CHAPTER 1

THE CONTEXT: FEMALE LABOUR, NIGHT WORK AND GLOBAL INDUSTRIALIZATION

I. Women workers' protection: Aims, problems and trends

22. Since 1950, women's participation in the labour market has increased steadily, the overall economic activity rate of women, for the age group 20-54, now approaching 70 per cent as opposed to slightly above 50 per cent in 1950. ¹ Although still lower than the male labour force participation rate, the striking feature of women's labour force participation has been its sharp increase. Various factors are generally given to explain this. One is decreasing fertility rates, due in part to increasing educational levels and in part to the widespread introduction of female contraceptive methods in this period. In nearly all countries, as women have fewer children, their labour force participation rates increase. Another factor is the transition from manufacturing industries to services industries as economies advance. Traditionally, women have been disproportionately employed in the services sector and, in many countries, employment opportunities in this sector have increased greatly. A third factor is the globalization of markets. As the advanced market economies move out of manufacturing and, in particular, low-skilled manufacturing, these jobs move to lower cost economies. Thus, employment opportunities for both men and women in developing economies may increase. Women who were not previously in paid employment now find jobs in light manufacturing plants and in the assembly phase of manufacturing. A fourth factor is technological innovation, especially in telecommunications, which has made it much faster and cheaper to transfer data across borders. Thus, women in developing countries and in countries remote from the advanced market economies now may find employment opportunities in data processing, credit card billing centres and call centres which no longer have to be located in the client's home country. It should be noted, however, that whilst the percentage of women

¹ See 1999 World Survey on the Role of Women in Development – Globalization, Gender and Work, United Nations, 1999, p. 8. See also Key Indicators of the Labour Market 1999, ILO, 1999, pp. 17-50.

working has increased greatly, this has not necessarily meant any improvement in the position of women relative to men at work, nor to any improvement in their working conditions. As a United Nations study concludes, what the term "feminization" of labour really means when seen from the perspective of growing "flexibilization" and "casualization" of employment is that "female labour is still easily available when needed and dispensable when it is not". ²

- 23. Social patterns formed when most women did not work outside the home continue to persist even in the face of drastically changed circumstances. Traditionally, the man was the breadwinner who engaged in paid employment outside the home, and the woman was the person engaging in unpaid labour at home, in washing, cleaning, cooking, etc. She was also traditionally regarded as the person with primary responsibility for the care of children and other family members. Studies demonstrate that, when both husband and wife work full time, household and family responsibilities still fall disproportionately on the woman. With the increase in single parent households, working women in that situation carry the entire burden of the family. As more women work, the burden of two "jobs", one paid and one unpaid at home, which has always confronted working women, has received more media attention.
- **24.** The abovementioned facts and trends can be interpreted in two quite different ways. Many would argue that night work per se has little, if anything, to do with women's disadvantaged position in the labour market, but that being prohibited from working at night may, in fact, contribute to that disadvantage.

² See 1999 World Survey on the Role of Women in Development – Globalization, Gender and Work, United Nations, 1999. In addition, according to United Nations figures, more than half of women's total work time is spent on unpaid work; see The world's women 2000 - Trends and statistics, United Nations, 2000, p. 126. In the words of an analyst, "the trends of flexibility and feminization combined to pose an historical challenge to social and labour market policy [...] The trend is toward greater insecurity and greater flexibility. Reversing that trend, which is associated with labour flexibility, is the most important labour market and social policy challenge of all"; see G. Standing, "Global feminization through flexible labour: A theme revisited", in World Development, Vol. 27, 1999, p. 600. The liberalization of world trade has also created unprecedented numbers of migrant workers and women make up a growing proportion of them. According to a United Nations study, the annual growth rate of migrant female workers was higher than that of men from 1985 to 1990 in four of six global regions; see 1999 World Survey on the Role of Women in Development - Globalization, Gender and Work, United Nations, 1999, p. 31. The contemporary trends in international migration, including the substantial increase in female migrants, are also reviewed in the Committee's 1999 General Survey on migrant workers, paras. 5-23. See also Women workers – Reaching for the sky, ICFTU, May 2000.

