



General Assembly

Distr.: General
10 April 2012

Original: English

Human Rights Council

Twentieth session

Agenda item 3

**Promotion and protection of all human rights, civil,
political, economic, social and cultural rights,
including the right to development**

Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, Anand Grover

Summary

In the present report, the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health considers occupational health as an integral component of the right to health. The report outlines international human rights and other instruments related to occupational health, and it addresses occupational health in the informal economy, focusing on the needs of vulnerable and marginalized groups. It also addresses the obligation of States to formulate, implement, monitor and evaluate occupational health laws and policies, as well as the requirement for the participation of workers at all stages of those activities. The discussion of State obligations is followed by the analysis of such occupational health issues as environmental and industrial hygiene; prevention and reduction of the working population's exposure to harmful substances; challenges posed by emerging technologies; minimization of hazards in the workplace; and availability and accessibility of occupational health services. The Special Rapporteur then elaborates on the prospective and retrospective components of accountability, as well as remedies for violations related to occupational health. The Special Rapporteur concludes his report with a number of recommendations aimed at strengthening occupational health, as a component of the right to health.

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I. Introduction

1. The present report considers the right to occupational health as an integral component of the right of everyone to the highest attainable standard of physical and mental health (hereafter, the right to health). It discusses the obligation of States to formulate, implement, monitor and evaluate national occupational health laws and policies. In particular, it examines in detail the right of workers to participate in decision-making at all stages of these processes. It also explores a number of substantive issues through the lens of the right to health which extend beyond the mere absence of injuries in the workplace, and includes prevention of disease in the workplace, environmental and industrial hygiene, harmful substances affecting workers, emerging technologies, psychosocial hazards and occupational health services. Finally, it investigates methods of accountability and remedies required by the right to occupational health.

2. In order to achieve the full realization of the right to occupational health as a fundamental component of the right to health, a broad understanding of the relationship between work and health must be adopted. Accordingly, an examination of occupational health must include consideration of harmful exposures during work, specific varieties of working conditions, working environment, working relationships, and the social, environmental and political contexts in which work is situated.

3. Since the establishment of the International Labour Organization (ILO), the landscape of work and the relationships between workers and employers has changed dramatically as a result of, amongst other things, globalization and the growth of transnational corporations. These phenomena have had a significant impact on the occupational health of workers. At the same time, the contemporary understanding of work has been greatly enriched by the recognition and examination of the informal economy as a persistent and substantial portion of the modern, globalized economy, and the source of work for millions of individuals. This has been cause for the re-evaluation of traditional approaches to the promotion and protection of occupational health.

4. Globalization can be defined as the increasing global interconnectedness of economic, political, social and cultural affairs. Trade liberalization and the proliferation of free trade agreements are central to this increasing economic interconnectedness. The migration of production and distribution networks and facilities from the developed to the developing world has increased as transnational corporations domiciled in more developed States produce more goods in the developing world for sale in developed markets. This migration is driven by the availability of cheap labour and the prevalence of weak environmental and labour regulations in the developing world. In some instances, special economic zones have been established that weaken or preclude regulations intended to protect workers' rights, including those relating to occupational health, within a specified area in order to attract the production and distribution operations of transnational corporations. Free trade agreements have been used for similar purposes. As a result, a growing numbers of workers are employed in workplace environments lacking adequate protections for their occupational health. At the same time, workers in the developed world, particularly migrants and workers in emerging technologies, are exposed to workplace hazards that are inadequately regulated or outside the purview of existing occupational health regimes.

5. A right to health approach to occupational health is particularly critical in light of these developments. This approach requires States to intervene directly in order to fulfil the right to occupational health of workers in the formal and informal economy; facilitate the direct participation of workers in the formulation, implementation, monitoring and evaluation of occupational health laws and policies; to implement regulation towards the

detection, prevention and treatment of occupational disease and the control or prohibition of harmful substance in the work place; pay special attention to the situation of vulnerable and marginalized workers; and ensure adequate accountability mechanisms are in place and remedies are available to workers.

II. Conceptual framework

6. The right to occupational health is an integral component of the right to health. The International Covenant on Economic, Social and Cultural Rights addresses occupational health in article 12.2(b) and (c) and establishes that States must take steps towards the full realization of the right to health, including the improvement of all aspects of industrial hygiene and the prevention, treatment and control of occupational and other diseases. General comment No. 14 of the Committee on Economic, Social and Cultural Rights interprets article 12.2(b) of the Covenant to include safe and hygienic working conditions, preventive measures in respect of occupational accidents and diseases and the minimization, so far as is reasonably practicable, of the causes of health hazards inherent in the working environment (para. 15). General comment No. 14 states that article 12.2(c) of the Covenant requires States to make available relevant technologies, using and improving epidemiological surveillance and data collection on a disaggregated basis (para. 16).

7. A number of international human rights instruments address the right to occupational health in a variety of contexts. The Universal Declaration of Human Rights provides for the right of everyone to “just and favourable conditions of work” (art. 23).¹ The Convention on the Elimination of All Forms of Discrimination against Women establishes women’s “right to protection of health and to safety in working conditions, including the safeguarding of the function of reproduction” (art. 11.1(f)) and requires States to “provide special protection to women during pregnancy in types of work proved to be harmful to them” (art. 11.2 (d)). The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families obliges States to “take measures not less favourable than those applied to nationals to ensure that working and living conditions of migrant workers and members of their families in a regular situation are in keeping with the standards of fitness, safety, health and principles of human dignity” (art. 70).

8. The ILO recognizes both the right to a safe and healthy working environment and the protection of the worker against sickness, disease and injury arising out of his employment to be fundamental human rights.² The ILO defines its Decent Work agenda to require safe and healthy work that does not expose workers to health hazards.³ The ILO has adopted numerous instruments ratified by varying numbers of member States that directly address occupational health. These include the Convention on Occupational Safety and Health, the Occupational Health Services Convention, the Working Environment (Air Pollution, Noise and Vibration) Convention, as well as the Protection of Workers’ Health Recommendations. The ILO defines “health” broadly in the context of work to indicate not merely the absence of disease or infirmity but also the physical and mental elements

¹ See also International Covenant on Economic, Social and Cultural Rights, art. 7.

² International Labour Organization (ILO), *Health and life at work: A basic human right*, World Day for Safety and Health at Work, 28 April 2009, (Geneva, 2009), p. 5; ILO, *ILO Introductory Report: Global trends and challenges on occupational safety and health*, XIX World Congress on Safety and Health at Work, Istanbul, Turkey, September 2011 (Geneva, 2011), p. 42; “Seoul Declaration on Safety and Health at Work,” adopted on 29 June 2008 at the XVIII World Congress on Safety and Health at Work.

