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Recent developments in the food and drink industries

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Introduction

The history of food processing goes back to the time when our hunter-gatherer ancestors began to devise means of making better use of their food resources, for example by drying excess meat and fruits for future consumption. Even now, however, approximately 25 per cent of the global food supply is said to be lost through spoilage, pests and waste, and the proportion is even higher for seasonal and highly perishable commodities like fruits and vegetables.[1] Today, in both industrialized and developing countries, an increasing proportion of agricultural and fishery products is industrially processed before being delivered to the consumer not just as a means of reducing spoilage but also as an important value-adding economic activity.

The modern industry presents many facets, from the traditional labour-intensive activities often found in developing countries to the capital-intensive industrial processes common in the industrialized world. It includes slaughtering, preparing and preserving meat; milling grains and manufacturing bakery products; canning and preserving fish products, fruits and vegetables; manufacturing vegetable and animal oils and fats and animal feeds; and processing sugar, coffee, tea, etc. The drink industry covers such activities as distilling and blending spirits; and processing malt, malt liquors, wine, soft drinks, fruit juice, milk, and so on.

These industries now make up the most important manufacturing sector in many parts of the world. The turnover in 1981 was already estimated to be well over $1 trillion for the world as a whole, of which the industrialized countries accounted for some 86 per cent [2] (Europe's share alone is now

* International Labour Office.

[1] United Nations Industrial Development Organization (UNIDO): *Basic requirements for long-term viability of the fruit and vegetable processing industry*, Discussion paper on Issue I, Consultation on the Food-processing Industry with Emphasis on Fruit and Vegetable Processing, Tbilisi, Georgian Soviet Socialist Republic, USSR, 18-22 September 1989, para. 16.

[2] C. Oman and R. Rama: "The food industry", in C. Oman: *New forms of investment in developing country industries: Mining, petrochemicals, automobiles, textiles, food* (Paris, OECD Development Centre, 1989), p. 243.

estimated to be $700 billion [3]), and in 1989 world exports of food products totalled $290.1 billion, a 30 per cent increase over the 1981 level, the share of industrialized market economy countries being 67 per cent.[4] The turnover in the United States alone was estimated to be $345.9 billion in 1989, 6.9 per cent more than in 1988.[5]

Although many industries have been affected by recession in recent years, the food and drink industries have expanded remarkably well. In the United Kingdom, for example, the food, drink and tobacco industries recorded an annual growth rate of 2.2 per cent in 1991, despite the fact that most other sectors showed negative growth, and they are expected to continue growing by 2.5 per cent during 1992.[6] In the United States, where many sectors cut back production in 1991, the number of new food products rose by 20 per cent, the biggest jump since 1987.[7]

The expanded supply of inputs can be attributed to an overall increase in the production of agricultural and fishery commodities [8] due to various factors, such as better use of pesticides and improved production and harvesting methods, but the major reason is the growing demand for processed and value-added food products.

Several factors contribute to this increased demand in industrialized countries. Firstly, greater purchasing power enables the consumer to spend more on food in absolute terms, even though the proportion of expenditure on food in household budgets has been declining. For example, total food and drink consumption in the European Community expanded from ECU 185,246 million in 1980 to ECU 266,824 million in 1985, even though average food and drink bills represented only a quarter of the total household budget in 1985 compared with a third in the early 1970s.[9] Secondly, more women are now in paid employment, which means both that they have less time to devote to cooking and that the average household enjoys greater purchasing power. Thirdly, today's leisure-oriented consumers also seek food products that can be prepared quickly. Fourthly, the rapid increase in the number of single-person households in industrialized countries also increases demand

[3] G. de Jonquières and W. Dawkins: "An appetite for acquisitions", in *Financial Times* (London), 27 Jan. 1992, p. 10.

[4] United Nations: *UNCTAD Commodity Yearbook 1991* (New York, 1991), p. 22.

[5] United Nations Economic Commission for Europe (ECE): *Food-processing and packaging machinery*, Second ad hoc Meeting for the Study on Food-Processing Machinery, including Packaging Techniques, 16, 17 and 19 October 1990 (doc. ENG.AUT/AC.13/R.2/Add.2), p. 11.

[6] *Financial Times*, 9 Dec. 1991, p. 9.

[7] *Fortune International* (New York), 13 Jan. 1992, p. 37.

[8] Food and Agriculture Organization (FAO): *Production Yearbook 1989* (Rome, 1990), Vol. 43, pp. 83-102; idem: *FAO Yearbook 1989. Fishery statistics: Commodities* (Rome, 1991), Vol. 69, pp. 18-35. See also ILO: *General report*, Food and Drink Industries Committee, Second Session, Geneva, 1991.

[9] Commission of the European Communities (EC): *Panorama of EC industry 1989* (Luxembourg, 1988), p. 17-1.

for convenience foods. Fifthly, today's affluence enables people to travel widely and become familiar with and develop a taste for food of different cultures, thus increasing the demand for more varied food. Lastly, rising health consciousness has led to a wider range of products offering greater nutritional value and lower calorie, caffeine and cholesterol levels.

Similar trends are also discernible in a number of developing countries where the standard of living is rising fast and where rapidly increasing urban populations seek more processed food and drink products. This trend is especially evident in large cities in Asia and Latin America, where a growing middle class enjoys the type of lifestyle found in industrialized countries.

These recent developments were amongst the subjects discussed at the Second Session of the ILO's Food and Drink Industries Committee, held in Geneva in December 1991; much of this article draws on preparatory work for this meeting.

1. Technological development in the food and drink industries and its impact on employment

The remarkable growth of the food and drink industries in recent years has been made possible particularly by advances in biotechnology and micro-electronics, which have revolutionized processing and packaging methods. In the brewing industry, for example, biotechnology has considerably shortened the duration of the malting process and batch sizes have increased from 20 to 50 tonnes to 200 or even 500 tonnes.[10] In such an environment, employment is bound to be affected if the production level remains the same, and the effect is reinforced by extensive computerization of brewing, which only requires the overseeing of the equipment and of the highly programmed production process.