³ For instance, some labour economists point out that, when night work prohibitions took effect, many women were removed from their jobs because they were no longer able to work rotating shifts. They were then reassigned to jobs that did not require night work. Over time, these jobs effectively became "female" jobs and, in an era before the concept of equal pay, they were remunerated on the lower female wage scales. In some cases, the introduction of night work prohibitions increased the extent of occupational sex segregation. Today it is generally agreed that occupational sex segregation is one of the primary causes of the gender wage gap. Current data indicate that, in virtually all countries, women still earn only 50-80 per cent of men's wages; see

They would call for intensified efforts to eradicate gender-based discrimination in labour markets as the most effective way of improving the conditions of working women. Others, cognizant of the burden on working women, especially on those in lower skilled jobs or who have family responsibilities, believe that there is no way at present to eliminate the double workload these women carry, a burden made even heavier by the demands of night work. They would call for retaining protection for these women. The challenge is to elaborate sound consensual policies striking a balance between measures which limit women's freedom of choice regarding working time and reduce their ability to compete with men in the labour market, and measures aimed at providing protection tailored narrowly to meet a demonstrated need for protection.

II. Facing the realities of night work: Risks and benefits

- 25. According to ILO studies, night workers in the industrialized countries account for 8-15 per cent of the economically active population. ⁴ It is generally agreed that night work tends to increase in line with industrialization and urbanization. There are as yet no studies to determine whether night work is more common in sectors where telecommunications advances and the globalization of markets make it possible for those working on computers to work outside the office and during non-standard hours. In industrial settings, available data show that the rate of participation of women in night work is generally much below the male participation rate, but of course this reflects a situation where legal prohibitions on women working at night impact upon the data. It is not possible to estimate what the rate would be if the prohibition on women working at night was removed completely.
- **26.** The reasons given for night work in industrial settings are technical, economic and social. In certain industries, such as oil refining, steel and papermaking, the production process itself demands that it be continuous, as it is impossible to have the production processes cease only for a 12-hour period. Economic motives are often involved. ⁵ The more capital-intensive the industry, the more costly it is to have expensive equipment lie idle. In addition, there is greater reluctance to meet an increase in demand for the product by adding on more equipment because it is so expensive. Employers sometimes state that they

The world's women 2000 – Trends and statistics, United Nations, 2000, p. 132. See also Worlds apart – Women and the global economy, ICFTU, Apr. 1998.

⁴ See J. Carpentier and P. Cazamian, *Night work – Its effects on the health and welfare of the worker*, 1977, p. 1. See also ILC, 76th Session, 1989, Report V(1), p. 1. Similar statistics for developing countries are scarce. Likewise, undocumented workers often work at night, but no reliable statistics exist on this.

⁵ See, for instance, P.J. Sloane, "Economic aspects of shift and night work in industrialized market economies", in *International Labour Review*, Vol. 117, 1978, pp. 129-142.

would prefer to increase the utilization of the equipment by increasing the hours worked by their employees. Social factors now are increasingly important as individuals are more and more seeking greatly extended availability in many services, such as retail shops and food markets. There has always been a community demand for round-the-clock availability of certain public services, such as those relating to public safety (police and fire) and health care. Today, however, the range of services desired in the evening and throughout the night has gone far beyond necessary services.

27. From the beginning of the industrial revolution, one reason for night work has been the fact that, if machinery is kept in use throughout the day and night, the cost of producing each unit is less. 6 Where competition between producers is intense, some employers may assert that long hours and night work are necessary. This is so even in labour-intensive industries, such as garment and shoe manufacturing, where considerations relating to expensive equipment and high technology processes do not apply. Today, recourse to irregular work-hours and night work is explained by some by pointing to compelling economic imperatives and concerns about job creation, export growth and the need for cost competitiveness. Workers, facing the threat of widespread unemployment, often have no choice but to accept the reality of "unsocial hours" as the price of having a job. As we enter the new century, one of the most conspicuous examples of very long working hours is found in export processing zones, or EPZs, ⁷ established in numerous developing countries in furtherance of a country's export-oriented development strategy. Among characteristics of EPZs are the high proportion of women workers (predominantly young female workers performing low-wage, low-skill assembly work), 8 extensive use of overtime work, job insecurity and a low rate of unionization. Such a situation is ripe for socially problematic employment conditions. The concern is that, in many EPZs, the setting of unrealistically high production targets often results in night work and substantial overtime being viewed as necessary over protracted periods. Cognizant of this, many governments have stated that they cannot abide by the international standards