³ ILO, *Health and life at work: A basic human right*, p. 11.

affecting health, which are directly related to safety and hygiene at work.⁴ “Industrial hygiene” (or occupational hygiene) encompasses all efforts to protect workers’ health through control of the work environment, including the recognition and evaluation of those factors that may cause illness, lack of well-being or discomfort among workers or the community.⁵

9. Under the right to health, everyone is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity. The ILO Decent Work agenda establishes the primary goal of the ILO to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity.⁶ The joint ILO-WHO social protection floor approach, a strategic objective of the Decent Work agenda, is committed to promoting human dignity and increasing the productive capacity of vulnerable groups.⁷ The ILO Convention No. 155 on occupational safety and health states that it applies to “all branches of economic activity” (art. 1) in which workers are employed, including the informal economy⁸ where workers may be particularly vulnerable, as discussed below. General comment No. 14 also places special emphasis on States’ responsibilities vis-à-vis vulnerable and marginalized groups, including in the core obligations to formulate and implement a national health policy and to ensure access to health facilities, goods and services on a non-discriminatory basis (para. 43(f)). The right to occupational health, as an integral component of the right to health, thus includes the promotion of the dignity of workers, realized in part through safe and healthy working conditions, with a particular focus on vulnerable and marginalized groups.

A. The informal economy

10. The informal economy can be defined as a diversified set of economic activities, enterprises and workers that are not regulated or protected by the State. As defined by the ILO, the informal sector consists of “private unincorporated enterprises” which are not registered under specific forms of national legislation.⁹ Informal employment, however, is broader in scope and consists of all employment in the informal sector, plus those workers employed informally within the formal sector.¹⁰ The informal economy includes both the black economy, which seeks to avoid taxation and regulation, and the criminal economy, which deals in illegal goods and services. However, the black and criminal economies account for only a small share of the informal workforce. Most informal enterprises and workers deal in legal goods and services, and operate in a semi-legal, but not deliberately illegal manner.

11. The informal economy stands in contrast to the formal economy in a number of critical ways, the most important being the relative absence of State regulation. The lack of

⁴ ILO Convention No. 155 concerning Occupational Safety and Health, art. 3(e).

⁵ Benjamin O. Alli, *Fundamental principles of occupational health and safety* (Geneva, ILO, 2001), p. 84.

⁶ ILO, *Report of the Director General: Decent Work*, International Labour Conference, 87th session, Geneva, June 1999.

⁷ ILO, *Social protection floor for a fair and inclusive globalization*, Report of the Social protection Advisory Group (Geneva, 2011), p. 6.

⁸ ILO, “Decent work and the informal economy,” Report VI, International Labour Conference, 90th session, Geneva, 2002; ILO, *Women and men in the informal economy: A statistical picture* (Geneva, 2002).

⁹ ILO, “Decent work and the informal economy,” p. 126.

¹⁰ ILO, “Statistical update on employment in the informal economy” (Geneva, ILO Department of Statistics, 2011), p. 12.

regulation results in numerous insecurities and vulnerabilities for informal workers, such as the lack of collective bargaining and anti-discrimination protections. Further, informal workers are also often subjected to volatile, insecure work schedules and long hours. Many informal workers are involved in piece work, which encourages unsafe work habits and shifts the burden of responsibility to protect occupational health from employers to workers. Although there are some very high earners within the informal economy (such as self-employed professionals), the vast majority of informal workers come from marginalized backgrounds and work without adequate training, technology and health precautions for a small, insecure wage. Although not all persons involved in the informal economy are poor, and not all of the working poor are informal workers, there is a substantial overlap between poverty and the informal economy.

12. The informal economy constitutes more than 50 per cent of the economy in many developing countries.¹¹ When the agricultural sector is included in assessments, in some countries the informal economy approaches between 80 to 90 per cent of the total economy.¹² However, the existence of the informal economy is certainly not limited to the developing world; the informal economy also makes up a sizeable portion of developed economies.¹³ Studies suggest that the informal economy may be a fall-back or buffer during times of economic downturn, when the informal economy often grows.¹⁴ In light of the magnitude of the recent global financial crisis and subsequent recession, it is likely that the informal sector has grown substantially. As the informal economy has grown, so have its related occupational health concerns. Considering the size and nature of the informal economy, it is impossible for States to fully realize the right to health without addressing concerns related to occupational health in the informal economy.

13. Informal employment consists of both self-employment in informal enterprises and wage employment in informal jobs. Self-employment in informal enterprises consists of self-employed persons in small unregistered or unincorporated enterprises, including employers (who hire others), own-account operators (who do not hire others), unpaid contributing family workers and members of unregistered co-operatives. Wage employment in informal jobs consists of wage workers who lack social protection through their work and who are employed by formal or informal firms (and their contractors), by households, or by no fixed employer, including non-standard employees of informal enterprises, non-standard employees of formal enterprises, casual or day labourers, and industrial outworkers (also called homeworkers).¹⁵

14. Many in the formal workforce find themselves in a situation similar to those in the informal workforce. There is a growing trend toward contractualization and informalization of formal work, a process by which workers become their own employers and thereby may lose occupational health protections otherwise afforded to them as employees. At the same time, many developed economies are systematically moving away from standard work¹⁶—full-time, year-round, permanent wage employment with a single employer with adequate statutory benefits and entitlements—,¹⁷ leading to an increase in part-time, casual,

¹¹ ILO, *Women and men in the informal economy*.

¹² ILO, “Statistical update on employment in the informal economy,” p. 12.

¹³ ILO, *Women and men in the informal economy*, p. 26.

¹⁴ Zoe Elena Horn, “No Cushion to Fall Back On: The Global Economic Crisis and Informal Workers,” Synthesis Report - Inclusive Cities (WIEGO, 2009).

¹⁵ ILO, “General Report,” Report I, Seventeenth International Conference of Labour Statisticians Geneva, 24 November-3 December 2003, p. 51.

¹⁶ ILO, *Women and men in the informal economy*.

¹⁷ K.V.W. Stone, *From Widgets to Digits: Employment regulation for the changing workplace* (Cambridge, United Kingdom, Cambridge University Press, 2004).

temporary, self-employed or contingent workers. While such workers are not technically part of the informal economy because their work and workplaces are likely to be still regulated, they may face difficulties similar to those faced by informal workers. For example, in many developed economies, employers are not required to provide health benefits to part-time and temporary employees. Both contractualization and the trend towards replacing standard work with atypical work often represent attempts by employers to evade their responsibility under existing occupational health regimes.