Biotechnology can be used to develop new animal, plant and organism varieties to increase and diversify food and drink production, and it also contributes to preserving the freshness and nutritional values of processed food to meet rising consumer demand for higher quality products. According to industry sources, world sales of biotechnology-derived products, excluding fermented foods and drinks, amounted to approximately ECU 7.5 billion in 1985, and sales are expected to increase to between ECU 26 billion and ECU 41 billion by the year 2000.[11]

The direct employment effect of such advances has so far been largely confined to industrialized countries, but they could also have a serious indirect impact on employment in developing countries. For example, with the use of enzymes sugar can now be produced from corn, potatoes and

[10] Abby Ghobadian: *The effects of new technological change on shift work in the brewing industry* (Aldershot, Gower, 1986), p. 36.

[11] *Bulletin of the European Communities* (Luxembourg), Supplement 3/91, p. 41.

other crops common in North America and Europe, as well as from cane and beet, and the cocoa and cooking oil industries are also less dependent on imports of raw materials or semi-processed food products from developing countries. The already considerable degree of substitution of high-fructose corn syrups for imported sugar may be followed by the substitution of North American- or European-grown plants for other agricultural imports from developing countries, which could put considerable downward pressure on employment in the latter.[12]

The effect of micro-electronics on the food and drink industries has also been significant, as in many other manufacturing industries. Computer-operated machines are flexible enough to handle a number of sophisticated jobs that could only be handled manually in the past. They have also made it possible to maintain a given level of productivity. In bottling plants, for example, laser inspection mechanisms are used to detect dirty bottles in fast-moving lines. Bottles are filled, labelled, stacked and wrapped by robots, ready for dispatch. Canning lines in modern plants can now run at 2,000 cans per minute.[13]

Although the drink industry has been affected by new technologies to a far greater extent than the food industry, the latter has also become increasingly capital-intensive and is feeling the impact of modernization on employment. The use of various types of sophisticated processing machines has become common. Food packaging has also become highly automated – even of products that need to be handled with special care to maintain quality and value. The impact of micro-electronics has been great not only in production control, but also in other areas such as general administration, accounting, human resources management and distribution control.

Faced with growing mechanization, many workers are increasingly concerned about job security. How has employment in the food and drink industries been affected by the introduction of these new technologies? As regards the impact of biotechnology, many new jobs have been created, and the situation is expected to remain relatively bright, particularly for those with specialized training and qualifications in biochemistry and nutrition science. The food and drink industries, mainly in industrialized countries, have been allocating considerable funds to research and development on new products as well as improved versions of established brands in order to maintain and expand their market shares in this fiercely competitive world. For example, the number of new food products introduced in the United States alone increased from 4,540 in 1983 to 8,183 in 1988, and total investment on research and development in these industries was approximately $1.4 billion in 1988.[14] The scale of investment in new products

[12] Oman and Rama, op. cit., p. 244.

[13] International Union of Food and Allied Workers' Associations (IUF): *Documentation and minutes*, IUF Brewery and Soft Drinks Workers' Conference, Eastbourne, 19-22 Nov. 1990, p. 6.

[14] ECE, op. cit.

ensures a growing job market in the specialized areas of these industries, although its negative impact on developing countries is expected to increase, as mentioned above.

The introduction of micro-electronics has had a comparable impact and, as already pointed out, the computerization of many routine tasks on the production line poses a serious threat to the job security of unskilled and semi-skilled workers. In fact, many workers have already become redundant, particularly in the capital-intensive drink industry: in Ireland, for example, there was a 40 per cent decline in the workforce from 1980 to 1989 in the brewing, malting and soft drinks industries.[15] Total employment in the soft drinks industry in Denmark, Federal Republic of Germany, Ireland, Italy, the Netherlands, Portugal and the United Kingdom combined also decreased from 64,700 in 1980 to 51,500 in 1986.[16] All these job losses are considered to be largely the result of the introduction of new micro-electronic technologies.

Table 1 presents employment trends in the food, drink and tobacco industries worldwide and by region. It shows that world employment for the sector increased steadily between 1977 and 1988, although there was a decline in 1983, probably reflecting the worldwide recession experienced at that time. However, regional breakdowns show that employment is declining in industrialized countries, particularly in eastern and western Europe. In North America, too, the employment level of recent years has been lower than in 1980, although it has been rising again since 1985. On the other hand, employment has expanded dramatically in the developing world, especially in Asia, where some of the fastest growing economies in the world are situated. Although the data in table 1 cover the tobacco industry as well, it should be noted that the proportion of tobacco workers in the sector as a whole is relatively small,[17] and employment is in a downward trend owing to the widely publicized health hazards. One can therefore assume that any increase in employment shown in the table is attributable to growth in the food and drink industries.

The table suggests that employment in highly industrialized countries with relatively small and saturated domestic markets, such as those in western Europe, is bound to decline as the industries become more capital-intensive. On the other hand, in countries where average income is rising rapidly, as in Asia, there is still considerable room for the domestic market to expand, which leads to employment growth, and because these countries also tend to be more labour-intensive their employment levels have been less affected by new technologies.

[15] IUF, op. cit., Ireland, p. 1.

[16] EC, op. cit., pp. 17-62.

[17] See ILO: *Year Book of Labour Statistics, 1991* (Geneva, 1991). In the United States, for example, the proportion of tobacco workers among the food, drink and tobacco workers combined declined from 3.3 per cent in 1988 to 2.7 per cent in 1990. In Australia it fell from 3.1 per cent in 1985 to 2.2 per cent in 1988.

