and safety at shipbreaking sites before the auditing and certification of sites as environmentally and worker safe.

The invisibility of much informal employment is itself a barrier to better action by regulatory authorities. The case showed how the metalworkers federation consistently struggled to get the Indian government to acknowledge that shipbreaking is an industry rather than a waste activity. In the absence of such recognition, it has been impossible to date to ensure the enforcement of relevant regulatory legislation on worker health and safety in the industry. One strategy that has proved effective in other areas and sectors of the informal economy to heighten the profile of informal workers in the eyes of local and national authorities is to find methods to measure the economic contribution of such workers to the local or national economy. Officials in the economic development department in Durban have consistently maintained that an effective way to raise the economic profile and visibility of informal workers would be to get better measurement of their contribution to the city's economy.

The experience of Greenpeace and the BAN in international and UN co-ordinated dialogues with the shipping industry has demonstrated that the actions and responses of the big international stakeholders are fundamental to regulatory capacity. This is the case in terms of positive progress that can be made with the involvement of major stakeholders such as the ILO and the Parties of the Basel Convention and their development and publication of international guidelines for worker and environmental safety in the shipbreaking industry, and also in terms of the major barriers powerful industry players can present to effective regulation if their capital interests are at stake. Some examples of such barriers presented within the shipbreaking industry include the exploitation by ship owners of legal loopholes in existing regulation to uphold health and safety standards, the prevention of the participation and voting power of environmental and other interest NGOs within environmental negotiations, and the simple refusal to accept the principle of ship owner responsibility for safe dismantling of ships. Without the support and commitment or capacity to enforce such commitment from major industry players, attempts to regulate at the point of employment will be continuously undermined.

6.3 Stakeholders

We were asked in the Terms of Reference to answer the question "What kinds of institutional arrangements are suitable for effectively promoting health and safety and protecting workers in the informal economy?" We have addressed this question to quite a large extent in the section on regulation. However, additional points need to be made quite specifically about different stakeholders with regard to institutional arrangements.

Government and Governance

Government clearly has a role to play particularly in the regulation of health and safety standards, and government includes all levels – local, provincial, national, regional and international. The important role of local government was highlighted in the Durban case study. Two critically important institutional points emerge. First, there needs to be *horizontal fit and alignment* between the policies and approaches of different departments in local government (especially, for example, between health, support for small

enterprises, police, transport). Second, there needs to be *vertical fit and alignment* between different tiers of government. In South Africa, for example, there is now (more or less) congruence between *national* policies for the support of small enterprises coming out of the departments of trade and industry, labour, and the mandate given to *local* government to support economic development.

More work needs to be done on the feasibility of regulation and/or promotion in rural areas. In some respects, it will be more difficult because of dispersed settlement patterns, probably under-capacitated local government/ regulatory reach, and dominant-subordinate relationships that characterize the employment relationships in commercial and private agriculture as well as in mining and forestry. On the other hand, where single employers employ large numbers of people in the same place, it is in principle possible to get significant leverage out of single action interventions. SEWA has managed to organize in rural as well as urban areas (among dairy producers, gum collectors, salt mine workers, for example) and would be able to teach valuable lessons.

Employers/Owners of Capital/Organized Business

Worldwide, the move towards the informalization or contractualization of the labour force means that it has become harder to call to account the employers and owners of capital and easier for them to offload their responsibility for work-related health and safety conditions onto poorer workers themselves. The Greenpeace campaign in the shipbreaking industry robustly tackles this problem with its proposal for the global recycling fund. There will be industry-by-industry differences in the extent to which employers and owners of capital can be held to account, and it is likely that international consumer pressure will continue to be an important driver of pressure to uphold safety standards.

The Labour Movement

The growing numbers of informal workers worldwide need direct representation in platforms in which policies are developed and decisions are made about issues that affect them, including OHS. At the base, there have to be associations of informal workers for the enduring and continuous representation of their interests – not with the weak objective of their having "voice" but with the strong objective of "the right to be represented." Two critical points need to be made. First, organized labour will increasingly need to see informal workers as comrades with solidarity interests rather than as threats to the gains made by formal workers over the years. Direct and sustained support to organizations of informal workers and to the emerging umbrella networks of informal workers such as StreetNet and the HomeNets would enable capacity building, programme development, and participation in key policy-influencing bodies about health and safety conditions.

Second, self-employed and wage workers are objectively in different situations. Wage workers have an employer even though this employer may be hard to identify or may be operating through a labour broker; the self employed (whether own account workers or employers of others) really are "on their own" with respect to their being able to be reached by regulatory mechanisms. *Where they work*, rather than what they do, then becomes a critical issue – for example, those working in their homes or in public places will be influenced by interventions of local authorities.

Other Civil Society Interest Groups

One way in which the informal workers can pursue their interests is in forming alliances with other civil society interest groups. One of the case studies explored links between organized labour and the environmental interest group Greenpeace. Below is a list of other potential nodes for solidarity on health and safety issues between informal workers and civil society groups:

- in the area of reproductive rights, around issues of maternity and child care, with the women's movement; the danger here is of making this a 'woman's issue;'

- in the area of disability, exploring whether there is potential for the movement of people with disabilities to become involved in occupational health and safety issues;

- in the area of the provision of urban infrastructure, whether there is potential of inserting a demand-based, worker-oriented dimension into movements around water, electricity, and housing;

- and around particular sectors, such as food and garments, where consumer groups and international agencies such as Oxfam involved in Ethical Trade Initiatives, Clean Clothes Campaign, and various codes of conduct have acted and continue to act as powerful pressure groups.

In thinking this through, we realized how there seems to be an absolutely categorical divide between the citizen and rights-based movements, such as those mentioned above, and the worker-oriented associations who would promote OHS issues. One exception appears to be the current Oxfam campaign on trade (Raworth 2004). Again, direct and sustained support to organizations and networks of informal workers would be one way of enabling such workers to influence the thinking of other civil society movements, not least organized labour.

6.4 Understanding Through Research

We present some recommendations for further research and action that would help to bridge the theoretical gap between occupational health and safety and other employment and development goals, raise the profile of OHS on the international poverty agenda, and further inform practical OHS intervention strategies.

Improved Statistics About OHS in the Informal Economy

This report has repeatedly pointed to the inadequacy of data whether at the simple level of statistics about the extent of occupational injury or in the relationship between work-related injury and illness and poverty. Improved data is the sine qua non for any improvement in the working conditions of poorer people, including the reduction of work-related risks.

What Should be Measured?

The scant nature and narrow scope of the information gathered in the majority of current OHS surveys and studies and within the health and poverty and disability and poverty research is too restrictive to measure accurately the scale of occupational injury and illness, to assess the impact of injury and illness on poverty, or to design effective, large scale strategies to improve OHS. However, given the difficulties associated with accurately measuring costs of OHS and the low level of resources available for such research, it is important that in the future, OHS data collection is strategically co-ordinated and directed for the necessary purposes of both persuading and motivating appropriate stakeholders to invest in (or lobby for) the improvement of OHS for all workers as well as providing accurate OHS information for the formulation of effective OHS intervention strategies.

The list below includes previously neglected "costs" of worker injury and illness that might be considered in such a process:

- the impact on the employment of an injured or ill worker;
- the income and living standards impact on workers and their dependents;
- the burden on health care services;
- the impact on and responsibility of unpaid carers within the household (usually women);

- spill over environmental costs;
- spill over public health costs;
- the knock-on effects to the state as provider-of-last-resort;
- and the productivity costs for businesses, including informal enterprises.

Dialogue with the "Delhi Group"

A specific short term intervention might be to arrange a consultation with the ILO-led Expert Group on Statistics for the Informal Economy (the so-called Delhi Group) in order to establish current progress in the measurement of OHS statistics in household and labour force surveys. This intervention would include consultation with the joint task team within the ILO (the InFocus Programme on Safety and Health at Work and the Environment and the Bureau of Statistics), which has also been involved in developing new methodologies for collecting basic information on occupational injuries from household and other surveys. If the Delhi Expert Group perceives that there is an opportunity for intervention, pilot studies might be started in three or four countries in two or three regions.

Participatory Research Methodology

Next, there is a need for improved methodologies for qualitative data collection about health risks of informal work. There are many difficulties in collecting data on occupational injuries and illnesses for informal workers: workers themselves may not make the distinction between occupational and other health issues; medical professionals frequently misdiagnose occupational illnesses due to a lack of occupational health training; there are blurred boundaries between occupational and environmental health; and informal work itself is difficult to capture. There has been exceptionally good improvement in the collection of international statistics on the informal economy through household surveys and labour force surveys. This improvement should be complemented by the development of appropriate qualitative and participatory methodologies that further explore and understand the dynamic relationships between different sources of vulnerability and occupational health.

We suggest that the multi-stakeholder participatory OHS research approach taken by PRIA (an International Centre for Learning and Promotion of Participation and Democratic Governance in India) be further explored as part of this process. PRIA has run participatory diagnostic worker-oriented workshops in which medical professionals and workers learn from each other about health and disease patterns connected with work.

Comparing Local Government Interventions

The Durban case has highlighted and promoted an important role for local government in the improvement of health and safety for workers, particularly those working in public spaces. Further research comparing different cities would be useful to further explore how OHS could be effectively integrated into different local government mandates and departments.

OHS in Rural Areas

A related point is that OHS for rural workers in general remains largely neglected in research and practice. Research is also clearly required to investigate the potential and different governmental levels and departments, as well as other stakeholders, to tackle OHS challenges in rural areas.

Further Value Chain Analysis of OHS in Specific Industries

One of the questions posed in the Terms of Reference was "Is promotion (rather than regulation) of health and safety in the informal sector more realistic?" Our case studies lead us to suggest that

there is no single answer –both are necessary. SEWA showed that promotion had to be part of a comprehensive set of services, and this required long term organization building. Durban showed that promotion and regulation went hand in hand. Greater understanding is needed of the conditions under which what combinations of promotion and regulation would be most effective. We think that one way of getting this understanding may be through use of a worker-oriented value chain analysis. Greenpeace may, hypothetically, have been able to forge a better and more alliance with workers if it had used value chain analysis to identify different risks and vulnerabilities of workers at different positions within the shipbreaking chain.

Two case studies have been done elsewhere that used a version of value chain analysis (called the "labour benefit approach" rather than the conventional "value-added approach") to explore how different workers were excluded from or got access to measures of social protection. The studies focused on the garment industry in Philippines and Thailand and the horticulture industry in Chile and South Africa (Lund and Nicholson 2003). Much was learned from this mode of analysis, particularly about the different positions of employers and owners of capital in different sectors and in different sectors in different countries. We suggest that much would now be gained from the further development of this method, focusing quite specifically on OHS issues in different industries. We would suggest a focus on large and growing industries such as construction and the service industry. Further studies should also accommodate workers in rural areas, and should accommodate a better understanding of workers in both short domestic chains and in longer for-export global chains.

Policy Reform

It is time to glue the issue of OHS firmly to the issue of labour standards in the poverty debates around the MDGS and PRSPs. The MDGs initially contained an embarrassing absence of any mention of work and employment as ways out of poverty; this has partially been redressed by the development and inclusion of a new indicator of informal employment. Different kinds of research could assist in raising the profile of labour standards for informal workers, including integrating OHS issues in labour standards:

- Measuring the impact of different OHS interventions. In common with the findings of a recent ILO literature review on programmes to improve working conditions for informal workers (Rinehart 2004), we found little evidence of comprehensive assessment of impacts and outcomes of the interventions in terms of improving the health of workers as well as on other priority interests of workers including income security and poverty reduction.