15. The right to health requires States to pay special attention to the needs of vulnerable and marginalized groups. Most workers in the informal economy face significant social and economic difficulties. These include lack of legal protection, lack of access to formal financial services, lack of social protection or social health insurance afforded to formal sector employees, exposure to harsh law enforcement, lack of job security, discrimination and others. Moreover, many workers in the informal economy often face increased risk of occupational disease and injury as compared to formal workers. In some cases when informal workers are injured, they are not granted compensation for their injuries.¹⁸ As a result, informal workers are amongst the least secure and most vulnerable of all workers, and thus require special attention under the right to occupational health.

16. Though there are regional variations, women are more likely than men to work within the informal economy than in the formal economy.¹⁹ And, like the formal economy, the informal economy is highly segmented in terms of gender. Approximately two-thirds of all female workers in the developing world work in the informal economy (not including agriculture). Moreover, women earn less than men, and are in lower paid and less skilled jobs.²⁰

17. More research about the informal economy and informal workforce is needed at the local and national levels. The lack of disaggregated data, in particular, prevents States from understanding the demographic landscape of the informal economy and the particular vulnerabilities faced by informal workers. States must systematically engage informal workers in order to effectively conduct human rights and health impact assessments and risk surveillance, with a view to identifying and controlling known risks, as well as epidemiological and disease surveillance to detect and manage disease and prevent long term risks.

18. Informal work and workplaces do not fall under the purview of existing national occupational health laws therefore the employer-employee relationship in the informal economy goes unregulated. States have an obligation to fulfil workers' right to health through direct occupational health interventions in the informal economy. In some instances, this may require formalization through the introduction or extension of occupational health regulations into the informal economy. The ILO and other organizations have attempted to address the occupational health vulnerability of informal workers by implementing programmes in coordination with national governments aimed at reaching informal workers. These include the integration of occupational health services into primary health-care services;²¹ participatory health and safety training programmes for

¹⁸ Rene Loewenson, "Health impact of occupational risks in the informal sector in Zimbabwe," *International Journal of Occupational and Environmental Health*, vol. 4, No. 4 (1998), pp. 264-274.

¹⁹ ILO, *Women and men in the informal economy*, p. 8.

²⁰ Mary Cornish, "Realizing the right of women to safe work – Building gender equality into occupational safety and health governance," ILO concept note, XVIII World Congress on Occupational Safety and Health, Seoul, 29 June-2 July 2008, p.10.

²¹ ILO, "Report on the thirteenth session of the joint ILO/WHO Committee on Occupational Health," Geneva, 9-12 December 2003 (GB.289/STM/7); Tsuyoshi Kawakami, "Participatory approaches to

informal street vendors initiated by local governments²² and various efforts to extend social health insurance coverage in the informal sector.²³ A number of interventions tailored to the needs of specific industries have also been implemented.²⁴

19. There are additional means by which States can address the right to health in the informal sector. These include social health insurance schemes tailored to address the sector-specific health risks faced by workers throughout the informal economy; occupational health service provision at work sites; and primary health care interventions designed to educate and train workers about occupational health. The obligation to fully realize the right to occupational health for workers in the informal economy falls directly on States. In some instances, this may require formalization through the introduction or extension of occupational health regulations in the informal economy. Where this is not possible or feasible, States should then take all necessary steps (short of those that would eliminate these jobs) to mitigate harm stemming from such employment.

B. Obligation to formulate, implement, monitor and evaluate effective laws and policies towards realizing the right to occupational health

20. The obligation to fulfil the right to health requires States to formulate and implement a national health policy towards realizing the right to health. General comment No. 14 of the Committee on Economic, Social and Cultural Rights explains that it is a core obligation to formulate, implement and periodically review a coherent national policy to minimize the risk of occupational accidents and diseases, as well as to provide a coherent national policy on occupational safety and health services (para. 36). ILO conventions on occupational safety and health and on occupational health services call on States to do the same. General comment No. 14 states that a national policy on occupational health, amongst other things, should include the identification, determination, authorization and control of dangerous materials, equipment, substances, agents and work processes; the provision of health information to workers and the provision, if needed, of adequate protective clothing and equipment; and the enforcement of laws and regulations through adequate inspection (para. 36, fn. 25).

Participation

21. The right to health requires the participation of those affected in all decision-making processes affecting their health during the formulation, implementation, monitoring and evaluation of all health laws and policies. This means that workers must participate in the formulation, implementation, monitoring and evaluation of laws and policies affecting their occupational health. While established trade unions must also participate fully in this process, in some instances, they may not adequately represent the interests of some

improving safety, health and working conditions in informal economy workplaces - Experiences of Cambodia, Thailand and Viet Nam" (ILO Subregional Office East Asia, Bangkok, 2007) p. 2.

²² See Tsuyoshi Kawakami, "Participatory approaches to improving safety, health and working conditions in informal economy workplaces," p. 3; Francie Lund and Anna Marriott, *Occupational Health and Safety and the Poorest*, Research Report No. 88, School of Development Studies, Durban, South Africa, April 2011, p. 19.

²³ Inke Mathauer, Jean-Olivier Schmidt and Maurice Wenyaa, "Extending social health insurance to the informal sector in Kenya. An assessment of factors affecting demand," *International Journal of Health Planning and Management*, vol. 23, No. 1 (January/March 2008), pp. 51–68; Rebecca Thornton and others, "Social security health insurance for the informal sector in Nicaragua: A randomized evaluation," *Health Economics*, vol. 19 (2010), pp. 181–206.

²⁴ See Francie Lund and Anna Marriott, *Occupational Health and Safety and the Poorest*.

communities of affected workers. Moreover, workers in the informal economy are seldom organized, and may not be recognized by employers or by the State when they are. Thus the right to health requires the direct participation of informal workers, which may be achieved through the recognition and promotion of member-based organizations.

22. Participation is essential to ensuring that health laws and policies affecting workers' occupational health are effective, responsive and sustainable. Workers' participation in the right to health process prevents top-down formulation of occupational health laws and policies, while ensuring regulation and health interventions do not become removed from the people that they are meant to serve. Participation empowers workers by ensuring that their views and experiential knowledge play integral roles in shaping laws and policies that impact their occupational health. This provides law and policymakers insight into the social context of occupational diseases, including the nature of employer-employee power relations and knowledge of specific risk factors and environmental hazards. Such knowledge is crucial to formulating laws and policies that effectively address workers' day-to-day concerns, as well as to monitoring and evaluating the implementation of such laws and policies.

23. Participation under the right to occupational health establishes direct State obligations vis-à-vis workers, as the State has the ultimate obligation to ensure realization of the right to health. States thus have a positive obligation to facilitate the active and informed participation of workers' in the formulation of State laws and policies impacting their occupational health. This includes ensuring that workers participate in defining research priorities that inform policy formulation. It also includes an obligation to raise workers' awareness of occupational hazards, the manner in which workplace environments produce poor health outcomes and the prevalence of work-related diseases and contributing psychosocial factors. Local law- and policymakers and health authorities may be best placed to ensure the meaningful participation of workers, particularly those in the informal economy. Raising the awareness of workers requires that they have access to relevant and accurate information relating to their occupational health.