Table 1. Employment trends in the food, drink and tobacco industries by region, 1977-89 (1980 = 100)

Region	1981	1983	1985	1987	1989	Average annual growth rate 1977-88 (%)
World [1]	**101**	**99**	**102**	**107**	**112** [2]	**1.5**
North America [3]	99	94	92	93	95	1.8
Latin America and Caribbean	99	100	104	105	108 [2]	1.3
Asia	102	100	108	118	127 [2]	3.0
Developing Asia [4]	103	101	109	120	130 [2]	3.2
Eastern Europe and USSR	102	102	100	98	97	−0.2
Western Europe [5]	98	96	94	94	94	−0.6
European Community	98	94	93	92	91	−1.0
Oceania	98	96	94	95	100	0.1
Industrialized countries [6]	98	96	95	95	96	−0.4
Developing countries [7]	102	101	107	116	124 [2]	2.9

[1] Excluding Albania, China, Democratic People's Republic of Korea and Viet Nam. [2] 1988 data. [3] Canada and United States. [4] Excluding Israel and Japan. [5] Excluding Yugoslavia. [6] North America, western Europe, Australia, Israel, Japan, New Zealand and South Africa. [7] Latin America, Caribbean, Africa (excluding South Africa), developing Asia, Oceania (excluding Australia and New Zealand) and Yugoslavia.

Source: United Nations: *Industrial Statistics Yearbook 1989*, Vol. 1 (New York, 1991).

Table 2 shows how employment in the food and drink industries changed in selected countries between 1981 and 1989. With some exceptions, the figures show a downward employment trend in industrialized countries contrasting with an upward trend in developing countries. These features are more evident in the drink than in the food industry, probably for the reasons discussed above. The general trend confirms the pattern noted in table 1.

Employment decline can usually be attributed either to falling business turnover, leading to lay-offs, or to the introduction of new technologies, making some workers redundant. In the case of many industrialized countries, mechanization is thought to be largely responsible for the fact that employment has fallen despite the growth in output by the food and drink industries. In such countries employment would have declined still more if output had remained the same. Some employers also argue that job losses would have been even greater if new technologies had not been introduced, because their products would then have been less internationally competitive. Because of the generally healthy state of the food and drink industries worldwide, the effect of new technologies on employment has not been as dramatic as in some other sectors. However, as the level of mechanization rises, workers – especially those in industrialized countries whose market is reaching saturation point – may feel increasing pressure on job security. Enterprises that have been operating in certain geographical areas may have difficulty in reconciling their economic commitment to

Table 2. Paid employment in the food and drink industries, selected countries, 1981-89 ('000)

Country	Industry	1981	1983	1985	1987	1989
Australia	F	157.8	149.6	143.8	146.1	...
	D	21.0	19.7	18.0	18.5	...
Belgium	F	73.7	73.5	73.6	72.7	77.9
	D	16.8	15.4	14.6	13.7	13.1
Canada	F	181.8	199.2 [3]	194.2	206.3 [3]	198.1
	D	31.8	34.2	32.9	32.6	30.7
Denmark	F	53.8	54.7	59.7	60.3	56.7
	D	10.8	10.3	9.8	8.7	7.1
Finland	F	53.5	52.4	51.2	50.2	47.5
	D	5.6	5.2	5.0	4.9	4.8
France [1]	F	451.0	460.0	448.0	444.0	435.0
	D	53.0	51.0	47.0	46.0	46.0
Germany, F. R. of [1]	F	360.0	336.0	335.0	338.0	354.0
	D	106.0	98.0	92.0	88.0	85.0
Hungary	F	163.7	162.6	169.7	176.1	173.0
	D	25.8	26.2	26.2	25.8	25.7
India	F	607.0	677.0	633.0	671.0	...
	D	58.0	62.0	65.0	68.0	...
Italy [1]	F	172.0	...	157.0	150.0	...
	D	32.0	...	44.0	45.0	...
Japan	F	980.0	1 007.0	1 028.0	1 078.0	...
	D	95.0	91.0	74.0	73.0	...
Kenya [2]	F	34.7	36.0	41.5	44.4	49.8
	D	5.2	6.5	7.6	6.1	7.5
Korea, Rep. of	F	117.6	134.2	144.4	169.1	...
	D	26.3	26.6	26.4	24.4	...
Mexico	F	77.5	73.5	95.7 [3]	95.1	96.6
	D	72.2	71.4	72.3	77.9	80.9
Poland	F	508.5	501.3	500.9	382.8 [3]	377.4
	D	37.7	36.7	36.0	31.6	29.0
Spain [1]	F	297.0	...	271.0	277.0	...
	D	69.0	...	60.0	60.0	...
Sweden	F	48.6	46.2	46.6	46.3	47.1
	D	3.2	2.9	3.0	3.4	3.5
United Kingdom [1]	F	525.0	489.0	494.0	505.0	...
	D	99.0	84.0	74.0	70.0	...
United States	F	1 438.0	1 392.0	1 388.0	1 416.0	1 454.0 [3]
	D	233.0	223.0	214.0	204.0	192.0
USSR [1]	F	2 691.0	...	2 760.0	2 801.0	2 765.0
	D	370.0	...	369.0	310.0	294.0
Zimbabwe	F	24.8	27.4	28.6	29.5	...
	D	6.6	7.7	7.8	7.4	...

[1] United Nations: *Industrial Statistics Yearbook 1984*, Vol. 1 (New York, 1986); idem: *Industrial Statistics Yearbook 1989*, Vol. 1 (New York, 1991). [2] The statistics for the drink industry include persons employed in the tobacco industry as well. [3] Survey methodologies were revised from the previous year.

Source: ILO: *Year Book of Labour Statistics, 1991* (Geneva, 1991), unless otherwise stated.

achieving higher profits and their social responsibility as providers of jobs and a livelihood to workers – who, it must be remembered, are also consumers.

