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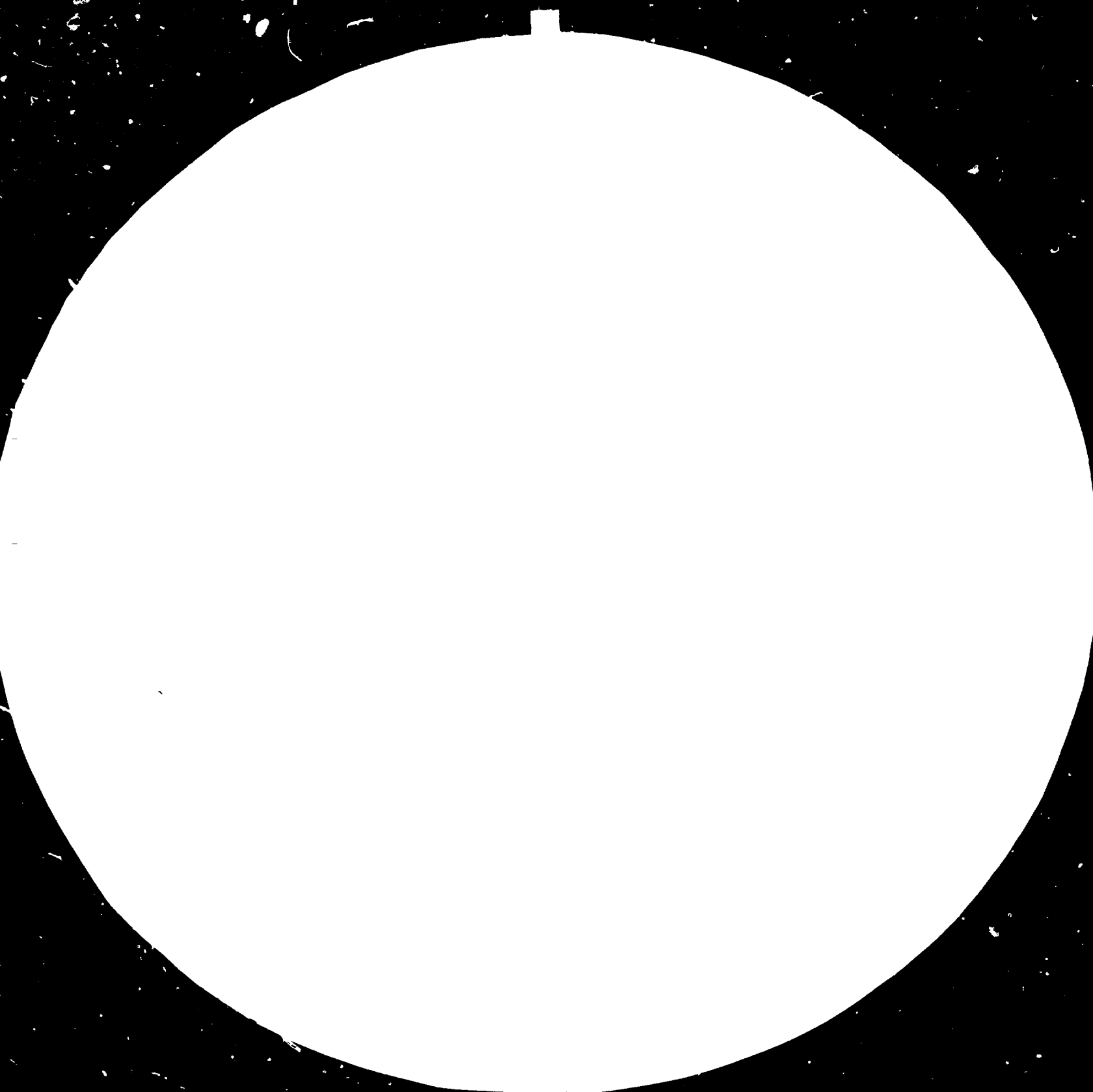

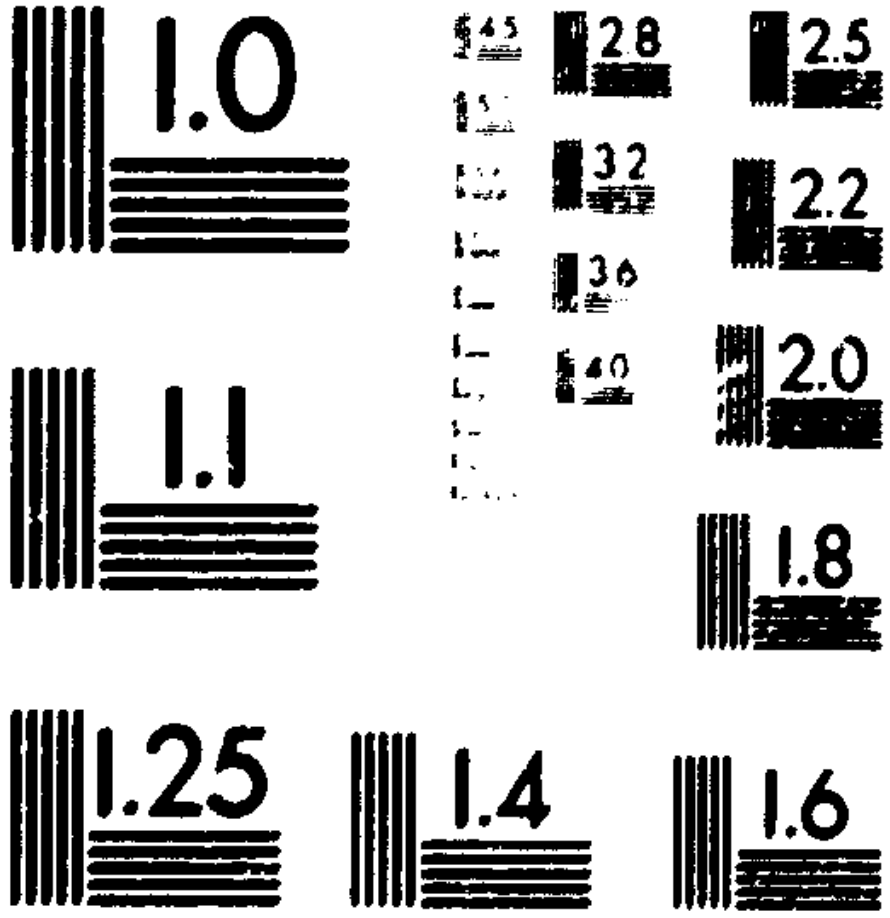

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(ANSI and ISO TEST CHART No. 2)

14327

Distr.
LIMITED

UNIDO/IS.484
13 September 1984

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ENGLISH

THE ROLE OF WOMEN IN INDUSTRIAL DEVELOPMENT*

(Study prepared as a contribution by UNIDO
to the "World survey on the role of women in development",
to be considered by the World Conference to Review and Appraise the
Achievements of the United Nations Decade for Women,
Nairobi, 1985)

Liba Paukert

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*This study is based on the work of Liba Paukert, a UNIDO consultant. The views expressed are those of the author and do not necessarily reflect the views of UNIDO or the Secretariat of the United Nations.

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INTRODUCTION

1. The Lima Declaration and Plan of Action on Industrial Development and Co-operation 1/, adopted by the Second General Conference of UNIDO, established that in the developing countries national industrialization policies should, inter alia, emphasize the intensification of human development programmes, including the effective incorporation of women "in order to achieve the fullest possible use of available human resources with particular reference to industrial management" (para. 58(k)). The Third General Conference of UNIDO, held at New Delhi in January/February 1980, adopted resolution ID/CONF.4/RES.1, 2/ that, inter alia, "Emphasizes that the integration and participation of women at all levels in the industrialization process is a vital prerequisite for balanced and equitable development." The Fourth General Conference of UNIDO, held at Vienna in August 1984, adopted resolution ID/CONF.5/RES.9 3/ that calls for a number of specific measures to promote the increased participation of women in industrial development.

2. According to the International Development Strategy for the Third United Nations Development Decade 4/, "Industrialization policies should have as one of their aims productive employment generation and the integration and equal participation of women in industrial development programmes."

3. One of the basic documents to be examined by the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace, to be held at Nairobi in July 1985, will be the "World survey on the role of women in development". As a contribution to the "World survey" UNIDO has prepared this paper, which relates specifically to the role of women in industrial development. Specific attempts have been made to cover the four main topics stipulated in paragraph 3 of General Assembly resolution 36/74 regarding the comprehensive outline for the "World survey on the role of women in development".

4. This document is basically a desk survey of available data and literature related to women in industry. It begins by examining the current role of women in industry, providing initially an overall picture of the size and growth of the female labour force in the industrial sector in various regions and country groupings of the world. It shows that there has been a marked expansion in the size of the female labour force in developed and developing countries, while the sectoral distribution of women workers has been undergoing changes. In advanced industrialized countries women have been increasingly employed by the expanding service sector, while those manufacturing industries in which they traditionally found employment have been undergoing a decline. At the same time there has been a redeployment of industry to developing countries, particularly in such sectors as textiles, clothing, food-processing, pharmaceuticals, electronics assembly and light consumer goods. This process has played an important part in the expansion of industrial employment for women in many developing countries.

5. In analysing the benefits accruing to women from industrialization, this report emphasizes women's income and its changing structures and trends. The persistence of marked pay differentials between women and men is documented and the reasons for these differentials are briefly surveyed. The almost universal practice of job segregation is found to be one of the reasons explaining the male-female earnings gap.

6. The problems of working conditions and hours of work are looked at to determine the extent to which these factors have a direct bearing on the limitation of employment opportunities for women. Rigid working arrangements incompatible with family responsibilities are among the factors limiting access by women to modern-sector employment. The special problems of different categories of women workers are discussed and the position of women in industrial decision-making is examined.

7. In quantitative terms, this document contains data on employment for 32 developed and 92 developing countries, covering all countries with a population of more than one million in mid-1979. The aim was to analyse developments between 1960 and 1980 and some of the main conclusions are summarized below.

8. Between 1960 and 1980, the number of women participating in the world industrial labour force increased by 104 per cent compared to an increase of 70 per cent for men. Women accounted for 26.5 per cent of employment in industry in developing countries in 1980 compared to 21 per cent in 1960. Most of this increase took place in Asia. In developed countries, it increased from less than 27 per cent in 1960 to more than 29 per cent in 1980.

9. The participation of women in the industrial labour force of the developing world is highest in the middle-income developing countries of Asia. For example, it is 47 per cent in Hong Kong, 43 per cent in Singapore and 39 per cent in the Republic of Korea. In the other Asian countries there are considerable differences; women constitute 6 per cent of the industrial labour-force in Pakistan and 33 per cent in Sri Lanka. The share of women in manufacturing employment in export processing zones (about 80 per cent) is much higher than the average. In one free zone in Malaysia 85 per cent of the workers are women aged between 18 and 24. In Mexico 85 per cent of the workers in the border industries are women between 17 and 23. Female labour is preferred in certain types of industries, namely electronics, pharmaceuticals, textiles and clothing. As the growth of these industries and of export-processing industries in general was adversely affected by the prolonged recession, the growth in the number of women employed in industry in developing countries probably slowed down in the period 1981-1983.

10. In most countries women play a particularly important role in the informal sector of the economy, and a major part of women's contribution to economic output goes unmeasured. The displacement of traditional industry by the modern sector has had adverse effects on women's income in many cases, as many women lose their employment when modern industry is introduced. Female workers tend to be paid less than male workers in both developed and developing countries. The majority of female workers are employed as production workers in the industrial sector and the proportion of women involved in professional and technical positions is much lower than for males.

11. Finally, this document reconfirms the need to integrate the improvement of the position of women in industry with other development goals, which requires parallel action on many fronts. Women's role in paid industrial employment cannot be isolated from role specialization between women and men in the family and the burden of unpaid work borne by women. However, the complexity of these and other issues that require urgent attention to offset the present inequities are such that no short document such as this can begin

to do them justice. This is basically a background paper that points to the importance and great magnitude of the task that lies ahead with a view to facilitating the discussion and identification of the specific measures that should be taken, both at the national and international level.

I. PRESENT ROLE OF WOMEN IN INDUSTRY

A. Women workers in the industrial sector

12. Any analysis of the role of women in industry requires first, a quantitative picture of the female labour force, overall and broken down by sector, in comparison with the male labour force; and secondly, an indication of growth trends of male and female labour, on a world-wide scale and for regions and groups of countries divided by basic economic characteristics. For these reasons, tables have been prepared, more comprehensive than most data published on this topic so far, covering 124 countries (32 developed and 92 developing), for three bench-mark years: 1960, 1970 and 1980. The developing countries include all countries in the developing world (outside Europe) with more than one million people in mid-1979. The regional classification of these 92 countries is basically geographical, but also distinguishes between different levels of income. 5/

Analysis by regional and country grouping

13. The last two decades witnessed a substantial increase in the participation of women in industrial activities. The total labour force of the world (male and female, in all sectors) increased between 1960 and 1980 by 38 per cent. The total female labour force increased slightly more, by 39 per cent. Compared to this, the number of women active in industry* went up by 104 per cent, i.e. it more than doubled, out-distancing the 70 per cent increase in the number of men active in industry. About two thirds of the net increase in the female industrial labour force occurred in developing countries, mainly in Asia. The distribution of the male and female industrial labour force in 1980 over different region and country groupings is presented in table 1.

14. Broadly, the data on the male and female distribution in table 1 do not differ greatly, but there are some interesting points of contrast. First, developed countries account for almost a half of the female industrial labour force of the world, but for noticeably less of the male industrial labour force. The second point is even more interesting as it concerns differences between developing regions: Africa and, even more, Latin America have a considerably higher share of the world's male industrial labour force than of the female. On the other hand, the developing countries of Asia have a higher share of the female than of the male world industrial labour force. In other words, the participation of women in industry is greater in Asia than in Africa or Latin America. Within Asia there are also significant inter-country differences. While both China and the middle-income countries account for a higher share of the world female industrial labour force than of the male, the situation is reversed in India and in the Middle East. The low-income countries of Asia have the same share of the world's male and female industrial labour force.

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*In the present section the term "industry" will cover the following activities: mining and quarrying, manufacturing, electricity, gas and water, and construction.

Table 1. Distribution of the male and female industrial labour force by regional and country grouping, 1980
(Percentage)

Region or country grouping	Total	Male	Female
Developed countries	46.9	45.9	49.2
Developing countries:	53.1	54.1	50.8
Africa	4.3	4.8	3.1
Latin America and the Caribbean	6.2	7.2	3.5
Asia:	42.6	42.1	44.2
Middle-income countries	3.0	2.9	3.5
Low-income countries	4.2	4.2	4.2
China	23.4	22.5	25.8
India	9.9	10.0	9.6
Middle East	2.1	2.5	1.1
	95.7	96.2	95.0

Source: Data made available by the International Labour Office Bureau of Statistics.

Note: For coverage of country groupings see table 2.

Time-trends of female employment in industry, 1960-1980

15. Table 2 shows the share of women in the total labour force and in the labour force of the three main sectors for the years 1960, 1970 and 1980, broken down by region and country grouping.

16. The share of women in the total labour force of the world remained practically constant between 1960 and 1980, at slightly above one third. The share of women in industrial employment has been substantially lower but rising, with few exceptions. In developed countries, the share of women in industrial employment went up from 26.7 per cent in 1960 to 29.2 per cent in 1980. In developing countries, it went up from 21.0 per cent in 1960 to 26.5 per cent in 1980. Thus the inroads into industrial employment made by women in the developing countries appear to have been, on average, slightly faster than those made by women in the developed countries. A gap still exists between developed and developing countries, but it has narrowed sufficiently for the share of women in industrial employment to be of the same order of magnitude: in both developed and developing countries slightly more than a quarter of industrial workers are women.

17. The figures quoted are broad averages. There are considerable variations between country groupings, particularly in the developing world. In 1960, the lowest share of women in industrial employment was to be found in Africa (middle-income countries), in Latin America (middle-income countries), and in the Middle East. By 1980, in Africa there was generally an increase in women's share in industrial employment, while in Latin America both low-income and middle-income countries registered a decline in women's share of

Table 2. Share of women in total labour force by sector and region, 1960, 1970 and 1980
(Percentage)

Region or country grouping	1960				1970				1980			
	T	Agr	Ind	Ser	T	Agr	Ind	Ser	T	Agr	Ind	Ser
World	34.5	38.3	24.3	34.1	35.1	37.4	27.3	37.4	34.8	37.0	27.8	37.8
Developed countries	38.1	46.1	26.7	42.6	39.7	44.4	28.8	47.2	40.2	43.3	29.2	48.7
Developing countries	32.7	36.7	21.0	32.1	32.9	36.5	25.7	25.9	32.4	36.4	26.5	26.9
North America	32.0	10.2	20.9	41.8	36.5	10.8	22.4	46.1	38.1	11.4	23.4	47.3
Eastern Europe	30.1	26.8	22.2	40.7	32.1	28.0	22.4	42.6	33.3	28.5	23.0	43.9
Eastern Europe and USSR	48.1	56.5	36.3	47.4	48.1	51.5	38.3	56.0	47.0	49.6	36.9	57.0
Japan	38.8	51.3	26.4	37.6	39.1	52.8	29.7	40.4	40.3	53.7	31.6	42.9
Other developed countries a/	23.9	11.5	11.9	39.8	31.7	29.7	15.3	44.1	33.4	29.6	15.5	46.8
Africa (developing)	32.9	35.1	17.2	28.9	32.7	34.8	19.7	31.5	32.0	34.4	19.7	31.6
Middle-income countries b/	29.1	30.7	16.6	30.3	29.3	29.9	19.4	34.0	28.7	28.9	19.0	34.3
Low-income countries c/	36.5	38.5	18.5	25.3	36.0	38.4	20.3	26.0	35.3	38.3	20.9	25.7
Latin America and the Caribbean	18.9	9.4	16.9	34.3	21.2	8.1	16.7	38.4	23.0	9.3	15.8	38.8
Middle-income countries d/	18.0	7.8	16.2	23.1	20.8	6.8	16.2	37.8	22.8	8.2	15.3	38.3
Low-income countries e/	24.3	17.3	22.9	46.0	23.8	14.6	21.7	44.5	24.6	14.3	20.6	43.8
Asia (developing)	34.1	38.8	22.0	19.3	34.2	38.7	27.6	21.8	33.6	38.5	28.8	23.2
Middle-income countries f/	37.9	39.5	33.6	34.8	38.7	41.1	31.7	37.5	38.3	40.7	31.8	38.2
Low-income countries g/	27.7	28.6	23.2	25.5	27.7	28.0	27.6	26.7	27.3	27.6	27.2	26.5
China	38.4	45.0	20.0	16.3	37.9	34.8	28.7	20.5	37.6	44.1	30.6	22.7
India	31.3	35.4	24.6	15.8	32.6	37.9	26.1	16.2	31.7	37.7	27.1	17.4
Middle East h/	24 5	30.7	14.4	8.6	22.3	28.1	14.3	13.9	22.9	30.3	14.5	15.8

Source: Data made available by International Labour Office Bureau of Statistics.