- Small focused dialogues to learn from organizations such as SEWA and the IMF about the combination of strategies for getting representation in policy reform about OHS and the informal economy, especially in cases where national governments are intransigent or deaf to the issues. Such dialogues would be enriched through the inclusion of leaders of the emerging international networks of informal workers (HomeNet and StreetNet already exist; planning is underway for DomesticNet, and there is talk of GarbageNet and FishingNet).

7. Conclusion

The combination of the three case studies developed for Phase 2 of this assignment has enabled the identification of some key issues in understanding the relationship between occupational injury and illness, informal work and poverty, and then in drawing out preliminary ideas for policy and intervention. The conventional discipline of and approach to OHS cannot meet the challenges presented by the changed world of work, especially the growth of informal work and of contractualized work and their associated vulnerabilities. New places of work and the different types of contractual relationship governing work and employment mean that the "factory, shop, office and enterprise" classification of sites of work covered by OHS is too narrow. The self employed (whether own account workers or those who employ others) similarly fall beyond the scope of conventional OHS.

Shipbreaking revealed how important it is to insist on looking at the big players – the employers, owners of capital, investors, international agencies – in the industry; SEWA showed the importance of a comprehensive and gendered approach to OHS and of combining grassroots with national actions; Durban shows the central importance of the local state as the arena in which OHS gets played out. That the cases are relatively silent on the role of the national state does not mean the national state is not important; they do, however, open up new spaces and points of entry.

Main lessons learned were covered in Section 6. We conclude by drawing attention to final additional considerations. First, case studies showed the importance of trust and rapport building between different interest groups. Other policy work in Durban has revealed that a turning point in getting the co-operation of officials is when they gain an economic understanding of informal workers as workers rather than perceiving them as invaders or a welfare burden (Lund and Skinner 2004). This suggests that for a local level civil service to take on economic development seriously, conscious and programmatic attention needs to be given to economic training and education of the frontline officials who interact on a daily basis with informal workers (ibid.).

Second, a practical lesson from the case studies was that the design of practical or technical OHS solutions should take place in the context of the work environment and with full consultation with workers. Methods to upgrade work practices and work stations by workers themselves need to be appropriate (in order for them to be effective) and affordable. Changes in work organization that *remove* occupational hazards should be a priority, as in the Durban case, above the provision of equipment to protect against such hazards. Furthermore, the limitations of what self-employed workers can achieve on their own must be respected, given the various factors impacting on OHS that are beyond worker control.

Third, an issue of the process of policy change. Globalization is a complex and multi-layered set of power relationships, and promoting and regulating OHS in the changed world of work will have to take this reality on board. It is important to support the ILO campaign to extend existing measures of social protection to informal workers. It is also as important to think "out of the box" about new ways, new spaces, and new points of entry. Following identification of these new sites and strategies, however, comes implementation and monitoring, for which there has to be appropriate institutional structures. These structures have to have in them people – officials, owners of capital and workers – who are committed to the idea of *negotiated processes* in which responsibilities for health and safety are shared.

Fourth, all of the above are dependent on the building of strong organizations of informal workers – the SEWA case demonstrates clearly what can be achieved in the presence of such organization, and the shipbreaking case shows how informal worker interests needed to be represented. There is thus clearly a need for *direct* support to informal worker organizations and for *sustained* support, recognizing how long it takes to build organizations in this area.

Finally, the problem of "regulation of OHS in the informal economy" is simply too daunting and intimidating to tackle. There is a long-term global problem requiring long-term global shifts in institutional arrangements and structuring. It helps to break the big problem down in at least three ways and to apply a gendered lens to each part of the analysis industry by industry, interest group by interest group, and at levels ranging from very local to widely international. These results can then be used to identify and pursue a wide variety of manageable interventions that can be incrementally improved and institutionally integrated.

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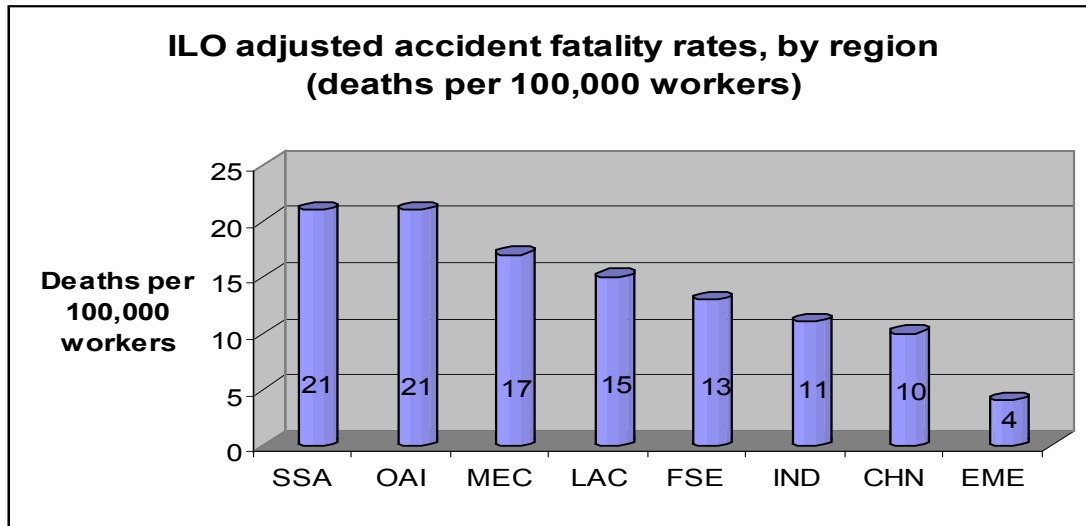
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Appendix 1: Occupational Accidents, 2002

The World, According to World Bank Regions

ILO adjusted accident fatality rates, by region (deaths per 100,000 workers)

Region	SSA	OAI	MEC	LAC	FSE	IND	CHN	EME
Deaths per 100,000 workers	21	21	17	15	13	11	10	4

World Bank Regions:

EME	Established Market Economies;
FSE	Formerly Socialist Economies of Europe
IND	India
CHN	China
OAI	Other Asia and Islands
SSA	Sub-Saharan Africa
LAC	Latin America and the Caribbean
MEC	Middle Eastern Crescent

Source: www.ilo.org/safework

Appendix 2: Work Place Classification

A recent classification attempts to include the variety of places where work is done, each of which will carry different risks:

- In a designated business place (used by registered and unregistered enterprises and workers)
  – this category covers the usual/ conventional formal place of work (enterprises, shops, factories, offices)
  – formerly formal work space used for informal work e.g. garment workers in central cities occupying work designated for office purposes

- In a private home, inside or outside
  – own home e.g. industrial outworker, craft producer, backyard mechanic
  – someone else's home e.g. domestic worker or private security guard, collective small scale shoe production

- In public places
  – on the street e.g. street vendors, traffic intersection vendors
  – in publicly-owned properties such as community halls
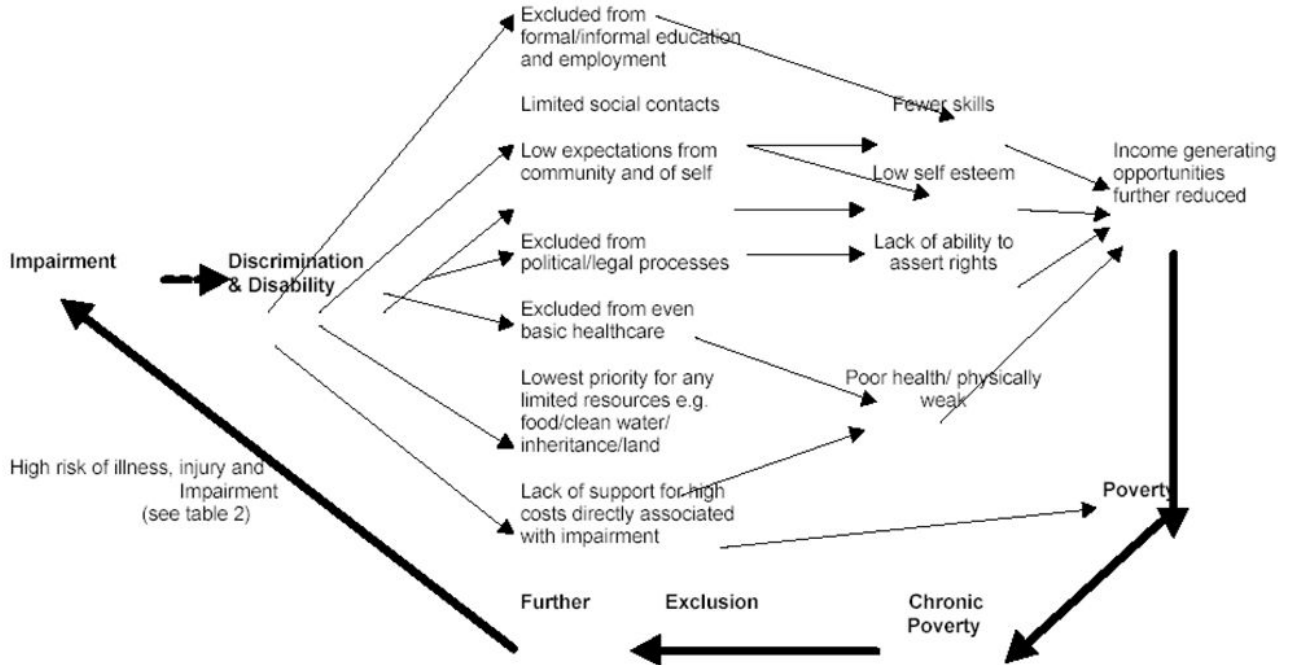 – waste sites e.g. garbage dumps

- On agricultural land e.g. farmers and subsistence producers, agricultural labourers

- On construction sites: construction workers, contractors and casual labourers

Source: Lund and Ardington (2005)

Appendix 3: Chronic Poverty/Disability Cycle
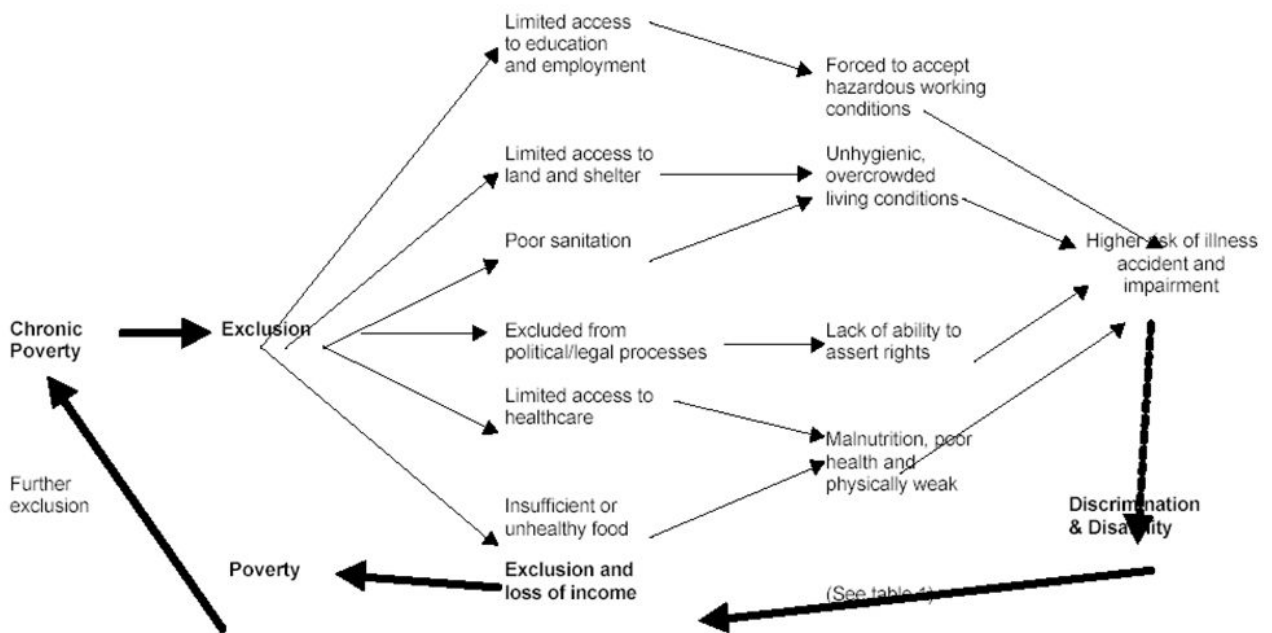
Source: Yeo (2001)