24. The right to access information is central to the right to health and an essential component of active and informed participation. It includes the right to access health-related education and information and to seek, receive and impart information and ideas concerning health issues. States also have a positive obligation in this respect to provide workers with health and rights-related information and to ensure that third parties, including private employers, do not limit access to such information. The ILO also requires States to ensure that national health laws and policies provide workers with comprehensive information, education and training related to occupational health. The right to occupational health thus requires that employers make available and accessible information concerning all health and safety risks, including those related to production inputs and equipment, machinery and chemicals used in the work place. States must further ensure that workers' right to access information affecting their occupational health supersedes employers' rights to protect commercial information under commercial confidentiality, trade secret and other related laws.

25. The right of workers to access information pertaining to their occupational health must be realized at each stage in the development of occupational health laws and policies. Notably, States must make relevant and accurate information available to workers at the very outset of the policy formulation process and during the reformulation of existing laws and policies so they may identify and prioritize areas of concern related to their occupational health before policy agendas are set. States must also ensure workers have a sufficient understanding of all relevant information. This includes technical information pertaining to harmful substances, dangerous equipment and machinery, and all relevant laws and regulations. In addition, workers must also be apprised of all health risks in the

workplace in a clear, comprehensible manner so they may themselves determine whether to engage in dangerous or unsafe work.

26. States must also not interfere, through its laws and policies or the acts of its officials, with communication and interactions amongst workers and between workers and the civil society regarding occupational health concerns. States must further facilitate the transmission of information pertaining to occupational health from affected workers directly to State officials. This may take the form of a complaint mechanism or a forum in which affected workers engage directly with relevant State officials or bodies in order to address violations of the right to occupational health. In some cases, these communications are barred by non-disclosure laws and mandatory contractual provisions between workers and their employers. States should ensure whistle-blower provisions or similar protections that supersede contractual obligations are in place to allow workers to disclose information regarding their occupational health publicly and directly to the State without fear of reprisal.

27. States must also guarantee that the process of law and policy formulation is fair and transparent and inclusive of all affected workers.²⁵ Fair participation requires States to facilitate a law and policy formulation process in which workers' views and experiential knowledge are given equal consideration along with that of employers and government officials. For example, workers or their representatives must be included on policymaking bodies, and mechanisms must be available by which workers can provide direct and immediate input into the law- and policymaking processes. Transparency requires that information about all aspects of the process of law and policy formulation be made available and accessible to workers and their representatives. It further requires that the rationale and basis for all decisions made by the State at each stage in the process be made available and accessible to workers. State decisions affecting workers' occupational health must not be made behind closed doors.

28. For example, processes surrounding the negotiation of free trade agreements have lacked transparency and have not involved the participation of affected communities. As discussed earlier, the proliferation of free trade agreements is an element of globalization, which directly impacts the occupational health of workers. The right to occupational health requires States to incorporate workers' views and experiential knowledge into processes surrounding the negotiations of free trade agreements. Additionally, transparency requires States to make publicly available and accessible all draft agreements, negotiation proposals, minutes from negotiation meetings, and all other relevant information.

29. Participation of workers in the formulation and implementation of occupational health laws and policies is particularly critical for the informal workforce. The need for the active and informed participation of informal workers in the formulation and implementation of occupational health laws and policies is particularly acute given the traditional State neglect of this sector.

Monitoring and evaluation

30. Under the right to health, States have a dual obligation to monitor and evaluate occupational health. As a prerequisite to the obligation to formulate and implement a national occupational health policy, States must conduct disease and epidemiological surveillance, including the collection of disaggregated data, in order to understand workers' health risks in all sectors, as well as human rights, health impact assessments and risk

²⁵ Helen Potts, *Participation and the right to the highest attainable standard of health* (Essex, United Kingdom, University of Essex, Human Rights Centre, 2008), p. 22.

surveillance, in order to assess the impact of occupational health laws and policies prior to implementation. Additionally, States are required to monitor and evaluate the effectiveness of their national occupational health policies as part of their core obligation to periodically review these policies. This requirement includes the obligation to regularly inspect worksites and production facilities in order to assess employer compliance with occupational health laws and policies. Periodic review is necessary in order to ensure the continual refinement of occupational health laws and policies to account for evolving health risks and new technologies. In both instances, monitoring and evaluation must be informed by international standards, including those developed by WHO and ILO.

31. The right to health requires robust participation of workers: in defining research priorities; in collecting epidemiological data prior to law and policy formulation; and in monitoring and evaluating occupational health laws and policies. In all instances, the State must ensure that the processes of monitoring and evaluation are not captured by private interests. For example, in many cases employers fund epidemiological research and exert undue influence on the findings.²⁶ The State must not allow these studies to impact policy formulation.

32. Public health professionals have traditionally taken an approach to epidemiological research that focuses on the population as an object to be studied, thereby failing to recognize and utilize the population's experiential knowledge. In contrast, more recent approaches utilize participatory research methods that broaden the epidemiological investigation from the individual to the population level and emphasize the role of the socio-political context in which disease occurs. For example, community-based participatory research conducts 'research with, rather than on communities, affirms the value of communities' experiential knowledge and stresses a collaborative process'.²⁷

33. Community-based participatory research is a joint-learning process in which researchers and community members contribute equally. It empowers community members through building local capacity, promotes their dignity by increasing the control they exert over their lives, and achieves a balance between research and community-level action. The approach employs a variety of tools in the formulation and implementation of health laws and policies and systematizes workers' collective experiences concerning occupational health risks and outcomes as a means of identifying and controlling risks in the work environment.²⁸

34. Right to health indicators and benchmarks must play an integral role in the periodic review of occupational health laws and policies in order to monitor and evaluate these laws and policies. There are three categories of human rights indicators: structural, process and outcome indicators.²⁹ Structural indicators are used to determine whether key structures or mechanisms necessary for the realization of the right to health are in place. Process indicators measure discrete aspects of State policies and interventions toward realizing the right to health; whereas outcome indicators measure the impact of such interventions on the health of populations. Benchmarks are the national targets with respect to each indicator.

²⁶ Neil Pearce, "Corporate influences on epidemiology," *International Journal of Epidemiology*, vol. 37, No. 1 (2008), pp. 46-53.

²⁷ Margaret Leung, Irene Yen, and Meredith Minkler, "Community-based participatory research: a promising approach for increasing epidemiology's relevance in the 21st century," *International Journal of Epidemiology*, vol. 33, No. 3 (2004), pp. 499-506.

²⁸ R. Loewenson, C. Laurell and C. Hogstedt, "Participatory approaches in occupational health research," *Arbete och Hälsa*, vol. 38 (1994).