2. Globalization and concentration and their impact on industrial relations

Although the activities of multinationals are conspicuous, particularly when hostile takeovers are involved, the food industry has been and remains dominated by small and medium-sized companies producing a diversity of products. In the food sector in Europe, for example, the 20 largest manufacturers account for only 12 per cent of the market, which is shared among an estimated 100,000 companies. In the drink industry the situation is rather different, and 40 of the world's top spirits brands are controlled by only four groups.[18] Looking at the two industries together we find that approximately 25 per cent of the world's food and drink production is controlled by the 100 largest manufacturers with a highly diversified product range.[19]

Mergers and acquisitions have swept the food and drink industries since the early 1980s, notably among the European and American-based companies. Western Europe, although heading towards political and economic union, enjoys diverse cultural heritages, where many small companies with established and specialized products continue to cater to the needs and preferences of very different populations. Faced with increasing competition in a near-saturated market, however, large companies have tried to boost profit margins through economies of scale across national boundaries.

One of the reasons for their wish to acquire small but established firms is to have the advantage of controlling the popular, specialized brands that smaller companies often boast. Despite huge investment in research and development, few new products prove a lasting success. In fact, it has been reported that a mere 3 per cent of new products succeed commercially, and of these only 40 per cent have a life of more than five years [20] – and this in spite of the fact that promotional expenditures in the food and drink industries are often estimated to exceed 6 per cent of sales revenues.[21] For example, Bass, the largest brewing company in the United Kingdom, was reported to have spent nearly 12 million in 1987-88 to promote just two of its products, Carling Black Label and Tennent's.[22] Facing such risks of

[18] de Jonquières and Dawkins, op. cit.

[19] Oman and Rama, op. cit., p. 243.

[20] EC, op. cit., p. 17-4.

[21] Oman and Rama, op. cit., p. 246.

[22] *Brewery Bulletin* (Geneva, IUF), No. 2, Feb. 1989, p. 2.

failure, only major companies can afford to launch new products on a larger scale.

Even financially powerful companies must minimize such risks in today's highly competitive environment. Although today's retailers with their highly developed networks tend to ensure that popular brands get prime shelf space, which ensures both their own and the manufacturers' profits, the increasing sale of lower-cost products under retailers' own names has increased pressure even on the producers of popular brands. Mergers and acquisitions have, therefore, become a preferred means of gaining market leverage by consolidating the manufacturing capacity of familiar brands and established distribution networks in order to strengthen the core areas, and to diversify into other areas of business by exploiting economies of scale.

Between January 1988 and June 1989, over 400 company take-overs were reported within the food and drink industries in Europe alone, of which 17.6 per cent involved British companies and 34 per cent were across national boundaries.[23] Unilever, the Anglo-Dutch group, alone was reported to have purchased 82 companies worldwide between the beginning of 1989 and May 1990 at a total cost of 2.2 billion.[24] As a result of the waves of mergers and acquisitions, certain branches of the industries have become increasingly concentrated. For example, Unilever now controls nearly two-thirds of European production of edible fats and a considerable proportion of ice cream production, while Kellogg enjoys the majority share of the breakfast cereals market. Nestlé, Mars, Suchard and Cadbury dominate the chocolate industry.[25] The other products with high levels of concentration include sugar, wheat, coffee, instant products, beer, spirits, baby foods, frozen foods, and tinned milk; concentration levels are relatively low in milk, flour, fruit and vegetable processing and in the meat packing industry.[26]

Mergers and acquisitions have resulted in multinationals consolidating their power even further, operating in an increasing number of countries. The companies expanding across political boundaries in western Europe are preparing to secure strategically advantageous positions when the European Community merges into a single market in 1993. However, because of slow growth in near-saturated food and drink markets in the industrialized countries, particularly in western Europe, the companies based there are also expanding into other, growing markets elsewhere through various forms of investment. The commonest strategies used to gain access to new markets have been the acquisition of existing companies or the establishment of subsidiaries. In addition, joint ventures and licensing agreements between

[23] Information provided by the Union of Shop, Distributive and Allied Workers, Manchester.

[24] *Unilever Information* (Geneva, IUF), No. 21, Jan. 1991, p. 3.

[25] de Jonquières and Dawkins, op. cit.

[26] EC, op. cit., p. 17-3.

two or more companies have become common arrangements because they provide cost-sharing and risk-shedding advantages to both sides in new business ventures which might be too risky for a single player.

The number of workers employed abroad by multinationals often exceeds that in the home country. For example, Heineken, the Dutch brewery giant, employed 6,837 workers at home in 1989, while its subsidiaries and related companies in the rest of the world employed a total of 22,290.[27] The extreme case may be that of Nestlé, some 95 per cent of whose sales are said to be generated outside its home base in Switzerland.[28]

When companies with strong financial backing expand through mergers and acquisitions, they often make further investments to strengthen their new ventures; this usually involves the introduction of new technologies to modernize and restructure the existing plants, each of which then concentrates on certain products to achieve economies of scale. The investment in new, higher-productivity machinery often leads to rationalization of the enterprise as a whole and closure of some plants located in non-strategic areas. Unilever, for example, recently revealed that it was spending 195 million to pay for job cuts, factory closures and other measures, in preparation for the single European market.[29]

How are industrial relations in the food and drink industries being affected by this increased globalization? The level of decision-making varies from company to company, but multinational enterprises tend to have a decentralized social and labour policy, with local management making decisions autonomously in line with local labour legislation and customs. The headquarters management does not usually interfere in labour questions at this level, but that does not necessarily mean it is totally indifferent to industrial relations developments there. In general, overall working conditions in multinational enterprises are found to be above the local standard, which may not be unrelated to the fact that major disputes at subsidiary plants would attract worldwide attention, to the disadvantage of the parent company. Any company with an international reputation tends to be sensitive to negative publicity and concerned to preserve its public image as a good employer and producer of quality products. For example, in order to ensure that a general labour or personnel policy is followed in all its subsidiaries, the headquarters management of BSN (Boussois and Souchon-Neuvesel), the largest French multinational group in this sector, maintains close and regular contacts with its local industrial relations and personnel managers.[30]

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[27] IUF (1990), op. cit., Netherlands, p. 3.

[28] Oman and Rama, op. cit., p. 247.

[29] *International Herald Tribune* (Zürich), 27 Feb. 1991, p. 13.