⁶ In an ILO study, the production cost advantage of routinely employing women on night work has been estimated to range up to 30 per cent; see *Economic and social effects of multinational enterprises in export processing zones*, ILO/UNCTC, 1988, p. 101.

⁷ The number of countries with EPZs increased from ten in 1970 to 53 in 1986. An estimated 27 million people currently work in some 845 EPZs around the world; see *Economic and social effects of multinational enterprises in export processing zones*, ILO/UNCTC, 1988, and *Labour and social issues relating to export processing zones*, ILO, 1998, p. 3. The largest number are in North America (320) and Asia (225), with the number of EPZs rising in developing regions such as the Caribbean, Central America and the Middle East.

⁸ According to a 1988 survey, the female participation rate in the EPZ labour force varied from 60-80 per cent in the Republic of Korea, Mauritius, Mexico, Philippines and Singapore to 80-90 per cent in Barbados, India, Indonesia, Jamaica, Malaysia, Sri Lanka and Tunisia; see *Economic and social effects of multinational enterprises in export processing zones*, ILO/UNCTC, 1988, pp. 60-61.

embodied in several Conventions, including those prohibiting night work for women in industry. ⁹ The Committee on numerous occasions has addressed the issues of working conditions in EPZs and has repeatedly emphasized the importance it attaches to the need for EPZ-operating countries to improve working conditions and to ensure compliance with international labour standards relating to trade union and collective bargaining rights. ¹⁰ In this respect, the Committee recalls the conclusions of the Tripartite Meeting of Export Processing Zone-operating Countries which was held in October 1998 as part of an action programme on social and labour issues in EPZs. On this occasion, the Meeting called on EPZ enterprises to make special efforts to ensure, inter alia, that measures exist to help women workers combine work and family responsibilities such as the "limitation of excessive working hours and night work, the provision of child-care facilities and the allocation of hours or days of leave to take care of the children". ¹¹

28. The physiological, psychological and medical effects of night work have been the subject of numerous studies over the years. ¹² It is generally agreed that, although the effects of night work vary considerably, depending on the worker's age, economic situation and family condition, regular night work principally causes abnormal fatigue and is liable to affect in many ways the

⁹ See A.T. Romero, "Labour standards and export processing zones: Situation and pressures for change", in *Development Policy Review*, Vol. 13, 1995, p. 256.

¹⁰ In its last report, the Committee, examining reports on the application of the Discrimination (Employment and Occupation) Convention, 1958 (No. 111), observed that discriminatory practices against women such as the imposition of pregnancy tests as a condition of employment continue to occur in EPZs and qualified such practices as "both offensive and contrary to human dignity"; see ILC, 88th Session, 2000, Report III (Part 1A), p. 339. On another occasion, the Committee referred to the tendency of some EPZ-operating countries to exclude in law or in practice these zones from the application of national labour legislation, and noted that "there appears to remain an important disparity between the *de jure* and de facto application of labour standards in EPZs"; see ILC, 87th Session, 1999, Report III (Part 1A), p. 28. For the Committee's latest observations on the application of Conventions Nos. 87 and 98 by certain EPZ-operating countries, see ILC, 88th Session, 2000, Report III (Part 1A), pp. 187, 189, 192, 201, 248 and 258; ILC, 87th Session, 1999, Report III (Part 1A), pp. 213, 232, 256, 265, 286, 344 and 348; ILC, 86th Session, 1998, Report III (Part 1A), pp. 180, 185, 227, 233, 251, 252 and 264. See also the Committee's General Survey on freedom of association and collective bargaining, ILC, 81st Session, 1994, Report III (Part 4B), paras. 60 and 169, pp. 29 and 74.