Notes: T = total labour force; Agr = agriculture, forestry, hunting and fishing; Ind = industry, i.e. mining and quarrying, manufacturing, public utilities and construction; Ser = services.

a/ Australia, Israel, New Zealand. No data for South Africa were used.

b/ Africa, middle-income countries: Algeria, Angola, Cameroon, Congo, Egypt, Chana, Ivory Coast, Kenya, Liberia, Libyan Arab Jamahiriya, Morocco, Nigeria, Senegal, Tunisia, Zambia, Zimbabwe.

c/ Africa, low-income countries: Benin, Burkina Faso, Burundi, Central African Republic, Chad, Ethiopia, Guinea, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania, Zaire.

d/ Latin America and the Caribbean, middle-income countries: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Jamaica, Mexico, Panama, Paraguay, Trinidad and Tobago, Uruguay, Venezuela.

e/ Latin America and the Caribbean, low-income countries: Bolivia, Dominican Republic, El Salvador, Haiti, Honduras, Nicaragua, Peru.

f/ Asia, middle-income countries: Democratic People's Republic of Korea, Malaysia, Mongolia, Papua New Guinea, Philippines, Republic of Korea, Singapore, Thailand, the area Hong Kong.

g/ Asia, low-income countries: Afghanistan, Bangladesh, Bhutan, Burma, Democratic Kampuchea, Indonesia, Lao People's Democratic Republic, Nepal, Pakistan, Sri Lanka, Viet Nam.

h/ Democratic Yemen, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Saudi Arabia, Syrian Arab Republic, Turkey, Yemen.

industrial employment. As part of this decline occurred between 1960 and 1970 (at least in the low-income countries), it could hardly be associated only with the post-1973 recession.

18. In Asia, where the share of women in industrial employment was already higher in 1960 than in the other developing regions, the two decades brought a further increase. This was particularly pronounced in China and in the low-income group of Asian countries, including India. However, in the middle-income countries of Asia, the share of women in industrial employment declined slightly, but has remained higher than anywhere else in the world, with the exception of the planned economy countries of Eastern Europe. In the Middle East, the share of women in industrial employment has remained stable at a low level. It is interesting to note that in China, India and the other low-income Asian countries, women's employment share is higher in industry than in services, while the opposite is true in all other country groupings, both developed and developing. Whereas in China and India this was true by 1960, such was not the case in the other low-income Asian countries. However, the share of women in industry in those countries increased quite rapidly between 1960 and 1970 with the development of "female" industries, both in export processing zones and outside.

19. Table 2 gives the broad averages of the share of women in the industrial labour force. Within the groupings shown in the table there are important differences in the share of women in industry in individual countries. 6/ For example, in the middle-income countries of Africa, in Egypt women account for 4.5 per cent of industrial employment, while in Tunisia they account for 29.6 per cent (1980). Also in Colombia and Mexico the share of women in industrial employment is above the average of the relevant country grouping. In some Central American and Caribbean countries exporting a lot to the North American market, there are fairly large employment opportunities for women in light industries. Thus, in El Salvador the share of women in the industrial work-force is 30.7 per cent (1980), in Puerto Rico it is 31.9 per cent (1983), and in Barbados it is 34.2 per cent (1982).

20. The comparability of these data is affected by differences in the structure of the secondary sector in different countries, in particular by the varying importance of mining and construction, which usually employ few women. If only manufacturing is taken into consideration, women represent 5.2 per cent of the workers in Egypt and almost a half (48.7 per cent) in Tunisia (1980). In El Salvador women account for 41.8 per cent of the manufacturing work-force (1980), in Puerto Rico they account for 46.2 per cent, and in Barbados for 54.3 per cent. 6/

21. In the middle-income countries of Asia, the share of women in industrial employment is high in all the countries for which data are available. For example, in Hong Kong women represent 38.7 per cent of the labour force in industry, (47.3 per cent in manufacturing alone), in Singapore they represent 36.7 per cent in industry and 43.5 per cent in manufacturing (1982), and in the Republic of Korea they represent 30.9 per cent in industry and 38.6 per cent in manufacturing (1982). In the low-income countries of Asia, however, there are sizeable country differences: while in Pakistan women represent 4.5 per cent of the industrial and 5.9 per cent of the manufacturing labour force, in Sri Lanka they represent 22.4 per cent and 32.7 per cent respectively. 6/

22. The share of women in employment in the industrial sector gives only a partial picture of women's industrial role, as the importance of the secondary sector differs considerably from country to country. For this reason another set of data is given in table 3, showing the distribution of the female labour force by the three main sectors, together with the same distribution of the male labour force.

23. Examining the data for the whole world, it can be seen that the considerable changes in industrial structure that occurred during the 20 years under review affected both male and female workers, but women much more than men. Thus between 1960 and 1980 the male labour-force in agriculture declined by 10.9 percentage points. For female workers the change was more rapid: between 1960 and 1980 the female labour-force in agriculture declined by 16.2 percentage points. Between 1960 and 1980 the male labour force in the service sector increased by 5.4 percentage points. Again, the change was more rapid for women, whose proportion in the service sector increased by 9.5 percentage points. Finally, for the same period, the proportion of men employed in the industrial sector increased by 5.5 percentage points, while the proportion of active women employed in the industrial sector increased by 6.7 percentage points.

24. Both developed and developing countries show similar patterns of broad sectoral changes for men and women workers: decline in the importance of agriculture and increase in the importance of services and of the industrial sector. However, structural employment changes have affected women in developing countries more than other worker categories (see table 3).

Table 3. Distribution of the male and female labour force by sector, region and country grouping, 1960, 1970 and 1980 (Percentage)

Region or country grouping		1960			1970			1980		
		Agr	Ind	Ser	Agr	Ind	Ser	Agr	Ind	Ser
World	M	54.4	23.3	22.3	49.2	25.7	25.1	43.5	28.8	27.7
	F	64.0	14.1	21.9	54.3	17.9	27.8	47.8	20.8	31.4
Developed countries	M	24.6	40.9	34.5	17.0	44.5	38.5	12.1	47.4	40.5
	F	34.2	24.2	41.6	20.6	27.3	52.1	13.7	29.0	57.3
Developing countries	M	68.3	15.1	16.6	62.8	17.7	19.5	55.7	21.6	22.7
	F	81.6	8.2	10.2	73.6	12.5	13.9	66.3	16.3	17.4
North America	M	9.4	42.2	48.4	5.7	41.8	52.5	4.3	41.9	53.8
	F	2.3	23.7	74.0	1.2	21.0	77.8	0.9	20.8	78.3
Western Europe	M	22.0	46.2	31.8	13.9	48.6	37.5	9.8	50.7	39.5
	F	18.7	30.5	50.8	11.4	29.6	59.0	7.8	30.3	61.9
Eastern Europe and USSR	M	36.3	36.3	27.4	27.7	44.2	28.1	19.4	50.3	30.3
	F	50.9	22.4	26.7	31.7	29.6	38.7	21.5	33.1	45.4

continued

Table 3 (continued)

Region or country grouping		1960			1970			1980		
		Agr	Ind	Ser	Agr	Ind	Ser	Agr	Ind	Ser
Japan	M	26.3	35.5	38.2	15.2	39.9	44.9	10.4	41.4	48.2
	F	43.7	20.0	36.3	26.5	26.2	47.3	17.9	28.4	53.7
Other industrialized countries a/	M	25.8	39.9	34.3	20.8	40.7	38.5	15.0	44.4	40.6
	F	10.7	17.1	72.2	19.0	15.8	65.2	12.6	16.2	71.2
Africa (developing countries):	M	76.6	9.4	14.0	71.8	12.2	16.0	66.2	15.0	18.8
	F	84.4	4.0	11.6	78.7	6.1	15.2	73.7	7.8	18.5
Middle-income countries b/	M	68.8	12.1	19.1	63.6	15.7	20.7	56.5	19.3	24.2
	F	74.0	5.9	20.1	65.2	9.1	25.7	57.3	11.3	31.4
Low-income countries c/	M	84.9	6.5	8.6	80.5	8.5	11.0	76.4	10.5	13.1
	F	92.3	2.6	5.1	89.2	3.9	6.9	86.6	5.1	8.3
Latin America and the Caribbean	M	53.6	20.4	26.0	48.1	22.9	29.0	40.1	27.4	32.5
	F	24.0	17.8	58.2	15.8	17.0	67.2	13.8	17.2	69.0
Middle-income countries d/	M	51.4	21.1	27.4	45.9	23.7	30.4	37.8	28.8	33.9
	F	19.7	18.6	61.7	12.7	17.3	70.0	11.4	17.4	71.2
Low-income countries e/	M	69.4	15.1	15.5	63.5	16.8	19.7	56.1	20.9	23.0
	F	45.1	13.9	41.0	34.6	14.8	50.6	28.6	16.6	54.8
Asia (developing countries):	M	68.9	15.3	15.8	63.3	17.9	18.8	56.1	21.9	22.0
	F	84.4	8.3	7.3	76.8	13.1	10.1	69.4	47.5	13.1
Middle-income countries f/	M	66.2	13.0	20.8	57.5	17.8	24.7	50.5	21.4	28.1
	F	71.0	10.8	18.2	63.5	13.1	23.4	55.8	16.1	28.1
Low-income countries g/	M	75.4	8.6	16.0	71.2	9.4	19.4	65.2	11.9	22.9
	F	78.9	6.8	14.3	72.3	9.4	18.3	66.2	11.8	22.0
China	M	66.7	20.0	13.3	61.4	23.4	15.2	53.8	28.7	17.5
	F	87.8	8.0	4.2	78.2	15.4	6.4	70.5	21.0	8.5
India	M	69.6	12.5	17.9	63.8	14.8	21.4	56.7	18.4	24.9
	F	83.7	8.9	7.4	80.7	10.8	8.5	74.0	14.7	11.3
Middle East h/	M	62.6	16.8	20.6	54.1	19.7	26.2	45.7	24.5	29.8
	F	85.3	8.7	6.0	73.8	11.5	14.7	67.1	14.0	18.9

For notes and source see table 2.

25. In Africa, the share of the industrial sector in total women's employment was very low in 1960, but had almost doubled by 1980. In the two groups of African countries (see table 3) the trends were similar; however, there were considerable differences between individual countries. 7/ Thus in Cameroon, in 1982, industry employed only 2.5 per cent of economically active women, and in Malawi in 1977 only 1.7 per cent. In both countries industry employed a considerably greater percentage of economically active men, 9.6 per cent and 9.9 per cent respectively. In Mali, in 1976, while only 3.2 per cent of working women were active in industry, the percentage of active men was even smaller: 1.3 per cent. (The service sector also accounted for a higher percentage of the female than of the male labour force.) At the other end of the scale, in Tunisia, in 1980, industry employed 45.0 per cent of the female labour force (a drop compared with 1975, when the figure was 49.6 per cent). In 1980, industry accounted for 30 per cent of the male labour force. In Tunisia, the role of women in industry appears extremely important.

26. In Latin America, in 1960, the industrial sector accounted for a much greater percentage of the female labour force than in Africa. However, this percentage had a tendency to decline. The share of industry in women's employment increased in the low-income Latin American countries, between 1960 and 1980, but this was more than offset by the decline in the middle income Latin American countries. The percentage of men working in industry in Latin American countries increased quite fast, while women mainly found employment in services.

27. In the developing countries of Asia, considered as a whole, only 8.3 per cent of the female work-force was employed in industry in 1960. This was roughly twice the percentage of Africa, but only one half of the percentage of Latin America in 1960. But over the last two decades the percentage of the female work-force in industry more than doubled in Asia and now slightly exceeds the proportion found in Latin America. The sharp change in the sectoral composition of the female work-force in Asia was particularly pronounced in China (see table 3), but otherwise it was similar in the different country groupings: the share of industry in total female employment increased by more than half, but never doubled in any grouping. The same can be said about the Middle East.

28. Among the Asian countries where industry occupies a large part of the female work-force Hong Kong should be mentioned in particular, where 50.4 per cent of economically active women work in industry (1982), but only 43.8 per cent of active men. Also in Singapore 38 per cent of active women work in industry. On the other hand, in Thailand only 7.8 per cent of economically active women belonged to industry in 1930.

29. The information presented in table 4 concerns the rates of increase of economically active men and women in industry in comparison with other sectors and with the total economy. Table 4 shows that on a world-wide basis, the category with the greatest rate of increase from 1960 to 1980 was the female industrial work-force, followed closely by women workers in services, most of the change occurring from 1960 to 1970. Men in industry and services had a much lower increase. Women's labour force in agriculture increased by only 4 per cent over the whole period, and men's by 10 per cent.

Table 4. Growth indices of the male and female labour force by sector and region, 1960-1980

Region or country grouping		1960 - 1970 (1960 = 100) T	Agr	Ind	Ser	1970 - 1980 (1960 = 100) T	Agr	Ind	Ser
World	M	115	104	127	130	119	106	134	131
	F	118	100	149	150	118	104	137	133
Developed countries	M	108	75	117	120	112	80	119	118
	F	116	69	131	145	114	76	121	125
Developing countries	M	119	109	139	139	12.	109	150	143
	F	120	108	181	162	120	108	157	151
North America	M	112	68	111	121	115	87	115	118
	F	137	73	121	144	123	93	121	123
Western Europe	M	101	64	106	119	106	75	110	111
	F	111	68	108	129	112	77	114	117
Eastern Europe and USSR	M	108	82	131	110	115	81	131	125
	F	108	67	143	156	111	75	124	130
Japan	M	119	69	134	140	111	76	115	119
	F	121	74	158	158	116	78	126	132
Other industrialized countries a/	M	122	98	124	136	123	89	134	130
	F	180	-	166	162	133	88	136	145
Africa (developing countries):	M	123	116	159	141	125	115	154	146
	F	122	114	188	160	121	113	154	147
Middle-income countries b/	M	123	114	158	133	125	111	154	146
	F	124	109	192	158	121	106	150	148
low-income countries c/	M	124	118	161	159	125	118	155	147
	F	121	117	181	164	121	117	160	145
Latin America and the Caribbean	M	123	110	137	137	128	107	154	144
	F	142	93	136	164	142	124	144	146
Middle-income countries d/	M	123	109	137	136	128	106	153	143
	F	147	95	137	166	144	129	143	146
Low-income countries e/	M	123	112	137	156	130	114	161	151
	F	119	91	127	147	135	112	151	147

continued

Table 4 (continued)

Region or country grouping		1960 - 1970 (1960 = 100) T	Agr	Ind	Ser	1970 - 1980 (1960 = 100) T	Agr	Ind	Ser
Asia (developing countries):	M	118	108	138	140	122	108	149	142
	F	118	107	186	162	118	107	158	153
Middle-income countries f/	M	125	109	171	148	133	117	161	152
	F	130	116	156	167	131	115	162	157
Low-income countries g/	M	120	113	132	146	124	114	157	147
	F	121	110	166	155	122	112	154	146
China	M	116	107	136	133	116	102	143	133
	F	114	101	218	175	115	103	156	152
Indi.	M	116	107	138	139	124	110	154	144
	F	123	119	149	142	119	109	162	157
Middle East h/	M	121	105	142	154	129	109	160	146
	F	107	92	141	262	133	121	162	171

For notes and source see table 2.

30. The total female work-force employed in industry increased much more in developing countries than in developed ones. The broad pattern of change was similar in Africa and in Asia. But the growth of the female industrial work-force was much slower in Latin America. There was a difference in timing of the change between the two groups of Latin American countries: while in the middle-income countries female industrial employment increased less in the first decade (1960-1970) than in the second one (1970-1980), in the low-income countries the growth of the female industrial work-force was slower in the first decade than in the second one.

31. In conclusion, the evidence presented here indicates that the structural changes that occurred in the world economy in the last two decades had a greater impact on the female than on the male work-force. Female industrial labour in developing countries was the fastest growing worker category both during the 1960s and the 1970s. It was followed, in both decades, by female service workers, also in developing countries. Third was the growth of female service workers in developed countries in the 1960s; and the male industrial workers in developing countries in the 1970s. While the share of industry in total female employment in developed countries was stagnating, or declining in the most advanced ones, the share of industry in total female employment in developing countries was growing fast, particularly in Asia, but also in Africa.

32. In developed countries, especially the market economies, the service sector has taken a preponderant place in female employment (occupying 78 per cent of working women in North America and 62 per cent in Western Europe, in 1980). At the same time, many industrial activities previously performed by women in developed countries were shifted to the developing world.

B. Women workers and recent changes in the structure of world industry

33. Much has been said in recent years about the relocation of labour-intensive industries from developed to developing countries and about the ways in which this process has affected women workers. 8/ This section deals briefly with the process of industrial redeployment as such, and then with the impact this redeployment has had on women workers.

Redeployment of industry from developed to developing countries

34. The last few decades were marked by important structural changes in industry. While the 1950s and 1960s were characterized, in developed countries, by intense modernization and increase of automation, the 1970s witnessed a redivision of labour on a world-wide scale, affecting a large number of industrial activities.

35. Many developing countries have recently created important industrial capacities, entering into competition with countries having an old industrial tradition. These newly industrialized countries offer many advantages, such as more modern production plants, low wage costs, generally loose trade unions, and few or inadequate labour standards. 9/

36. Although the main reason for the redeployment of industry to developing countries may have been the abundance of cheap labour, there were other reasons. Many Governments were ready to grant tax exemptions to foreign investors, and large firms were able to gain access to markets in developing countries, while exporting back to the industrialized, high-income regions of the world. In addition, core industrialized countries were interested in expanding their markets for investment goods.

37. One of the technical factors that greatly facilitated the process of redeployment was the spectacular improvement in world transport and communications that occurred in the last few decades. Another was the streamlining and standardization of production processes, allowing workers with relatively little specialized knowledge to perform a large number of well-defined production tasks.