Source: Yeo (2001)

Appendix 4: ILO Work Security Index

Work Security Index Indicators:

Input Indicators	Existence of a national law on occupational health and safety
	Existence of a national law requiring the establishment of occupational health services
	Existence of a national law to protect disable workers from discrimination
	Existence of a national law limiting hours of work
	Existence of a national law restricting night work
	Existence of a national law mandating maternity leave
	Existence of a national law guaranteeing paid leave
Process Indicators	Level of government expenditure on workers' compensation, as a percentage of GDP
	Existence of labour-management, tripartite or bipartite occupational safety and health boards or committees
	The existence of disability or invalidity benefits provided to workers injured in work-related accidents
Outcome Indicators	The work-related fatal injury rate
	The estimated level of under-reporting of fatal injuries
	Proportion of the population guaranteed coverage by workers' compensation for work injury
	Average reported working time
	Average paid leave (vacation days) taken by workers

Source: ILO (2004)

Work Security Index Results:

REGIONS	HIGH SCORE ON OUTCOME			
	High score on Input/process		**Low** score on Input/Process	
REGIONS	**Pacesetters Countries**		**Pragmatists Countries**	
Africa and Middle East			Israel	
Americas			Argentina Barbados Canada	Chile United States
Asia			Australia Japan	New Zealand
Eastern Europe and Central Asia	Slovenia		Czech Republic Estonia Hungary	Latvia Lithuania Poland Slovakia
Western Europe	Belgium Denmark Spain Finland France Germany Iceland	Italy Luxembourg Netherlands Norway Portugal Switzerland Sweden	Austria Greece	Ireland United Kingdom

REGIONS	LOW SCORE ON OUTCOME			
	High score on Input/process		**Low** score on Input/Process	
REGIONS	**Conventionals Countries**		**Much-to-be-done Countries**	
Africa and Middle East	Algeria Benin Burkina Faso Burundi Congo Côte d'Ivoire Egypt Ethiopia	Ghana Lebanon Madagascar Morocco Nigeria Senegal Sierra Leone	Guinea-Bissau Mauritania Mauritius Rwanda	South Africa Tunisia Turkey Zimbabwe
Americas	Brazil Colombia Costa Rica Ecuador	Mexico Peru Venezuela	Dominica Honduras	Panama St Kitts and Nevis
Asia	Bangladesh Korea, Rep. of	Pakistan	China India Indonesia Nepal	Philippines Sri Lanka Thailand
Eastern Europe and Central Asia	Azerbaijan Belarus Croatia Kyrgyzstan	Russian Red. Tajikistan Ukraine	Albania Armenia Bulgaria Georgia Kazakhstan	Moldova Romania Turkmenistan Uzbekistan
Western Europe				

Source: ILO (2004)

Appendix 5: Essential Components to Protect Labor Rights in Trade Agreements

Based on the experience of NAFTA/NAALC and subsequent treaties, the essential components to protect labor rights and workers' health in future trade agreements are:

1) A minimum floor of occupational health and safety regulations, based on conventions of the International Labor Organization, which would apply internationally;

2) An "upward harmonization" of regulatory standards and actual practice in workplace safety and health;

3) Inclusion of employers in enforcement procedures so that they have formal responsibility and liability for violations of the standards;

4) Effective enforcement of national regulations and international standards;

5) Transparency and public participation in the development and implementation of international standards and enforcement;

6) Recognition of disparate economic conditions among trading partners and provision of financial and technical assistance to overcome economic disincentives to effective protection of labor rights.

Source: Brown (2004)

Appendix 6: Shipbreaking in India – Interventions by Greenpeace and a Federation of Metal Workers

By Anna Marriott

Background

It is generally recognised that shipbreaking is unsafe and environmentally unfriendly. This is due to both the hazardous substances and materials used to construct ships and because of the unsafe working conditions of those whose job it is to break down and recycle those ships that have been sold for scrapping. In the past decade various initiatives have been developed by different parties to contribute to a safer and cleaner shipbreaking practice (ECORYS 2005). This case-study reports on examples of such initiatives and interventions that have been instigated by different stakeholders in the industry.

Industry

Shipbreaking is an international industry and constitutes the process of dismantling an obsolete vessel's structure for scrapping or disposal. Conducted at a beach, pier, dry dock or dismantling slip, it includes a wide range of activities from removing all gear and equipment to cutting down and recycling the ship's infrastructure. Until the 1950s the market was dominated by the US and the UK (Ibid). In the early 1970s shipbreaking was characterised by high mechanisation and was carried out in shipyards in the UK, Taiwan, Mexico, Spain and Brazil (Greenpeace 2000). As labour and environmental legislation strengthened in western countries however, the industry was increasingly transferred to developing countries where regulation was poor or non-existent (ECORYS 2005). After a brief period of domination by Taiwan and South Korea, the shipbreaking market shifted to China which in 1993 housed 45% of the world's scrapping business (Ibid). Following taxation changes the industry shifted once again and for the last decade has been dominated by India and Bangladesh. Figures from Greenpeace (2000) suggest that by the end of the 1990s, 70% of ships were being scrapped in India.

On the basis of the existing fleet of ocean going vessels it is anticipated that the demand for shipbreaking will steadily increase over the next two decades. In addition, following the high profile oil tanker disasters of Erika in 1999 and Prestige in 2002, both the EU and the International Maritime Organisation (IMO) have made the decision to phase out single hull tankers by 2015 (ECORYS 2005). The decision will lead to a further rapid increase in the demand for shipbreaking which, in turn, only heightens the need to improve the conditions under which the industry operates.

Working conditions

All old ships contain hazardous and toxic substances including lead paint, heavy metals, hydrocarbons and ozone-depleting substances. In addition, many of the ships being dismantled today were built prior to the banning of many hazardous substances such as asbestos which is usually found in high quantities on such ships. As the industry shifted to developing countries high mechanisation was replaced with high labour intensity and manual dismantling. When ships are manually dismantled, worker contact with dangerous substances becomes unavoidable.

In Asia, old ships containing hazardous substances are being cut up by hand on open beaches, in unacceptably unsafe working conditions. The majority of studies on the working conditions within the shipbreaking industry have focussed on India given that this is where the largest number of ships are scrapped. It is estimated that approximately 60,000 workers are directly employed in shipbreaking activities in India, with a further 160,000 employed in downstream activities (IMF 2004-

2005). Workers are hired either on a daily or monthly basis for a specific task on a vessel. There is no written contact of employment and workers can be fired at any time without prior notice and without reasonable grounds (IMF 2004-2005). 98% of employees engaged in the industry are migrant workers and the vast majority are men (Ibid). Wages range from $0.70 a day for the unskilled and up to $2.5 a day for supervisors (Ibid). The workers are often not registered by name and are therefore difficult to identify (Greenpeace 2000).

The workers work in shifts in highly cramped conditions and mostly without adequate safety equipment (Greenpeace 2000). On sites visited by Greenpeace (2000) and the International Metalworkers Federation (IMF 2004-2005), workers were given no information regarding the hazardous materials they are handling or the safety measures required for working in such an environment. Greenpeace representatives observed workers picking asbestos-containing insulation materials from ships with their bare hands; torch-cutting ship steel into small pieces and inhaling the toxic fumes of lead paints with no protection; and saw women carrying asbestos waste on their heads to dump directly into the sea (Ibid).

The unsafe working conditions and inadequate training and protection of workers results in an unacceptably high occupational injury and death rate. The IMF has estimated in one study of shipbreaking in Alang and Sosiya, India, that the rate of injury is 50 workers per day (IMF 2004-2005). Occupational fatality rates are less clear but are known to be frequently caused by explosions, fire, suffocation and falling steel beams and plates (Greenpeace 2000). Casualties are rarely reported and medical facilities for treatment are usually not available at the work site (exceptions include one mobile hospital van at the Alang site) (IMF 2004-2005). The rate of occupational illness, including those leading to death, has been more difficult to measure but unprotected handling of the identified toxic substances at work sites has long been known to cause a wide range of complaints (see box 1). According to the IMF (Ibid) the average life expectancy of the workers in Alang is 40-50 years old.

The lack of basic facilities for workers on site further contributes to the poor occupational health and safety standards. Visits to a number of sites by Greenpeace (2000) and the IMF (2004-2005) revealed that the majority of workers are not even provided with drinking water or toilets. One possible reason for the lack of investment in such infrastructure is the leasing arrangements of shipbreaking plots. The IMF documentation explains that in Mumbai for example, plots are leased on a very short-term basis, perhaps 3 to 4 months. Such arrangements are likely to reduce the incentives for investing in infrastructure for workers.

Compensation is not provided in the majority of cases of occupational injury and in many cases workers are forced to leave their jobs if injured (IMF 2004-2005). A survey in Mumbai however did find that some employers provide transportation to a government hospital for injured workers and pay for only the first treatment and immediate medical expenses. However, this practice is solely dependent on the attitude of the employer and aries from shipbreaker to shipbreaker (Ibid). In addition, there is no evidence to suggest that employers pay for expenses linked to chronic diseases caused by work or pay workers when absent from work due to medical reasons.

In the Alang and Sosiya study, it was found that in the case of a death of a worker, his relatives may get between Rs. 15,000 (about 300US$) to Rs. 100,000 depending on the strength of his representation (Ibid). The extent to which such payments are made is unclear.

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Illnesses caused by unprotected handling of identified toxic substances at shipbreaking sites

Asbestos dust causes formation of scar-like tissue resulting in permanent breathing difficulties (asbestosis). In the longer term, cancer of the lungs and of the thin membrane surrounding these organs (mesothelioma) may result.

Lead accumulates in the blood and bones after inhalation or ingestion. It can cause anaemia and is toxic to the nervous system and to the kidneys.

Arsenic exposure can result in lung, skin, intestinal, kidney, liver and bladder cancers. It can also cause damage to blood vessels. Inflammation of nervous tissue caused by arsenic can result in loss of feeling or paralysis. Disfiguring growths may also appear on the skin of exposed humans.

Chromium contained in some chrome-based chemicals (chromates) can cause eczema and respiratory disease in people exposed to dusts and fumes, including cancer of the lung.

Organotins (TBT, TBTO and TBTCL) are nerve toxins that accumulate in the blood, liver, kidneys and brain. TBTO is acutely poisonous, and is also genotoxic. In shellfish, organotins affect the endocrine (hormone-producing) system causing damage to reproduction.

PAHs (polycyclic-aromatic hydrocarbon compounds) can cause various cancers including cancer of the lung and of the scrotum. Some PAHs can combine with genetic material (DNA) causing cell damage and mutations. Exposure can also suppress the immune system.

Dioxins are potent carcinogens and suppressors of the immune system and are accumulated in body fat tissue. In addition they are suspected of prenatal and postnatal effects on the nervous system of children. In animal studies they have shown to reduce sperm production.

