How many workers are employed in agriculture?

An estimated 1.3 billion workers are engaged in agricultural production worldwide. This represents half of the total world labour force. Only 9% of agricultural workers are in industrialized countries. Almost 60% of them are in developing countries. A great majority of agricultural workers are found in Asia, which is the most densely populated region of the world, with more than 40% of the world's agricultural population concentrated in China and more than 20% in India.

Available data shows that the distribution of agricultural workers in the world is proportional to the incidence of poverty.
How do they live?
About 1.1 billion people live below the poverty line in developing countries. The incidence and the severity of poverty are greater in rural areas. This situation results from the low incomes of waged workers, small farmers, subsistence farmers, small tenants and sharecroppers, who constitute the majority in the rural sector.

**POVERTY SHARE IN RURAL AND URBAN AREAS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>1980</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>1986</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>1990</td>
<td>45%</td>
<td>55%</td>
</tr>
</tbody>
</table>


Socio-economic, cultural and environmental factors influence the health and living conditions of farmers and agricultural workers. The environment in which rural people work and live, their standard of living, and their nutrition are as important to their health as the services available to them. In many countries, rural populations do not participate actively in policymaking and are not involved in the decisions which concern them.

Are there different categories of agricultural workers?
One of the specific characteristics of the agricultural sector is the lack of clear-cut distinctions between different categories of workers. Consequently, there are numerous types of labour relations and different forms of labour force participation. The different categories of workers also vary within each country and, in certain cases, a single farmer may be grouped in more than one category. For example, in developing countries, many smallholders supplement their income with wages earned by working in large commercial farms during harvesting periods.

**NON WAGED**
- LARGE and MIDDLE SCALE FARMERS
- SMALL SCALE FARMERS
- SUBSISTENCE FARMERS
- UNPAID FAMILY WORKERS
- COLLECTIVE FARMERS
- TENANTS and SHARE CROPPERS

**WAGED**
- PERMANENT WORKERS
- TEMPORARY and SEASONAL WORKERS
- MIGRANT WORKERS
- SUBCONTRACTED WORKERS
- INFORMAL SECTOR SQUATTERS
- LAND-LESS WORKERS
Working conditions and labour relations differ very much for permanent and non-permanent workers. Permanent workers not only receive some job security but also relatively higher wages and better housing, health and work benefits. However, most agricultural waged-labour is carried out by day-labourers, seasonal labourers and temporary workers who perform the lowest-skilled tasks in poor working conditions. Much of this labour often involves a worker's whole family (including children and the elderly).

Labour migration and casual employment are highly present in agriculture. This labour mobility is very significant throughout the world. Wherever they come from, migrants are always heavily disadvantaged in terms of pay, social protection, housing and medical protection. The migration of young men to the city means that agricultural work is increasingly left to women and children. Women now account for more than 40 per cent of the total agricultural workforce, and child labour is widespread. Women are mainly engaged in non-permanent jobs in both large- and small-scale holdings, but this does not mean that they reduce their domestic activities. Rural women have a double role as workers and housewives.

How do they work?

Inequalities in the economic development of different countries, or regions within the same country, have resulted in the coexistence of two main agricultural sectors. The first is characterized by low-skilled subsistence farming, in which a large proportion of the rural population works; whilst the second includes skilled market-oriented farmers and agricultural waged workers, who use highly automated production processes and, consequently, achieve high productivity with relatively few workers. There is also a wide range of landownership patterns and methods of cultivation.

<table>
<thead>
<tr>
<th>TYPE OF HOLDINGS</th>
<th>PRODUCTION TECHNIQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICRO-HOLDINGS</td>
<td>subsistence agriculture</td>
</tr>
<tr>
<td>a very limited area</td>
<td></td>
</tr>
<tr>
<td>SMALL-HOLDINGS</td>
<td>traditional and traditional methods</td>
</tr>
<tr>
<td>under 10 Ha</td>
<td>small-cattle raising</td>
</tr>
<tr>
<td></td>
<td>small local marketable surplus</td>
</tr>
<tr>
<td>MIDDLE-SIZED FARMS</td>
<td>traditional methods and semi-mechanized agriculture</td>
</tr>
<tr>
<td>10 to 50 Ha</td>
<td>small-cattle raising</td>
</tr>
<tr>
<td></td>
<td>national and international marketable production</td>
</tr>
<tr>
<td>LARGE FARMS</td>
<td>advanced mechanized agriculture with great use of chemicals</td>
</tr>
<tr>
<td>50 to 500 Ha</td>
<td>intensive and extensive industrial agriculture</td>
</tr>
<tr>
<td></td>
<td>cattle raising</td>
</tr>
<tr>
<td></td>
<td>national and international marketable production</td>
</tr>
<tr>
<td>LARGER FARMS</td>
<td>advanced mechanized agriculture with great use of chemicals</td>
</tr>
<tr>
<td>above 500 Ha</td>
<td>intensive and extensive industrial agriculture</td>
</tr>
<tr>
<td></td>
<td>large cattle raising</td>
</tr>
<tr>
<td></td>
<td>national and international marketable production</td>
</tr>
</tbody>
</table>