38. Some of the world economic events that particularly marked the 1970s accelerated the pace of redeployment. Among these was the breakdown of the monetary order of fixed exchange rates in 1973, which triggered off a series of devaluations and revaluations of national currencies, producing a shift in the competitiveness of a wide range of products in international markets. Moreover, the rapid increases in the price of energy altered the terms of trade between countries. 9/

39. The combined effects of inflationary pressures and high interest rates drove many businesses in developed countries to the point of bankruptcy as costs kept climbing, while weak demand made it impossible to pass on the higher costs to the customer. 9/

40. Historically, relocation first concerned industries with a high labour content and low capital intensity, which are also those traditionally employing a large number of women. Among the first industries to be relocated to developing countries were textiles and clothing. This was due to a number of factors: they utilized raw materials often grown locally (cotton or jute; they required little capital and could employ simple technology, which was either already available (spindles, handlooms), or could easily be shipped; and they could make use of skills in textile and garment-making traditionally present in developing countries.

41. Further industries to be relocated were certain branches of food-processing, using locally grown fruit and vegetables, or locally available fish and seafood. Also certain types of pharmaceutical production were implanted in developing countries, and electronics. In the case of the latter industry, the low wage costs of a dextrous work-force was probably the main determinant of relocation: "Although it is possible to mechanize some stages of electronic assembly work, the equipment required for this is generally too expensive and risky. Given the rapid rate of technological change, it does not appear profitable to invest in expensive equipment that may be obsolete in a few years. Workers are cheaper and more efficient." 10/

42. Subsequently, a growing challenge came from some of the newly industrialized countries in more sophisticated fields with capital-intensive technology, such as shipbuilding, automobiles and other engineering industries.

43. Relocation of production has generally been achieved through various forms of international subcontracting arrangements, or the setting-up of subsidiaries or local enterprises with foreign and some local capital. The arrangement may cover either the production of a final or an intermediary product, or apply to one of several stages of production. 11/ The role of transnational companies has been important in the process of redeployment, as they have deployed assets and are used to operate across national boundaries.

44. An important aspect of the new division of labour between developed and developing countries has been an increasing economic interdependence. This is apparent even at the level of individual firms. In all branches, but particularly in the electronics industry, firms must be able to co-ordinate production in the developed regions with production in developing countries. One stage of production may take place in a developed country, another in a developing one, and often a third stage back in the first country, or in yet another one. Changes in demand can make this co-ordination sometimes problematic. In the electronics industry, for example, rapid production increases or decreases are often called for, requiring that adjustments be co-ordinated between different geographically distant operations. Most decisions on output are made centrally, and local establishments in developing countries are expected to adjust their production levels in response to overall requirements. This may have serious consequences for the workers, resulting in a rapid and "forced" increase of overtime, or in sudden redundancies. 10/ The increasing economic interdependence or "globalization of markets" also affects workers in developed regions, whose employment depends on shifts in cost advantages among a great variety of countries. 9/

45. Industrial redeployment has been directed to all developing regions, but was more successful in some countries than in others. Countries in Latin America were among the first destinations, particularly the Caribbean and

Mexico, but also Brazil, Colombia and other countries. However, the trend started to level off after a time, due to labour and policy problems.

46. A certain amount of food-processing, electronics, textiles, and particularly garment-making activities were also soon implanted in Africa (Tunisia, Egypt and Mauritius). However, the main relocation zones are in Asia: in south Asia (India, Pakistan and Sri Lanka), but mainly in south-east Asia, in the middle-income group of countries listed in table 2. After extremely positive experiences with workers in that part of the world, an increasing number of firms moved there. Eventually, the pool of cheap labour in that area started to show signs of exhaustion, and new locations were sought, for example in China, and also in some low-wage areas of Europe. 10/

47. The export-oriented industrialization in the above-mentioned countries and areas inevitably generated important changes in the direction of international trade flows. Moreover, these flows became increasingly complex and relatively unstable. As more complex productions became routine and technology more widespread, some of the technically more demanding and capital-intensive production processes were implanted in the developing countries with the highest efficiency, while simpler operations were moved from there to nearby, less "experienced", countries. Difficulties with recruitment of cheap labour in some places that were becoming "overcrowded" with new industries had the similar effect of causing firms to move elsewhere. Both factors resulted in a relative instability of the industrial production structure in the newly industrialized countries, which adversely affected the industrial labour force. Women were particularly affected as being the more vulnerable, less trained and more easily dismissed part of the labour force.

Women workers in the industrial export processing zones

48. The share of women in manufacturing employment of the industrial export zones is known to exceed 80 per cent, 11/ and companies have shown an overwhelming preference for employing young women for the specific industrial activities that dominate those zones. 12/ As far as age is concerned,

> "In Malaysia, 85 per cent of the workers in the Bayan Lepas Free Trade Zone are aged between 18 and 24, with many factories having nearly 100 per cent of their workers between the ages of 16 and 25. One sample survey of electronics workers in the Sungei Way-Subang Free Trade Zone found 93 per cent of them to be between 16 and 25 years. In Mexico, 85 per cent of the workers in the maquiladoras along the border of the U.S.A. are women aged between 17 and 23. Of 67,000 direct labour employees in various EPZs in another part of Asia, in mid-1977 women constituted 85 per cent, with the following age break-down: 14-15 years - 6.1 per cent, 16-19 years - 40.4 per cent; 20-24 years - 31.1 per cent; 25-29 years - 12.1 per cent; 30-39 years - 6.7 per cent; 40 years and over 3.6 per cent. 77.6 per cent of the women were under 25 years of age and 90 per cent under 30." 13/

49. In Mauritius, the Government created an export processing zone in 1970 in order to reduce unemployment affecting about 20 per cent of the labour force. Four-fifths of the unemployed were men. The export processing zone grew rapidly, and in 1980 there were about 100 factories employing 22,000 workers. In spite of the high unemployment among men, 80 per cent of the workers

employed in the export processing zone throughout the 1970s were women. The employment created has gone mainly to women. Yet few women declared themselves to be unemployed in the 1972 census, but large numbers were available when an employment opportunity arose. 14/

50. The reason for employing young women is mainly that they are willing to work for low wages, apart from being docile, dextrous and adaptable. Tradition and the insufficient economic infrastructure would make it, in any case, difficult for them to go on working after they get married. Employers, on their part, prefer young workers with low or no seniority, because they are cheap labour. Moreover, the absence of family obligations makes them more adaptable, as far as working hours, overtime and shift work are concerned.

51. As stated by Elizabeth Eisold:

> "Although practices vary from plant to plant, many firms refuse outright to hire married women and may insist that a woman leave if she gets married. Many firms prefer women who have never held wage paying jobs before, such as migrants. For these women, factory work is their first experience with modern relations of production and wage work."

And naturally they are easy to manage. 10/

52. The systematic preference of foreign firms for female workers can only be exercised under conditions of extreme poverty, particularly in the large agricultural sector. In the past, it was mainly men who went to the cities to look for waged employment when family farm-holdings could no longer support a growing family. Men migrated to the cities in search of mostly industrial jobs, while the women stayed behind to run the farm. Nowadays it is mostly the women who migrate, particularly the daughters. Data from surveys conducted in Asian newly industrializing countries show that, even when they do not approve of the factory life-style, families allow their daughters to migrate to the cities because they know that this is likely to increase the family income. Many young female workers send home a large part of their earnings. This support can become vital for the families. In some cases, parents become so dependent on the daughter's income that they even resist her intention to marry. 11/

53. In conclusion, the growth of the newly implanted industries in a wide range of developing countries, particularly of textiles, clothing, pharmaceuticals and electronics, has been due to a large extent to the availability of abundant, cheap female labour. For wages barely covering the basic cost of living, and often in very hard working conditions, both in the export processing zones and outside, women have contributed a great deal to the industrial take-off in their countries.

54. In a large number of other developing countries, however, and contrary to expectations, economic development programmes have not substantially increased female employment rates. One consequence of economic development has frequently been a large rural-urban migration of men, which has caused an over-abundance of male labour competing for scarce urban jobs. 15/

55. Frequently, in the early stages of industrialization, women tended to lose their manufacturing jobs to men. This occurred when more technically advanced, mechanized production methods were introduced in branches formerly

dominated by women, e.g. textiles. The newly set up factories with modern machinery needed a work-force with a certain level of knowledge and technical ability, and preferred to hire men rather than women. This happened, for example, in the Colombian textile industry between 1938 and 1979 (see table 5).

Table 5. Employment in the Colombian textile industry by sex, 1938-1979

Year	Total	Men	Women	Share of women (%)
1938	24,125	6,209	17,916	74.3
1945	26,227	12,896	13,331	50.8
1967	46,580	30,675	15,905	34.1
1971	63,156	41,373	21,783	34.5
1973	73,052	48,710	24,342	34.4
1975	75,734	50,271	25,463	33.6
1976	75,496	51,648	23,848	31.6
1979	75,592	51,659	23,933	31.7

Source: Republica de Colombia, Industria Manufacturera (yearbook), various issues (Bogota, D.A.N.E.); D. Keremitisis, "Women textile workers - a comparative study in Mexico and Colombia", Actas des XLI congreso international de Americanistas, Mexico, 2-7 September 1974, vol. II (Mexico, 1976), quoted in United Nations Industrial Development Organization, "The impact of industrialization on women's traditional fields of economic activities in developing countries" (ID/WG.351/7).

56. Only at a later stage of development, for a wide range of reasons, did women usually return to industry. However, this return appeared in many cases rather slow. In the Colombian textile industry, for example, women's employment share had a generally declining trend in the period considered, even if in absolute numbers female employment increased between 1967 and 1975.

57. Broadly speaking, a female return to industrial employment may be expected at the stage of development when more capital-intensive, mechanical or heavy industries are also implanted in a country, the manufacturing sector becomes more diversified, and men shift to higher-paying branches, leaving the light industries to women.

58. Thus, two very different patterns of employment development may be encountered: in some countries an over-supply of male labour, often resulting from a large rural-urban migration of men, may greatly limit women's access to industrial jobs. The existence of widespread male unemployment reduces women's employment chances. In other countries, where industrial export zones have been created and firms systematically hire young women, many women appear to seek employment partly because of the high unemployment rates of men in order to support their families.

Informal sector and women's work

59. In the majority of countries women have traditionally played an important role in the preparation of food products and of consumer goods such as earthenware and textiles, and at least part of those products has generally been marketed. At present women's role in the informal goods producing sector, both urban and rural, is considerable in most developing countries. Women contribute significantly to the household income, although the roles of women and men are frequently complementary according to various social and cultural settings. 16/

60. Women account for a significant share of entrepreneurial drive and initiative in the small-scale sector, and their role tends to be strongest in activities requiring less heavy work and fewer technical skills. They are quite active, for example, as owners-managers of individual small enterprises. In small, family-based concerns, which account for the majority of all small enterprises, women are often found taking care of bookkeeping, the ordering and control of supplies and other important management functions leaving men free to concentrate on production work. 17/

61. Conditions of work in the informal sector are usually hard, and earnings often meagre, whatever the employment status of the person concerned, family helper, employee or self-employed owner. Rural women, particularly those with additional non-farm activities, work extremely long hours. There is evidence that such overwork tends to affect their life expectancy. 18/

62. The supply of better technology may appear as the best means to alleviate women's plight. However, the effect of the introduction of new technologies may be ambivalent: "The negative effects of industrialization on women are not limited to those caused by the establishment of large-scale, capital-intensive industrial productions, even small-scale, so-called appropriate technology can work to women's disadvantage". 19/

63. The impact of technological change on women in the informal sector may vary depending on the prevailing socio-economic conditions in which it is introduced. 18/ For example, in Indonesia, following the introduction of mechanized rice hullers to replace hand-pounding, many women's income-earning opportunities were lost. The total annual loss of earnings has been estimated at $50 million,* for the early 1970s. 20/ Similarly, women's incomes from home-brewed traditional beer may be threatened by the introduction of lager beer in Africa, brewed on an industrial scale often with elaborate imported technology and even raw materials. 18/ In West Africa, women have been involved for a long time in making soap from palm oil by mixing it with wood ash. However, imported soap has been too competitive, although there have been some interesting experiences in this field recently. 19/ These new, now classical and often quoted examples suggest that the choice of technology introduced in developing countries is extremely important to women workers, who are the more vulnerable partners in development. 21/

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*All dollars mentioned in this publication are United States dollars unless otherwise stated.

64. It has been convincingly argued that the adoption of adequate technology combined with proper tariff policies would make it possible to protect and encourage manufacturing activities pursued by women in the informal sector, particularly in rural areas. 22/ However, the changes that have accompanied early industrial development have mostly led to the concentration of women in domestic and non-market roles or in labour-intensive activities. Men have tended to take over responsibility for women's tasks when they became mechanized or transformed into larger market production. The improvement of women's role in the informal sector of manufacturing, particularly through appropriate technology, remains a problem. 18/

II. BENEFITS ACCRUING TO WOMEN FROM INDUSTRIALIZATION

65. To appreciate the benefits conferred by industrialization upon the majority of women it is well to begin by considering the conditions of life and work of women in non-industrialized rural regions in most parts of the world. Despite the diversity that prevails, rural women are almost universally engaged in an arduous round of unremitting tasks to ensure their own subsistence and that of their families. 21/ The low level of nutrition and sanitation results in high levels of infant and child mortality; frequent childbearing is a basis for ensuring surviving offspring for individual families. Facilities for public hygiene, medical care and education are insufficient and thinly spread.

66. Where land is productive and tenure arrangements adequate for the needs of the family to be met, rural life may be preferable to that in urban shanty towns. But the spread of uncontrolled urbanization is an indication of the pressure to leave unacceptable rural conditions and move to the city even when urban facilities are minimal.

67. Industrialization and urbanization mostly go hand in hand, despite attempts in many countries to introduce rural-based industry. Thus, an important part of the benefits conferred by industrialization are those resulting from the spread of urban life and a monetized economy. Urban migration involves for women the release from the generally arduous subsistence activities that characterize rural existence. The fetching of water and fuel, the gathering, cultivation and processing of food for home consumption, production of goods and utensils for home use, construction and repair of housing are all performed in the household and community on an unpaid basis in rural areas. In an urban setting these goods and services are available on a commercial basis, but they have to be paid for. If not enough cash is available (or when urban facilities are lacking, on the outskirts of cities etc.), then the situation may be more difficult than in a rural area, since it is frequently impossible to carry out subsistence activities because the urban setting does not provide the natural materials or space.

68. Mostly, however, industrial employment in an urban area brings with it amenities such as piped water, a certain minimum housing standard, and the proximity of adequate medical care.

69. Industrial wage incomes are almost universally higher than incomes from agricultural activities. When several members of the same family bring home wages from industrial employment it is possible to obtain not only the equivalent of the goods and services provided through subsistence activities in a simple rural community, but to purchase many other consumer goods.

70. There are many widely different patterns of urbanization and industrial integration. Cases may arise where families migrate to the city and women are no longer able to make the contribution to the family's material well-being that subsistence activities yielded in the village, while no urban employment is open to them to provide money wages. In such cases real income may be severely depressed, particularly in households that lack adult male wage earners, but also in households where men's wages are too low to meet essential needs. Good industrial wage incomes may be difficult to attain for

those moving to the city. Recent immigrants from the countryside often appear to be among the last to obtain employment, and have to seek jobs in unstable service activities and in the formal sector, while the better-paid industrial jobs go to long-standing urban dwellers, on a "queueing" principle.

71. For women, differences in employment opportunities in the modern industrial sector due to geographical location are particularly important. While in some countries and areas, for example in those where export processing zones have been set up, women have become the main beneficiaries of industrial employment creation, in other places jobs in modern urban firms may remain to a large extent inaccessible to them. In the industrialized countries women make up about 30 per cent of industrial workers. In many developing countries the proportion of women in the modern industrial sector is much lower than this, but it may also be much higher, particularly in the newly industrialized countries. In the developing world as such women represent over a quarter of the industrial labour force, as indicated in table 2. However, as already pointed out, this global average conceals considerable country differences, reflecting the widely different impact of industrialization on women workers, and the great variations in direct benefits that industrialization conferred on them.

72. While modern industrial employment always increases women's standard of living, as well as their personal independence and position in the community, the material benefits women gain from industrial employment tend to be weakened by job segregation and other labour market practices, resulting in a compression of female earnings. In modern firms sex segregation is hierarchical: formal qualifications of a kind obtained mainly by men are required for promotion. In traditional industries skill hierarchies are more often based on age, with women and men specializing in different activities altogether. Women in modern industries are concentrated in low-grade, low-paid jobs. But in neither the modern nor the traditional sector are the skills women have and the demands made on them by their work fully recognized and rewarded in the pay structure. Women's work is low paid, seemingly, above all because of the supply conditions of women's labour. 23/

73. In countries where women's access to modern industrial employment is limited, women benefit from industrialization mainly indirectly, as members of households with male employees in these types of employment. It should be mentioned that as indirect beneficiaries they are very vulnerable when male earnings are not available or are withdrawn for one reason or another.

74. In some countries the lack of access by women to industrial employment in the modern sector results from the absolute shortage of such jobs. But more generally it is the outcome of the conditions on which this type of employment is made available, which depress both the demand for and the supply of women's labour.

A. Women's income from industrial employment

Survey of available information

75. With the foregoing perspective it is possible to examine some official statistics on the earnings of and social benefits to women. The focus is mainly on developing countries, because the income of women in industrialized countries has received a good deal of attention in recent years (see the

bibliography). However, the statistical data from developing countries have many shortcomings. Ideally, data on female labour force participation in the modern and the traditional sectors, by industry, is required as a basis for a discussion of incomes, but in the official statistics only aggregate participation rates (given by the percentage of women in the labour force) are available.

76. Data on employment status show the much higher proportion of women found in all cases among own-account workers and family aids than among employees, the category that reflects employment in the modern sector. Within manufacturing, data are required on the earnings of women by size of establishment and level of skill, but in most countries there is not even a separate breakdown for male and female earnings in industry as a whole. In table 6 data are assembled for countries that do provide this information. It should be noted that the coverage varies greatly, referring either to manual workers only or to workers and employees, including or excluding juveniles, referring mostly only to the formal sector, the definition of which tends to vary. In addition, they refer to different earning periods, an hour, a week or a month (see notes to table 6). All this severely limits their usefulness for analytical purposes.