¹¹ See GB.273/STM/8/1, para. 29, p. 16. The Meeting further considered that women workers working late faced increased risks of harassment and violence and that special measures should be taken to ensure adequate transport and security.

¹² For an overview of the health effects of sleep deprivation and abnormal work hours, see K. Kogi, "Sleep deprivation", in *Encyclopaedia of Occupational Health and Safety*, 4th edition, ILO, 1998, Vol. 1, pp. 29.52-29.55, and P. Knauth, "Hours of work", ibid., Vol. 2, pp. 43.2-43.15. See also T. Akerstedt, *Wide awake at odd hours – Shift work, time zones and burning the midnight oil*, Swedish Council for Work Life Research, 1996, and European Foundation for the Improvement of Living and Working Conditions, *The Effects of Shiftwork on Health, Social and Family Life*, 1981.

health of the worker, whether male or female. ¹³ Over-fatigue appears to be due to sleep disturbances and also to the fact that night workers have to work in a state of "nocturnal deactivation" and to sleep in a state of "diurnal reactivation" which provokes a discordance of phase between two circadian rhythms - the biological rhythm of the body's activation and deactivation and the artificial rhythm of activity at work and rest. 14 Severe sleepiness and tiredness experienced by night workers normally causes reduced alertness and consequently increases the risk of accidents, while on rare occasions it may even cause the so-called "night shift paralysis" – an unusual phenomenon observed among air traffic controllers and night nurses whereby the lack of sleep renders a person unable to react to stimuli which would normally generate a reaction. There is now much investigative evidence showing that fatigue due to night work increases incidents and accidents in industrial operations and nuclear power plants and that it contributes to virtually all modes of transportation disasters, including rail, marine, aviation and motor accidents. 15 The performance of night work is also shown to be related to digestive (gastrointestinal troubles, particularly ulcers) and nervous disorders which may be aggravated by lack of appropriate food on the shift, or by excessive consumption of coffee and tobacco during the night and by sleeping pills used during the day. There are also studies which indicate an increased risk of cardiovascular diseases which is mainly attributed to the eating habits of shift/night workers. ¹⁶ Recent studies on shift work and reproductive health suggest that night work and irregular work-hours may also be associated with elevated reproductive risks,

¹³ Early works on night work mostly referred to the "inevitable physiological deficits due to the lack of sleep and sunlight"; see, for instance, Josephine Goldmark, *Fatigue and efficiency*, 1912, p. 265. In 1946, a survey of night work practices during the Second World War concluded that "fatigue is a contributory cause in many illnesses ranging from the common cold to nervous ailments, while investigations in industry show that long hours and night work decrease output and increase accidents, lost time and illnesses"; see *Health and efficiency of workers as affected by long hours and night work – Experience of World War II*, State of New York, Department of Labor, 1946, p. 21.

¹⁴ The human circadian system is believed to be able to adjust to a change of an hour or two a day at most. When a person works a night shift it results in a sudden eight-hour change which is like flying a transatlantic flight, while the case of a worker on a rotating shift schedule of a week of days, nights and then evenings is comparable to taking a tour around the world every three weeks. In this connection, there is an ongoing debate whether quickly rotating shift systems are preferable to slowly rotating ones, but also whether permanent night workers adjust better to night work and day sleep; see, for instance, P. Knauth, "The design of shift systems", in *Ergonomics*, Vol. 36, 1993, pp. 15-28.

¹⁵ See M. Härmä, "New work times are here – Are we ready?", in *Scandinavian Journal of Work, Environment & Health*, Vol. 24, 1998, Supplement 3, p. 4.