²⁹ Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard physical and mental health (E/CN.4/2006/48), pp. 14-15.

They create a standard against which States can be held accountable, and allow for monitoring progress over time.

35. The right to occupational health indicators and benchmarks must be developed with the participation of workers and trade unions, including those in the informal economy. Monitoring of occupational health laws and policies on the basis of these mechanisms must be done transparently and in partnership with workers and the civil society, and all information resulting from this process must be made publicly available and accessible. Moreover, States must ensure that workers are intimately familiar with the right to health indicators and benchmarks so they can participate in the monitoring and evaluation of occupational health laws and policies on the basis of these mechanisms. Workers are best positioned to determine whether laws and policies affecting their occupational health are meeting the right to health benchmarks, and they have the greatest stake in ensuring that these laws and policies comply with the right to health. Ensuring that workers are familiar with the right to health indicators and benchmarks will additionally facilitate prospective State accountability by allowing workers to ascertain whether their right to occupational health is being realized.

III. Substantive occupational health issues and the right to occupational health

A. Hazards

36. The right to health requires States to take steps to prevent, treat and control diseases related to work. Despite the well-established connection between work and disease,³⁰ the nexus between factors in the work environment and workers' health outcomes is not always clear or easily defined. This is particularly the case with regard to diseases caused by multiple factors. The complex relationship between work and disease is recognized in the ILO classification of diseases related to work as "occupational diseases," which have a specific link to a causal agent within the work environment; "work-related diseases," which have multiple causal factors, one of which may include a factor in the work environment; and "diseases affecting working populations," which lack a causal relationship with work but may be aggravated by factors in the work environment.³¹

37. For example, in extractive industries, exposure to dust, fumes and particulates places workers at increased risk of being affected by a number of diseases, including occupational diseases, such as coal miner's pneumoconiosis; work-related disease, such as chronic obstructive pulmonary disease; and diseases affecting working populations, such as asthma.³² The right to health requires States to prevent, control and treat these diseases. Primary prevention is considered the most effective means of reducing the burden of disease, and as such prevention of disease should be the principal aim of States.³³ States are required to ensure adequate research and monitoring of the relationship between work

³⁰ See WHO, *Closing the gap in a generation: Health equity through action on the social determinants of health*, Final Report of the Commission on Social Determinants of Health (Geneva, 2008).

³¹ M. Lesage, "Work-related diseases and occupational diseases: The ILO international list," *ILO Encyclopaedia of Occupational Health and Safety* (1998), vol. 1, part III, chapter 26, available at http://www.ilo.org/safework_bookshelf/english?d&nd=170000102&nh=0.

³² A.M. Donoghue, "Occupational health hazards in mining: an overview," *Occupational Medicine*, vol. 54 (2004), pp 283–289.

³³ Benjamin O. Alli, *Fundamental principles of occupational health and safety* (Geneva, ILO, 2001), p 18.

conditions and health; dissemination of information to educate workers about work and health; and improvement of occupational and environmental conditions within the workplace, including the prevention and reduction of hazards in the workplace.

38. The right to a healthy workplace environment is an integral component of the right to health. It requires States to improve all aspects of environmental and industrial hygiene, including housing, sanitation, nutrition and access to safe water. For example, there are significant concerns regarding environmental and industrial hygiene in agricultural work. These concerns are exacerbated by fact that many agricultural workers, particularly migrant workers who are involved in agricultural work in large numbers, are socially and economically disadvantaged and often lack adequate resources to protect their own health. The improvement of environmental and industrial hygiene is therefore critical to achieving the full realization of the right to occupational health, especially for agricultural workers. In many instances, the work environment is indistinguishable from the home environment. As a result, many agricultural workers reside in crowded and substandard accommodation with poor sanitation and inadequate access to safe and potable water.³⁴ Many of them are also exposed to environmental hazards such as pesticides or other pollutants because of the proximity or overlap of their homes to their worksites.³⁵ These conditions significantly contribute to the increased rates of infectious diseases seen amongst these workers.³⁶ The right to health requires that States give particular attention to the needs of vulnerable and marginalized groups in the formulation and implementation of occupational health laws and policies. This includes an obligation to monitor and evaluate occupational health risks and diseases affecting vulnerable groups.

39. International migrant workers are especially vulnerable for two reasons: they may be undocumented and thus open to exploitation by employers; or they may be documented, but lack protection under the law equal to that of nationals. This situation is exacerbated by structural and institutional racism, as well as social, cultural and linguistic barriers that prevent migrant workers from knowing, demanding and enforcing the limited legal rights that they possess.

40. The right to health also requires States to address the prevention and reduction of the population's exposure to harmful substances, such as pesticides, and to assess their health impacts on workers. This is particularly important with respect to migrant workers because they may have limited access to health facilities, goods and services, and may lack access to the justice system. Where there is a real and confirmed hazard, the obligation to protect the right to occupational health requires States to prohibit production, sale and use of these substances. Where there is a reasonable potential for risk, States have a duty to take appropriate measures to reduce or prevent exposure, taking into consideration both the likelihood that harm will result and the extent of that harm. This includes requiring that pesticide labels are printed in all relevant languages, and agricultural workers are provided with adequate training and information regarding the use of pesticides.

³⁴ Eric Hansen and Martin Donohoe, "Health issues of migrant and seasonal farmworkers," Guest Editorial, *Journal of Health Care for the Poor and Underserved*, vol. 14, No. 2 (2003); United States Department of Labor, *National Agricultural Workers Survey 2001-2002* (Washington, D.C., 2005); J. Early and others, "Housing characteristics of farmworker families in North Carolina," *Journal of Immigrant & Minority Health*, vol. 8, No. 2 (2006), pp. 173-184.

³⁵ Jock McCulloch, "Asbestos mining in Southern Africa, 1893-2002," *International Journal of Occupational and Environmental Health*, vol. 9, No. 3 (2003), p. 232.

³⁶ Thomas A. Arcury, Sara A. Quandt, "Delivery of Health Services to Migrant and Seasonal Farmworkers," *Annual Review of Public Health*, vol. 28 (April 2007), p. 345-363; Gregory A. Bechtel, "Parasitic infections among migrant farm families," *Journal of Community Health Nursing*, vol. 15, No. 1 (1998), pp. 1-7.

41. Exposure to pesticides has been linked to various acute and chronic toxic illnesses, including a number of cancers.³⁷ Despite this, in many countries the law does not require pesticide use labels to be printed in languages understood by migrant workers in the jurisdiction.³⁸ As a result, migrant agricultural workers suffer from high rates of toxic chemical injuries and skin disorders compared to other workers.³⁹ Moreover, there are strong indications that efforts to regulate the distribution, application and disposal of such pesticides have been ineffective in reducing exposure.⁴⁰ Such regulations are deficient in scope and under-enforced in both the developed and the developing world.