Source: Greenpeace (2000)

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Living conditions

Most of the shipbreaking workers live in overcrowded and unhygienic slums just outside the work sites. Shelters are constructed from asbestos, plywood and metal sheets without ventilation. The small shelters house up to 6 workers each. The slums also lack basic facilities such as drinking water and toilets. Skin diseases, ringworm, dysentery and anaemia are some of the common health problems found among workers. There is also a high incidence of HIV within the slums and alcoholism is common (IMF 2004-2005).

Representation

The IMF (2004-2005) report that there is no agency to represent the workers in any forum within the industry. The workers fear loss of jobs or physical assault for participating in any union activity. Barriers to organising also include problems such as the constant movement of workers from plot to plot in search of work; lack of information, training and guidance; and the varying and sometimes conflicting socio-economic and cultural identities of the workers themselves (Ibid). Efforts have been made by many organisations and worker groups to organise the workers but few, if any, have proved sustainable to date (see later section for more details).

Existing Regulation

The regulation of the shipbreaking industry at national level is unclear and confusing. In reality, as an industry, the working conditions should come under the Indian Factories Act 1948. The regulation and protection of workers in the industry are however rarely enforced. Part of the confusion arises because

it seems some at national level do not recognise shipbreaking as an industry and rather categorize it as an issue of hazardous waste management. The latter is not always covered by normal labour and social protection laws (IMF 2004-2005). In addition, despite such a category, the environmental regulation of the industry is still not enforced.

However, regulation is not entirely absent. In a comparison of Mumbai and Alang/Sosiya, the IMF (2004-2005) found that the local level regulatory authorities in the latter, the Gujarat Maritime Board (GMB), had increased its activities in recent years. While such activities have largely focussed on better managing the leasing arrangements for shipbreaking, it is the intension of the GMB to invest at least a proportion of its generated income in the development of infrastructure facilities for the benefit of workers (Ibid). In Mumbai, in contrast, the port authority has paid very little attention to regulation of shipbreaking (Ibid).

An important international agreement with respect to the shipbreaking industry is the Basel Convention which came into force in 1992 (ECORYS 2005). Under this agreement, ships destined for shipbreaking operations are classed as "hazardous waste" (Greenpeace 2000). In 1995 the Basel Ban Amendment was added to the Convention prohibiting the export of hazardous waste from developed (OECD) countries to developing countries "if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner" (Ibid). As Greenpeace (2000) argues, there are no known non-OECD countries that currently manage shipbreaking in an environmentally sound manner. The strength of the international shipping industry, as well as the large number of legal loopholes that can be used to avoid existing national and international laws, has to date been responsible for the failure of successful implementation of environmental and labour regulation of the shipbreaking industry.

One of the major challenges to the international regulation of the shipbreaking industry is identified by ECORYS as the frequent, undocumented technical changes of ships in combination with frequent changes of ownership that result in a lack of information on hazards and a difficulty in developing a safe and environmentally friendly shipbreaking plan. This challenge is a good example of the potentially harmful and unaccountable impact of so-called 'footloose capital' phenomenon associated with globalisation.

Interventions to improve occupational health and safety

This case-study aims to highlight interventions that have attempted to impact on shipbreaking worker health and safety either directly or indirectly at both international and national/local level. It is not suggested that the interventions described constitute one integrated programme of activities, indeed, as will be discussed, the apparent lack of integration is perhaps a limitation to the various approaches.

INTERNATIONAL

Since the mid-1990s the shipbreaking industry has received a significant level of attention from some high profile international organisations including Greenpeace, the Basel Action Network (BAN), the International Transport Worker's Federation (ITF), the International Labour Organisation (ILO) and the United Nations Environment Programme (UNEP).

It is arguably the campaigns of Greenpeace and BAN that have been most successful at raising international awareness of the impact of the shipbreaking industry on the environment and on workers. While both organisations are primarily driven by their environmental concerns and agendas, a review of their websites and literature on the shipbreaking industry reveals that worker health and safety issues and concerns are nearly always mentioned as a motivation for action.

Both organisations have been heavily involved in campaigns to ensure cleaner and safer shipbreaking practice by pushing for a strengthening of international regulations. The focus of the campaigns has been to ensure that ship owners take full responsibility for the safe and environmentally friendly dismantling of their ships and, on the basis of international law established by the 1992 Basel Convention, both organisations insist that it is the legal responsibility of ship owners to pre-clean or decontaminate their

ships of all hazardous substances before exporting them for recycling. It is argued that such action will ultimately protect both the environment and the workers where shipbreaking takes place. Importantly, both organisations campaign to eventually eliminate many of the environmental and work hazards from the shipbreaking industry by ensuring that hazardous materials are not used at the construction stage.

An important point for dispute has always been whether a ship being exported for recycling can be considered 'waste' under the 1992 Basel Convention and the 1995 Basel Ban Amendment. A major victory for the Greenpeace and the BAN campaigns was achieved when in October 2004, the Conference of the Parties of the Basel Convention adopted a decision which notes that: "a ship may become waste as defined in article 2 of the Basel convention and that at the same time it may be defined as a ship under other international rules" (ECORYS 2005). The official and irrefutable classification of a ship to be dismantled as waste ensures that ship owners are no longer able to legally avoid their responsibility for the environmentally safe dismantling of ships.

However, despite continuing campaigns, Greenpeace claims that on the whole the shipping industry has done nothing to comply with the Basel Convention. Greenpeace and the BAN have condemned a recent special joint United Nations meeting on shipbreaking on 17 February 2005, as a failure to uphold international law on shipbreaking. (A list of their joint complaints is provided in Box 2). Greenpeace and the BAN remain committed to the enforcement of the Basel Convention.

'Industry scuttles progress on safe ship disposal'

Greenpeace International claim that the special joint United Nations meeting on shipbreaking held on 17th February 2005 was hijacked by the shipping industry interests throughout, blocking any attempts to clean up the practice of exporting toxic laden vessels to Asia, risking the health of workers and the environment. Among the missed opportunities cited, the meeting:

- Refused to recognise existing international law (e.g. Basel Convention) and resulting case law forbidding the export of toxic ships
- Proposed nothing that will lead to programmes that will see more ships broken or pre-cleaned in developed countries (e.g. Europe, or North America)
- Failed to provide any direction for investors to promote pre-cleaning and green shipbreaking facilities
- Refused to recommend a global ship recycling fund based on the producer responsibility principle
- Refused proposals to operate in a transparent way, and gave ship owners voting power on the committee while preventing environmental NGOs from participating as members
- Failed to mend any fences between the International Maritime Organization and the Basel Convention
- Failed to discuss the human rights aspects of the meeting
- Proposed nothing that will actually reduce even one kilo of the amount of PCBs and asbestos that currently moves by the hundreds of tonnes each year to Asia

Source: Greenpeace 2005 (www.greenpeaceweb.org/shipbreak/news99.asp)

A concern of the authors, regarding the major approach taken by Greenpeace and the BAN to improve both environmental and worker health and safety, is the lack of reported analysis as to what impact the pre-cleaning of ships in OECD countries would have on the employment of workers in developing countries who are currently employed to undertake this task. While it is clearly undesirable for workers to continue working in hazardous conditions with minimal or no health and safety protection, is it more desirable, from the perspective of the worker and their dependents, to transfer a large portion of their work to developed countries? A lack of worker focus in the approach of Greenpeace and the BAN appears to leave this question unanswered and worker's views unrepresented. More recent work by Greenpeace (as discussed

below) has demonstrated that there need not be this dilemma between environmentally safe dismantling of ships and the protection of employment in developing countries where shipbreaking currently takes place.

Another milestone in the work of Greenpeace and the BAN in partnership with the ITF and other international and national organisations was the approval at the 5th Conference of Parties to the Basel Convention in 1999, to develop international guidelines for environmentally safe ship recycling by the Technical Working Group of the Basel Convention in co-operation with the IMO (ECORYS 2005). The campaign has also heavily influenced the very positive decision to develop specific ILO guidelines for worker safety and health in the shipbreaking industry that were published in 2004 (ILO 2004a).

A more recent and arguably more relevant approach of Greenpeace in terms of regulating worker conditions in the industry is the research and campaign for a global ship recycling fund. In a Greenpeace commissioned and approved report, ECORYS (2005) present and detail a number of alternative payment methods to ensure ship owners uphold their responsibility for the safe dismantling and recycling of their ships by contributing to the global fund. The premise of the approach is that effective regulation is essential but cannot be safeguarded without a comprehensive and sustainable financing mechanism. It is recommended that indirect methods of payment (defined as payments made to the fund during ownership of the ship rather than at the point of sale to the shipbreaker) rather than direct methods of payment (payments made for the safe dismantling of ships at the point of sale to the shipbreaker) are preferable given that the costs of the latter would simply be passed on by ship owners to ship breakers (the final buyers) in the form of higher prices and therefore result in the lack of incentives to invest in and improve working conditions.

Options for indirect contributions from ship owners to the global recycling fund include a premium at the point of ship construction, an addition to the annual insurance premium or a premium added to the registration process that occurs each time the ship changes owner (Ibid). Greenpeace propose that the global fund is managed by an international body, preferably a UN organisation such as the IMO. The primary role of the fund would be to facilitate easy and adequate implementation of regulations to ensure the responsible disposal of end-of-life vessels.

The proposed role for the regulatory body in charge of the fund is the:
• collection of fees
• certification of scrapping yards and control of scrapping practices
• disbursement of funds for environmentally sound scrapping
• financing R&D on clean and safe scrapping

All scrapping yards that want to apply to the fund should be certified that they are capable of environmentally sound and safe shipbreaking practices. They should for example follow the ILO and Basel Convention guidelines. A successful application to the fund will result in the reimbursement of costs for pre-cleaning each ship before dismantling for recycling. It is also proposed that the fund would cover the costs of regular audits by certified independent auditors.

Based on estimates of costs to pre-clean vessels in a developing country, ECORYS estimate that the cost of the global fund to the shipping industry would constitute 0.5% of total turnover.

The financing model and role of the global recycling fund presented by Greenpeace appears progressive and potentially very workable. Before approving such a model however, it is recommended that further analysis and research is required on the potential impact on workers. As with previous Greenpeace campaigns, the discourse surrounding the global recycling fund is dominated by environmental concerns with regular 'add-on' mention of worker health and safety. For instance, while the costing methodology employed by ECORYS is not made totally clear, it appears to be based only on the costs of ensuring environmentally safe dismantling of vessels. A possible but mistaken assumption here might be that worker health and safety will simply be an automatic by-product of the process.

It is also imperative that Greenpeace, in partnership with worker organisations, further research and develop their ideas on the certification, regulation and distribution of funds process. For instance, the report suggests that only those yards already capable of safe dismantling of ships are able to apply to the fund for cost-recovery. In order for this fund to protect the employment of those already in the industry, the funds must also be granted to enable existing yards to upgrade their practices to a certifiable level.

The global recycling fund proposed holds great potential if re-worked with a stronger worker and occupational health and safety focus. This model, while flawed from a worker perspective, serves to open the door to further discussion about the sustainable financing for regulation of OHS in the shipbreaking industry. A worker perspective serves to highlight a possible confusion and contradiction of goals in the current Greenpeace approach that could serve to undermine this aim of worker safety. That is, simply, that the joint campaign with the BAN aims to ensure pre-cleaning takes place in developed countries while the 'global recycling fund', perhaps more progressively, is aiming to ensure that environmentally and worker safe ship recycling can take place in developing countries.