[30] ILO: *Freedom of association and the right to organise, industrial relations and collective bargaining in the food and drink industries*, Report II, Food and Drink Industries Committee, Second Session, Geneva, 1991, pp. 32, 34-36.

The growing concern of workers employed by large multinational enterprises is that, although decisions on social and labour questions are made at the local level, those on corporate investment strategy remain centralized. What causes the workers most concern is that corporate investment policies are precisely the ones that can most jeopardize their job security. Whilst it can be argued that it is in the nature of multinationals to have (and to implement) strategic plans, the result is a situation in which local trade union representatives are placed at a disadvantage by lack of information when seeking to negotiate with a local management, which may itself lack relevant information and have little influence over corporate decisions taken elsewhere.

In this context it is appropriate to recall the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy adopted in 1977, which recommends in paragraph 54 that "multinational enterprises should provide workers' representatives with information required for meaningful negotiations with the entity involved and, where this accords with local law and practices, should also provide information to enable them to obtain a true and fair view of the performance of the entity or, where appropriate, of the enterprise as a whole".

The International Union of Food and Allied Workers' Associations (IUF), a worldwide federation representing more than 2.1 million food and drink workers in over 250 trade unions and nearly 100 countries, places great emphasis on the provision of information by multinational enterprises so as to enable management and workers to negotiate on an equal footing. Thus the IUF attempts to establish contacts with the central management of such enterprises to ensure that workers' views are reflected before major policy decisions are taken.[31]

One example is the contact established by the IUF with BSN. The joint statement signed in Geneva in August 1988 pledged the two parties to promote: a training policy aimed at anticipating the consequences of the introduction of new technologies or industrial restructuring; a policy aimed at reaching the same level and quality of information disclosure on economic and social matters across all BSN-Group locations; terms and conditions ensuring real equal opportunities for women and men in the company; and the implementation of union rights as laid down in ILO Conventions Nos. 87, 98 and 135 (concerning freedom of association, protection of the right to organize, collective bargaining and workers' representatives).[32]

The challenge for many companies operating in a number of countries is to devise a policy applicable to all their enterprises while at the same time

[31] Many enterprises are reported to be opposed to such contacts on the grounds that labour matters are dealt with only at local level and that investment strategies cannot be a subject for negotiation with workers (ibid., pp. 33-34). On this issue see also H. R. Northrup, D. C. Campbell and B. J. Slowinski: "Multinational union-management consultation in Europe: Resurgence in the 1980s?", in *International Labour Review*, 1988/5, pp. 525-543.

[32] *European Industrial Relations Review* (London), No. 178, Nov. 1988, p. 22.

ensuring that local laws and customs are respected. The difficulty, as pointed out earlier, is that companies are asked to deal with all the subsidiaries equally in respect, for example, of information provision, whereas each subsidiary may well have different weight and importance in the short- or long-term strategies of the central office, and it is precisely on such differences that management decisions have usually been taken.

Conclusions No. 27 adopted at the Second Session of the ILO's Food and Drink Industries Committee noted a marked expansion of multinational enterprises in these industries, which had encouragingly positive consequences for industrial relations in cases where arrangements for dialogue between management and workers' organizations had been developed at various levels.

However, the views of management and workers still differ very considerably in many enterprises. The former believe it is their right to withhold information on fundamental policy matters in pursuit of business success, while the latter assert their right to information as guaranteed by the Tripartite Declaration. The dispute about what constitutes "information required for meaningful negotiations" seems likely to continue. Yet the fact remains that a constructive approach and mutual readiness to make concessions are more likely to yield progress for both sides than the adoption of immutable positions resulting in a stalemate.

3. Training and retraining in the food and drink industries

Technological developments make some skills obsolete and require workers to acquire new skills to remain employable. While increased use of automation makes a growing number of unskilled and semi-skilled workers redundant, there are also new jobs being created, often requiring higher skills and qualifications. In their response to the ILO's questionnaire preparing for the Second Session of the Food and Drink Industries Committee, some governments reported that they were faced with a shortage of skilled workers such as machine operators, maintenance technicians, electrical and electronic engineers, data-processing engineers and food scientists, including nutrition scientists, biochemists, microbiologists, toxicologists, etc. An enterprise must be able to assess its future skill requirements accurately and to organize training for its workers to derive the maximum benefit from new technologies. Workers, for their part, must be able to assess their own skill needs in the face of a changing work environment and adapt to new requirements. The ILO's tripartite constituents in the food and drink industries all agree that having a well-trained workforce is essential for the well-being of the industries as well as for national economies. The question is who shall be responsible for formulating, funding and implementing what type of training for which workers.

Vocational training in all its forms has to be provided at various levels. Publicly funded institutions usually provide training of a general nature, mainly for young jobseekers, who then often receive further training for specific tasks once they are employed. Public higher educational establishments offer advanced courses as prerequisites for careers in specialized areas such as engineering, microbiology and biochemistry. There are also vocational training bodies geared to the specific skills required by particular industries. Such institutions are often run and funded by private enterprises, although some are also funded jointly by the public and the private sector and are open to the public.

As skill requirements change rapidly to keep up with advances in technology, many large enterprises are obliged to retrain their workers. This usually takes the form of practical, on-the-job training, but many experts also stress the advantage of "dual" (or "sandwich") training, where complementary, off-the-job theoretical training is also provided to accelerate adaptation to new technologies. From the employers' point of view, "dual" training has the disadvantage of being very costly and of entailing absence from work throughout the theoretical training. For these reasons, many small and medium-sized enterprises are not in a position to provide such a programme.

At the Second Session of the Committee, there was a general consensus among governments, employers and workers to cooperate in formulating and implementing effective training programmes. It was also agreed that governments should be responsible for providing basic and general education as a foundation for vocational training and retraining as well as for drawing up the overall framework of vocational training policies and goals; and that employers should provide specific training to enhance productivity at enterprise level.