42. Emerging technologies pose a unique challenge to the prevention and reduction of exposure to harmful substances. The rapid development of new substances and market pressures have meant that extensive testing and study of these materials for long-term effects is often impractical. As a result, workers may be exposed to as yet undetected health risks.⁴¹ Emerging risks in the nano-technology field have received much needed attention in light of studies suggesting that exposure to nano-particles may have toxic and carcinogenic effects on lung tissue.⁴² In accordance with the precautionary principle, States must restrict the use of such technologies in the workplace until their health effects have been accurately assessed and communicated to workers.

43. The right to occupational health additionally requires States to work towards the minimization of hazards in the workplace. This recognizes that some hazards may be inherent to the occupation or workplace environment. For example, work in the textile and apparel industry is often laborious and of a highly repetitive nature, predisposing workers to musculoskeletal disorders, particularly repetitive strain injuries.⁴³ Similarly, agricultural workers are exposed to harsh natural conditions and have heavy physical workloads, which may lead to thermal stress and musculoskeletal disorders.⁴⁴ States must take steps to minimize, as far as reasonably practical, the resulting harm. Where hazards exist they should be identified and workers should be made aware of the risks of exposure. Workers should be empowered to determine when hazards pose a risk to their health that they deem

³⁷ Michael C.R. Alavanja, Jane A. Hoppin and Freya Kamel, "Health effects of chronic pesticide exposure: Cancer and neurotoxicity," *Annual Review of Public Health*, vol. 25 (April 2004), pp. 155-197.

³⁸ Pesticide Action Network, *Communities in peril: Global report on health impacts of pesticide use in agriculture*, (Malaysia, 2010), p. 52.

³⁹ National Institute for Occupational Safety and Health, *Worker Health Chartbook, 2004* (Washington, D.C., September 2004).

⁴⁰ See Beti Thompson and others, "Pesticide take-home pathway among children of agricultural workers: Study design, methods, and baseline findings," *Journal of Occupational and Environmental Medicine*, vol. 45, No. 1 (January 2003), pp. 42-53; Cynthia L. Curl and others, "Evaluation of take-home organophosphorus pesticide exposure among agricultural workers and their children," *Environmental Health Perspectives*, vol. 110, No. 12 (December 2002), pp. 787-792.

⁴¹ ILO, *ILO Introductory Report: Global trends and challenges on occupational safety and health*, XIX World Congress on Safety and Health at Work, Istanbul, Turkey, September 2011 (Geneva, 2011), p. 19.

⁴² European Risk Observatory, *Workplace exposure to nanoparticles* (European Agency for Safety and Health at Work, 2010).

⁴³ Robin Herbert and Rebecca Plattus, "Health effects and environmental issues," *ILO Encyclopaedia of Occupational Health and Safety* vol. 3, part XIV, chapter 87 (1998), available at http://www.ilo.org/safework_bookshelf/english?d&nd=170000102&nh=0.

⁴⁴ Melvin Myers, "Health problems and disease patterns in agriculture," *ILO Encyclopaedia of Occupational Health and Safety*, vol. 3, part X, Chapter 64 (1998), available at http://www.ilo.org/safework_bookshelf/english?d&nd=170000102&nh=0; Eric Hansen and Martin Donohoe, "Health issues of migrant and seasonal farmworkers," Guest Editorial, *Journal of Health Care for the Poor and Underserved*, vol. 14, No. 2 (2003), pp 157-160.

unacceptable. In these circumstances, the right to health requires that workers, at all times, retain the right to refuse dangerous or unsafe work without fear of losing their job.

44. The duty of States to minimize hazards in the workplace includes both physical and psychosocial hazards. There is a growing body of evidence linking psychosocial hazards, such as stress and work overload, with psychological disorders such as anxiety, depression and burnout,⁴⁵ and physical conditions such as cardiovascular disease, musculoskeletal disorders, gastro-intestinal disorders and impaired immune competence.⁴⁶ Ongoing reports linking high rates of attempted and completed suicide amongst workers in the technology industry with requirements to work extremely long hours are of particular concern.

B. Services

45. The right to health further requires that occupational health services are available, accessible, acceptable and of good quality. These services must be tailored to the needs of workers. For example, services must be made available at easily accessible locations and during hours that accommodate workers schedules; they must include the rehabilitation of affected individuals back into the workplace; health workers must be aware of the specific health risks faced by workers, and they must be trained to detect, prevent and treat occupational diseases. The ILO Occupational Health Services Convention No. 161 also states that occupational health services are essential to maintaining a safe and healthy working environment in order to facilitate optimal physical and mental health, and to adapting work to the capabilities of workers in the light of their health.

46. The obligation to ensure access to occupational health services may be met through the direct provision of services by the State or through social health insurance that covers all workers against occupational diseases and injuries. In most cases, social health insurance must be provided by the employer. Where this not possible, States must provide direct coverage or subsidize the purchase of private insurance based upon the economic needs of each worker. In all cases, insurance benefits must include preventative, promotive and curative health services, and must be tailored to address the specific occupational health risks faced by workers in their respective work sectors.

C. Gender

47. With respect to all of the above, it is critical that a gendered perspective be adopted in the formulation and implementation of occupational health laws and policies. A gender-based approach recognizes that biological and socio-cultural factors play a significant role in influencing the health of men and women. The disaggregation of health and socio-economic data according to sex is essential in the monitoring and evaluation of all occupational health laws and policies.

48. In many respects, women are particularly vulnerable to negative health impacts resulting from conditions of work. The majority of women who work are employed in the informal sector, particularly in the lowest paid, lowest skilled jobs, where they are more

⁴⁵ Tom Cox, Amanda Griffiths and Eusebio Rial-González, *Research on work related stress*, European Agency for Safety and Health at Work (Luxembourg, Office for Official Publications of the European Communities, 2000); S. Stansfeld and B. Candy, "Psychosocial work environment and mental health – a meta-analytic review," *Scandinavian Journal of Work and Environmental Health*, vol. 32, No. 6 (December 2006), pp. 443-462.