Table 6. Average earnings of women workers in the manufacturing industry as a percentage of men's, 1960-1982

Country by region	Time period	1960 (1)	1970 (2)	1975 (3)	1980 (4)	1982 (5)
Africa						
Egypt	w	51.6	69.5	67.8	63.1	-
Kenya	m	71.3	-	66.1	62.5	75.8
United Republic of Tanzania	m	-	78.6	70.0	78.5	-
America						
Costa Rica	m	-	-	-	56.8	-
El Salvador	h	73.0	81.9	90.4	81.2	85.9
United States	y i	-	-	54.2	57.1	56.8
	ii	-	-	54.6	57.3	57.6
Asia						
Burma	m	72.1	83.6	88.3	86.1	88.8
Cyprus	w	-	-	46.9	50.2	56.3
Japan	m	-	44.5	47.9	43.4	43.1
Jordan	d	-	-	54.1	57.5	63.6
Republic of Korea	m	-	-	47.4	45.1	45.1
Singapore	h	-	-	-	61.5	63.2
Sri Lanka	h	-		-	80.8	81.9
Syrian Arab Rep.	w	-	59.9	69.8	68.8	-

continued

Table 6 (continued)

Europe						
Austria	h	-	-	68.0	72.0	-
Belgium	h	64.6	67.7	71.3	69.7	73.5
Denmark	h	66.5	74.4	84.3	86.1	85.1
Finland	h	66.4	70.4	72.6	75.4	77.2
France	h	70.4	76.7	76.4	77.0	78.1
German, Fed. Rep	h	65.6	69.6	72.1	72.7	73.0
Greece	h	64.7	68.0	69.5	67.8	73.1
Ireland	h	59.2	56.2	60.9	68.7	68.5
Netherlands	h	61.7	71.8	79.2	80.2	79.2
Norway	h	67.3	75.1	78.0	81.9	83.2
Sweden	h	68.8	82.4	85.2	89.9	90.3
Switzerland	h	63.3	64.7	66.0	66.4	67.0
United Kingdom	h	58.6	57.6	66.5	68.8	68.8
Oceania						
Australia	h	58.0	63.7	78.5	78.6	78.2
New Zealand	h	-	65.8	65.6	71.4	71.1

Source: Yearbook of Labour Statistics, various issues (Geneva, International Labour Office); national statistics of Costa Rica and the United States: Caja Costarricense de Seguro social, Estadistica Patronos, Trabajadores y Salarios, 1978, San José; US Bureau of the Census, Money Incomes of Families and Persons in the United States various editions, (Washington, D.C.)

Notes:

General note: the data refer to manual workers, unless otherwise indicated.

AFRICA: Egypt: Col. (4) = 1977; Kenya: workers and employees. Adults in 1960. Including the value of payments in kind; United Republic of Tanzania: workers and employees. Col. (2) = 1973; AMERICA: Costa Rica: Col. (4) = 1978; El Salvador: Department of San Salvador. Col. (5) = 1981; United States: money earnings of year-round full-time workers, i = all workers and employees, ii = craft workers and operatives. Col. (5) = 1981; ASIA: Burma: workers and employees. Col. (2) = 1971, (5) = 1981; Cyprus: adults. Including family allowances and the value of payments in kind; Japan: workers and employees. Including family allowances and middle- and end-year bonuses; Jordan: workers and employees. Adults. Cols. (3) = 1978, (5) = 1981; Republic of Korea: workers and employees. Including family allowances and the value of payments in kinds; Syrian Arab Republic: adults. Col. (4) = 1977; EUROPE: Austria: Col. (4) = 1979; Belgium: Col. (1) = 1964, total industry (ISIC 2, 3, 4 and 5); Denmark: adults. Excluding vacation pay; Finland: including mining, quarrying and public utilities. Including the value of payments in kind; France: Cols. (1) = 1964, total industry, (2) = 1972, (5) = 1981; Germany, Federal Republic of: including family allowances paid directly by employer; Greece: Col. (1) = 1961; Ireland: adults; Netherlands: adults; Norway: adults. Including the value of payments in kind. In 1960 including mining and quarrying; Sweden: adults. Including the value of payments in kind. In 1960 including mining and quarrying; Switzerland: adults. Statistics of establishments. Including family allowances; OCEANIA: Australia: workers and employees. Adults. Col. (1) = 1963, weekly earnings; New Zealand: Col. (2) = 1974.

77. While data in table 6 refer to male-female earning differentials in the manufacturing sector as a whole and originate mostly in regular national series, data in tables 7 and 8 refer to only two manufacturing occupations, one manual and one non-manual, namely spinners and laboratory assistants in the chemical industry, and originate in the ILO October Inquiry.

78. About 50 developing countries contribute regular information to the ILO October Inquiry on hourly wages and monthly salaries in selected occupations. The Inquiry was instituted in 1923, and has the merit of having provided the same information series for a period of 60 years. It covers 41 manual occupations and 7 non-manual ones. Unfortunately, separate data for male and female workers are given only in the case of three manual occupations (spinning, sewing, binding), and in the case of three non-manual occupations, of which only one belongs to manufacturing: laboratory assistants in the chemical industry; the other two are retail grocery sales persons and bank accounting machine operators. For manual occupations the Inquiry gives adult hourly wage rates, and in a few cases also hourly earnings.

79. Of the 50 developing countries contributing to the 1982 ILO October Inquiry, about half claimed equal wage rates for male and female manual workers; 15 countries reported unequal wage rates. Practically all these are listed in table 7 showing the wages of male and female spinners. Eleven responding developing countries gave the relevant information either for women or for men, suggesting a de facto segregation by sex of the occupations. For example, the wages of sewing-machine operators were reported only for men by Angola, Bangladesh, Burundi, Cameroon and Mali, while Belize, Cyprus, Papua-New Guinea, Saint Christoper and Nevis, and Saint Lucia only reported them for women.

80. In 1964, about half of the developing countries answering the ILO October Inquiry reported unequal wage rates for male and female manual workers in the selected occupations. Only about one quarter reported equal wage rates, while 11 provided either male or female rates. Also in 1964, the countries giving the wages of only male sewing-machine operators were situated mostly in Africa, and the countries giving the wages of only female sewing-machine operators were situated in Asia, the Caribbean and Central America.

81. Slightly fewer developing countries supplied data on the salaries of employees in both years. Cases of unequal pay for women and men were relatively more frequent. Table 8 provides information on the monthly salaries of male and female laboratory assistants in the chemical industries in the countries in which they are unequal. It should be noted that in a few cases the inequality is to the advantage of the women workers.

82. As valuable as the ILO October Inquiry may be, recently there has been a growing demand for a wider range of information on earnings, broken down by sex, on an internationally comparable basis. In 1980, it was decided to revise the occupational wage data to cover some 160 occupations in 46 industries; the new set of data should become available in 1985. It will provide a much wider basis for studying women's earnings in developing countries than the data available at present. 24/

Table 7. Hourly wage rates (RT) and earnings (EG) of male and female spinners in selected countries and areas, 1965-1982

Country or area	Currency		1965 M	1965 F	1965 F/M	1970 M	1970 F	1970 F/M	1975 M	1975 F	1975 F/M	1980 M	1980 F	1980 F/M	1982 M	1982 F	1982 F/M
Bangladesh	Taka	RT	-	-	-	-	-	-	-	-	-	-	-	-	3.20	3.77	117.8
		EG	-	-	-	-	-	-	-	-	-	3.74	2.64	70.6	-	-	-
Colombia	Peso	RT	-	-	-	-	-	-	-	-	-	27.50	25.41	92.4	-	-	-
		EG	-	-	-	-	-	-	-	-	-	-	-	-	55.4	55.4	100.0
Dominican Republic	Peso	RT	-	-	-	-	-	-	-	-	-	-	-	-	0.85	0.90	112.5
El Salvador	Colon	RT	-	-	-	-	-	-	-	-	-	-	-	-	2.93	2.14	73.0
Guatemala	Quetzal	RT	0.56	0.18	32.1	-	-	-	-	-	-	0.63	0.32	50.8	0.65	0.52	80.0
Honduras	Lempira	RT	0.38	0.44	115.8	-	-	-	-	-	-	-	-	-	0.59	0.54	91.5
		EG	-	-	-	0.38	0.49	128.9	-	-	-	-	-	-	-	-	-
Hong Kong	Dollar	RT	1.23	1.21	98.4	-	-	-	-	-	-	4.90	4.99	101.8	5.95	5.90	99.2
		EG	1.58	1.56	98.7	2.43	2.42	99.6	3.58	3.63	101.4	6.56	6.67	101.7	9.27	8.76	94.5
Morocco	Dirham	RT	0.85	0.83	97.6	-	-	-	1.74	1.50	86.2	-	-	-	-	-	-
		EG	-	-	-	-	-	-	1.94	1.80	92.8	-	-	-	-	-	-
Republic of Korea	Won	RT	-	-	-	-	-	-	-	-	-	521	284	54.4	-	-	-
		EG	-	-	-	-	-	-	-	-	-	659	358	54.3	-	-	-
Singapore	Dollar	RT	0.38	0.35	92.1	0.61	0.53	86.9	0.95	0.69	72.6	-	-	-	-	-	-
		EG	0.48	0.41	85.4	-	-	-	-	-	-	-	-	-	-	-	-
Thailand	Baht	RT	5.85	3.65	62.4	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	Bolivar	RT	-	-	-	-	-	-	3.20	2.28	71.3	8.84	7.42	83.9	10.00	9.38	93.8
		EG	-	-	-	-	-	-	-	-	-	11.49	9.64	83.9	12.50	11.73	93.8
Ireland	Pound	RT	52.50	32.70	62.3	7.12	4.74	66.6	86.33	66.48	77.0	1.656	1.404	84.8	2.083	1.784	85.6
Italy	Lire	RT	309.13	279.13	90.3	522	448	85.8	1154	1025	88.8	-	-	-	4576	4192	91.6
Portugal	Escudo	RT	7.60	4.50	59.2	10.63	5.92	55.7	25.29	21.44	84.8	26.78	23.10	86.3	26.78	23.10	86.3

Source: Bulletin of Labour Statistics (Geneva, International Labour Office) various years.

Notes: Bangladesh, Khulna; Colombia, data refer to 1981; Guatemala, Guatemala City; Honduras, Tegucigalpa; Hong Kong, in 1975 and 1980 data refer to cotton spinners only; Morocco, first year referred to is 1964; Singapore, first year referred to is 1964; Thailand, first year referred to is 1964; Ireland, wages expressed in Pence in 1965 and 1975, and in Shillings in 1970; Italy, cotton spinning, Milan; Portugal, Lisbon.

Table 8. Monthly salaries of male and female laboratory assistants in the chemical industry in selected countries and areas, 1965-1982

Country or area	Currency	1965 M	1965 F	1965 F/M	1970 M	1970 F	1970 F/M	1975 M	1975 F	1975 F/M	1980 M	1980 F	1980 F/M	1982 M	1982 F	1982 F/M
Developing																
Bangladesh	Taka	-	-	-	-	-	-	500	-	-	889	-	-	953	438	46
Barbados	Dollar	-	-	-	280	160	57	-	-	-	1225	-	-	-	-	-
Bolivia	Peso	-	-	-	-	-	-	-	-	-	5800	7060	122	5837	7104 a/	121
Chile	Escudo	435	351	81	-	-	-	-	-	-	-	-	-	-	-	-
Cyprus	Pound	-	-	-	-	-	-	66	39	59	-	118	-	-	165	-
El Salvador	Colon	-	-	-	-	-	-	-	-	-	-	-	-	625	400	64
Guatemala	Quetzal	-	-	-	-	-	-	-	-	-	135	95	70	138	123	89
Honduras	Lempira	222	148	67	284	237	83	196	-	-	350	330	94	530	-	-
Hong Kong	Dollar	-	-	-	750	1027	-	1380	2160	-	2334	-	-	2535	1930	76
Jordan	Dinar	-	-	-	-	-	-	41	42	103	60	60	100	-	-	-
Mexico	Peso	840	795	95	1100	1000	91		2420		-	6540	100	8430 a/	6300	75
Pakistan	Rupee	186	87	47	175		-	838	630	75	700	500	71	700 a/	700	100
Peru	Sol	2421	2170	90	4543	4226	93	8800	8500	97	46402	41821	90	90455 a/	88951	98
Puerto Rico	Dollar	240	223	93	-	-	-	-	-	-	537	537	100	580 a/	580	100
Republic of Korea	Won	-	-	-	-	-	-	-	-	-	188,128	173,600	92	-	-	
Singapore	Dollar	304	112	37	-	-	-	-	-	-	-	-	-	-	-	-
Syrian Arab Rep.	Pound	-	-	-	-	-	-	508	505	99	-	-	-	-	-	-
Venezuela	Bolivar	-	-	-	1860		-	1005		-	1398	1625	116	3200	3200	100
Developed																
Australia	Dollar	174	122	70	284	256	90	630		-	987	987	100	1242	1242	100
Belgium	Franc	6025	5880	98	8760		-	17326		-	24605	24605	100	29405	-	-
Germany, Fed. Rep.	D.M.	-	-	-	-	-	-	-	-	-	-	-	-	3882	3359	87
Greece	Drachma	2350	2145	91	3587	3175	89	-	-	-	-	-	-	-	-	-
Norway	Crown	1497	1143	76	2359	1779	75	5424	3972	73	7826	6569	84	9294	8973	97

Source: Bulletin of Labour Statistics (Geneva, International Labour Office) various years.

a/ 1981.

Notes: Bangladesh, Chittagong and Dacca, 1982, Rajshahi; Chile, Valparaiso; Honduras, Tegucigalpa; Mexico, in 1965 Mexico City only; Pakistan, in 1964 and 1975, Lahore, in 1980 Peshawar and Sialkot; Peru, in 1970 Lima and Callao; Puerto Rico, in 1980 minimal salary; Syria, Alep; Australia, Melbourne; Belgium, first year 1964 - average of five towns, Antwerp, Brussels, Charleroi, Ghent and Liège; Greece, Athens.

Real wage trends

83. Because of the importance of evidence on real wages as opposed to nominal wages for judging the benefit to women workers of industrial employment, in table 9 cost-of-living adjustments have been made to obtain a closer approximation to changes in living standards. This was done in the simplest manner, by deflating manufacturing earnings by the general consumer price index to provide a crude measure of real wage movements.

Table 9. Average annual rates of growth of female real earnings in manufacturing in selected developing and developed countries, 1960-1982

Country	1960-1970	1971-1975	1976-1980	1981-1982
Developing countries				
Burma	2.0 (E)	-12.2	0.6	17.9 a/
Cyprus	-	-	11.1	9.6
Egypt	7.3	1.7	3.8 c/	-
El Salvador	2.7	-2.5	3.6	-2.5 e/
Jordan	-	-	1.4 d/	4.9 e/
Kenya	-	-	-2.0	1.6
Republic of Korea	-	-	10.6	2.3
Syrian Arab Republic	5.3 a/	0.8	3.2 c/	-
United Republic of Tanzania	-	-7.3 b/	-4.8	-
Developed countries				
Australia	3.0	10.0	0.2	4.0
Finland	8.2	5.9	1.0	1.6
Germany, Fed. Rep. of	6.4	4.4	2.3	-0.3
Greece	6.6	4.6	6.7	8.7
Netherlands	7.6	7.1	0.8	-0.8
Sweden	5.9	4.8	0.9	-2.5
Switzerland	4.1	3.9	1.5	1.3
United Kingdom	3.1	6.3	0.2	-0.6

Source: Yearbook of Labour Statistics (Geneva, International Labour Office) various issues.

a/ 1967-1970.
b/ 1973-1975.
c/ 1975-1977.
d/ 1978-1980.
e/ 1981.

84. The data available for nine developing countries (compared here with eight industrialized countries), show that even if in nominal terms manufacturing wages rapidly increased everywhere, in real terms the situation looked different. Table 9 indicates that in developing countries there were frequent cases of a decline in women's real wages during the time period considered.

85. It is difficult to make adequate comparisons between male and female real earnings because the official data for women cover the better paying modern sector to a greater extent than do the data for men. The traditional and home industries in which women are concentrated are largely excluded from official statistics. However, where women's earnings did not suffer more than men's, it can be assumed that the wages of the lowest paid categories of job in which women are concentrated showed a relative improvement. This was the case in most industrialized countries during the 1970s, a process to which equal pay legislation provided additional impetus. Indeed the relative improvement of the position of the lowest paid may well be the most positive effect of equal pay legislation that applies to men and women employed on the same work.

86. Because of the extensive use of job segregation, women and men are almost never employed on identical work in the same firm. In these circumstances equal pay legislation tends to have the effect of inducing employers to stop paying a low undifferentiated "women's rate" to female employees and to bring their pay closer into line with that of the lowest paid male employees. The result is a relative rise in average wages for women and a reduction in the male-female earnings differential (see below). However, there is evidence that these effects are short-lived and have not persisted into the 1980s in some industrialized countries.

87. The clearest point to emerge from the international evidence is the contrast in real wage trends between developed and developing countries. In the developed countries real wages in manufacturing had a generally rising trend, for both women and men, between 1960 and 1980, although the rate of growth was slackening in most cases and in many countries beginning to decline between 1980 and 1982.

88. There were large inter-country differences in real wage trends between developing countries. Some countries experienced periods of substantial decline of the real manufacturing wages of women and men (Burma and United Republic of Tanzania), while in others, such as the Republic of Korea or Cyprus, they improved a great deal. For both women and men the patterns of real wage movements seem to have been very unstable in developing countries, which suggests that the existing wage determination mechanisms had difficulties adapting to the changed economic environment of the 1970s. 25/

89. While in developed countries real wages tend to grow faster than gross national product (GNP), in developing countries the opposite is true, at least since the mid-1960s. Many developing countries have followed policies of wage restraint, as Governments have placed high priorities on expanding employment opportunities, while reducing rural/urban income inequalities and checking rural/urban migration flows. Efforts to keep real wages from rising as rapidly as national productivity have been considered beneficial in the early stages of the development process until the greater part of the labour surplus could be absorbed. Even if women's real wages have not been affected more than men's wages, because women's earnings tend to be at the bottom of the wage scale, a long-term worsening of wage purchasing power has been particularly painful for women workers.

Male and female earnings differentials in manufacturing

90. While the principle of equal pay for work of equal value has been recognized by most countries and translated into national legislation in many forms, not to mention the widespread ratification of various international conventions on this topic, the female earnings gap remains substantial, as illustrated in tables 6, 7, 8 and 9.