There thus emerged a tripartite consensus on training issues of a general nature; however, employers and workers were diametrically opposed on certain specific matters. For example, employers generally object to the demand by workers that their responsibilities should extend to providing training in basic skills such as reading, writing and arithmetic – a demand that relates particularly (but not exclusively) to the large number of migrant workers employed in the food-processing industry. Certain branches have traditionally employed a workforce with low skill levels, and workers feel strongly that employers should help the functionally illiterate to learn, for example, how to follow instructions relating to occupational safety and health. Employers, on the other hand, argue that workers should at least make the effort to acquire such basic skills as part of the general education provided by governments.

Workers generally feel that enterprise-specific job training and retraining programmes should be standardized under a certification system to equip workers to find other work more easily in times of restructuring. In response, employers argue that each enterprise needs to devise its own

training programme to meet its specific needs, and that it would be too expensive for small and medium-sized enterprises to provide standardized training.

Another point of contention is that, while workers wish to be involved in decision-making regarding training at all levels, employers generally feel that assessing the enterprise's present and future training and retraining needs in line with management policy on the introduction of new technologies is their responsibility.

Another worker demand is that equal opportunities for training and retraining should be given to all, regardless of sex, contract status and work experience. There are in the industries a large number of seasonal, temporary and part-time workers, a majority of whom are women with low skills. They are the workers most vulnerable to restructuring because theirs are the jobs that can easily be replaced by machinery. The workers urge, therefore, that women should be given preferential training and retraining opportunities to facilitate their adaptation to a new work environment. However, even measures specially targeted on women workers will not be practical unless women's greater family responsibilities are also taken into consideration. Opening apprenticeship training to mature women would be a helpful measure, particularly for those who re-enter the labour market after a break for child-bearing and -rearing.

4. Women in the food and drink industries

In recent decades an increasing number of women have entered the labour market for paid employment, particularly in industrialized countries. In the food and drink industries they actually outnumber men in a few countries. According to government replies to the ILO questionnaire, the proportion of women in Japan, the Philippines and the former USSR in the years for which the most recent data were available were 52.3, 71.2 and 58.5 per cent respectively.[33] Women's employment in these industries has expanded worldwide in recent years, while men's employment has declined in many industrialized countries. However, this does not necessarily mean that women are taking on more important roles. Although labour legislation in most countries guarantees equal opportunities for men and women in all aspects of employment, the actual employment status of many women workers still leaves much to be desired.

Because these industries have traditionally been engaged in processing raw materials that are often of a seasonal nature, they generally employ a large number of temporary workers. Moreover, a large majority of the workers with little job security are women, as shown in table 3, which has been compiled from government replies to the ILO questionnaire.

[33] ILO: *General report*, op. cit., pp. 111-112.

Table 3. Women's share of various categories of workers in the food and drink industries, selected countries (% of total)

Country	Year	Industry	Category of workers	%
Argentina	...[1]	F	Seasonal	80.0
Australia	1990	F + D +T[2]	Full-time	24.6
			Part-time	72.5
Belgium	1989	F + D	Salaried employees	45.7
			Wage earners	25.7
Germany, F. R. of	1987	F + D	Total workforce	40.9
			Part-time	80.5
Greece	1989	F	Salaried employees	22.8
			Wage earners	46.0
		D	Salaried employees	18.3
			Wage earners	33.2
Japan	1989	F + D + T[2]	Total workforce	52.3
			Part-time	91.3
Mexico[3]	1990	F	Wage earners	57.9
Poland	1989	F + D	Total workforce	47.7
			Seasonal	42.2
Spain	1989	F + D	Salaried employees	27.2
Sweden	1990	Ice-cream	Seasonal	50.0
United Kingdom	1990	F + D + T[2]	Full-time	42.9
			Part-time	88.3
United States	1986	F	Managers	12.4
			Professionals	32.3
			Technicians	46.7
			Labourers	43.0
USSR	1989	F[4]	Full-time	58.5
			Seasonal	65.0

[1] Latest information available, no specific year given. [2] Food, drink and tobacco industries. [3] In 33 food packing and canning establishments under subcontracts to exporters. [4] Foodstuffs, meat and milk industries only.

Source: Governments' reponses to the ILO questionnaire for the Second Session of the Food and Drink Industries Committee, 1991.

The table shows that women generally make up a high proportion of part-time workers in these industries – as indicated by the figures for Australia, the former Federal Republic of Germany, Japan and the United Kingdom – and a majority of low-skilled workers and unstable workers with seasonal contracts. While it is true that in the United States they account for a relatively higher proportion among technicians than in the total workforce in the food industry,[34] they are underrepresented among managers and overrepresented among manual workers.

Women are usually concentrated in lower-paid jobs in small or medium-sized, labour-intensive plants, and are engaged mainly in the

[34] The ILO's *Year Book of Labour Statistics, 1991* shows that women made up 32.5 per cent of the workforce in the US food and drink industries combined in 1990.

processing of primary products. Some may argue that their low status is due to their lesser length of service or lower educational level. This may often be the case, but information indicates that at least in some cases they are prevented from advancing merely because of their sex. A case study on a multinational plant in Jakarta makes some interesting points in this respect. Of the 49 employees classified as managers only eight were women, in spite of the fact that 75.4 and 18 per cent of the women in this plant were senior high-school and university graduates respectively, as opposed to 47.5 and 8.3 per cent of the men.[35]

Workers with unstable contracts not only earn less than those in stable employment; they usually enjoy less favourable working conditions as well, e.g. no paid holidays, no bonus, no social security protection, and little opportunity for training for promotion. Again, some may argue that many women are in part-time employment of their own free will because of their family responsibilities. No doubt there are women who prefer part-time employment for various reasons, but the fact remains that it is common practice for many firms to hire as many workers as feasible on piece- or hourly rates in order to save on labour costs, and it is women more often than men who are only offered those types of vulnerable contract. For example, a study conducted in Thailand covering 29 fruit and vegetable canning factories revealed that, while 71 per cent of the male permanent employees were on monthly salaries, only 15 per cent of the women were, the rest being on daily or piece-rates. One factory with more than 300 employees paid monthly salaries ranging from 2,200 to 11,000 baht, while the daily rates ranged from 45 to 82 baht – the higher figure being 10 per cent less than the lowest monthly salary.[36]

Although on the whole, compared with other regions, a greater proportion of full-time female workers in Europe come nearer to enjoying equal pay for work of equal or similar value,[37] part-time women workers there are still at a disadvantage as far as earnings are concerned.[38] Such workers should at least be guaranteed equal pay for work of equal value, and receive fringe benefits on a pro rata basis.