Agricultural work involves multiple tasks and multiple locations, both on a daily and seasonal basis. Some of the specific features of agricultural work which determine working conditions are:

- the fact that most of the tasks are carried out in the open air, exposing the workers to climatic conditions;
- the seasonal nature of the work and the urgency of certain tasks in specific periods;
- the variety of tasks to be performed by the same person;
- the type of working postures and the length of the tasks performed;
- the contact with animals and plants, thus exposing workers to bites, poisoning, infections, parasitic diseases, allergies and other health problems;
- the use of chemicals and biological products;
- the considerable distances between workers' living quarters and workplaces.
Is there child labour in agriculture?
According to the latest ILO estimates, at least 250 million children of between 5 and 14 years of age work in developing countries. Almost half of these children work on a full-time basis. The participation rates of children in economic activities is much higher in rural areas than in urban centres. Rural children, in particular girls, tend to start working at an early age. In Latin America and the Caribbean, out of 15 million children involved in the labour market, 56 per cent work in the agricultural sector from the age of 5 to 7 years onwards. In some countries, children account for as much as 30% of the agricultural workforce. Most children work seven days a week and are paid less than the prevailing rates in their localities. They work long hours, and a very high proportion of these children are injured at work. Exposure to poor working conditions has serious repercussions on children's growth, development and health. The most common injuries include: cuts and wounds, eye infections, skin problems, fever, and headaches caused by excessive heat or by exposure to pesticides while working in agricultural fields.

Are health services available for agricultural workers?
The health status in rural areas is lower than in urban centres in both developed and developing countries. The drift of the population to cities has contributed to a concentration of health services in large urban areas, resulting in an imbalance in the distribution of health resources to the detriment of the rural sector. Limited funds are available, in particular, in preventive and primary health care, those areas where a greater impact could be made among the rural populations. Small rural health centres often find it difficult to attract and retain staff. The deterioration of the health status in rural areas increases progressively the greater the distance from urban centres. The mortality rate is also higher in rural areas. In developing countries, agricultural workers may live in extremely primitive conditions, in areas where roads are non-existent or inadequate and transportation is difficult. The majority of the rural population in developing countries have an inadequate diet and are exposed to both general and occupational diseases. The high prevalence of epidemic and endemic diseases in most rural areas further aggravates rural workers' poor health and misery. Many diseases and health impairments arise from poor sanitation, inadequate housing, malnutrition and a wide variety of parasitic and bacterial infections affecting the entire rural population. In less-developed countries, the challenge to provide health for the whole rural community is greater, as traditional health approaches have provided few effective mechanisms to reach local communities.

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Is agricultural work dangerous?

Agriculture is one of the most hazardous occupations worldwide. In several countries the fatal accident rate in agriculture is double the average for all other industries. According to ILO estimates, workers suffer 250 million accidents every year. Out of a total of 335,000 fatal workplace accidents worldwide, there are some 170,000 deaths among agricultural workers.

The intensive use of machinery and of pesticides and other agrochemicals has raised the risks. Machinery such as tractors and harvesters has the highest frequency and fatality rates of injury. Available data from developing countries shows that there has been an increase in the accident rate in agriculture. Such accidents occur mainly among migrants and daily workers, as well as women and children whose numbers in waged labour are constantly rising.

Exposure to pesticides and other agrochemicals constitutes a major occupational risk which may result in poisoning and death and, in certain cases, work-related cancer and reproductive impairments.

Which are the most frequent hazards in agriculture?

Those related to:

- machinery such as tractors, trucks and harvesters, and cutting and piercing tools;
- hazardous chemicals: pesticides, fertilizers, antibiotics and other veterinarian products;
- toxic or allergenic agents: plants, flowers, dusts, animal waste, gloves (chrome), oils;
- carcinogenic substances or agents: certain pesticides such as arsenicals and phenoxy-acetic herbicides, UV radiations, parasitic diseases such as bilharziasis and facioliasis;
- transmissible animal diseases: brucellosis, bovine tuberculosis, hydatid disease, tularaemia, rabies, Lyme disease, tinea, listerioses;
- other infectious and parasitic diseases: leishmaniasis, bilharziasis, facioliasis, malaria, tetanus, mycosis;
- confined spaces such as silos, pits, cellars and tanks;
- noise and vibration;
- ergonomic hazards: use of inadequate equipment and tools, unnatural body position or prolonged static postures, carrying of heavy loads, repetitive work, excessive long hours;
- extreme temperatures due to weather conditions;
- contact with wild and poisonous animals: insects, spiders, scorpions, snakes, certain wild mammals.
How much we know about occupational hazards in agriculture?