¹⁶ According to a recent survey, shiftworkers have an excess risk of coronary heart disease of 30-50 per cent in comparison to day workers; see L. Tenkanen et al., "Shift work, occupation and coronary heart disease over 6 years of follow-up in the Helsinki Heart Study", in *Scandinavian Journal of Work, Environment & Health*, Vol. 23, 1997, p. 264.

such as spontaneous abortion, pre-term birth and lowered birthweight. ¹⁷ The disturbance of family and social life adds to the psychological stress suffered by night workers with more or less serious or lasting consequences for their family relations, life style and social adjustment. ¹⁸ Surveys show that, in only one-third of the workers, there is perfect tolerance of night work and rotating hours of work throughout their working life. Approximately 20 per cent of shiftworkers are needed to move to day work during their first year of employment due to disturbances in their circadian rhythm, with accompanying sleep disturbances, difficulties in social life, and various stress reactions. As an ILO study on the subject concluded, "it appears to be well established that, from both the physiological point of view and the family and social point of view, night work is harmful to the large majority of workers and is, therefore, to be deprecated". ¹⁹

III. Banning women's night work and gender equality: The ILO perspective

- 29. The debate about the restriction of access to night employment for women has always been defined by two opposing views. There are those who contend that prohibiting night work for women and promoting equality of opportunity and treatment between men and women are mutually exclusive goals. Others contend that, far from being a vehicle for preserving gender inequality, limiting women's access to night work has been motivated by concerns related to protection of women and that such protection was most needed in countries where inequality and exploitation of women workers remain a fact of life.
- **30.** There has been a progressive reinterpretation of gender-specific roles in marriage, family responsibilities and working life. The Convention on workers with family responsibilities (No. 156), concerning equal opportunities and equal treatment for men and women workers, recognizes that both men and women have family responsibilities; and it refers expressly to the Preamble of the UN Convention on the Elimination of All Forms of Discrimination against Women, 1979, to the effect that States parties are "aware that a change in the traditional role of men as well as the role of women in society and in the family is needed to achieve full equality between men and women". This

¹⁷ See T. Nurminen, "Shift work and reproductive health", in *Scandinavian Journal of Work, Environment & Health*, Vol. 24, 1998, Supplement 3, p. 33.

¹⁸ See D. Bunnage, "Study on the consequences of shiftwork on social and family life", and A. Maasen, "The family life of shiftworkers and the school career of their children", in European Foundation for the Improvement of Living and Working Conditions, *The effects of shiftwork on health, social and family life*, 1981.

 $^{^{19}}$ See J. Carpentier and P. Cazamian, Night work – Its effects on the health and welfare of the worker, 1977, p. 7.

reinterpretation has called for the transformation of the international rules regulating women's access to employment. While these rules may have aimed previously at protecting women against excessively arduous working conditions, they now need to be refocused to better reflect present-day principles of nondiscrimination at work and gender equality. There is growing support for the view that, with the exception of standards and benefits related to maternity protection, all other special protective measures are contrary to the objectives of equal opportunities and equal treatment of men and women. An ILO study on the effects of night work on the worker's health has recognized that "sex plays no role, so that from the medical point of view there is no justification for protecting only women workers except in so far as their function of reproduction is concerned because of the risks to the children". ²⁰ According to the findings of recent shift work research, there appear to be no physiological differences between the genders in shift work tolerance and adaptation to night work. ²¹ The fact that some women may tolerate night work less well than men does not relate to biological differences, a fact not recognized by the reformers who proposed the night working ban as protection for women. Rather, some women may tolerate it less well than men because of the double burden they carry due to childcare and household responsibilities, which gives them less undisturbed rest time in their non-working hours. The view that these women need protection, and that the form of protection should be their removal from night work, reflects the traditional role that society still requires of women in some quarters. ²²

31. The need to achieve gender equality has gained significant impetus in the last 20 years through the action of international bodies such as the United Nations and the European Union. The 1979 UN Convention on the Elimination of All Forms of Discrimination Against Women, the European Council's Equal Treatment Directive of 1976, as well as the jurisprudence of the European Court of Justice which built on this latter instrument, spearheaded the idea that protective measures had to be reviewed in the light of developments in scientific and technological knowledge and in society generally, with a view to revising, repealing, supplementing, extending or retaining such measures. In the same vein, the International Labour Conference in its 1985 resolution on equal opportunities and equal treatment for men and women in employment, called for measures at the national level "to review all protective legislation applying to women workers and in the light of up-to-date scientific knowledge and

²⁰ ibid., p. 41.