NATIONAL/LOCAL

In recognition of the appalling working conditions of shipbreaking workers in India and the lack of worker representation, the International Metal Worker's Federation (IMF) in partnership with FNV has committed itself to a programme of intervention to support the organisation and representation of workers and to encourage employers and government to fulfil their responsibilities with regard to the protection of worker health and safety.

The IMF instigated a pilot project in Mumbai in July 2003 with a view to roll out the project at full scale in both Mumbai and Alang in July 2004. In Mumbai the project focussed on organising the informal workers under the formal Mumbai Port Trust and Dock General Worker's Union (MPTDGEU). In Alang, MPTDGEU and another IMF affiliate SMEFI (Steel Metal and Engineering Workers Federation of India) are responsible for the project. Both affiliates had previously taken the decision to extend membership and welfare services to the informally employed shipbreaking workers.

A major underlying approach from the start of the project was to initially play down the ultimate organising goals and instead focus on the delivery of immediate and easily identifiable basic services to directly improve health and safety, such as the provision of drinking water and basic first aid facilities. This approach was motivated by an understanding of the worker's negative experience of previous welfare interventions and the need to build the trust and confidence of the workers for future co-operation and organisation.

It was also recognised at the start of the project that the major aim of creating a strong union base with substantial membership would mean that organising activities would have to continue well beyond the immediate project time frame (July 2004 to July 2007).

The major aims of the pilot project and now roll-out project are:

- To collect sufficient information on the problems of workers in shipbreaking
- To provide essential services to help workers and to develop confidence in the union
- Use a health specialist to provide first-aid and ambulance services
- To involve local organisers in the activity
- To liaise with government agencies, employers and other social organisation/activists for 'better outreach' and to improve OHS
- To share the achievements of the Mumbai project with Alang workers by conducting joint activities and discussing workers problems
- To emphasise the importance of self-reliance and collection of union dues

As from July 2004 the project in Mumbai progressed to include activities to encourage worker organisation. While the longer-term aim of the project is to improve the working conditions for all workers in the ship-breaking industry, the goals for the end of the immediate project include:

- The organisation of 2500-3000 members at Mumbai and 1500-2000 members at Alang under the IMF affiliate organisations
- To have established a bipartite or tripartite model of negotiation
- To have developed guidelines on wages, working conditions and welfare measures for use in negotiation based on research undertaken on workers
- That selected leaders and activists within the affiliate organisations, as well as other organisations involved, are aware of workers' rights and the importance of occupational health and safety within the industry
- That the affiliate organisations have taken sufficient legal steps to contribute to the achievement of basic/minimum labour legislation

The project is ongoing and internal IMF documentation provides some limited details on progress to date. Tangible progress has been achieved with the successful installation and maintenance of water tanks at work sites to provide drinking water to workers. Over one hundred workers have been trained in first aid, many of whom have been provided with first aid boxes with continuous supplies. So far, 30 workers have also been trained in occupational health and safety and the ILO India office has partnered up with the project to run at least one HIV/AIDS workshop for the workers.

Needs based medical services have been extended to the workers in cooperation with St John's Ambulance who provide services in case of accident or other emergencies. The telephone number for this service is displayed throughout work sites. A partnership of organisations including the Rotary Club of Bombay and St John's Ambulance provided assistance for a general medical check up camp where nearly 650 people, including workers and families, were examined and necessary medical treatment, assistance and guidance given.

The affiliates have been liaising with and seeking assistance from government authorities including the Commissioner of Labour, the Port Authorities, the Maritime Board, the Inspectorate of Factories, and the Director General of Factory Advisory Services. This work, including the inclusion of government officials at training events and the opening ceremonies of infrastructure facilities is reported to have at least encouraged different institutions to start 'thinking' about shipbreaking workers and health and safety issues. The Port Authorities have, to a very limited extent, shown that they can assist workers. More promising is the news that the Mumbai Port Trust is 'seriously contemplating incorporating a clause in future lease agreements of shipbreaking plots to ensure shipbreakers honour the ILO Guidelines' on healthy and safe shipbreaking (IMF 2004-2005).

The affiliates have also worked with relevant government departments to ensure the issuing of government ration cards to purchase grains and other materials at subsidized rates from ration shops.

Work on guaranteeing the extension of minimum labour legislation for workers has made little progress to date.

Internal reports claim that there has been significant progress in terms of building communication and interaction between unions and workers. Despite substantial worker fear about resulting job loss, 145 workers to date have become members of MPTDGEU. In addition, workers are increasingly making regular visits to the on-site union offices to express grievances.

Organisation training for both current MPTDGEU staff and informal workers has been ongoing. Informal worker organisers have been active in encouraging workers to become union members through various means while the MPTDGEU trained organisers are reported to have been successful in building rapport with workers as a result of frequent visits to workers especially when sick.

The affiliates have also raised the appeal of membership by representing workers in a limited number of employer-employee disputes including a successful case to force a contractor to pay employees on time. There have however been many setbacks with regard to building relations with employers, as discussed below.

The internal documents also note the significance of the attendance and demonstration march of 250 shipbreaking workers at the World Social Forum in Mumbai in January 2004 in symbolizing the progress made to date in building the confidence of the workers.

Finally, the project stakeholders have worked to form a *'Mohella Committee'* to promote harmony and solidarity between workers from different religions, castes and regions. The concept and philosophy behind the committees are not explained within project documentation but references are made to the existence of similar committees throughout India.

Aside from the achievements discussed, the project evaluations also stress the importance of the already strong position of the MPTDGEU within local institutions for winning local support for the project and for negotiating through various bottlenecks in project delivery. The reports also confirm that the decision to provide services before trying to organise workers has been crucial to winning worker support and trust.

However, the internal project documentation available highlights a limited number of problems experienced and some substantial barriers to progress.

The first problem raised in a number of documents is the fact that the shipbreaking workers regularly migrate back to their homes to carry out agricultural work during monsoon. This movement makes organising work difficult especially when this results in the loss of trained workers for project activities.

The continuing fear of job loss amongst workers is another major barrier to organising and to date the unions can provide no reassurance of protection against job loss.

The major reported barrier to progress is the negative attitude of shipbreakers, contractors and sub-contractors towards the union and their activities to date. The continuing imbalance of power between employers and workers who are prepared to accept unsafe working conditions in return for low wages, serves to undermine organisation efforts. The IMF argues that many of the contractors appear to actively discourage organisation by promoting divisions between workers. In addition, contractors used the opportunity of a recent shortfall in work due to tariff changes to blame worker organisation for the loss of jobs. This has only contributed to worker scepticism of the benefits of unions.

This case study has been undertaken rapidly, and we have been able to secure only limited documentation, so we present the following critique of activities and progress with a great deal of caution.

Firstly, on the basis of the survey report provided to the authors and the understanding that the information collected and presented in the survey forms the primary source of worker information for project activities, project research on the workers undertaken to date is inadequate. While details of general working conditions and a basic demographic profile of workers are provided, the research undertaken appears to have failed to capture the major needs and concerns of the workers themselves which must be of primary concern in organising efforts.

Secondly, it is also questionable whether the approach taken to encourage membership of workers to an existing union provides enough space and flexibility to ensure the full and genuine representation of informal workers' needs and concerns. It is at the very least a concern that while the approach of the IMF to underplay their organisation intentions may be justified given worker scepticism of unions, the fact that such intentions have been developed without consultation with the workers is perhaps suggestive of a top-down rather than grass-roots approach.

An additional limitation of the documentation itself is the failure to include details on the strategies used to lobby government authorities.

Finally, while obstacles are highlighted in the project reports, strategies to overcome these are not discussed or developed.

Discussion

This case-study has highlighted the general approach and activities of two very different organisations intervening at two different levels to improve the health and safety of the shipbreaking industry. While the efforts of Greenpeace and the BAN in particular have been extremely successful and useful at raising the profile of, and international concerns for, the impact of the current shipbreaking practice on the environment and on worker health and safety, the work of the IMF has attempted to intervene in a more practical way at local level to promote change through the delivery of services and worker organisation.

Evidence found to date suggests only a minimal and superficial level of co-ordination between these two highlighted approaches to improved health and safety in the shipbreaking industry and only at the level of acknowledging and supporting the work done by the respective stakeholders. Such an apparent lack of integration of activities arguably constitutes a missed opportunity to achieve greater impact on raising the profile of worker health and safety and to further inform the individual interventions of each stakeholder and their ultimate impact on workers themselves.

Value-chain analysis could be used to bring together and strengthen these and other existing campaigns on worker conditions within the entire shipping industry (e.g. workers on ships still in use) but also to raise attention for those workers that are part of the industry but up till now have received little or no attention (e.g. those working in the less visible downstream activities of the shipbreaking industry). Crucially, an analysis of the entire value chain, including governance; ownership; production and service activities; workers and worker conditions at different points along the chain; as well as the people and agencies controlling worker conditions (Lund and Nicholson 2003), is fundamental to an understanding of the inter-dependence of different interventions at different points and levels of the value chain as well as the opportunities for collaboration. Without awareness and sensitivity to such inter-dependence there is a continuing danger that interventions targeted at one point of the chain may be at best limited in impact or at worst may contradict or undermine activities at another point.

Appendix 7: Street Vending in Durban, South Africa – a Local Government Initiative on Promotion of Health and Safety Standards

By Anna Marriott

Background

This case-study describes an intervention that was initiated in 1994 when transformation and looming structural changes at the level of local government in Durban, South Africa, were contributing to an atmosphere of extreme uncertainty and vulnerability that prevented a coherent approach to the informal economy. Within this confusing context the initiative to provide health and safety training for street traders in inner city Durban constituted a creative and innovative exploitation of new institutional and legislative space to promote and protect street trader activity.

Street management, including the need to ensure pedestrian and traffic flow, and health problems for traders, their customers, and the general public were the primary concerns motivating the health and safety intervention for street traders in Durban. General health problems of street trading are compounded in the city of Durban due to its hot and tropical climate: food gets contaminated quickly, disease spreads rapidly, pavements are unsafe when littered with traders' waste, and rats become a problem.

As background, by the 1980s the informal work activities of the majority population in South Africa had been severely restricted for more than a century by repressive legislation and often aggressive enforcement (Lund and Skinner 2004). 'Neglect and scorn' characterised the pervasive attitude towards street traders in particularly, whose activities were perceived as unhealthy, as unfair competition to formal business, as sowing the seeds of urban decay and as a drain on government resources (Watkinson 1998). In Durban, as in most other South African cities, the role of local government in street trade was largely one of control and exclusion (Ibid.).

In the early 1980s the national government moved to a position of greater acceptance of small businesses in the hope that this would be complementary to other strategies to revitalise the ailing economy (Lund and Skinner 2004). At first, such national level changes were not reflected at the level of local government where 'deregulation by local authorities was either non-existent or very partial' (Watkinson 1998: 5). However, the 1991 Business Act aimed rapidly to achieve deregulation and one of the consequences was a rapid increase in the street trader numbers in urban areas (Lund and Skinner 2004).

The slow process of re-regulation then began when the Amended Businesses Act (RSA, 1993) allowed local authorities to formulate street trading by-laws. As Lund and Skinner (2003) explain:

> '…these regulations typically contained clauses which prevent traders from, for example, obstructing the movement of traffic or pedestrians, prevent unsafe stacking of goods, limit the attaching of equipment to buildings, road signs etc. and ensure that traders keep their sites clean. The amendment to the Businesses Act allows for an area to be declared a prohibited or restricted trade zone. Before this can be enforced, however, the local authority has to demonstrate to provincial government that by this action a large number of street traders will not be put out of business. This restrained local authorities from declaring large areas prohibited trade zones or restricted trade zones with only a few sites allocated to tra*ding'.