⁴⁶ Tom Cox, Amanda Griffiths and Eusebio Rial-González, *Research on work related stress*.

likely to be exposed to hazardous working conditions.⁴⁷ Women are on average paid less than men for the same work,⁴⁸ and are more likely to experience violence and harassment in the workplace.⁴⁹ Further, many occupational exposures are hazardous to reproductive organs, having serious implications for the sexual and reproductive health of female workers.⁵⁰ For example, women of childbearing age, as well as pregnant women working in agriculture, are exposed to highly hazardous pesticides that risk not only their health but also the health of their children.⁵¹ Children born with congenital disorders due to in utero exposure to toxic chemicals endure disabilities for life.⁵² These problems are compounded by the fact that work-related diseases affecting women are often underdiagnosed and undercompensated as compared to men.⁵³

IV. Obligation to enforce laws and policies towards realizing the right to occupational health

A. Accountability

49. Accountability is a central feature of the right to health. It requires States to demonstrate and justify the manner in which it is meeting its obligations under the right to health, and to provide adequate remedies to redress any failures to meet these obligations. Accountability is critical to achieving full realization of the right to health; as indicated by the previous Special Rapporteur, ‘without accountability, human rights can become no more than window dressing’.⁵⁴ The role of the State in ensuring accountability under the right to occupational health for workers in the informal economy is particularly critical, as these workers do not have access to accountability mechanisms under existing occupational health regimes.

50. Accountability may have both prospective and retrospective components. Prospective accountability means that at all times the State must be able to demonstrate and justify how it is discharging its obligations. States are accountable to explain to all affected parties what steps they are taking to achieve the full realization of the right to health, and

⁴⁷ Mary Cornish, “Realizing the right of women to safe work – Building gender equality into occupational safety and health governance,” ILO concept note, XVIII World Congress on Occupational Safety and Health, Seoul, 29 June-2 July 2008, p. 11.

⁴⁸ Ricardo Hausmann, Laura D. Tyson and Saadia Zahidi, *The Global Gender Gap Report 2008*, (Geneva, World Economic Forum, 2008).

⁴⁹ Helge Hoel, Kate Sparks and Cary L Cooper, *The cost of violence/stress at work and the benefits of a violence/stress-free working environment*. Report commissioned by the ILO (Manchester, University of Manchester, 2001).

⁵⁰ M.L. Herdt-Losavio and others, “Maternal occupation and the risk of birth defects: an overview from the National Birth Defects Prevention Study,” *Occupational and Environmental Medicine*, vol. 67 (2010), pp. 58–66.

⁵¹ C. Martínez-Valenzuela and others, “Genotoxic biomonitoring of agricultural workers exposed to pesticides in the north of Sinaloa State, Mexico,” *Environment International*, vol. 35, No. 8 (November 2009), pp. 1155-1159.

⁵² C. Wattiez, “Links between in utero exposure to pesticides and effects on the human progeny. Does European Pesticide Policy protect health?” *Congenital diseases and the environment*, P. Nicolopoulou and others, eds., Environmental Science and Technology Library, vol. 23, section 2 (The Netherlands, Springer, 2007), pp. 183-206.

⁵³ Karen Messing, *One-eyed science: occupational health and women workers*, (Philadelphia, Temple University Press, 1998).

⁵⁴ Helen Potts, *Participation and the right to the highest attainable standard of health* (Essex, United Kingdom, University of Essex, Human Rights Centre, 2008), p. 2.

why these steps are being taken. For example, in the mining industry, this means that a worker concerned about exposure to asbestos should have access to information detailing the steps that the State has taken to prevent or reduce exposure to this harmful substance. In order to assess whether these steps are effective, and therefore whether States are meeting their obligations under the right to occupational health, the results of the monitoring of exposure levels and the incidence of asbestos-related diseases must be available and accessible. In this manner, prospective accountability is closely linked to monitoring and evaluation, both of which are critically necessary to determine whether the actions of States are consistent with its obligations under the right to health.

51. Retrospective accountability focuses on appropriately addressing prior violations of the right to health. Violations of the right to health must be addressed through effective judicial or other appropriate remedies. In order to achieve this, effective remedies must be available, and effective accountability mechanisms must be in place to identify both the right to health violation and the appropriate remedy to redress that violation. A number of accountability mechanisms may function at the national level, including judicial, quasi-judicial, administrative, political, and social mechanisms. General comment No. 14 explicitly endorses the use of judicial mechanisms to address violations of the right to health, and promotes the use of quasi-judicial bodies and social mechanisms of accountability (para. 59). These include national ombudsmen, human rights commissions, consumer forums and patient's rights associations.

52. Judicial accountability is one of the most critical and secure methods to achieving the full realization of the right to occupational health. Judicial review of violations of the right to health grants courts the power to subject State laws, policies, decisions and omissions affecting workers' occupational health to rights-based review. This also grants the judiciary the power to determine the normative content and scope of the right to health and promotes a national occupational health policy that is open, accountable, comprehensive, coherent and cooperative.⁵⁵ Judicial accountability may therefore provide aggrieved workers with appropriate and adequate remedies and promote recognition of the right to occupational health by subjecting State laws and policies to judicial review.

53. Other accountability mechanisms may be used to ensure States meet their obligations under the right to occupational health. Quasi-judicial bodies, such as occupational health and safety commissions, may receive complaints about unsafe or unhealthy workplaces, investigate occupational health and safety in various work sectors, and conduct reviews of employer compliance with occupational health and safety standards. Commissions may also have the ability to hold hearings and make binding decisions imposing various sanctions. Social bodies such as workers' rights associations may similarly promote accountability through social mobilization and utilization of the media to pressure States to uphold their obligations under the right to health.

54. Administrative mechanisms, such as human rights impact assessments, may be used to facilitate prospective accountability.⁵⁶ Human rights impact assessments require policymakers to examine the human rights effects of proposed laws, policies or programmes prior to finalization in order to ensure that they are compliant with human

⁵⁵ For example, article 21 of the Indian Constitution judicially interprets the right to life to include the "protection of the health and strength of the worker," and the Supreme Court of India has recognized workers' right to health and medical care [as] a fundamental right. In another judgment, the Supreme Court of India ordered the 'Government to ensure safety measures were implemented in factories in response to the deaths of workers due to occupational exposure to dust.

⁵⁶ Helen Potts, *Participation and the right to the highest attainable standard of health* (Essex, United Kingdom, University of Essex, Human Rights Centre, 2008), p. 20.

rights. Such assessments prioritize concerns of the most vulnerable groups and ensure they are included in the law- and policymaking process. In the context of occupational health, this requires States to work together with workers to ensure occupational health laws and policies comply with the right to health prior to implementation.

55. For example, free trade agreements often remove or weaken occupational health and safety regulations in order to facilitate trade and foreign direct investment. The right to health, however, requires that States prioritize occupational health protections over trade-related concerns. Therefore, in order to facilitate prospective accountability and ensure that free trade agreements do not violate the right to occupational health, States must conduct human rights impacts assessments prior to signing any free trade agreement.