Official data on the incidence of occupational accidents and diseases are imprecise and notoriously underestimated, due to inadequate and heterogeneous recording and notifications systems. Furthermore, as only relatively few accidents are fatal and their notification mandatory, available information on workplace accidents does not reflect the very many nonfatal and minor injuries which fail to be reported. Even when an occupational injury is a cause of death, this fact is often missing from the death certificate. In the case of the agricultural sector under-reporting is even more evident. In many countries the reporting and compensation systems may exclude the agricultural sector or certain categories of agricultural workers. Many countries group agriculture together with other sectors such as hunting, forestry and fishing in their global estimates.

**RATES OF INJURIES IN AGRICULTURE, HUNTING, FORESTRY AND FISHING**

(ILO YEARBOOK OF LABOUR STATISTICS, 1999).

Problems in diagnosis also lead to under-reporting in the vast majority of countries. Chronic conditions due to noise, vibration, and low exposure to dusts or pesticides are more difficult to evaluate due to their long-term effects and uncertain symptoms. Workers are thus deprived of proper treatment and appropriated preventive measures. This situation is becoming particularly serious with rapid technological changes in agricultural production and with an increasing use of hazardous substances. It is also amplified by the poor control that workers have over the rhythm, content and organization of their work and the weak enforcement of safety and health regulations in agricultural settings.

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1 The International Labour Office collects and publishes global figures of accidents and diseases. As these are based on different national recording and notification systems, reasonable reliable data may only be obtained from a rather limited number of countries (i.e. from about one-third of the ILO's member States).
The following table shows the incidence rate of some of the main occupational diseases in agriculture recorded at national level:

<table>
<thead>
<tr>
<th>Occupational diseases</th>
<th>Number of cases</th>
<th>Incidence rate per 100,000 workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articular disorders</td>
<td>837</td>
<td>81.3</td>
</tr>
<tr>
<td>Allergic eczema</td>
<td>59</td>
<td>5.7</td>
</tr>
<tr>
<td>Respiratory allergy</td>
<td>61</td>
<td>5.9</td>
</tr>
<tr>
<td>Vibration and shock-related disorders</td>
<td>22</td>
<td>2.1</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>15</td>
<td>1.5</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>22</td>
<td>2.1</td>
</tr>
<tr>
<td>Noise induced impairment</td>
<td>22</td>
<td>2.1</td>
</tr>
<tr>
<td>Pesticides intoxication</td>
<td>22</td>
<td>2.1</td>
</tr>
<tr>
<td>Other occupational diseases</td>
<td>58</td>
<td>5.6</td>
</tr>
<tr>
<td>TOTAL OCCUPATIONAL DISEASES</td>
<td>1158</td>
<td></td>
</tr>
</tbody>
</table>


Are there other aspects which affect the health of workers in agriculture?

Despite the fact that certain developing countries have reached higher levels of economic development, nutrition and health are still problem areas. This situation provokes a vicious circle of low productivity, low wages, malnutrition, ill-health and low working capacity. The interaction between poor living and working conditions determines a distinctive morbidity-mortality pattern among agricultural workers, which is due to the combination of malnutrition, general and occupational diseases, and complications arising from undiagnosed or untreated diseases. Low working capacity is closely related to workers’ malnutrition and poor health.

Diseases and accidents caused by agricultural work are also conditioned by a range of factors such as climate, fauna, population density, living conditions, level of education, training, technological development, quality of services, etc. Agricultural workers are dependent on the general standards of public health services in rural areas where the provision of health care, adequate water supply and sanitation systems are generally insufficient. The low standards of hygiene in living quarters affect not only smallholdings, but also the large enterprises which provide housing for temporary workers and for migrant workers. Rural communities often lack education and information on the health hazards they may face. Traditional health approaches have few effective mechanisms to reach rural communities.
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What is the definition of agriculture under national safety and health laws?

Its definition is often general and imprecise, and may include one or more of the following activities:

- tillage of the soil, cultivation and harvesting;
- livestock rearing;
- breeding of other animals (poultry, apiculture, fish farming);
- manufacture of animal husbandry products;
- seeds and plants production;
- forestry work and forest conservation;
- primary processing of agricultural products.

How is the agricultural sector covered by national safety and health legislation?