91. Available data suggest that pay differentials in manufacturing tend to be larger than in the economy as a whole. This seems to be true both in developed and in developing countries. Table 10 shows female earnings in manufacturing to be mostly lower than in all non-agricultural activities. Among the exceptions we find Sri Lanka and the Federal Republic of Germany, where however the non-agricultural earnings do not cover the full range of service activities. The same point was made also for India, in 1976, where the disparity between male and female earnings in manufacturing was said to be higher than in non-agricultural occupations as a whole. 26/

Table 10. Average earnings of women workers in all non-agricultural activities and in manufacturing industries as a percentage of men's in selected countries

Country	Year	Period	All non-agricultural activities	Manufacturing
Developing Countries				
Cyprus a/	1982	w	58.2	56.3
Egypt	1977	w	62.8	63.1
Jordan a/b/	1981	d	87.9	63.6
Kenya b/	1982	m	83.7	75.8
Republic of Korea b/c/	1982	m	45.1	45.1
Singapore	1982	h	63.6 d/	63.2
Sri Lanka	1982	h	80.1 e/	81.9
United Republic of Tanzania b/	1980	m	85.1	78.5
Developed countries				
Australia a/	1982	h	82.9	78.2
Belgium	1982	h	73.6 f/	73.5
France	1981	h	80.4	78.1
Germany, Fed. Rep. of	1982	h	72.7 f/	73.0
Japan b/c/	1982	m	52.8	43.1
Netherlands a/b/	1982	h	76.9	74.0
Switzerland a/	1982	h	67.3	67.0
United Kingdom	1982	h	69.1	68.8

Source: Yearbook of Labour Statistics, 1984 (Geneva, International Labour Office).

Notes: w = weekly. d = daily. m = monthly. h = hourly.

a/ Adults.
b/ Including employees.
c/ Including family allowances, bonuses etc.
d/ Including agriculture, fishing and sea transport.
e/ Excluding ISIC major divisions 4, 8 and 9.
f/ Excluding ISIC major divisions, 6, 7, 8 and 9.

92. Table 6 shows male-female earnings differentials in manufacturing at five different times between 1960 and 1982. It includes 13 developing countries (three in Africa, two in America, seven in Asia, one in Europe), and 16 industrialized countries.

93. The first observation is the relative homogeneity of the data of industrial countries contrasting with the disparity of data for developing countries. In addition, there seems to be little evidence of time trends in relative female pay levels in developing countries, contrary to the developed ones.

94. In all industrialized countries the female earnings gap had an overall tendency to close, between 1960 and 1980, due to rising demand for female labour, and to equal pay policies followed by many countries, particularly in the 1970s. In the last few years the gap widened again in a number of countries under the impact of the recession that led in general to the displacement of jobs held by the least-skilled men. The recession affected less costly female jobs to a lesser degree. The result was to widen the male-female pay differential. 27/

95. The apparent lack of discernible time trends in male-female pay differentials in developing countries can be attributed to a number of factors, some of which acted in opposite directions. At a given time overall pay differentials reflect the distribution of women and men in jobs across the industrial structure and occupational system. Changes in the average differential over time are therefore profoundly influenced by changes in the composition of industries and structure of occupations. In developing countries, industrial structure is prone to more rapid changes than in developed ones. Moreover the range of existing industries is much narrower than in developed countries. Thus the implantation of each new industry may influence the overall male-female pay differential in one direction or another. For example, the introduction of a fairly highly paid industry employing mostly males (mechanical engineering), widens the existing pay differential. A subsequent implantation of an industry employing a large proportion of women (electronics), but paying higher wages than the already existing "female" manufacturing branches (textiles and clothing), may narrow the overall earnings gap again.

96. The wide inter-country differences in male-female pay differentials may be partly due to differences in industrial structure. However, there are substantial differences between countries also in female wage rates and monthly salaries in individual occupations, as shown in tables 7 and 8. Therefore, other factors are obviously as important in influencing male-female pay differentials as the industrial structure, if not more so.

97. These factors may be institutional, related to governmental policies, and to the position and role of trade unions. They may be also related to customs and industrial practice. In Japan, for example, the seniority wage system is highly developed, which tends to disadvantage women. Monthly earnings include various forms of allowances for dependents and housing. These allowances are frequently made available only to the heads of household, who are mostly men. The fact that women seldom enjoy these allowances tends to widen the female pay gap. 28/ A similar situation exists in the Republic of Korea.

98. An obvious cause of the prevalence of a male-female earnings gap is the educational gap that affects the average qualifications of women. This is diminishing in many countries. In Latin America, for example, primary schools in many urban regions are enrolling both girls and boys on an equal basis in contrast with rural areas, where the attendance of girls is much lower than of boys, largely because their labour is needed for subsistence activities. At secondary schools, girls make up 48 per cent of pupils, which corresponds to almost full enrollment given the sex-ratio of population in the relevant age group. Nevertheless, the type of education provided does contribute to limiting the future occupational prospects of girls, and from the very first years of schooling teaching programmes discriminate to a greater or lesser degree between the sexes.

99. In particular, young women do not acquire the technical qualifications that provide more favourable job prospects. There has been a considerable rise in the proportion of young women among university students who made up as much as 40 per cent of the student body in many Latin American countries by 1970. However, young women in Latin America, as everywhere except in the socialist countries, pursue a narrow range of university courses that do not on the whole provide them with the qualifications that could improve their position in the labour market. 29/

100. Women who do acquire useful further qualifications and obtain employment in developing countries, where earnings differentials favour the highly qualified, do fairly well. By the same token, unqualified women suffer from pay differentials, which penalize the non-skilled, and they are the vast majority.

101. Some of the information analysed here may cast doubts on the differences in such qualifications being a major explanation for the male-female earnings gap. If differences in qualifications attributable to women's educational lag were a good explanation of the earnings gap, then improvements in women's education should in time lead to the elimination of the differential. But there are reasons for doubting whether women's deficiencies in qualifications provide a satisfactory explanation of their earnings position. In developed countries, many wage and salary systems, for example, reward seniority regardless of individual job performance and level of qualification, and it is obviously difficult for women who have family responsibilities to build up seniority. Moreover, in many cases the qualifications and experience of women are not rewarded in practice, because employers do not have to pay more to obtain better qualified women rather than less qualified ones if women's access to job openings is limited by factors such as lack of mobility and their family roles. 23/

102. The situation in developing countries, and particularly in the industrial export processing zones, is quite illuminating in this respect. It is openly accepted, at least in most newly industrialized countries, that women are hired precisely because they are willing to accept low wages. A certain basic educational level is a prerequisite for being hired, and those lacking this basic level have no access to formal industrial employment, but there are practically no rewards for any education above the required level. As discussed earlier, women are recruited very young and allowed to stay in the job for only about from two to three years on average, precisely in order to avoid seniority wage increases. For many weeks the newly recruited female workers may be paid apprentice rates, although it may take only a few days to learn the job. Frequently they are dismissed at the end of the apprenticeship period, and new "apprentices" are hired. In developing countries, and especially in the industrial export zones, women's wages tend to depend very clearly mainly on women's bargaining power, or rather the lack of it.

103. In the countries and areas in which most of the easily available, young, female labour has already been employed, and firms are encountering recruitment problems, there has been a recent trend towards better terms of employment. In particular women have been allowed to gain a certain seniority through longer length of service. However, the changes have been limited and most employment is still of a short duration. 10/

Fringe benefits

104. Frequently industrial employment carries with it a certain number of fringe benefits i.e. remunerations in cash or kind, paid by the employer in addition to direct wages. In some cases fringe benefits represent an important element of the standard of living of workers, and of the cost of enterprises. Fringe benefits can be of many types: bonuses and gratuities, paid holidays, payments in kind, housing, vocational training provided by the enterprise, welfare and employee services of many kinds, including for instance, subsidized canteens or luncheon vouchers, company stores and child-care facilities, health and family planning centres.

105. The importance of non-wage remuneration varies greatly from country to country. Japan stands out among industrialized countries as a place with high fringe benefits for workers, while in Western countries the approach to remuneration tends to be much more individualistic and direct-wage oriented. In other Asian countries, particularly in a number of newly industrialized countries, the Japanese pattern seems to prevail. Also in China and India benefits in kind are relatively important, in China following the model of socialist countries, in India reflecting specific cultural attitudes.

106. In Africa and a number of Latin American countries the need for converting agricultural workers, barely acquainted with the notion of money income, into disciplined, responsible industrial workers and city dwellers has been one of the problems in early industrial development. In such conditions, in order to attract and retain workers, to secure their regular attendance and even in some cases, to attain the minimum level of physical strength needed for adequate productivity, employers had little choice but to facilitate the process of transition by providing housing, food, elementary education and medical care and, in general, taking care of the basic necessities of the personal and family life of the workers. In several developing countries situations of this kind still prevail. 30/

107. Once the profound social transformations involved in industrialization are under way, the material necessity of some of the basic benefits diminishes. Social legislation may then increasingly establish statutory entitlement, replacing benefits that were formerly conferred voluntarily by the employer. But some benefits may be maintained, or others added, less as a primary necessity than as a productivity-oriented effort of integrating workers into the enterprise. 30/

108. The functions and reasons of indirect remuneration have been analysed elsewhere, 31/ but let us turn to the question of how indirect remuneration affects women workers. Many of the fringe benefits connected with manufacturing employment may alter the whole outlook of a woman starting an industrial job, such as the entitlement to paid holidays, the availability of (subsidized) leisure facilities, the type of working clothes or uniforms to be worn etc.

109. The various fringe benefits affect men and women workers differently; some tend to benefit mainly men, others mainly women. Bonuses, for example, are aimed at fostering the attachment of workers to the enterprise, and tend to reward length of service. They are often tied to the level of earnings (e.g. 13th monthly salary). For these reasons, they tend to give an advantage to men. Their overall effect is to increase male-female earnings differentials.

110. Housing allowances are granted usually to heads of household, who are mostly men. Thus they tend to raise men's average income from work more than women's. Vocational training is given more to men than to women, whom many employers consider a poor investment because of the average short length of stay in the enterprise. Vocational training run by the enterprise increases men's promotion prospects more than women's, other factors being equal.

111. Certain benefits in kind are aimed specifically at women workers, particularly child-care facilities and health centres. It seems, however, that the facilities provided are rarely sufficient, and that they follow, rather than accompany, the development of female employment. The absence of child-care centres, or delay in providing them, can represent a high cost to those mothers who have to pay for child-minding on a private basis. Their net income from work may be considerably reduced. The availability of child-care facilities varies a great deal from country to country. In the centrally planned economies, suffering from a chronic labour shortage, they are more developed than in other countries, industrialized and developing, for reasons related to the abundance of labour supply, scarcity of social funds, tradition, prevailing theories on child-care etc.

112. In concluding this section note should be taken of the argument that the costs of maternity benefits and child-care provision may have perverse effects by discouraging employers from recruiting women. 32/ In this connection it must be pointed out that job segregation operates in such a way as to make it uncommon for men to be taken on as substitutes for women in typically female jobs, whether or not benefits are made available to female employees. Nevertheless, many employers succeed in evading such costs by hiring women workers without entering into formal employment contracts that would make them liable for protective legislation through the use of temporary or casual female labour, and through subcontracted arrangements and home-working, forms of work discussed below.

B. Conditions of work

Hours of work

113. Limitation of excessive hours of work has been an important subject of the early national and international labour legislation. Although the limitation of working hours is now universally accepted, it should be recalled that this has not always been the case.

114. In spite of the progress achieved in statutory documents and in practice, particularly through collective bargaining in the organized sectors, there are still workers who are not protected. These are, in particular, workers in the informal sector (both urban and rural), workers in special enclaves and zones (i.e. in the Export Processing Zones), and workers employed on a seasonal, temporary or casual basis. Women are largely represented in all these

categories, both in developed and developing countries. Among the industries for which a large share of output generally originates in the informal sector are textiles and clothing, leather and footwear, food and drink as well as timber and wood, engineering maintenance and repair shops. Most of these are "women's" industries.

115. In all industrialized countries, during the post-war period hours of work in manufacturing had an overall tendency to decline. However, this has not been the case in all developing countries; in a number of them, working hours in manufacturing had a tendency to rise. 33/ This applies to women and men in almost the same way.

116. In the industrialized countries women have been working considerably shorter hours than men, in manufacturing particularly. In developing countries, at least in those for which data are available and which appear in table 11, the difference tends to be smaller. In some cases, women in manufacturing work longer average hours than men, e.g. when they are concentrated in industries with longer than average hours of work (see, for example Republic of Korea in table 11).

Table 11. Average weekly hours of work of men and women in manufacturing in selected countries, 1960-1982

Country		1960	1970	1975	1980	1982
Cyprus a/b/	Total	43	46	43	41	41
	Male	-	-	44	43	42
	Female	-	-	42	40	40
Egypt a/	Total	49	55	59	54 c/	-
	Male	-	-	59	56 c/	-
	Female	-	-	52	52 c/	-
El Salvador d/	Total					
	Male	56.6 e/	48.0	44.3	44.6	44.5 f/
	Female	44.3 e/	45.2	43.9	44.6	44.1 f/
Greece a/	Total	44.2	44.6	42.7	40.7	38.6
	Male	-	-	44.0	41.9	39.6
	Female	-	-	40.7	39.1	37.2
Republic of Korea d/	Total	50.3 g/	52.3	52.5 h/	53.1	53.7
	Male	-	-	52.4 h/	52.8	55.4
	Female	-	-	52.6 h/	53.5	56.3

continued

Table 11 (continued)

Country		1960	1970	1975	1980	1982
Singapore d/	Total	46.4	48.7	48.4	48.6	48.3
	Male	-	-	-	51.2	50.5
	Female	-	-	-	46.7	46.4
Sri Lanka a/	Total	-	-	-	45.3	46.5
	Male	-	-	53.4	47.7	48.2
	Female	-	-	47.3	37.2	40.1
Australia d/i/	Total	-	-	37.8	38.0	36.9
	Male	42.8 g/	44.0	38.9	39.1	38.2
	Female	39.5 g/	39.7	34.5	34.4	33.0
Germany, Fed. Rep. a/	Total	45.6	43.8	40.4	41.6	40.7
	Male	-	-	41.1	42.2	41.1
	Female	-	-	38.2	40.0	39.1
Japan d/i/	Total	47.8	43.3	38.8	41.2	40.9
	Male	-	-	39.4	42.4	42.1
	Female	-	-	37.4	38.4	38.3
Norway d/	Total					
	Male	39.3	35.3	33.5	31.0	30.7
	Female	34.9	30.9	28.1	25.8	24.9
Spain d/	Total	43.5	44.1	42.8 h/	41.3	39.2
	Male	-	-	43.9 h/	414.9	39.8
	Female	-	-	39.7 h/	39.1	37.2
United Kingdom d/b/j/	Total					
	Male	47.4	44.9	42.7	41.9	42.0
	Female	40.4	37.7	36.8	37.3	37.8

Source: Yearbook of Labour Statistics (Geneva, International Labour Office) various issues.

a/ Hours paid for.
b/ Adults.
c/ 1977.
d/ Hours actually worked.
e/ 1961.
f/ 1981.
g/ 1963.
h/ 1976.
i/ Workers and employees.
j/ Full-time workers.

117. Shorter working hours for women play a role in countries where labour is well organized, where labour legislation (particularly concerning hours of work, night shifts for women etc.) is enforced, and where women have a long-established position in manufacturing industry. In other countries, particularly in the export processing zones, women do a considerable amount of overtime, on night shifts, and generally work long hours. 34/

118. The view is sometimes held in developing countries that long hours of work are an economic necessity, although it is realized that productivity and quality of output may suffer when hours are excessive and badly arranged. In some African countries, for example, accurate statistics on hours of work are not available, but there is evidence that hours of work are often considerably longer than those normally prescribed by regulations or collective agreements. 35/ Even if they are more or less in line with such regulations, a considerable distance to travel to work can make a woman's day extremely long.

119. A major problem is presented by overtime arrangements in almost all countries. Overtime has superficial advantages to employers as an alternative to recruiting additional staff. If there is a shortage of labour with the requisite skills, training of new staff can be avoided. However, overtime is also used under other conditions even where labour of the right kind is available. Social security contributions and other administrative costs may thereby be reduced. The costs in employee health and lower productivity are not systematically set against the obvious advantages, and many firms become dependent on the use of overtime when shift-work could be used in its place. The existing work-force often values the chance to work paid overtime; indeed, workers oppose the elimination of overtime when they depend on the supplementary earnings it provides. Once overtime has become a norm and is necessary to the operation of the firm, its use may prevent women who could work shorter hours from seeking or obtaining employment in those firms. This is a problem in industrialized countries. In developing countries, where average wages are low, the pressure to obtain overtime earnings is all the greater, on male and female employees alike, despite the toll taken on the workers' health (the ill-effects may include drug abuse), and on their personal time. 35/

120. In the developed countries, the progress achieved in reducing working hours, particularly for women, created a new problem related to equal opportunities for men and women workers. Special protection measures for women, such as the prohibition of night work and of certain special types of work, have become in many respects a handicap for them, limiting their employment opportunities and reducing their average earnings. In particular, the much lower number of overtime hours women usually work lowers their average earnings in comparison with those of men, and increases male-female earnings differentials.

121. Some argue that "overprotection" reduces women's employment opportunities. 36/ It is sometimes maintained that the protection afforded to women should be extended to cover men through the discouragement of unsocial hours of work in general. Where such work is necessary because of the nature of the product or service, it should be paid at a premium and should be open to women as well as men. It should be noted that women already work unsocial hours in many occupations and industries, but receive no special rewards. In developing countries the situation is different. The need for protection is

much greater because working hours remain long and are often excessive. Governments in these countries have felt the need to mitigate the worst effects of working hours and conditions on women, if only in relation to their child-bearing role. In Africa several countries have regulations limiting the working day to 10 hours and providing for statutory breaks. In at least eight African countries night work is prohibited for women; work that is especially heavy or hazardous to health, including underground work, is in many cases officially closed to women. In Asia special regulations on hours of work for women are rare. However night work for women is the subject of specific legal conditions in a number of countries (e.g. Bangladesh, India, Indonesia, Pakistan and Singapore). As in other countries exceptions are made for women in certain occupations and sectors (e.g. medical and emergency services). In the countries of North and South America too, night work for women is commonly the subject of special legislation and, less frequently, there are legal limits on women's working hours (e.g. in Peru, El Salvador and Guyana). 33/

122. Studies 33/ show that, unfortunately, protective legislation suffers from numerous inadequacies and deficiencies. The applicability of the regulations is limited in the first place because large numbers of workers are not covered by collective agreements or other regulatory provisions. Moreover workers in the informal sector are beyond legal protection of this kind, and these groups make up a large proportion of the total work-force.

123. Other anomalies result from the lack of co-ordination in the regulations applying to different industries and sectors in countries where there is no comprehensive legislation governing hours of work. Public holidays are only observed by a few employers in organizations in the modern sector. Shift work is frequently organized in such a way as to conflict with other requirements on hours to be worked in sequence and work-breaks. Even in government-inspected enterprises work-breaks are seldom properly observed.