The devolution of the Business Act to provincial level in 1995 (Lund and Skinner 2003) opened the space for the development of varied responses to street trading within different municipalities and, despite early opposition to the original Business Act of 1991, Durban local government is widely considered to have adopted the least restrictive, and indeed most progressive approach to informal traders in the country since the mid 1990s. This approach has been characterised by dedicated resources, the establishment of a department for street traders as well as widespread participation and consultation leading to an unprecedented level of self-regulation that keeps areas clean, attractive and crime free (Grest 2002; Hemson 2003; Saunders 2004). Towards the late 1990s it was recognised that the absence of an over-riding policy approach was resulting in contradictory approaches to informal workers. This led to a year long facilitated process of negotiation, consultation and participation across a variety of local government institutions and a large number of non-governmental stakeholders that culminated in the adoption of the 2000 Informal Economy Policy.

The approach taken by local government in Durban has not proceeded without serious flaws and weaknesses. Even now, despite unanimous cross-party political agreement to adopt the Informal Economy Policy in 2000, its implementation has been uneven and unsatisfactory. Valuable lessons can nevertheless be learned from the health and safety intervention.

Health and Safety Intervention[7]

In 1994, as a result of the 1991 Business Act, health and safety legislation was one of the only enforcement mechanisms available to local government to control informal street traders (Watkinson 1998). Up to this time, health and safety enforcement had taken the form of early morning raids by convoys of police and environmental health inspectors to remove food sellers from the streets. Women workers selling cooked food to male industrial workers on their way to work were a particular target of such raids. A major aim of the raids was to prevent food poisoning and the spread of diseases.

Such raids had limited effect. As is noted by the Environmental Health office now responsible for street trading:

> '…we were fighting a losing battle. We would arrive to remove the traders at 5am and by 8am the traders were back selling food in the same position' (Interview, 17/03/05).

Motivated by concerns for the livelihoods of the food traders and the needs of their dependents, as well as an understanding that enforcement was failing because traders could not afford to stop working, this same officer pushed for a re-think in the health and safety approach of his Department. Given the relative failure of the inner-city health and safety enforcement in comparison to other local councils, the head of City Health was prepared to provide some space for further investigation into his junior officers' suggestion to promote health and safety by training the traders in personal, food and environmental hygiene. The officer proceeded by conducting a basic health and demographic survey of food sellers within the busy trading area of Warwick Junction. He established that Wednesday would be an appropriate day for training sessions as this was when business was at its slowest.

The Environmental Health team encouraged attendance by visiting many of the traders due to participate at the Wednesday session on the Tuesday afternoon. The team was met with much resistance from traders at the start due to their experience of past enforcement strategies. However, due to the constant interaction and reassurance provided by the Environmental Health Officers, attendance improved. Good attendance is also attributed to the understanding of traders that upgrading their current health and safety practices would not only serve to protect them against future raids but would also promote their businesses. This latter issue was further reinforced by the training itself.

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[7] The major source of information for this case-study is an interview with the current environmental health officer within Durban City Health responsible for street trading. Other sources include unpublished documentation and reports from the Informal Economy Policy process.

The City Health Department, drawing on minimum standards for formal food businesses, devised a set of minimum health standards for informal traders selling perishable and non-perishable food items. A code of good practice was also developed. The standards included the use of a fold-down table and clean plastic table cloth; the wearing of an apron and head cover; a supply of potable water from a 25l plastic bottle; a cover for certain foods; the use of primer stoves; the use of cooler boxes where necessary; and the practice of cooking on demand. Health officials then provided interactive training where issues of personal, food and environmental health are discussed and the code of good trading practice disseminated. Training is conducted in Zulu and is not dependent on participants being literate or numerate.

Following the training, environmental health officers visit the traders at their workplace to assist them in applying the principles they have learnt. While it is recognised that upgrading their sites requires some investment from the workers, City Health has taken the attitude that the free provision of recommended items would discourage traders from taking necessary responsibility for their own work practices. Instead, assistance was provided at a minimum level through informal negotiations for the purchase of second hand tables from other markets in the city and also to encourage discounts from some of the formal stores.

If traders succeed in applying what they have learnt they are awarded a certificate and identity card by the Chief Health Inspector. There is an award ceremony every few months in which the mayor, or other person of profile, hands out the certificates. The certificates have proved important to the traders in terms of promoting a sense of self-pride but also to demonstrate quality assurance to their customers and to promote a sense of security in their workplace. Award ceremonies have also been used to promote positive interaction between formal and informal businesses by encouraging many of the traders' formal meat suppliers for example, to donate meat as prizes and for other businesses to donate cooler boxes, umbrellas and containers – all of which can be used for the benefit of trade. Many of the prizes were relatively low cost; others (like umbrellas and gazebos) were sponsored by industry.

If follow-up on-site inspections or food sample tests demonstrate that the basic minimum requirements are not being met by those traders in receipt of certificates then a system of warnings used for formal businesses is employed. Two warnings are given to upgrade standards before prosecution. On the whole the warning system has worked to raise awareness of the need to upgrade work practices and very rarely leads to prosecution.

The training sessions themselves have evolved over time. The original focus was on personal, food and environmental hygiene, however, on the demand of the traders this has expanded to include training from other departments within City Health as well as other less directly related topics such as business and banking skills training. The frequent interaction with traders has developed an increased awareness of the range of needs of traders and where possible and appropriate, the training sessions have attempted to address some aspects of these needs. An example includes the invitation of bank managers to the training sessions to both provide banking skills training but to also persuade the managers to reverse their practice of refusing accounts to the informal self-employed. As such a number of the traders now have access to such accounts. Another example is the regular sessions conducted by a representative from Unifruco, a major fruit supplier. The representatives travel from Cape Town to address the fruit and vegetable traders, not only about the range of their products but also methods of how best to store fruit.

Impressively, the training sessions have continued to take place every Wednesday morning between 9am and 12pm since 1994. The sessions, which at first took place in the City Health building, are now carried out at a venue in the inner city closer to trading sites. Each month's training sessions are divided so that one week training is provided for traders of perishable foodstuffs, one week for herbalists/traditional healers, one week for fruit and vegetable traders and one week left open for the targeting of non-food traders such as hairdressers or chemical drum cleaners and sellers, or for targeting urgent new hazards within the city. This sectoral approach was later picked up in the Informal Economy Policy as a foundational element in the approach to support to micro-enterprises - different sectors pose different health and safety challenges, and also different challenges to small business support.

It was estimated in 1999 that over 1000 traders had received training. By 2005 it is likely to have increased markedly though estimating total numbers of the newly trained is difficult due to the encouraging trend of repeat attendance at sessions. In addition, not all traders attending sessions have been officially certified. This is often because certification is only possible if the trader is in possession of a trading permit.

The major achievements of the programme identified by the officer in charge are varied. For example, regular food sample tests reveal that food safety has dramatically improved to levels that often surpass those found in formal businesses in the city, including some of the five star hotels! While food safety itself is a primary concern to the customer, the practices employed to achieve it, also help to protect the health of the traders themselves. In addition, traders are also often consumers of the same food stuffs. Environmental health, and therefore work environment health, has also improved as traders upgrade their sites and dispose of their waste correctly.

There is also some evidence to suggest that the programme has had a positive impact on trader productivity. A 1997 study (Soni 1997) of the training programme revealed that traders themselves felt that their upgraded sites secured more customers and the officer in charge asserts that the training has enabled a number of the traders to upgrade their businesses.

A final and important example of a wider positive impact of the programme is that the training sessions have been a source of bringing traders together to discuss issues as a group that has in some cases led to the formation of organisations and projects. Some examples given by the officer in charge include the recent organisation of women bead workers to manage their own bead working and selling project, and the formation of the Council of Traditional Healers that has contributed at national level to the recent Traditional Health Practitioners Act.

The achievements of the City Health Department's training programme have attracted much attention from other local government and provincial government institutions in South Africa who regularly visit and observe activities. The survival and positive attention received by this concrete programme is significant given the ongoing bureaucratic restructuring and transformation that has characterized the post-apartheid period that has been demoralizing for many officials.

Challenges and Limitations

The 1997 research undertaken to evaluate the health and safety training programme (Soni 1997) revealed that street traders do not necessarily differentiate between the different government departments. Differing approaches to the informal traders from different government institutions can therefore cause confusion and mistrust. The 1997 study found that some traders were still being harassed by police and that this was undermining the work of City Health to build necessary trust and rapport with the workers. There was a perception amongst the herbalists at that time for example, that the Municipality's aim was to prevent them from trading in the area. The reliability of the City Health Department was directly questioned by the traders due to the hostilities they encountered from the police (Soni 1997). While many of the herbalists and traditional healers have since joined the training programme, the capacity of City Health to extend its programme to increasing numbers of traders will be limited if harassment, or other negative action, continues from any of the other government institutions. This may well be a growing threat to the programme given a new 'fast-track' plan to be launched in April 2005. The plan is intended to improve safety and security in the city by targeting 'illegal' traders (see Appendix 10).

While the attitude of City Health to the need of traders to take responsibility for upgrading their own immediate trading site is to some degree understandable and justified, there are other factors impacting on the health and safety of traders' working environment that are beyond the direct control of the workers themselves, as well as City Health. Perhaps the most obvious and fundamental of these factors, and those that were mentioned by traders in the 1997 study (Soni 1997), are a potable water supply, refuse removal and shelter to protect traders and their products from the elements. Progress has been made in Durban, especially within

the major inner city trading area, in terms of the provision of permanent shelters and trading sites for many workers as well as the regular cleaning of streets and refuse removal. However, this service delivery has not proceeded without its own problems and is only delivered in specific areas. The lack of provision of a potable water supply remains a major limitation in the efforts to improve health and safety given that the majority of traders have little choice but to collect water from garages or unclean public toilets. Arguably, one of the main obstacles to water provision for traders in Durban is the concern about cost recovery. From the 1997 study (Soni 1997) it is clear that in addition to the detrimental impact on health and safety of the lack of basic necessities such as clean water and shelter, for some traders the failure to meet these basic priority concerns has served to dissuade them from attending the training sessions.

This negative impact of the lack of co-ordination between different local government institutions on traders and the environment provided the impetus for a shift in approach within the inner city trading area. The Warwick Junction Project, a pilot project in urban renewal, was intended to solve issues of institutional disconnection by integrating functions of a number of departments in one local area. An example of an initiative guided by this integrated approach within the inner city trading area was the upgrading of trading facilities for bovine head cookers. A task team was formed to plan the new trading facility with representatives from different local government departments including Solid Waste, Waste Water, Coastal Drainage, the Water Department, the Department of Informal Trade, City Health and Architectural Services. A management plan was drawn up by the representative from City Health to ensure that all departments were fully aware of their role and responsibilities. The initiative has provided a new sheltered trading area with adequate drainage and tanks for waste. A water supply has also been provided and one of the women traders has taken on the role of water bailiff to ensure cost recovery. While the latter system is not currently working well as the bailiff is failing to pay the water account, the initiative on the whole is a positive symbol of what can be achieved with co-ordination and integration of institutional activities.

While the City Health training programme has now been running for over 10 years, the level to which it has become institutionalised is not clear. There is a danger that the programme is dependent on the commitment and dedication of a few individuals, including the current officer in charge of street traders. This officer has built significant rapport with the street traders and is familiar to many of them (as revealed in the 1997 study (Soni 1997)). A current possibility is that City Health will be restructured in such a way as to generalise roles within the Department and, by doing so, remove the current exclusive focus of one team on street traders. While this restructuring, if managed well, may present an opportunity for further integration of the different health teams within the street trading programme, there is also a danger that the current focussed and well-managed programme could become diluted.