The predicament of low-skilled workers, a large proportion of whom are women, is becoming increasingly severe as many of their skills can now

[35] ILO/UNFPA/DEPNAKER/BKKBN: *A study of selected success cases in in-plant provision of family welfare*, Final Report, produced under UNFPA project INS/86/PO5 (Jakarta, 1990), pp. 5-6.

[36] NICE/UNDP/ILO: *Survey on working conditions and environment in ten industries in Thailand*, Technical Report No. 13 produced under project THA/82/005 (Bangkok, 1987), pp. 13-14.

[37] See, for example, recent editions of the ILO's *Year Book of Labour Statistics*.

[38] Information on the average weekly earnings of male and female manual employees in the brewing and malting industry in the United Kingdom in 1985 showed that men earned 4.45 per hour compared with 3.11 and 2.61 earned by women full-timers and part-timers respectively. IUF: *Documentation and minutes*, International Brewery Workers' Conference, Roskilde, January 26-30, 1987, United Kingdom, p. 7.

be more and more easily replaced by machines. Whether they will be able to stay in employment will largely depend on the availability of training and retraining programmes and their determination to adapt to a new work environment with changed skill requirements. Conclusions No. 28 adopted at the Second Session of the ILO Committee recognized women's disadvantaged position in the acquisition of new skills and its impact on their advancement. The conclusions therefore urge the ILO's tripartite constituents to ensure that women "have access to training that meets their needs and the enterprise's skill requirements". However, any measures will be meaningless unless consideration is given to the obstacles to women's career development arising from their greater family responsibilities.

Recognizing the vulnerable situation of female workers in various aspects of employment, an increasing number of workers' organizations have established units specially concerned with women's issues, which seek to raise female workers' awareness and understanding of their rights to improve their social status. Some workers' organizations demand equal opportunities in training as a step towards abolishing sex-based job segregation.

Many governments have also issued guidelines in an attempt to redress the situation, but they often remain merely that, and so long as such questions as women's training needs are left largely to the discretion of enterprise managements, progress is likely to be slow. However, one concrete measure that is being taken by some governments is the elimination of sex-specific job classification by re-evaluating the exact requirements for each job. Thanks to new technology, jobs that were previously open only to men, for example those which involved heavy manual work, can now be easily performed by women trained to operate the appropriate machines.

5. Occupational safety and health in the food and drink industries

In spite of the significant progress made in many countries over recent decades in reducing occupational accidents and diseases by introducing various health and safety measures, much remains to be done since new hazards are reported whenever new technology and new processing methods come into use. In the manufacturing sector, very high accident rates are generally reported by our two industries, possibly owing to the fact that a high proportion of workers use dangerous tools such as knives. Though more than 50 per cent of reported injuries are minor, many workers' representatives draw attention to the rising incidence of accidents and disease in the industries.

Table 4 shows the number of reported cases of accidents and diseases in the food and drink industries in selected countries. The data are not internationally comparable because of different reporting methods, but it is

Table 4. Occupational accidents and diseases in the food and drink industries (reported cases), 1984-89

Country	Accidents/ diseases	1984	1985	1986	1987	1988	1989
Australia [1]	A	1 841	1 872	1 616	1 630	1 559	1 453
Austria [2]	A	8 331	9 111	8 722	8 811	8 463	8 404
	D	156	125	163	183	211	...
Belgium [3]							
	D	72	84	82	99	105	...
Cyprus	A	106	110	114	119	128	114
Finland	A	6 630	6 428	6 549	6 705	6 015	6 044
Germany, F. R. of [4]	A	131 556	133 014	137 635	134 241	134 612	132 319
	D	3 092	3 566	5 196	5 757	6 383	6 119
Hungary [5]	A	5 271	5 264	4 599	4 312	5 140	5 308
Japan	A	8 532	8 259	7 955	7 823	7 494	7 581
	D	717	679	670	596	581	576
Poland	A	16 335	12 782	12 565	12 056	11 285	9 887
	D	126	136	112	138	126	88
Spain	A	29 718	30 014	31 483	34 628	36 043	37 740
	D	138	109	148	138	186	181
Sweden	A	5 052	5 046	4 942	4 409	4 343	4 002
	D	1 085	1 255	1 538	2 018	2 277	2 075
Switzerland	A	15 221	17 138	12 150	12 024	16 145	...
Turkey	A	8 616	8 246	7 694	8 349	8 561	...
United Kingdom [2]	A	...	...	12 514	13 087	...	15 445
United States	A	...	244 400	240 800	255 200	265 200	...
	D	...	14 000	18 000	22 600	29 300	...

[1] Western Australia only. [2] Including the tobacco industry. [3] In 1988 enterprises with fewer than 20 workers were not included. [4] In 1986 changes were introduced in the system of notification of occupational accidents and diseases. [5] Food industry only.

Source: Governments' replies to the ILO questionnaire for the Second Session of the Food and Drink Industries Committee, 1991.

interesting to note the changes between 1984 and 1989. In fact, most countries reported an increase over the period, with rates varying from country to country according to the level of technology used, and from branch to branch according to the type of activity.

The commonest accidents and diseases reported throughout the world include cuts, burns, frostbite, falls, bruises, inflammation of joints, bone fractures, and musculo-skeletal and rheumatic problems. Many could be prevented if basic safety and health measures were introduced and observed by both management and workers. Ergonomically sound work stations would also help reduce musculo-skeletal problems. In addition to training for specific tasks, workers should be given thorough general safety and health training in handling hazardous tools, machines and substances.