56. Transnational corporations have an obligation to respect their workers' right to occupational health, and States have a dual obligation in this respect. States in which transnational corporations are domiciled have the responsibility of holding these corporations accountable for violations of the right to occupational health occurring in foreign jurisdictions when the foreign States are unable or unwilling to do so. This includes violations committed by their foreign subsidiaries, joint ventures, partnerships with foreign companies or supply-chain relationships that may have distinct legal personality but nonetheless operate under the control of the parent corporation. This could be achieved through a variety of mechanisms, including administrative sanctions via the occupational health and safety regulatory body in the base country or the application of law with extraterritorial reach. States in which transnational corporations operate must hold these corporations directly accountable under relevant occupational health laws. Transnational corporations must not escape accountability due to their political and financial influence; claims that they do not fall within the host country's legal jurisdiction; or assertions that they are not accountable for the actions of their foreign subsidiaries, joint ventures, partnerships with foreign companies or supply-chain relationships.

B. Remedies

57. The right to health entitles all victims of violations to adequate remedies. States must ensure workers are afforded access to adequate reparation, including restitution, compensation, satisfaction or guarantees of non-repetition, and that statutes of limitations do not interfere with access to remedies. Restitution requires that States restore the situation that existed prior to the violation. For example, if a statute regulating the use of hazardous materials in the workplace is repealed, resulting in workers falling ill, a remedy of restitution would require States to reinstate the law or draft a new law to address the lacunae. Monetary compensation should cover the cost of medical care, including rehabilitation, and any lost income arising from inability to work due to injury. Satisfaction includes a formal commitment by States, such as legislation or an executive order, to fulfil its obligation to realize the right to health of an individual or a specific population.

58. The obligation to provide adequate remedies requires that workers must have access to courts and other adjudicatory bodies where they may obtain financial compensation and other remedies for violations of their right to occupational health. If a worker's right to occupational health is violated and the State has failed to put in place effective mechanisms to ensure that the employer provides the worker with an adequate remedy, the State has a direct obligation to remedy the violation. This responsibility accrues from the obligation to protect workers from violations of their right to health by third parties. Further, failure of the State to protect workers' right to occupational health in this circumstance may require an additional remedy of satisfaction and/or guarantee of non-repetition.

59. States have a direct obligation to provide workers in the informal economy with remedies for violations of their right to occupational health. Violations of the right to health

subject to direct State remediation include the failure of the State to implement components of the right to occupational health and claims arising from prior State commitments to implement the right. For example, if States fail to implement components of the right to occupational health, such as the inclusion of informal workers in the national occupational health policy, an appropriate remedy would be to reformulate the policy to address the occupational health of informal workers. Alternatively, if States have established a national social health insurance scheme covering workers in the informal economy, informal workers must have a private right of action to ensure that they are covered and that they receive appropriate benefits under the scheme.

V. Conclusion and recommendations

60. **The right to occupational health is an integral part of the right to health. It complements existing occupational health approaches by addressing their deficits and responding to the new challenges posed by globalization. The Special Rapporteur recommends that States take the following steps in order to realize the right to occupational health:**

(a) Extend existing occupational health laws and policies to cover the informal workforce, and establish innovative laws and policies to support direct occupational health interventions in the informal economy, with special attention paid to its gendered aspects. This should include:

- **Social health insurance programmes that cover all informal workers, which, to the greatest extent possible, must be tailored to address the specific occupational health risks faced by informal workers in their respective sectors;**
- **Occupational health services that are provided where informal workers work;**
- **Primary healthcare interventions that are designed to educate and train informal workers about occupational health.**

(b) Ensure that in cases where work is contractualized or informalized that workers do not lose protections under existing occupational health laws and policies.

(c) Ensure mechanisms are in place to facilitate the active and informed participation of workers, particularly informal workers, in the formulation and implementation of occupational health laws and policies in a fair and transparent process. These should include:

- **Direct and ongoing participation of existing workers' groups, including trade unions and informal worker organizations, in law- and policymaking bodies at all levels of government;**
- **Mechanisms by which workers may voice concerns and complaints regarding the content of occupational health laws and policies directly to relevant parties;**
- **Mechanisms by which workers may communicate occupational health risks to the State and to other workers without risk of termination or prosecution;**
- **Laws and policies that prioritize workers' right to information affecting their occupational health over employers' rights to protect commercial**

information under commercial confidentiality, trade secret and other related laws;

- Whistle-blower protection for workers who disclose information concerning their occupational health publicly or directly to the State.

(d) Ensure mechanisms are in place to monitor and evaluate occupational health prior to the formulation and implementation of occupational health laws and policies. These should include:

- Disease and epidemiological surveillance, including the collection of disaggregated data;
- Human rights and health impact assessments and risk surveillance;
- Development, with the direct participation of workers, of the right to health indicators and benchmarks, against which occupational health laws and policies must be measured.

(e) Ensure mechanisms are in place to monitor and evaluate occupational health after the implementation of occupational health laws and policies. These should include:

- Development, with the direct participation of workers, of the right to health indicators and benchmarks, against which occupational health laws and policies must be measured.

(f) Utilize participatory research methods, such as community-based participatory research, in order to monitor and evaluate occupational health both prior to formulation and after the implementation of occupational health laws and policies.

(g) Prevent, control and treat occupational diseases, with special attention to vulnerable groups. In order to do so, States must ensure that:

- The relationship between the work environment and health is monitored through State-led inspections of worksites and production facilities;
- Information is disseminated in order to educate workers about work and occupational health in a manner that can be easily understood by workers;
- Exposure to harmful substances in the workplace and home environments that overlap with the workplace is restricted or prohibited, including agricultural pesticides;
- Occupational health services are available at easily accessible locations and during hours that accommodate workers schedules, and include rehabilitation of affected individuals back into the workplace;
- Health workers are aware of the specific health risks faced by workers and are trained to detect, prevent and treat occupational diseases.

(h) Restrict the use of technologies in the workplace until their health effects have been accurately assessed and communicated to workers, in accordance with the precautionary principle.

(i) Implement social health insurance for workers not covered by their employers, which provides direct coverage or subsidizes the purchase of private insurance. Insurance coverage should:

- Include preventative, promotive and curative health services;

- Be tailored to address the specific occupational health risks faced by workers in their respective work sectors.

(j) Ensure that prospective and retrospective accountability mechanisms are available and accessible to workers. These should include:

- Social audits;
- Consumer forums and patient's rights associations;
- National human rights ombudsmen;
- Human rights and health impact assessments;
- Human rights commissions;
- Judicial review.

(k) Incorporate the right to occupational health protections into all free trade agreements and prioritize the occupational health of workers over trade concerns. As a part of this process all free trade agreements should undergo a human rights impact assessment prior to conclusion of the agreement.

(l) Establish legal and political mechanisms through which transnational corporations are held accountable for violations of the right to occupational health, either in the country where the corporation is domiciled or the host country.

(m) Ensure that all remedies are available and accessible to workers, including restitution, compensation, satisfaction or guarantees of non-repetition, and that statutes of limitations do not interfere with access to remedies.