A large number of traders in the city have not yet been reached by the training programme. The outreach capacity of the local government to protect and promote all informal street traders is clearly limited in terms of resources, but there is also an attitude within different government institutions towards what is often described as an 'invasion' of 'illegal' traders. Such illegal traders include foreign migrants but also South African itinerant traders and others without permits. It seems that while Durban has an established and relatively progressive approach to informal street traders in comparison to other South African and African cities, it may be that there is a growing tendency to extend this approach to only a core of informal traders within the city, while the approach to those on the periphery, without permits or without legal status and/ or those considered 'newcomers' or 'invaders', is once again characterised by exclusion. As we write this (March 2005) it looks likely that the new city management may embark on a new round of harsh raids on 'illegals' (see newspaper article in Appendix) which would be a retrogressive step.

Whatever the reasons to explain why some traders receive training and others do not, what is clear is that the continuing poor health and safety practices of some traders is a major cause of resentment for many of those traders who do attend the training and invest in upgrading their own work practices. If such resentment works to undermine the health and safety efforts of traders the continuing positive impact of the training programme could be threatened.

Finally, and perhaps the most common challenge of all, is the significant lack of resources currently invested in the training programme. In particular the current severe lack of human resources is an impediment to programme outreach.

Lessons and Recommendations

The health and safety training provided by City Health since 1994 was and remains an innovative and progressive strategy, initiated at a time when the dominant approach towards informal street traders was one of control and exclusion. The now 10 year old programme provides some valuable lessons for interventions to improve the occupational health and safety of informal street traders:

Environmental health enforcement strategies that undermine livelihoods are ineffective and unsustainable. Durban City Health has demonstrated that by working in partnership with informal workers, it is possible to simultaneously achieve the protection and promotion of livelihoods and the improvement of environmental, public and occupational health.

In a context where historically informal traders have only ever encountered negative, hostile and even violent responses from local government institutions, the investment necessary to build trust and rapport with such traders in order to form working relationships cannot be underestimated. Such investment can be easily undermined by contradictory approaches from different departments within local government. The need for some overall policy guidelines to which different institutions can refer and therefore apply a consistent approach to traders is therefore clear. The importance of a policy is encapsulated in a document of the late 1990s:

- to make local government's approach and principles clear
- to provide the basis for common action by different government departments
- to provide the basis for securing agreements with external stakeholders as to the broad direction of local government's street trading interventions
- to provide the basis for monitoring performance by evaluating what goals have been achieved, when. (Durban Metro, 1998: 48)

An analysis of the health and safety of street traders in Durban highlights that all those institutions impacting on the environment of the public space in which traders work are likely to also impact on their health and safety. A co-ordinated response that aims to work with traders, in the same way that Durban City Health has achieved, is necessary for both meeting the goals of the individual departments intervening in the environment where traders work and in meeting the goal of improving occupational health and safety for the traders themselves.

Further, a fundamental challenge to being able to develop local level OHS for informal workers is that the organisational architecture of health in local government is outdated, and no longer fits the realities of the 21st century. The conventional divisions into public health, environmental health, occupational health, and clinical health, for example, are not adequate to tackle new forms and new places of work, and the use of private homes and public places for work. Occupational health inspectors are limited to visiting 'shops, factories, and offices', excluding the work domains of large numbers of people; environmental hazards are presented by heavy industry yet environmental officers are not necessarily trained to deal with industrial players.

Dedicated personal and familiar interaction was a necessary pre-requisite for the continuing progress of the health and safety programme. While the rapport between local officials and street traders is dependent on individual personalities, the interaction and rapport building itself must become an institutionalised aim across programmes working with street traders. The negative impact of the 'control and exclude' approach on street trader attitudes must not be underestimated.

Insecurity of trading position undermines occupational health and safety. With no security of permanence there is no incentive for investors to either attend training sessions or upgrade their working station. This finding adds to the existing body of research that highlights such insecurity as a major impediment to investments in occupational health and safety. This important lesson learnt must also be applied towards illegal traders.

Finally, a lack of committed resources to training programmes for informal traders is a serious threat to their sustainability. In cases such as the City Health model, where training activities clearly have multiplier positive effects for both the participants and the inner city environment, it is important that other appropriate and affected government institutions commit joint resources to such programmes to ensure their future, but also to encourage further integration of activities.

The approach taken by Durban City Health demonstrates that a core local government mandate, such as the enforcement of environmental health, if tackled progressively, can become a strong pillar around which other development needs can be addressed. One of the central justifications for the health and safety programme provided by the Environmental Health Department was food safety. Yet the approach taken to enforce food safety legislation has also: improved environmental health; improved the health and safety, as well as productivity of workers; and has encouraged the organisation and representation of informal traders.

Appendix 8: The Self-Employed Women's Association in India – An Integrated Approach to Informal Employment, Health Insurance and Promotive OHS

By Anna Marriott

The Indian constitution directs the state to 'make provision for securing just and humane conditions of work'. However, since the work of those in the informal economy is largely unrecognised, their conditions of work and their work-related health problems have been neglected (Dayal 2001). The neglect and exclusion from employment protection and income security of especially women workers, who constitute the majority of those working in the Indian informal economy, is the driving force behind the Self-Employed Women's Association (SEWA). SEWA was established in 1972 and is a trade union and set of co-operatives for women who work informally in situations without a fixed and continuing employer/employee relationship. In 2004 membership of SEWA has now reached well over 700,000 women workers across 8 states in India.

From its inception, SEWA has been aware that reasonable health is imperative to women's ability to work well and earn a living and that a woman's occupation has a direct bearing on her health (Dayal 2001). SEWA members suffer a wide range of work-related injuries and illnesses. Work done is often physically demanding and frequently hazardous (see Box 1).

It is impossible to entirely isolate SEWA's approach to occupational health and safety (OHS) from other methods and interventions undertaken to protect and support its members. It is the recognition that a lack of OHS is both a cause and a consequence of employment and income insecurity, as well as its incorporation into a holistic and integrated approach to simultaneously tackle other sources of risk and vulnerability, that distinguishes SEWA's approach to OHS from the majority of other OHS interventions. While the health of women, including occupational health, has always been given priority attention within SEWA and especially so since the recognition that poor health was the main cause of loan default (Chatterjee and Ranson 2003), the movement has explicitly avoided what it considers a limited approach that advocates health and health education above all else in community development (Crowell 2003). Instead, SEWA focuses on understanding and tackling health issues, as with all other challenges faced by its members, at the point at which health interacts with, and impacts on, employment and income security. In addition, SEWA also participates at national level in state and federal commissions on employment policies, child care, health services and social insurance.

This case-study draws on some of the main SEWA activities that impact directly or indirectly on occupational health and safety. It divides such activities into three broad and sometimes overlapping categories of: research and prevention; promotion and care; and insurance. The latter category, insurance, is already quite well known and well documented while the first two are not.

Research and Prevention
Ela Bhatt founded SEWA, and her close interaction and work with members was responsible for her early recognition of numerous occupational health problems suffered by women workers in the informal economy. In the 1970s Bhatt approached the National Institute of Occupational Health (NIOH) and, with their support and research expertise, several occupational health studies were undertaken to understand and document the various problems women faced (Dayal 2001). Handcart-pullers and bidi (a low cost cheap version of a cigar) workers were a particular focus at this time.

Occupational injuries and illnesses suffered by SEWA members

Members of SEWA work long hours in physically exhausting positions and suffer from a wide range of occupational health problems. For instance, *agarbatti* [incense stick] rollers work from 8 to 10 hours in the same bent position. As a result they get neck and back aches, and pain in their hands, arms, legs, and abdomen, and feel exhausted and *dizzy. Chikan* [a specific type of embroidery] workers sit cross-legged on the floor or with legs outstretched and with their bodies bent slightly forward. Ready-made garment workers sit on high stools, with no back support and tend to lean forward while at their machines. These postures result in back pain, pain in limbs and joints, and body-ache generally. Jaswantiben, a ready-made garment worker, also said that their feet get swollen thanks to continuously peddling sewing machines. Besides these, poor vision, eye strain, including watering and a burning sensation, headache, dizziness and fatigue are common among workers of the last three occupations mentioned. Inadequate lighting, poor ventilation and long working hours in cramped places, together with anaemia, are among the factors responsible for these complaints.

As to health problems related to working with harmful substances, Jiviben, a leader among screen printers and dyers, complained of headaches, pain in the abdomen and swelling, as well as nausea caused by the smell of dyes. She said, 'I have to do this printing on six tables of 40 metres each. We get rashes on our stomachs because of constant friction with the tables as we walk. This work also affects our menstrual cycle and sometimes we have more bleeding and reproductive health problems. Some of my colleagues were advised by doctors to remove their uteruses. We have premature deliveries and miscarriages because of continuous movement and contact between the abdomen and the table.'

Other harmful chemicals that women working in different occupations are exposed to are ethylene dichloride used in packing *agarbattis;* increasingly using pesticides in agriculture, which are often administered by hand; dust particles in tobacco and cement, leading to skin infections and respiratory problems, among other health problems.

Many cases of tuberculosis are also reported among workers exposed to 'dusty' work environments. Another area of concern is the health problems of those who lift heavy weights. Among these are head loaders who carry bundles of 35-40kg on their heads and walk with these on average for about 2km. These loads are taken three to four storeys up building and similar loads are brought down for transportation.

Besides their hands and feet getting corroded from the long hours spent in salt pans, the salt workers in Kutch, Surendranagar and Banaskantha are vulnerable to heatstroke, diarrhoea, malaria, tuberculosis, swelling of the liver and hypertension. Those who work with groundnuts have a specific problem: as the handpicked seeds of groundnuts are not opened by nutcrackers but by women's teeth the women's mouths become so sore that during this seasonal work they cannot even drink a cup of tea.

These are only a few of the most common occupational health hazards of some professions in the unorganized sector. But probably the commonest occupational hazard for women is overwork. Many studies of labour in homes and fields have revealed that the average working day for women in between 15.5 to 16 hours.

Source: Direct quote from Dayal (2001). Dayal's account is a summary of her research using SEWA's papers presented at workshops and seminars, pamphlets and, sometimes, unpublished case-studies and surveys.

During the 1980s SEWA continued to research and document occupational health problems in several trades and provided valuable information for the detailed chapter on women worker's occupational health hazards for the National Commission for Self-Employed Women and Workers in the Informal Sector report, *Shramshakti* (Ibid).

While the research work of SEWA had influenced some concrete preventive action by other organisations such as the re-design of handcarts by the National Institute of Design to reduce stress and strain on women's bodies (Ibid), many of these interventions proved too costly for the intended beneficiaries. From the early 1990s SEWA began to use its research more proactively to prevent occupational injury and illness of its members.

Examples of such direct preventive interventions include:

- the organisation of eye clinics and provision of low cost spectacles to garment workers, embroiderers and others. The eye clinics directly address the hazards of craftwork and in addition to improving the quality of life, the curative aspect of the intervention enabled the women to see their work more clearly, work faster and at a higher level of quality, thereby increasing productivity (Crowley 2003).

- the provision of gum boots to protect salt-workers against the corrosive effects of salt water, and sun-glasses to protect their eyes against glare (Dayal 2001).

- the provision of specially designed chairs and sewing machine tables to ready-made garment workers to prevent lower back pain

- the provision of protective gloves to tobacco workers who had highlighted themselves the range of hazards to which they were exposed by removing tobacco flowers to encourage leaf growth including exposure to black, sticky nicotine-laden juice. The gloves were provided with NIOH's assistance.
- the organisation of a series of consultations-cum-health education workshops by SEWA, with NIOH's technical assistance, in Ahmedabad, Sabarkantha, Mehsana and Kheda districts to inform women rural workers on the hazards of working with pesticides and appropriate safety-measures to be taken. The workshops were followed up with the preparation and distribution of simple leaflets and posters to explain the judicious use of pesticides and emergency first aid in case of pesticide poisoning (Dayal 2001).