Part-time work and peripheral forms of employment

124. In most industrialized countries there has been a rapid development of women's part-time work during the period under review. The multiple aspects of the subject have been analysed in numerous publications. 37/

125. The scant information on part-time work in manufacturing that exists for developing countries indicates that it is not very widespread. In most countries it hardly exists at all, as employers prefer to hire full-time workers, willing to accept overtime as discussed above.

126. What seems more relevant to the experience of industrialization in developing countries are the various peripheral forms of employment: short-term, seasonal, casual and home working. These forms of employment largely apply to women workers, who accordingly suffer from such disadvantages as lack of security, no possibility of advancement, no extra compensation or allowance of any kind, and very low pay.

127. Some of the activities usually performed by women, for example fruit and vegetable canning, are seasonal. But some other generally "female" industries, such as fish, sea food and meat canning and preserving, and even garment making, are also subject to seasonal fluctuations. 38/

128. Women seasonal workers employed in these industries earn an income only part of the year, and even that income is not guaranteed. This in spite of the fact that many women return to the same factory year after year. There are many migrant female workers who travel long distances from one work place to the next, according to harvesting seasons and the ripening of crops. Often they are housed under extremely poor conditions. Needless to say, they are assigned to unskilled, arduous and repetitive jobs. 39/

129. Women seasonal workers often work long hours. During production peaks, when highly perishable raw materials have to be processed quickly, enterprises seek to lengthen the working period, which means overtime and a considerable amount of shift work for women in these industries. Many seasonal workers are "idle" during a large part of the year. Apart from the migrants, they mostly have an alternative occupation in the vicinity of the factory, frequently in agriculture. 40/

130. In general, seasonal fluctuations in the food-processing industry have been decreasing. This is mostly due to technological factors: refrigeration techniques and the availability and control of chemical additives allow a longer conservation of raw materials. However, seasonal fluctuations remain high in two particular branches that are important in developing countries: the sugar industry and fruit and vegetable processing. As the latter is everywhere a "female" branch, it is more particularly female labour that is affected by them. 38/

131. Certain "female" industries, such as textiles and clothing, tend to employ a relatively large proportion of home workers, particularly in developing countries. On the employers' side, apart from the obvious financial advantage, subcontracting to home workers gives a certain flexibility for meeting heavy demand or for manufacturing small series etc. This type of work is also often considered to provide a buffer against falling demand, protecting the jobs of factory workers.

132. A special characteristic of work performed at home for a subcontractor is that it is often done clandestinely. Pay is usually piece rate and reduced to a minimum. Information on this type of work is difficult to assemble, because for tax evasion and regulation avoiding purposes it goes largely undeclared. However, the scope of more or less clandestine homework in textiles and clothing is likely to be quite wide, perhaps particularly in the early stages of development. 41/

133. In Hong Kong, an average of 3.8 per cent of the economically active population consisted of home workers in 1978, but the proportion was obviously higher in industries such as clothing, since according to a sample survey carried out in the same year, about one third of small and medium-sized enterprises in this industry made use of home workers. In India, work at home appears to be widespread in the clothing industry, largely under subcontracting arrangements, with a system of intermediaries being in regular contact with the workers. In Pakistan, according to reports of the Federation of Trade Unions, a great deal of work is contracted through intermediaries, who arrange for it to be done by home workers. In Malaysia, according to government reports, certain small enterprises with an insufficient staff arrange to have work done by home workers, particularly those manufacturing women's and children's clothing. In Chile, according to the National Chamber of the Clothing Industry, some 60 per cent of articles of women's clothing and

30 per cent of men's are made by home workers, who are deemed to be self-employed. In Mexico, the National Chamber of Clothing Industries has reported that 5,000 factories or establishments employ home workers. This category of workers has been estimated to represent 30 per cent of the work-force in the clothing industry. 41/

134. There are other types of contract work, apart from homework. In some countries intermediaries provide workers for industrial enterprises during periods of high activity on a short-term basis. The workers then work on the premises of the establishment that employs them for the time needed. The intermediary may then find them another job in a different place. This form of employment is known to exist in some developing countries, such as Hong Kong, but also in certain developed ones, e.g. Japan and Italy.

Occupational safety and health

135. There are many safety and health risks in most industrial activities. While those in metallurgy, engineering, chemicals and other "male" industries are obvious and well known, the accident rate in the light industries, which employ a large proportion of women, is surprisingly high. This comes from both the nature of the work performed and the often low standard of equipment. The specific risks and dangers can become potentially much greater when work is performed in smaller, less sophisticated plants, in village workshops, in workshops in the urban informal sector, and in workers' homes. 42/ The proportion of women workers is always higher in these places of the informal sector than in the formal sector of industry.

136. For example, employment injuries in food-processing are markedly higher, both by their frequency and their severity, than in the manufacturing sector as a whole. The heat, the damp, the acid substances handled, the chemicals, food additives, colourings, the cutting tools, are all factors of serious risk. Moreover, the repetitive and monotonous character of the work leads to fatigue and increases accident risks. The high pressure of work during the season and the increased physical and nervous strain on the workers is also claimed to be responsible for the high accident rate in the food industry. Accident prevention is made more difficult by the high labour turn-over, and by the fact that each season part of the hired labour force is new and has to be gradually trained.

137. There are also quite specific risks and dangers associated with the textile industry, traditionally "female", because of dust from the fibres used and noise. Electronic assembly work creates risks for the eyes, which can be serious if working hours are long and rest periods insufficient.

138. Developing countries show a great degree of variation in working environments and the hazards to which workers are exposed. On the whole, occupational diseases, often ignored by national statistics, seem more frequent and more serious than in industrialized countries. The latter were in a similar situation when technology was less advanced. The difficulties arise partly because of the shortage of resources available in developing countries, and because of insufficient labour inspection. The structure and scattered location of industry in developing countries and the extent of the informal sector and of seasonal, temporary and casual employment create special difficulties for the control of conditions and practices that are dangerous to the health and safety of workers. It may also appear that

extremes of climate present a health problem. High levels of humidity and heat play a part in occupational disease and injury, e.g. by discouraging the use of protective clothing and increasing the risk of infection.

C. Women and industrial decision-making

Vertical occupation segregation

139. The proportion of direct production workers in the female labour-force is largely dependent on the level of development of the economy; in more advanced industrialized economies the proportion of non-manual workers and those not directly involved in production in the manufacturing labour force is greater where the level of mechanization and automation is higher. However, the distribution of women among the non-manual categories shown in table 12 is of some interest. The international data show three distinct patterns of employment of women in non-manual occupations (excluding sales workers) in the various regions. In western industrialized countries a quarter or more of the female labour force is found in clerical jobs, but only at most about 8 per cent of the female labour force are employed in professional jobs; in many western industrialized countries the figure is lower than this. The absolute number of professional jobs is clearly a constraint, but in many industrialized countries the proportion of males in professional jobs is two or more times the proportion of females in professional jobs. A different pattern is found in Latin America, where the proportion of women obtaining higher education is as high as for men. In many Latin American countries the situation is the reverse of that found in Europe and North America, with a higher proportion of women in professional than clerical occupations. (In some Latin American countries women in the professions make up more than 10 per cent of the female labour force. The proportion of clerical workers among the female labour force is only above 15 per cent in the case of a few Latin American countries.)

140. The pattern found in Africa, with the exception of Egypt, and Asia is a low proportion of women in professional and clerical jobs, in contrast with Europe and America. However, in countries where social customs call for the seclusion of women the proportion of women professionals in the female labour force is in some cases much higher than in most western industrialized countries, e.g. in Kuwait in 1980, 18.3 per cent of the female labour force was in professional occupations; the figure for Bahrain in 1981 was 16.1 per cent. In these countries the female labour force in paid employment is small.

141. In industrialized countries professional employment among women has grown much less rapidly than clerical employment. Clearly in a proportionate distribution of the labour force, as shown in table 12. Expansion of one category of jobs, such as the clerical, affects the size of other categories, including professional. The feminization of clerical jobs has followed industrial development in most countries; it is now being asked whether the spread of new office technology will reduce job openings for women in this category of employment.*

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*See International Labour Office, World Labour Report, 1: Employment, Incomes, Social Protection, New Information Technology (Geneva, 1984).

Table 12. Distribution of the male and female manufacturing work-force by occupation (Percentage)

Country by region	Year		Total a/	Professional, technical and related workers	Administrative and managerial workers	Clerical and related workers	Sales workers	Service workers	Agriculture, forestry etc. workers	Production workers
Africa										
Egypt	1980	M	1364	4.5	0.9	6.5	0.9	4.5	0.5	82.1
		F	75	8.3	0.8	25.0	1.6	2.3	0.0	62.0
Ghana	1970	M	167	1.8	0.9	3.8	0.8	2.2	7.1	83.4
		F	214	0.1	0.0	0.6	0.4	0.2	0.5	98.2
Malawi	1977	M	68	1.4	0.5	4.4	3.0	4.4	4.5	81.8
		F	15	0.3	0.1	2.6	6.8	4.2	2.7	83.3
Male	1976	M	7	2.5	0.1	0.0	0.0	0.1	0.0	97.2
		F	11	0.1	0.0	0.0	0.0	0.1	0.0	99.8
America										
Barbados	1982	M	6	7.9	4.8	7.9	4.8	3.2	0.0	71.4
		F	6	1.3	1.3	10.7	1.3	2.7	0.0	82.7
Canada	1983	M	1288	18.0	-	6.9	4.4	2.8	0.3	67.6
		F	497	11.7	-	25.2	3.4	1.6	0.0	58.1
Chile	1981	M	382	2.1	4.4	13.4	1.5	2.3	0.5	75.9
		F	135	1.5	1.5	13.7	1.3	1.0	0.0	81.0
El Salvador	1980	M	144	1.8	1.5	5.6	1.1	3.1	1.3	85.8
		F	104	.04	0.8	3.7	1.4	0.7	0.4	92.5
Guatemala	1981	M	133	2.7	2.2	2.4	2.3	1.4	5.9	83.1
		F	42	2.5	1.2	5.0	4.9	1.2	0.5	84.7
Panama	1980	M	41	4.0	6.9	4.0	3.3	4.4	15.3	62.0
		F	11	4.3	4.9	18.5	2.9	2.8	0.8	65.8

Peru	1981	M	412	7.4	3.5	8.1	1.8	1.6	1.0	76.6
		F	130	5.1	1.0	12.1	1.1	0.5	0.1	80.1
United States	1982	M	13723	15.3	10.4	5.5	2.8	2.4	0.0	63.6
		F	6563	7.9	3.8	27.9	2.0	1.1	0.0	57.3
Venezuela	1981	M	493	3.1	9.2	7.6	4.3	3.0	0.3	72.5
		F	179	2.5	1.6	16.7	2.0	4.6	0.1	72.6
Asia										
Bahrain	1981	M	11	5.4	1.1	5.8	2.7	2.4	0.3	82.3
		F	0.3	(16.1)	(0.4)	(46.0)	(1.1)	(1.1)	(0.0)	(35.4)
Bangladesh	1974	M	910	0.7	0.6	2.3	3.5	1.1	0.1	91.7
		F	36	0.5	0.1	0.4	1.7	0.4	0.2	96.7
Indonesia	1978	M	1932	1.2	0.8	2.5	1.8	7.3	0.2	86.3
		F	1918	0.2	0.0	0.6	1.1	3.9	0.1	94.1
Japan	1982	M	8450	3.0	6.4	9.4	7.1	0.6	0.0	73.5
		F	5350	0.7	0.4	18.2	1.3	0.6	0.0	78.8
Kuwait	1980	M	41	8.4	1.9	6.3	1.9	3.8	0.4	77.3
		F	1	18.3	0.3	56.4	0.6	1.0	0.0	23.4
Republic of Korea	1982	M	1753	2.8	4.6	14.9	1.3	1.9	0.1	74.5
		F	1143	0.6	0.3	11.4	0.6	1.7	0.0	85.5
Singapore	1982	M	191	8.3	8.2	5.7	1.9	1.8	0.1	74.0
		F	146	2.1	1.2	14.9	0.4	2.1	0.0	79.3
Sri Lanka	1981	M	357	1.2	2.0	6.0	4.1	3.1	1.5	82.2
		F	173	0.6	0.5	4.1	0.8	0.3	0.5	93.1
United Arab Emirates	1975	M	17	2.0	2.4	3.2	1.5	2.0	0.1	88.8
		F	(0.1)	(5.9)	(2.0)	(31.4)	(0.0)	(1.0)	(1.0)	(58.8)

continued

Table 12 (continued)

Country by region	Year		Total a/	Professional, technical and related workers	Administrative and managerial workers	Clerical and related workers	Sales workers	Service workers	Agriculture, forestry etc. workers	Production workers
Europe										
Germany Fed. Rep. of	1982	M	6126	11.7	4.2	9.6	3.3	1.2	0.2	69.8
		F	2517	4.2	1.3	34.0	8.4	4.8	0.0	47.4
Hungary	1980	M	828	12.0	0.2	3.5	1.7	1.8	1.0	79.8
		F	720	8.9	0.1	16.4	2.4	7.2	0.4	64.6
Norway b/	1982	M	317	11.6	6.6	2.5	3.4	1.3	0.0	74.6
		F	100	7.0	2.0	26.0	5.0	10.0	0.0	50.0
Portugal	1981	M	613	2.7	3.3	7.3	2.2	2.4	0.8	81.3
		F	336	0.8	.03	9.2	1.8	3.9	0.3	83.8
Spain	1982	M	2277	3.6	3.2	7.6	2.9	1.4	0.0	81.3
		F	707	1.2	0.3	16.5	2.3	4.1	0.0	75.7
Sweden b/	1982	M	717	20.2	2.4	3.3	4.3	1.4	0.5	67.9
		F	249	8.8	0.4	26.1	3.4	7.3	0.0	54.0
Oceania										
Australia	1981	M	824	6.4	6.8	5.0	3.6	1.4	0.5	76.2
		F	282	3.9	1.5	31.0	3.6	3.1	0.2	56.7
New Zealand	1981	M	216	5.5	7.4	3.6	4.8	1.2	0.9	76.7
		F	81	3.4	1.3	24.7	4.0	3.1	0.3	63.2

Source: Yearbook of Labour Statistics, 1983 (Geneva, International Labour Office, 1984).

a/ Manufacturing employment in thousands, excluding unspecified occupations.
b/ ISIC 2, 3 and 4, mining and quarrying, manufacturing, and public utilities.

142. Boserup 43/ found the proportion of women in professional jobs to be much closer to the proportion of women obtaining higher education than was the case for managerial and other administrative jobs, and from the available evidence this still applies. In all countries teaching and medical occupations are considered especially suitable for women, but there has not been a significant expansion of female employment in other professions. In developing countries with a relatively high proportion of women professionals the proportion of women in managerial and administrative jobs is by contrast low (see table 12).

143. Most women in industry are concentrated in basic production jobs and are not trained as skilled workers. However, there are women who do perform skilled jobs in modern industry, but their skills often do not receive recognition in the job and in the pay grading system in use. It is increasingly being recognized that the level of pay may determine a job's grading, rather than skill deciding the pay level, and pay may largely reflect bargaining power. Hence the need for job assessment of a systematic kind to be used in establishing pay grades. 23/

Women with an independent or decision-making status

Employers and own-account workers

144. The official international statistics on which table 13 is based group together employers and those working on their own account. This combined category is heterogeneous, and includes, in the case of women, a few employers and many workers who have in common only the fact that they are not employees. More detailed evidence on employment status by sex in the textile and clothing industries has been assembled in table 14. These data show that own-account workers are far more numerous than employers among women in these industries (except in the case of the Philippines where there are unusually large numbers of women among employers). 38/

145. A large proportion of own-account workers are in fact contract workers, working either at home or in various workshops on a more or less casual basis. In Tunisia and other carpet-producing countries, female own-account workers mostly make carpets; at present over 92 per cent of such workers are women, as compared with 67 per cent of employees in 1975 (see table 14). Elsewhere they make garments, embroideries, food products, beverages, leather goods etc. These workers do not enjoy any of the protection from labour legislation that covers employees in the formal sector.

146. Their earnings are very much lower than those of employees in the modern industrial sector. Thus women in this sector pay a heavy price for the opportunity to exercise traditional skills and for more flexible working arrangements, as compared with organized and supervised production methods, long hours of work and rigid schedules of the formal sector of industry. Where living standards are very low, higher earnings must well be considered a priority, but access by women to jobs in the modern sector is very limited. The constraints on most women who are not employees are such as to distance them greatly from those in the employer category.