Certain cases tend to occur more frequently at high-technology plants, including those associated with computerization and mechanization, those

arising from new processing technologies (including biotechnology), and those related to an increased use of chemicals.

New machines introduced to alleviate strenuous work and to increase productivity often put various types of pressure on workers who perform monotonous tasks at a rapid and constant speed. In an increasing number of countries, the problem of repetitive strain is becoming serious, particularly in the poultry industry, which has expanded rapidly in response to the popularity of leaner meat and the expansion of the fast food service industry.[39] This problem may be alleviated by creating ergonomically designed work stations, but many other factors, such as the speed of machines and rotation of tasks, must be taken into consideration. Hearing impairment in, for example, bottling plants is another consequence of mechanization. Its incidence can at least be reduced by providing workers with personal protective equipment such as earmuffs and installing noise-absorbing ceiling panels, sound-insulated operating cabins or transparent walls to reduce noise levels or separate workers from noisy areas. Serious injuries in fully mechanized plants are sometimes caused by workers getting caught up in unguarded machinery, including industrial robots. In response, many plants have cordoned off potentially hazardous machines and equipped industrial robots with sensors to prevent accidents.

New processing technologies involve the growing use of enzymes and additives, resulting in an increasing number of cases of allergies such as eczema. One of the measures commonly taken is to replace allergens with non-irritating substances. Technicians involved in microbiology are recommended to undergo regular medical examinations to detect early signs of diseases, and with increasing use of radiation to eradicate microbial contamination of foodstuffs, radiation technicians are kept under constant surveillance. Among food-processing workers many cases of parasitic diseases of animal origin are also reported, which in some countries are treated by inoculating workers against infectious and parasitic diseases, in others by vaccinating animals. Further efforts to eradicate such diseases are still necessary in many countries.

The accidents and diseases associated with the inhalation or handling of toxic substances that are frequently reported in both industrialized and developing countries include respiratory disorders and skin irritation – problems which once again often occur as a result of non-compliance with health and safety measures by both workers and employers. In some cases, where insufficient information is available on the toxicity of certain substances, further research based on cooperation at the national and international levels is needed. In any case, manuals on safe handling of hazardous substances must be made readily available and be easy for all workers to understand. In an effort to reduce the risk of inhaling toxic

[39] *Social and Labour Bulletin* (Geneva, ILO), 1992, No. 1, pp. 76-78.

materials, some plants have replaced substances in small-particle form with liquids, while others pump them through closed systems.

It goes without saying that government agencies responsible for safety and health inspection should play the major role, particularly in preventing accidents involving death or serious injury, but in many countries, including industrialized ones, government budgets are simply insufficient to hire and train enough inspectors to cover all establishments. It is clear that government inspection has its limitations, and that complementary ways of enforcing safety and health codes are necessary.

Accordingly, in its major programme of occupational health and safety the ILO advocates the establishment of bipartite health and safety teams at the enterprise level. Such teams, composed of representatives of management and workers, meet regularly with government inspectors in workshops and seminars to exchange safety and health information. They are also responsible for monitoring their workplace and for training fellow workers to protect themselves, and to be aware that their safety and health are in their own hands. In view of the rising number of reported accidents and diseases and of the fact that cases doubtless go unreported in many countries, the ILO will need to intensify its campaign in the interests of the well-being of the enterprise, its workers and their families.

Summary

While sharing many characteristics and problems with other industries, the food and drink industries present some special features. First and foremost they seek to satisfy a unique combination of demands centred upon a basic biological need around which culture and fashion have proliferated refinements. Thus they not only enjoy a situation of permanent basic demand that defies recession but display a persistent tendency to expand and diversify. They are at the opposite extreme from consumer durable industries in that, while they suffer a high percentage of wastage, they enjoy the benefit of a constantly renewed short-term demand.

It is therefore no surprise to find that in many parts of the world these industries make up the most important manufacturing sector, with a vast financial turnover, and that, aided by heavy investment, advanced technology, scientific developments and automation have become prominent in their operations. Traditionally labour-intensive, the food and drink industries, especially the latter, have become increasingly capital-intensive and have attracted much investment by multinational enterprises.

The employment consequences of these developments have varied, jobs being lost mainly by unskilled and semi-skilled workers predominantly in the more readily automated drink industry and in industrialized countries; employment has been less affected in the food industry, especially in Asian countries with expanding domestic markets. It is likely, however, that the increasing substitution of North American- and European-grown inputs will

indirectly affect the employment situation in these industries in the Third World.

The impact of large companies, especially multinationals, has also varied. In some areas, particularly in the food industry, small and medium-sized companies still predominate, but when multinationals are involved – and their role is constantly expanding – familiar industrial relations problems arise. Although multinationals usually follow decentralized social and labour policies and are sensitive to negative publicity, their decisions on corporate investment, precisely those most likely to threaten employment, are taken centrally and confidentially, leaving workers' representatives who negotiate at local level at a considerable disadvantage. This was one of the factors that led to the adoption in 1977 of the ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy and accounts for continuing workers' demands for full information.

Job insecurity in the face of technological restructuring has also led to demands for better training and retraining and to widespread discussion of the respective responsibilities of governments and enterprises, an aspect particularly prominent in the two industries being the demand for basic educational provisions because of the exceptionally large number of migrant workers employed.

Although men still dominate the workforce in the two industries in most countries, there are some countries in which women are more numerous and the proportion of women workers is increasing throughout the world. They generally make up an unduly high proportion of the part-time, low-skilled and low-paid workers and are more frequently employed on unstable contracts. In an attempt to remedy this situation some workers' organizations have demanded better training for women and improvements in their working status, and some governments are taking steps to eliminate such discriminatory practices as sex-specific job classification. However, much remains to be done.

In spite of progress made in reducing some types of occupational accidents and diseases, their general incidence remains high and seems to be actually increasing. Considerable progress could be achieved by ensuring that health and safety precautions are introduced and observed in enterprises, and the ILO has advocated the establishment of special teams to promote these objectives.