- the design of a special sickle by The Gujarat Agricultural University for SEWA members to reduce the strain on women's bodies during harvesting. Two hundred of these sickles have been distributed to workers and the women report that the sickles have directly reduced pain and increased productivity. Demand for the sickles is high despite their cost at Rs 40[8] each (Ibid).

SEWA is planning to continue providing equipment and work tools that reduce occupational health problems and increase productivity, as well as spreading health education on safe measures, processes and procedures (Chaterjee 2005: personal communication). Perhaps a gap in the current approach is comprehensive impact assessments of the preventative strategies employed by SEWA. In recognition that there may be a gap between the provision of protective equipment and its use, as well as the understanding of OHS and the implementation of changes to work organisation, further work is needed to assess the effectiveness of the current approach.

Promotion and Care

SEWA's approach to health promotion and care is multi-faceted and multi-layered. In the first decade of SEWA's existence it organised several health camps where doctors and nurses examined and treated members with subsidized or low-cost medicines (Dayal 2001). Health information-cum-education programmes called 'know your body' were also delivered from the early years that focussed on basic information about the human body and reproductive physiology (Ibid). After consultation with members, SEWA's approach was re-directed to incorporate the diverse range of health issues affecting women, including occupational and maternal health. This was in direct contrast to the government primary health care (PHC) programme that, to the detriment of women's holistic needs, remained focussed on reproductive health and on family planning in particular (Dayal 2001).

In 1984, SEWA expanded its health promotion and care services (Raval et al 2000) in response to member's concerns of lost time and income when using existing medical services. Within SEWA there was a growing emphasis that local women can best take care of the health and nutrition of their communities

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[8] One US dollar is worth approximately 45 rupees.

but that this can only be achieved with 'appropriate, continuous capacity-building inputs and back-up support…and with district-level people's organization as a support and source of strength' (Chaterjee 2000). SEWA's approach has been to train a cadre of 'barefoot doctors', many of whom were previously midwives or dais, help them to organize and develop their own health cooperative or group, 'provide technical inputs, develop capacity-building programmes and facilitate linkages with the existing health system and with policy makers at different levels' (Chaterjee 2000). The achievements in developing health co-operatives would not have been possible without a great deal of persistence and patience. Organizers faced suspicion and opposition, particularly driven by a concern of members that they were simply pushing another family planning programme. However, with 'constant contact, constant reassurance, constant encouragement and by making friends with the women', SEWA's health work proceeded (Dayal 2001: 60).

Between 1985 and 2000 about 200 SEWA members were trained as local health workers for their own villages and urban neighbourhoods (Dayal 2001). After training in PHC, these workers now provide other SEWA members with health education and preventative health care, such as antenatal care and immunization of children, and are promoting the use of protective equipment like gloves and masks (Ibid). The barefoot doctors also provide curative care from their homes or a health centre run by them, where low-cost generic drugs are dispensed at cost to members (Raval 2000). Where necessary, referrals are made to hospitals (Ibid). The health workers receive a stipend for their work and operate in both rural and urban areas. The huge variety of tasks carried out by SEWA's health workers is well capture in the case-study presented in Box 2.

References to special activities like tuberculosis screening, particularly for those exposed to dust in their occupations; eye check ups for artisans (Dayal 2001), and a monthly mobile health van delivering health care to remotely located salt workers (Crowley 2003), demonstrate that occupational health care is provided through SEWA's health approach. There are also examples of other indirect activities that can be related to occupational health. These include SEWA's work to challenge Guthka addiction. Guthka is used to relieve stress that is generally caused by insecurity at work and at home. SEWA challenges addiction by promoting alternative stress relief activities such as yoga and meditation (Dayal 2001). Another example is SEWA's work to improve access to water. Water collection is carried out by women and is becoming increasingly difficult and time consuming in the face of environmental change. By making water more accessible to women, SEWA's approach directly reduces anxiety and fatigue and strain on the body (Ibid) that could potentially increase the risk of injury or illness at work. Direct intervention in this area has included assisting women to harvest rainwater by constructing village ponds, check dams and even individual underground tanks for storage (Ibid).

Meeting the needs of informal women workers: Ayesha-ben, a primary health care worker in India

Ayesha-ben Mashrat Pathan is a Muslim woman, living in what is described as a "slum" area in Ahmedabad City in Gujarat, India. She lives with her two unmarried sons, young men in their early twenties/late teens, in a two-roomed house. She married as a teenager, but her husband left many years ago.

The streets are dusty, the houses packed close. The streets team with people, including many children, as well as animals, particularly goats. Men and old people lay in the sun on wooden beds. Women are working in their homes-engaged in unpaid domestic labour and a variety of home-based income generating activities such as sewing, embroidery, incense stick rolling, bidi (cigarette) rolling, cooking food for sale.

Ayesha-ben is a Self-Employed Women's Association (SEWA) health care worker in the community. She took on this role after joining SEWA in the mid 1980s during a period of community violence. She was persuaded, encouraged, trained and given confidence by SEWA organizers. Being a health care worker in SEWA changed her life. She has a home, a purpose, and identity. She has skills and a degree of security. She has status in her community and her union. "I no longer have to struggle" she says!

In the mornings Ayesha-ben gets up early and sees to her domestic chores; drawing and heating water for bathing and cooking, cleaning the house, yard, pots and clothes, making food for her sons. She is then ready for her SEWA work. This might begin by her attending to woman who comes to her home for advice, and to buy the natural medicines and unscheduled medicinal products she keeps - bought at low prices from a SEWA pharmacy. Or a woman might want her to assist with a health insurance claim from the SEWA Integrated Insurance Scheme (ISS). This could include helping her to make the claim or even cashing the payment cheque for her at the SEWA bank.

Most days, Ayesha-ben goes on her rounds in the community. Each day she covers part of her constituency, which includes Muslim and Hindu women in their respective neighbourhoods (separated since the community violence in 2002). She knows her members well: where to call, what problems they have, who might want attention. There are many health problems associated with living and working conditions. Common problems are backache, stomach and chest complaints. In the case of incense stick rollers, backache is a major problem. SEWA designed a rolling board to help relieve this problem. It is widely used by women and children rolling incense sticks at home in this community.

Women approach her as she passes by. She provides health advice and medicines, and helps members with their health insurance. But her work goes beyond just dealing with health issues - she acts as an organizer, a recruiter, an insurance scheme agent as well as being a trusted community support person to whom women bring their problems. She acts as eyes and ears for SEWA, and in turn provides information on the union to the members. This early referral function is critically important – to the women's health, and to SEWA's local surveillance as an organisation.

As well as routine duties, Ayesha-ben organizes regular health education sessions in the different neighbourhoods. Women and their children gather around her to learn about a range of health care issues such as good nutrition, the reproductive system and sexual health. She uses pictorial charts as an educational aid, prepared by SEWA.

On other days she facilitates and coordinates health care "camps" in the community. Teams of health care professionals visit the community to deal with a specific health issue such as eye problems, tuberculosis. Women and men can be examined, diagnosed and treated. Or they will be referred for treatment at a government hospital or clinic. Ayesha-ben knows exactly who is being treated for what. She often accompanies members to the government hospital. In her community where women are poor, cannot afford to travel or spend time away from their work or, in some cases, are not permitted to leave the house or immediate surroundings, this allows access to public health care which otherwise might never reach them.

And her work is not finished yet. Ayesha-ben is an executive member of the SEWA health cooperative. So she has to attend many meetings and make reports. She also has paper work to do and keeps meticulous records of medicines sold, health insurance claims dealt with.

Ayesha-ben is one of SEWA's worker leaders – the key to building SEWA from the bottom up. Deeply embedded in the community, she is involved in an integrated organising programme, providing a basic service, organizing the union, and building a movement of women at the place of immediate need.

Source: Chris Bonner (2005). Chris was involved in one of SEWA's Exposure Dialogue Programmes, which in this case involved people from research and membership based organisations living alongside a SEWA member in her community. SEWA has done this with mainstream economists, financiers and insurance leaders as a way of 'mainstreaming' the realities of SEWA's members.

These examples demonstrate the importance of a holistic response to women's health issues, but from literature found to date, it is not made explicitly clear how well the barefoot doctors are trained in occupational health, to what extent occupational health care is integrated into SEWA's community health systems or how information from occupational health problems encountered at the level of community health is then fed back into preventative measures. It may be assumed that the confidence and trust built into the community health approach as well as the stress placed on decentralisation and flexibility according to needs and priorities of local people (Dayal 2001) would inherently lead to the provision of care for whatever health needs arise. However, further research is required to explore these issues, looking specifically at the interaction between occupational health and general health, as well as the feedback loops between prevention, promotion, cure, and policy interventions.

Nevertheless, it is clear that low cost, quality and trusted health care provided at the level of community helps to ensure that health services are affordable and accessible to working women, especially given the reduced lost working time in seeking medical attention. As such, women are more likely to seek health services for all health problems earlier and more regularly. Not only will this likely include care for occupational injuries and illnesses but it also helps to mitigate the increased risk of occupational injury and illness presented by other health problems that cause fatigue and weakness and also those that reduce immunity.

Insurance

In recognition of the reality that occupational injury and illness are difficult to entirely prevent, and that the State Workmen's Compensation Act failed to cover unorganized workers, occupational injury and illness insurance has been included in SEWA's Integrated Insurance Scheme (IIS) since 1994 (ILO 2001). The IIS has three components – life insurance, asset insurance and health insurance and by 2003 had over 102,000 members. The health insurance component was a response to the concerns of members that the 'majority of what they earn is spent on sickness' (SEWA 2000) and the evidence that ill health was a major cause of loan default. The health insurance includes hospitalization up to a maximum amount per year and those paying premiums through fixed deposit get additional coverage for cataract operations, hearing aids, and dentures. (Chatterjee and Ranson 2003) The scheme also allows members to choose their own health care provider, private or public, though SEWA gives advice about reliable providers (Ibid). Importantly, though hospitalization is the main criterion for reimbursement of health costs, a few exceptions have been made including cases of occupational injury/sickness in which hospitalization is not required (Dayal 2001).

The health insurance works to help cover the cost of seeking necessary medical attention. In so doing, it helps to avoid further loss of income in addition to that already caused by the illness or injury, such as loss of earnings. The reduction in cost of treatment is an important incentive for workers to seek medical attention when needed rather than risk continuing to work and further compounding health problems.

In addition, after years of successes and failures of working in partnership with government to extend maternity benefits to unorganized working women, SEWA developed its own maternity benefit scheme in 1992 as part of the IIS (Dayal 2001). The importance of maternity benefits is clear given that their necessity to earn results in women working right until their labour pains start and in returning to work soon after delivery. Such behaviour not only endangers the general health of the women but also their lives and the lives of their unborn or new-born child (Dayal 2001). The maternity benefits include a grant of Rs 300 at the time of child birth, regardless of family size or other considerations. In addition some antenatal and nutritional care is provided by SEWA.

One major concern of the IIS is that even though it is oriented to poor women, some of SEWA's poorest members cannot afford even the low premiums charged, which have to be set at a rate that ensures viability over time (Chatterjee and Ranson 2003). There is also concern that while the health insurance provides access to hospitalization, in some cases the standard of care provided is 'frankly dangerous' (Ibid). SEWA are very aware of these limitations and through a process of constant innovation and experimentation are attempting to tackle them.

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