Table 13. Distribution of the male and female manufacturing work-force by employment and status (Percentage)

Country or area by region	Year		Total a/ 0	Employer and own account worker 1	Employee 2	Unpaid family helper 3	Other 4
Africa							
Algeria	1977	M	244	12.9	83.8	3.1	0.2
		F	18	7.2	90.6	2.1	0.1
Cameroon	1987	M	128	53.5	35.5	1.5	9.5
		F	31	61.6	8.3	5.1	24.9
Egypt	1980	M	1364	-	-	-	-
		F	75	-	-	-	-
Mali	1976	M	7	32.8	52.6	8.1	6.5
		F	11	27.1	4.2	61.3	7.4
Reunion b/	1987	M	6	9.5	88.9	0.5	1.1
		F	1	12.9	82.2	2.1	2.9
Tunisia	1980	M	154	14.8	83.5	1.6	0.2
		F	146	52.0	38.9	6.7	2.3
America							
Barbados b/	1982	M	6	12.7	85.7	0.0	1.6
		F	7	10.7	89.3	0.0	0.0
Bolivia	1976	M	89	39.4	58.7	1.2	0.8
		F	56	75.4	14.4	9.5	0.6
Brazil c/	1980	M	5790	9.0	90.4	0.4	0.2
		F	1734	6.3	92.7	0.7	0.3
Canada	1983	M	1288	1.9	98.1	0.0	0.0
		F	497	0.4	98.8	0.0	0.8
El Salvador	1980	M	144	21.8	73.3	4.9	0.0
		F	104	50.0	43.4	6.6	0.0
Guatemala	1981	M	135	33.0	61.7	3.0	2.3
		F	42	48.8	41.5	6.4	3.2
Panama	1980	M	41	9.7	88.6	0.2	1.4
		F	11	16.9	81.6	0.2	1.2
Peru	1981	M	413	25.8	72.6	0.6	1.0
		F	131	45.0	45.9	6.6	2.5
Puerto Rico b/	1983	M	93	3.2	71.0	0.0	21.3
		F	-				
United States	1987	M	-				
		F	7622	1.1	98.6	0.3	0.0
Uruguay	1975	M	142	16.0	83.2	0.4	0.4
		F	64	36.1	62.5	0.9	0.5
Venezuela	1981	M	539	13.5	77.3	0.7	8.5
		F	190	30.7	60.9	2.7	5.7

continued

Table 13 (continued)

Country or area by region	Year		Total a/ 0	Employer and own account worker 1	Employee 2	Unpaid family helper 3	Other 4
Asia							
Bahrain	1981	M	11	13.4	86.0	0.2	0.3
		F	0.3	10.2	89.1	0.4	0.4
Bangladesh	1974	M	910	39.8	52.7	7.4	0.1
		F	36	48.3	13.7	37.8	0.2
Hong Kong	1981	M	558	6.9	89.2	0.3	3.6
		F	467	0.9	95.0	1.1	3.1
Indonesia	1978	M	1936	29.0	64.5	6.5	0.0
		F	1920	44.0	35.8	20.2	0.0
Iran	1976	M	1036	24.7	69.9	5.0	0.4
		F	646	15.8	27.3	55.5	1.4
Israel b/	1982	M	236	14.0	83.2	0.1	2.7
		F	68	9.5	84.7	2.1	3.7
Japan	1982	M	8450	8.8	89.8	1.4	0.0
		F	5350	16.3	73.3	10.5	0.0
Rep. of Korea	1982	M	1871	16.1	82.5	1.4	0.0
		F	1176	15.0	7.1	0.0	
Kuwait	1980	M	41	10.6	89.4	0.0	0.0
		F	1	9.4	90.6	0.0	0.0
Nepal	1976	M	33	38.0	55.4	606	0.0
		F	9	48.3	30.1	21.5	0.0
Pakistan	1981	M	1869	37.2	56.3	6.5	0.0
		F	117	39.9	43.4	16.8	0.0
Philippines	1978	M	1002	19.0	77.5	3.0	0.5
		F	914	36.9	51.3	11.7	0.1
Singapore	1982	M	196	6.6	90.6	0.4	2.4
		F	150	4.5	91.9	0.8	2.8
Sri Lanka	1981	M	357	18.7	78.5	2.9	0.0
		F	174	34.8	58.5	6.7	0.0
Thailand	1980	M	1036	21.0	71.8	7.2	0.0
		F	753	21.9	58.3	19.8	0.0
Turkey	1980	M	1752	19.9	77.0	3.1	0.1
		F	285	10.6	70.3	18.9	0.1
United Arab Emirates	1975	M	17	13.7	85.9	0.3	0.1
		F	(0.1)	35.3	60.8	3.9	0.0
Europe d/							
Austria	1982	M	701	6.1	93.4	0.4	0.0
		F	279	1.8	96.1	2.2	0.0
Belgium	1982	M	673	6.3	93.1	0.5	0.0
		F	210	1.6	95.0	3.4	0.0

continued

Table 13 (continued)

Country or area by region	Year		Total a/ 0	Employer and own account worker 1	Employee 2	Unpaid family helper 3	Other 4
Denmark	1981	M	399	6.7	93.2	0.0	0.0
		F	179	1.1	94.9	4.0	0.0
Finland	1980	M	341	2.7	97.1	0.1	0.0
		F	209	1.1	98.1	0.7	0.0
Germany, Fed. Republic of	1982	M	6128	4.9	95.0	0.1	0.0
		F	2660	1.8	96.4	1.8	0.0
Greece	1981	M	499	29.9	66.2	1.3	2.5
		F	202	12.3	76.2	7.8	3.7
Ireland	1979	M	176	5.5	94.5	0.1	0.0
		F	67	1.5	98.3	0.2	0.0
Italy	1980	M	3754	12.2	86.7	1.1	0.0
		F	1735	8.5	88.2	3.3	0.0
Netherlands	1981	M	861	3.3	96.6	0.1	0.0
		F	174	2.0	94.2	3.8	0.0
Portugal	1981	M	651	8.1	90.5	1.4	0.0
		F	439	6.2	91.6	2.2	0.0
Spain	1982	M	2277	7.8	91.0	1.0	0.3
		F	707	7.0	89.3	3.5	0.2
Sweden	1982	M	694	2.6	97.4	0.0	0.0
		F	252	2.0	98.0	0.0	0.0
Oceania							
Australia	1983	M	965	3.7	85.8	0.0	10.5
		F	312	5.1	85.7	0.0	9.2
New Zealand	1981	M	226	3.7	93.7	0.0	2.6
		F	86	2.9	93.3	0.2	3.6

Source: Yearbook of Labour Statistics (Geneva, International Labour Office) various issues.

a/ Manufacturing employment in thousands.
b/ Including ISIC 2, Mining and Quarrying.
c/ ISIC 2-4, Mining and quarrying, Manufacturing, and Public Utilities
d/ Excluding planned economies, where listed status categories are not relevant.

Table 14. Distribution of men and women workers in the textile and clothing industries by employment status in selected developing countries (Percentage)

Country/year		Total	Employer	Employee	Own-account worker	Unpaid family helper	Other
A. TEXTILES							
India, 1971							
Formal sector	M	100.0	1.5	90.2	6.4	1.9	0
	F	100.0	0.9	72.2	17.5	9.3	0
	F(%)	7.5	4.8	6.1	18.1	28.7	0
Informal Sector	M	100.0	-	10.4	31.5	58.1	0
	F	100.0	-	6.9	25.8	67.3	0
	F(%)	26.3	-	19.2	22.6	29.3	0
Philippines, 1970	M	100.0	0.6	81.4	9.9	8.0	0.1
	F	100.0	1.6	23.3	55.1	19.9	0.1
	F(%)	79.7	90.3	52.8	95.6	90.7	84.6
Singapore, 1979 a/	M	100.0	14.1	67.1	17.4	1.3	0
	F	100.0	0.8	83.2	14.1	1.9	0
	F(%)	74.0	14.0	78.0	69.7	80.9	0
Tunisia, 1975 a/	M	100.0	6.3	69.8	22.5	1.2	0.2
	F	100.0	0.3	28.8	56.4	12.3	2.2
	F(%)	83.4	17.8	67.4	92.6	98.0	98.1
B. CLOTHING							
India, 1971							
Formal Sector	M	100.0	6.3	37.4	51.7	4.6	0
	F	100.0	1.6	60.1	31.3	7.0	0
	F(%)	10.9	3.0	16.4	6.9	15.8	0
Informal Sector	M	100.0	-	5.9	69.7	24.4	0
	F	100.0	-	11.8	41.1	47.1	0
	F(%)	19.0	-	32.0	12.1	31.1	0
Philippines, 1970	M	100.0	5.7	54.0	36.0	4.0	0.3
	F	100.0	4.5	39.5	50.4	5.3	0.2
	F(%)	84.2	80.7	79.6	88.2	87.6	(80.9)
Thailand, 1977 b/	M	100.0	6.2	37.6	44.2	11.2	0.8
	F	100.0	0.9	41.1	46.1	11.6	0.3
	F(%)	74.8	31.1	76.4	75.6	75.5	-

Source: National Statistics and Population Censuses.

a/ Textiles and clothing.
b/ Tailors, dressmakers and related workers (occupational classification).

Women in management

147. Information on the proportion of women among administrators and managerial workers in manufacturing, to the extent that it is available in international statistical sources, is provided in table 15. The proportion is usually quite low, although there are wide differences between countries. (In the United Kingdom of Great Britain and Northern Ireland, the percentage of female managers in manufacturing ranged from 1.5 per cent in the electrical and electronic industry to 13 per cent in the clothing industry, according to the 1971 Census, the most recent data available.)

Table 15. Proportion of women in administrative and managerial jobs in manufacturing in selected developing and developed countries

Country by region	Year	Administrators and managerial workers		Proportion of women	
		Men and women (Number)	Women (Number)	Managers %	Manufacturing workers %
Africa					
Egypt	1980	12400	600	4.8	5.2
Ghana	1970	1519	51	3.4	56.0
Malawi	1977	377	12	3.2	17.8
Mali	1976	10	0	0	61.5
America					
Barbados	1982	400	100	25.0	54.3
Canada a/	1983	-	-	-	27.8
Chile	1981	19200	2000	10.4	23.0
El Salvador	1980	2910	781	26.8	41.8
Guatemala	1981	3397	489	14.4	23.9
Panama	1980	3360	560	16.7	21.8
Peru	1981	15700	1315	8.4	24.0
United States	1982	1675000	250000	14.9	33.0
Venezuela	1981	48152	2867	6.0	26.1
Asia					
Bahrain	1981	125	1	(1)	2.4
Bangladesh	1974	5740	39	0.7	3.8
Indonesia	1978	15449	0	0	49.8
Israel b/	1982	18400	1400	7.6	22.4
Japan	1982	570000	20000	3.5	38.8
Republic of Korea	1982	89000	3000	3.4	38.6
Kuwait	1980	787	2	(0.3)	1.7
Singapore	1982	17455	1766	10.1	43.5
Sri Lanka	1981	7867	895	11.4	32.7
United Arab Emirates	1975	417	2	(0.5)	0.6

continued

Table 15 (continued)

Country by region	Year	Administrators and managerial workers: Men and women (Number)	Administrators and managerial workers: Women (Number)	Proportion of: Managers %	Proportion of: Manufacturing workers (%)
Europe					
Germany, Fed. Rep. of	1982	291000	33000	11.3	30.3
Hungary	1980	3000	1000	33.3	46.5
Norway c/	1982	22000	2000	9.1	24.1
Portugal	1981	22000	1000	4.5	40.3
Spain	1982	75400	2000	2.7	23.7
Sweden c/	1982	19000	1000	5.3	26.1
Oceania					
Australia	1981	60026	4361	7.3	25.5
New Zealand	1981	17502	1131	6.5	27.5

Source: Yearbook of Labour Statistics, 1983 (Geneva, International Labour Office, 1984).

a/ Data on administrators and managerial workers are not available. Share of women among all professional and technical workers was 20.0 per cent.

b/ ISIC 2 and 3, mining, quarrying and manufacturing.

c/ ISIC 2-4, mining, quarrying, manufacturing and public utilities.

148. Time trends in the proportion of women in industrial management are available for only a few countries, but it seems that women have been making slow though steady inroads into management everywhere in recent years. 44/ In the United Kingdom, the share of female managers in the textile industry, for example, increased from 1.8 per cent in 1971, to 5.2 per cent in 1978. 45/

149. The reasons so few women enter management in industry are many. In the Industrial Society they are summarized as follows:

> "The present low representation of highly qualified women in manufacturing industry is related primarily to the cultural values and adverse attitudes held by women themselves, by employers and by society at large. The manufacturing industry is generally unattractive to able young people, but especially to women who perceive it as a male-orientated world: employers are uneasy about risks and costs

associated with employing women; and society as a whole does not fully accommodate the concept of women having life-time careers. Despite the significant social changes taking place and the developing role of women outside the home, and the efforts being made to improve the image of industry generally, it is likely to take many years for these processes to affect significantly the employment of women at senior levels in industry. Traditional prejudices against women will only gradually be overcome. These adverse attitudes serve to perpetuate the structures that effectively exclude women from careers in industry. The major practical problems associated with the employment of women in management are:

"(a) the small supply of women holding the qualifications most sought after by industry;

"(b) insufficient signals from industry of its readiness to take on women; inadequate presentation of the materials on opportunities in industry and the lack of role models;

"(c) lack of career planning on the part of girls, born principally of social conditioning;

"(d) conflict between the apparent need for continuity in an industrial career and the likelihood of a woman having a break for childbearing; the break can be a short one of a year or so, or may require absence from full-time work for seven years or more;

"(e) lack of retainer/retraining facilities for women who do have a break;

"(f) apparent inflexibility of working hours at management levels industry;

"(g) loosely defined career structures in industry, and the lack of opportunities for transfer from support functions to line management."

150. If everywhere women are much less represented in the managerial category than in manufacturing employment as a whole, the discrepancy between the two "representations" varies from country to country. In some countries, where "female" industries, particularly textiles and clothing form a large part of total manufacturing activity, the discrepancy may be relatively small. In some developing countries, for instance Panama, the difference between the two percentages shown in table 15 is only 5.1 percentage points, and here food-processing and clothing are by far the two most important manufacturing branches. 6/ A similar situation seems to exist in Guatemala. The high share of women in total manufacturing employment in Barbados and El Salvador, combined with the predominance of light, "female" industries, results in a relatively high percentage of women in industrial management in the two countries. Other examples are Singapore, where clothing is an important manufacturing branch, and Sri Lanka, where manufacturing is dominated by textiles.

151. In countries where "female" industries have been supplanted in their relative importance by technically more advanced branches (employing male

technicians and managers), for example in the Republic of Korea, the share of women in overall industrial management is low, although the share of women in manufacturing employment is high. If data by individual branches were available, there might be similar branch differences in the presence of women in management as those observed in the United Kingdom, as mentioned earlier.

152. Finally, there are those countries where a large female labour-force works in branches such as food-processing, tobacco-processing and textiles, and where women are entirely absent from management. The best example seems to be Indonesia, but the situation also prevails in Ghana and Mali. The explanation seems to be traditional attitudes and the lack of educated female candidates.

Women and trade unions

153. In developing countries the need for collective organization by employees to safeguard the position of women workers is acute. At the same time, the very conditions that create this need make it extremely difficult to fulfil. In countries where labour is in abundant supply the position of unions tends to be weak, since employers have easy access to non-unionized outside labour. Workers who have scarce skills that are in demand by employers in the modern sector are exceptions, and very few women come into this category.

154. Women who have scarce professional qualifications and who are able to benefit from collective action by professional organizations, which successfully promote their members' interests, appear to be the best placed. If they can earn enough to purchase the services of substitutes to carry out their domestic commitments, the conditions on which they supply their labour is similar to that of men. But these advantages are necessarily restricted to an élite. Most women are employed as unqualified workers in the traditional sector, where collective action by workers is extremely difficult to organize, even in industrialized countries. In establishments where collective negotiations with employers are organized, women are seldom represented in these discussions. 46/ Women may be excluded from negotiations by discriminatory custom and practice. Alternatively, women fail to exert any authority within unions because of their low position in the job hierarchy and consequent lack of confidence and influence.

155. Even in countries and industries where trade unions are active, women take little part in collective negotiations. Female trade union membership tends to be low, though in western industrialized countries there has been an expansion of women's membership of unions in mainly female industries.

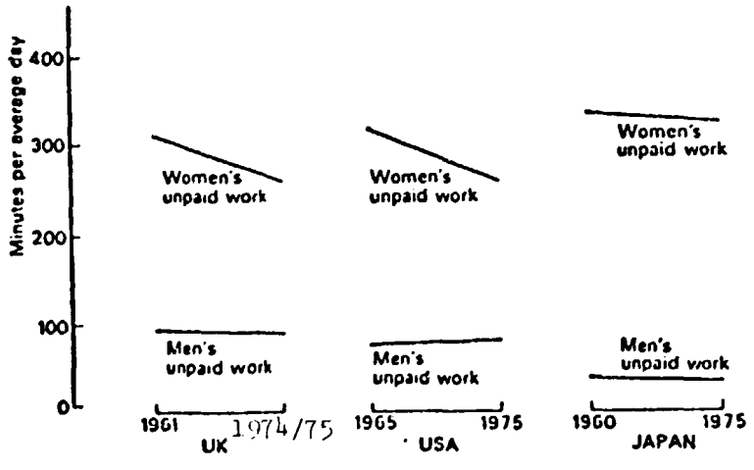
156. Rank and file participation by women in unions is a necessary but not a sufficient condition for effective promotion of the interests of women workers. Even where female membership is adequate, very few women become union officials. Thus in both developed and developing countries the incentives for women to participate in unions are not sufficient to offset the high opportunity costs for most women of time spent on union activities. Simultaneously there is no pressure on unions to alter their priorities, and in some cases their policies on working hours etc., to take more account of women's needs.

D. Women as consumers of industrial products

157. When discussing women's benefits from industrialization, the indirect benefits should be examined, at least briefly, as opposed to the direct benefits discussed in the previous section, i.e. the way in which women benefit from industrialization as consumers. The manufacturing sector produces a wide range of goods for consumption and for the use of women as individuals and as managers of household units. In addition, the growth of manufacturing industry has a great impact on the development of the national economy as a whole, and on changes of society, which in turn affect women in many ways. The supply of industrial products benefits women, first as individuals, increasing their personal comfort, fitness and efficiency. From adequate (e.g. waterproof) footwear and clothing to medicines, disinfectants, insecticides and other products of the chemical and pharmaceutical industries, the availability of industrial goods transforms women's lives profoundly. To give just one example, women's average life expectancy has risen, both in developed and developing countries, usually faster than men's life expectancy. Out of 110 developing countries for which reliable data on male and female life expectancy are available for the period between the early 1950s and the early 1970s, 91 countries report a faster growth of female than of male life expectancy. Ten countries report the opposite, while in nine countries male and female life expectancies increased by the same number of years, and months. 47/

158. Almost as important is the impact of industrialization on women as household managers. Even some simple tools, but particularly modern appliances reduce the time necessary for household duties, freeing women for other tasks, or adding to their time of indispensable rest. The figure shows the changes in the time spent by women and men on household work in three industrialized countries, and how these changes have benefited women in comparison with men. In developed countries, available evidence shows a direct link between the free time created by the possession of household appliances, and the rise in the supply of female labour. 48/

Time spent on unpaid work by men and women in three countries



Source: Jonathan Gershuny, Social Innovation and the Division of Labour (Oxford, Oxford University Press, 1983).

159. Amenities such as piped water and electricity in private dwellings benefit women both as individuals, by increasing the standard of health and hygiene, and as household managers, by reducing the time spent on housework.

160. Thus, one of the effects of industrialization is to free women for gainful employment and to increase the female labour supply. However, the extent to which women can take practical advantage of it depends on a number of factors, also linked with the industrialization process, some of which act in the opposite direction. In many cases, modern industrialization takes away employment opportunities from women, most of whom live outside large cities, because it tends to concentrate production in a small number of industrial centres.

161. A high concentration of industry limits female employment opportunities whereas decentralization tends to increase them, placing more workers within the reach of a workshop. Since women are known to have lower mobility than men, owing to their family responsibilities, the centralization factor affects them more than male workers.

162. Similarly, the development of social infrastructure, particularly of roads and transport facilities, directly influences the size of the perimeter within which women can seek employment, or market their products if they are self-employed. The types of social equipment of the highest relevance to women workers are childcare centres, to which attention has been paid earlier.