²¹ See T. Hakola, "Circadian adjustment of men and women to night work", in *Scandinavian Journal of Work, Environment & Health*, Vol. 22, 1996, p. 137; M. Härmä, "Individual differences in tolerance to shiftwork: A review", in *Ergonomics*, Vol. 36, 1993, p. 105; F. Nachreiner, "Individual and social determinants of shiftwork tolerance", in *Scandinavian Journal of Work, Environment & Health*, Vol. 24, 1998, Supplement 3, p. 36.

²² See H. Oginska et al., "Gender, ageing, and shiftwork tolerance", in *Ergonomics*, Vol. 36, 1993, p. 167.

technological changes and to revise, supplement, extend, retain or repeal such legislation according to national circumstances". ²³ Following up on this resolution, the 1989 ILO Meeting of Experts on Special Protective Measures for Women and Equality of Opportunity and Treatment considered that "special protective measures for women alone in the case of dangerous, arduous and unhealthy work are incompatible with the principle of equality of opportunity and treatment unless they arise from women's biological condition" and recommended that, in so far as future ILO action is concerned, "there should be a periodic review of protective instruments in order to determine whether their provisions are still adequate in the light of experience acquired since their adoption and to keep them up to date in the light of scientific and technical knowledge and social progress". ²⁴ In line with the 1985 resolution and based on the findings of the 1989 Meeting of Experts, the Office in its last comprehensive review of women's issues affirmed that "the task is for the ILO to assist tripartite groups to conduct such reviews, based on general principles or guidelines that have emerged". ²⁵

32. The Office had stressed in a 1989 report that, "the subject is complex. Its analysis involves conflicting values as well as competing legal doctrines and international labour standards on preventing discrimination in employment and ensuring the safety and health of workers. The ILO seeks to rationalize the various interests and doctrines into a coherent policy that ensures equal opportunity and at the same time prevents the deterioration of working conditions". ²⁶ The standards adopted in 1990 in the form of the Protocol to Convention No. 89 and the Night Work Convention No. 171 were the result of an attempt to resolve these competing interests. The Protocol served to ease prohibitions where some form of restriction aimed only at women was considered to be still valid. Convention No. 171 provided measures of protection for all night workers including many of those aspects of special concern to

²³ See ILC, 71st Session, 1985, *Record of Proceedings*, p. LXXX. It is also noteworthy that in 1984, in response to concerns raised over the compatibility of certain ILO Conventions with the UN Convention on the Elimination of All Forms of Discrimination Against Women, the Office opined that "States having ratified both the UN Convention and an ILO Convention [on night or underground work for women] are bound to review their protective legislation periodically in accordance with Art. 11, para. 3, of the Convention. They do not have to repeal this legislation – or denounce the corresponding Convention – if this is not deemed necessary for the time being", see GB.228/24/1, para. 17.

²⁴ See *Special protective measures for women and equality of opportunity and treatment*, Documents considered at the Meeting of Experts on Special Protective Measures for Women and Equality of Opportunity and Treatment, MEPMW/1989/7, pp. 79-80.

²⁵ See The changing role of women in the economy: Employment and social issues, GB.261/ESP/2/2, para. 51.

²⁶ See *Special protective measures for women and equality of opportunity and treatment*, Documents considered at the Meeting of Experts on Special Protective Measures for Women and Equality of Opportunity and Treatment, MEPMW/1989/7, p. 1.

women. Article 3 provided that specific measures are required by the nature of night work in order to protect workers' health, assist them to meet their family and social responsibilities, provide opportunities for occupational advancement and adequate compensation. It also provided for special measures of maternity protection and safety.

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