III. WAYS AND MEANS OF IMPROVING WOMEN'S ROLE IN INDUSTRY

A. Improvement of women's roles as agents for and beneficiaries of development at the national, regional and international levels

Women workers in the formal sector of manufacturing

163. In developing countries industrial organizations and enterprises in the formal sector are frequently based on models from industrialized countries. Thus the norms and assumptions and features of work organization that limit high technology employment opportunities for women in industrialized countries and confine them to subordinate jobs at the base of the pay structure are transferred to developing countries together with modern industrial equipment. This occurs whether or not the plant in question is locally owned, since there are no alternative models of industrial organization, with more flexible working arrangements and a less hierarchical male-female division of labour.

164. However, foreign-owned industry, and especially subsidiaries of large multinational corporations are prone to increase the instability of the local employment structure. This occurs where firms respond primarily to short-term fluctuations in demand for light consumer goods in the industrialized home markets reacting, for example, by closing plants and laying-off large numbers of workers. Instability in the pattern of demand for industrial labour tends to have especially adverse consequences for women workers. Women are concentrated in insecure jobs and so frequently subject to sudden redundancy or dismissal. Women also tend to be less mobile than men because of the extent to which family responsibilities devolve on them. Thus abrupt changes in labour-market conditions have a profoundly disturbing effect on women's employment opportunities.

165. Industrial instability in developing countries has been the subject of much concern, and considerable attention has been devoted to this issue (e.g. Lima and New Delhi Declarations and Plans of Action on Industrialization of Developing Countries 49/, and the International Development Strategy for the Third United Nations Development Decade. 4/). It is important therefore to note the particular ill-effects of industrial instability on women's employment opportunities. The need for balanced industrial development, including modern and traditional manufacturing, emphasized in these documents, is also indicated by the instability of demand for the products of certain modern-sector industries and the tendency discussed earlier in this document to expand modern-type industries that displace jobs for women in the traditional light industries.

166. Even women employed in the well-implanted modern industries of the export processing zones tend to have a highly disruptive working experience. Their short career as industrial workers often changes their lives and outlook. It is then often very difficult for them to return to the traditional "milieu". Employers favour young women without family responsibilities and most women lose their jobs on marriage, but often there are considerable social and economic pressures on young women to continue seeking alternative wage employment because the cost of living is such that the earnings of both partners are required to maintain the family at an acceptable standard of living and allow for the education of the children. For women who remain single it is essential to continue to earn and frequently their entire wage is required to meet urban living costs.

167. The experience of employment in the modern sector does not usually provide female workers' skills that can be easily transferred to alternative uses if they lose their jobs in industries using advanced production methods. Here the experience of women, who are employed on specific jobs (e.g. assembly work), contrasts with that of male employees who acquire on-the-job training as drivers, machine-setters, general mechanics or specialized technicians. As in industrialized countries, employees who acquire transferable experience of this kind are generally male.

168. This situation could be improved in several ways, for instance, on-the-job training schemes could be devised for female workers during their period of modern sector employment, so that they acquire more "transferable skills" for use in other branches (e.g. in quality control and maintenance in the electronics, micro-electronics, telecommunications and other engineering industries). Training schemes of this kind could if necessary be organized outside the industrial enterprises with the co-operation of international organizations and wherever possible with dual co-operation by those organizations and multinational corporations, with due regard to local needs, resources and industrial development plans and programmes.

169. The creation of new employment opportunities for female workers made redundant in modern foreign-owned factories is thus essential, if necessary, with public, national or international assistance, using the form most appropriate for the type of venture in question. The creation of new employment opportunties for these women workers is not only important from the point of view of equity, but also industry could greatly benefit from the experience of trained women workers.

Women workers in the informal sector of manufacturing in urban and rural areas

170. Most women employed in manufacturing are employed in traditional craft and manufacture in the informal sector of industry, as discussed before. The production methods of modern industry, which are devised in countries where labour costs are high, are designed to economize on the use of labour, and labour-displacing techniques are increasingly adopted. In countries where labour is abundant and capital scarce, the use of traditional and intermediate technology is not only a necessity but a rational use of resources, which should be complementary to and harmonized with the development of industries and enterprises using more capital-intensive production methods. The expansion of the modern sector industry frequently occurs at the expense of traditional industries producing similar or substitute products, especially in the case of local consumer goods. However, all available findings point to the importance of the informal sector for women's employment and income.

171. A balanced development of both these sectors is advocated in the Lima Declaration and Plan of Action, as well as in the International Development Strategy for the Third United Nations Development Decade. In support of the recommendations of the International Development Strategy (paragraphs 74 and 77) it should be pointed out that the benefits of activity in the traditional and informal sectors are widely dispersed throughout communities, including rural communities. In contrast, although the expansion of the sector using advanced modern equipment may have long-run dynamic benefits to the economy, employment in this sector provides higher wages in the short run only for a restricted group of industrial workers, and in most countries women are not well represented among this group.

172. It is, however, essential that work in the informal sector be well organized, making best use of available resources and produce goods for which there is a reliable and steady, widespread demand. In this context, it is of interest to note that in Japan demand for basic domestic consumer goods was to a large extent met by traditional craft production until well into the post-war period simultaneously with the expansion of capital-intensive industry in the advanced sector. 50/

173. In many developing countries today, traditional craft and cottage industries are starved of resources and expertise. In a recent World Bank report there is a description of women being taught to make articles "for which the market is nonexistent, limited or short-lived, as with some tourist goods". 51/ In some cases the design and quality of the articles are inappropriate, and techniques are seldom applied in such a way as to diversify production to meet the demand for locally consumed products. Also, the supply of raw materials is not always assured.

174. A lot remains to be done to assist women in the informal sector of industry. The women who carry out this type of work need to be trained in simple accounting procedures and other aspects of management in small ventures. Information on market conditions and demand trends should be made available to them, and credit facilities provided, together with technological guidance. This should be done on the national, regional and international level of action for development assistance.

175. The Lima Declaration and Plan of Action calls for the

> "Encouragement and support of small, medium-scale and rural industry and industries which fulfil the basic needs of the population and which contribute to the integration of different sectors of the economy; and to this end due attention should also be given to the industrial co-operatives as means of mobilizing the local human, natural and financial resources for the achievement of national objectives of economic growth and social developments" (para. 58).

176. The technical assistance programme of UNIDO encompasses numerous activities designed to improve the conditions and level of participation of women in the medium- and small-scale sectors of industry, with an equitable distribution of its benefits. As an illustration of the great diversity of such activities, a brief reference is made to some of the elements taken into consideration in the planning and development of projects in a few of the specializations falling under the large area of chemical industries.

Salt production

177. There are, especially in Africa, great numbers of cottage-type units producing salt using centuries-old processes from local salt resources such as salt water, underground brines, ashes from plants and salty sands. These activities are predominantly organized by women.

178. Thousands of tons of salt, often crude and impure, are produced in such countries as Niger, Nigeria, Gambia, Republic of Tanzania and Zaire for local consumption. Often centuries-old hereditary rights decide who in these tribal societies is allowed to produce salt and who is allowed to use certain quantities of the locally known salt resources.

179. For evaporating the water fuel wood is used, which contributes to the deforestation of Africa. Action is necessary to reduce the amount of fuel wood drastically by introducing solar evaporation techniques and also by supplying the women with modern implements to reduce their drudgery producing salt for human and animal consumption.

180. There is a wide scope for the participation of UNIDO in this process of modernization of cottage-type salt production.

Pottery development

181. In many developing countries, particularly the least developed, pottery is the traditional occupation of women because of its close relationship with cooking and food storage. Also more artistic pottery is often an occupation predominantly exercised by women. However, due to the socio-economic development of most countries and the rapid increase in numbers of job opportunities in industry and agriculture, the pottery occupation is becoming less attractive both in terms of social status and financial benefits.

182. Based on the experience of UNIDO on one on-going project in Bolivia and another project being prepared for Costa Rica, there is considerable scope for assisting women's pottery co-operatives with technical improvements and advice on managerial and administrative aspects thus consolidating their financial situation and safeguarding their continued existence in spite of the adverse factors referred to above. Particularly, assistance in alleviating the strenuous, time-consuming and unqualified tasks of clay winning and preparation and procurement of fuel, in most cases collection of firewood, seems to be an appropriate way of enhancing product quality and increasing output without interfering unduly with established social patterns and cultural traditions. Also advice on improving firing techniques is a promising area of UNIDO involvement in view of the dramatic increase in product quality and reduction of firing rejects that may be achieved with a minimum investment.

183. The ultimate result of assistance of the type outlined above is an enhancement of the socio-economic role of the women concerned and in many cases a preservation of a cultural heritage that otherwise might disappear within the span of one or more generations.

Pharmaceutical industry

184. The pharmaceutical industry is a crucial industry for developing countries for a variety of reasons such as health care, economic and social benefits and its catalytic effect on industrial development. The pharmaceutical industry is constituted by different industrial activities that have large economic, technological and organizational differences. The most elementary form of this industry consists of the production of finished pharmaceutical products using imported raw materials, known as formulation and packaging. At the other end of the scale is the basic manufacture of bulk drugs by synthesis or fermentation. Although the proportion of women working in the pharmaceutical industry, in both developed and developing countries, is generally higher than in other sectors of the chemical industry, there are important differences because, in general, as the sophistication of technology and the need for more skilled workers increase, the number of women employed decreases.

185. In most developing countries the pharmaceutical industry is mainly devoted to formulation and packaging activities where women constitute a large percentage of the labour force, especially when highly automatized equipment is not used, as indicated above. In such cases, generally speaking, women occupy non-skilled positions, especially on the packaging lines. In some cases, however, depending on the overall degree of development of a particular country, women also hold supervisory and managerial positions in the technological departments. This is the case in most Latin American countries where women occupy key technical positions as plant managers, technical directors and chiefs of analytical departments.

186. Thus the pharmaceutical industry is another important area where efforts are required to upgrade women's involvement and level of contribution, and in this case it applies to small-, medium- and large-scale activities.

187. In a recent pilot research project, UNIDO studied a number of issues specifically pertaining to the present participation of women in such traditional industries as textiles and food-processing in selected developing countries at all levels. Similarly, the findings of that study indicate that generally "the more technologically advanced and capital-intensive the production process is, and the more specialized training is required, the smaller the number of women employed". 38/

188. This again confirms that the creation of alternative opportunities for women to earn and obtain income when existing jobs in the informal sector have been eliminated by the modernization process is of primordial importance. Other small-scale activities, organized on a co-operative basis for example, could provide alternative openings for women workers. But in this respect it would also be advisable to encourage the decentralization of industry and the location of factories in rural areas whenever economically justified.

Own-account workers

189. The access of women to ownership of small enterprises seems to provide a good solution to the need of many women to earn money from small-scale industrial activity. However, the obstacles to starting such a venture are many. Women and Industrialization in Developing Countries (ID/251), calls for the "creation and expansion of opportunities for the self-employment of women", advocating an "increased availability of credit and the dissemination of relevant information". These two factors represent the main difficulties in this field.

190. Financial difficulties in starting a new, small enterprise are by far the greatest single constraint. Prospective female entrepreneurs are normally not in a position to individually contact commercial banks, let alone public industrial development agencies. They tend to distrust private money-lenders who have the reputation of charging excessive interest rates. They thus have to rely on their personal savings, which are almost always insufficient. The low wages paid to women workers and the short working careers most women are allowed to have in the formal sector do not enable them, in the majority of cases, to save enough money to start an enterprise. Many of those who try frequently end up being exploited by subcontractors, if they can stay in business at all.

191. Thus raising sufficient capital is a main problem. Bankers themselves, however, operate under constraints that make it unattractive to provide loans to inexperienced, rural applicants. Besides the need for basic training including simple accounting and management techniques, discussed in the previous section, some degree of intervention from government authorities is required, for example, in the form of loans or subsidies to ease the cash-flow problem of small enterprises, and the encouragement of bank loans on a modest scale to this sector.

192. Other major problems for starting a new, small enterprise include finding marketing outlets, adequate raw-material supplies and suitable premises in a good location; obtaining the necessary licences; and finding suitable local employees.

193. One way for circumventing some of these problems is the promotion of producers' co-operatives, which could reduce overhead costs, especially in industries in which many women are active, and to prepare women to manage small productive units. This should be more feasible in areas where traditionally women have been active as entrepreneurs in a small way (e.g. in West Africa and South East Asia), but where modernization has eroded this traditional role.

B. Practical means of improving women's role in industry

194. There is no doubt that with the introduction of new methods of manufacturing, such as automation and mechanization, the labour force will gradually play a lesser role. Thus better organization and equal opportunities of access to new technologies would be the dominating feature that could have a real influence on women's role in industrial development. Therefore, some of the main factors that should be given priority consideration are: the improvement of education standards; easier access to training by young women; the improvement of protective labour legislation; and a change in women's own attitude as to the economic value of their potential activities.

195. It is now generally recognized that the improvement of women's education is essential as a basis for equal access to jobs. Not only general education but vocational training needs to be extended. "Employment oriented" curricula should be followed by women. This will require a change in women's own insight into the value of their potential as well as in the outlook and attitude of the educational authorities. The male and female education gap should be reduced, both concerning the length of studies and their content. To facilitate this, appropriate action should be taken to influence public opinion, and operate a progressive change of social attitudes.

196. Inadequate education prevents many women in developing countries from seeking employment in the formal sector of industry. It is still a common feature to educate sons rather than daughters on the assumption that education is of greater value to boys than to girls, and that boys are more of an economic asset. Equality of access to education should therefore be guaranteed.

197. Adequate and equal employment opportunities should be open to women with a middle or upper level of education. At present many well-qualified women who have to earn a living are forced into low jobs where they are naturally

underpaid. Examples of "over-qualification" of women workers performing low jobs can be found both in developed and developing countries. 52/

198. Activities that will attract the attention of women and encourage those who are qualified to take up self-employment should be especially promoted so that women can gainfully utilize their individual abilities, capacity and time. Therefore, appropriate training opportunities that focus on entrepreneurship and small-scale industrial enterprise development, including management techniques, should be made an integral part of any improvement of educational plans for women.

199. Legislation in accordance with internationally accepted labour standards particularly, but not exclusively, in the field of female employment should be adopted to ensure equal access to education and training. In countries where the stage of development so requires, emphasis should be placed on non-traditional training systems that take training to distant areas where traditional systems do not reach, i.e. mobile training. It should be supplemented, wherever possible, by legal measures fully guaranteeing in practice equal access to jobs, equal remuneration for equal work, full and equal entitlement to social and other benefits etc. To facilitate the implementation of these measures, steps should be taken to enable women to take a more active and influential role in the organization and effective functioning of industrial co-operatives and trade unions. Such legislation on female employment should be extended to the informal and rural sectors of industry. It should be enacted in keeping with national and regional particularities, customs, tradition, climate, as well as the level of economic infrastructure and other development indicators.

200. The need for health- and child-care facilities should be given the attention it deserves, if necessary with the assistance of special programmes by the competent international and regional institutions.

201. All the above will have to be supported by measures facilitating financial arrangements to intitiate organized production.

IV. POTENTIAL IMPACT OF WOMEN'S GREATER INTEGRATION IN INDUSTRY ON THE ACHIEVEMENT OF OVERALL DEVELOPMENT GOALS

202. This study has given special attention to the problems of effective participation of women in industry. It has also highlighted, however, that women's role cannot be treated in isolation but as an integral feature of industrial development. This fact is emphasized in major international documents formulating development objectives for countries in developing regions most affected by the present unfavourable economic conditions.

203. Recommendations set out in the United Nations International Development Strategy for the Third United Nations Development Decade and in other international documents have already been examined in connection with specific issues pertaining to women's position in industry. At a number of points the direct relevance of recommendations of the Lima Declaration and Plan of Action 1/ to the integration of women in the industrialization process were noted. These and other international documents call, in the broadest terms, for greater balance in the process of development between rural and urban sectors as a whole and, within manufacturing, between modern and traditional, formal and informal, and capital-intensive and labour-intensive industries.

204. Women are concentrated in the traditional, informal, labour-intensive sectors of the economy. While these sectors are facing special difficulties, they are of paramount importance for the process of development. Thus, improving conditions for women's involvement in industry entails ensuring that a greater share of resources is made available to these sectors.

205. It is clear from this report that an improvement in women's position in the economy is not simply a matter of increasing women's welfare and promoting greater equity. The interdependence between the improvement in women's position in the economy, on the one hand, and the basic objectives of development policy (increased economic growth, improved productivity, fuller employment, more just distribution of income, elimination of poverty, improved balance of payments, reduced birth rates etc.) on the other hand, is such that providing women with the opportunity to increase and improve their contribution to economic development is an important means of achieving the fulfilment of basic development goals.

206. The interconnection between policies aimed at increasing women's participation in industry and efforts towards overall economic and social development objectives has greater implications than has been recognized hitherto. By enabling women to participate more fully and more productively in the development effort, government policy leads to higher earnings for women, and this results in an improved distribution of income and in reduced poverty. The provision of more employment, and particularly of more productive and better remunerated industrial employment for women from the lower end of the income distribution scale, directly reduces poverty and leads to a more equal distribution of income.

207. There are further factors linking a greater contribution of women to the production process with development policy goals. Many developing countries, and their number is constantly increasing, list among the objectives of their development policy the reduction of population growth. There is a whole range of intertwined factors influencing the birth rate in any country, but it has been established that the level of women's education, the degree of their

participation in the production process and the level of income of their households are positively correlated with a reduction in the birth rate. By a policy of increased employment of women and of their greater contribution to production through better education, training and access to jobs, a Government not only improves the position of women and their contribution to fuller employment and faster national economic growth, but also, indirectly but definitely, contributes to a reduction in the birth rate. Moreover, improved earning capacity and higher income levels for women lead to improved health and nutritional conditions that reduce infant mortality. And a reduction of infant mortality is by itself a factor in the determination of birth rates: families with lower expected child mortality tend to have a lower number of births.

208. In many parts of the world women have always played a central part in the production and processing of basic foodstuffs and in the retailing and manufacture of consumer goods through traditional skills. The industrialization and modernization process often displaces women in traditional activities without providing new scope for their contribution to community welfare. It is of great importance that development programmes take into account the central role of women in these activities and ensure that new developments affecting the modernization of industry, i.e., the application and adaptation of new technologies, reach men and women simultaneously so as to provide women with equal opportunities to participate in the industrialization process. The waste of the resources of female labour can no longer be easily tolerated under the acutely difficult economic circumstances that prevail, especially in the developing countries.

209. Furthermore, special attention to the problems related to women's involvement in industry can have a dynamic effect on working conditions in general, since inadequate working arrangements are counter-productive for both men and women.

Notes

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2/ Report of the Third General Conference of the United Nations Industrial Development Organization (ID/CONF.4/22), p. 57, para. 274.

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