There is a wide diversity of approaches in national legislation. Only a small number of member States have developed a comprehensive set of standards applicable to agriculture. In most cases general labour laws may give no specific reference or may not be applicable in full to the agricultural sector.

National legislation can be grouped under the following headings:

- safety and health laws and regulations which comprehensively address agriculture;
- safety and health laws and regulations which do not exclude agriculture;
- safety and health laws and regulations which indirectly or specifically exclude agriculture or certain categories of agricultural workers;
- safety and health regulations, standards and codes of practice which specify safety and health measures concerning:
  - mobile machinery for agriculture and forestry,
  - pesticides and other agrochemicals,
  - list of recognized occupational diseases in agriculture,
  - the prevention of accidents in silos and other confined spaces,
  - personal protective equipment,
  - special protective measures for the use of explosives,
  - occupational medical services in agriculture,
  - welfare, housing and other facilities.

Do compensation schemes for occupational injuries and diseases apply to agricultural workers?

- most member States exclude the agricultural sector or certain categories of agricultural workers from their formal systems of compensation (migrant, temporary workers, self-employed);
- only some member States provide coverage in a single national insurance scheme;
only a small number of member States have a special voluntary insurance scheme for agricultural workers;
only in a few member States recording and notification systems are regularly applied to agriculture;
due to under-reporting, available statistics on occupational injuries and diseases in agriculture are insufficient in most countries.

How does inspection in agriculture is carried out?
• inspection in agriculture may be carried by the Ministry of Labour or by the Ministry of Health, depending on the country’s enforcement regulations. In most cases, they have a primary responsibility for regulating the use of pesticides and working conditions in agricultural undertakings;
• in some cases, legislation provides for Ministries of Environment and Agriculture, and social security institutions to participate in the administration and enforcement of laws applicable to the sector. Frequently, this situation causes an overlapping of roles between the relevant institutions;
• labour inspectorates are traditionally confined to the urban areas. When this is not the case, there are wide disparities in the number of inspectors allocated between the urban and rural areas;
• lack of resources for inspection, in terms of skills, basic infrastructure and means of transportation, seriously limit the effectiveness of protective labour laws in rural areas.

How to overcome enforcement constraints?
An adequate system of inspection is necessary in order to extend inspection services to the agricultural sector in an appropriate manner. National priorities and financial constraints need to be taken into account in the context of labour administration reforms and rural development policies. Extension services and other bodies could support the enforcement activities at local and municipal level. Voluntary initiatives on safety and health of employers and workers organisations should be promoted.

ILO Convention on Labour Inspection (Agriculture) No. 129, provides for different ways in which labour inspection in agriculture may be carried out:
• a single labour service responsible for all sectors of economic activity;
• a single labour service, which would arrange for internal specialization either through
  – the appropriate training of inspectors in agriculture, or
  – an unit technically qualified in agriculture;
• a labour inspection service specialized in agriculture, reporting to a central body responsible for coordinating labour inspection;
• a labour inspection service assisted for certain inspection functions at the regional or local levels by appropriate government services or public institutions.

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How important are women to agricultural production?

Economic integration has been strongly associated with increased employment of women in the paid, non-agricultural labour. Nevertheless, today, more than half of all women contribute to food production both for household production and sale. Women account for almost half of the world's agricultural workforce. They represent 47% in Africa, 17% in Latin America and the Caribbean and 44% of the regional agricultural workforce in Asia. However, women's role in agricultural production has been traditionally under-estimated and gender inequalities are pronounced in this sector. In developing countries, the great majority of women workers in agriculture are in subsistence farming, self-employed or working as unpaid family members. In addition to their productive work, they have the primary responsibility for domestic chores such as cleaning, cooking, taking care of the children, the sick and the elderly, fetching water and fuel-wood. They are also engaged in other income-generating activities to contribute to the family subsistence.

Has their traditional role changed?

Due to the migration of young men to urban centres, waged agricultural work is increasingly left to women and a large percentage of rural households are headed by women, particularly in sub-Saharan Africa and South and Western Asia. New employment opportunities created by market liberalization in developing countries have also displaced women from permanent agricultural employment into seasonal employment in low paid jobs requiring intensive manual labour in the areas of agricultural export. Women employment in export-oriented agriculture in developing countries involve in most cases poor quality jobs and their average earnings are less than those of men. Negative factors such as political docility appear to be behind the preferential demand for female labour. Long hours of work, congested housing, extremely strict supervision, and long travel to work are the rule in this type of work.

The cultivation of non-traditional export crops has also provided low-paid jobs which complement the income of small-scale farmers. Much of this labour often involves a worker's whole family (including children and the elderly). Women often take their children with them into the fields, thus exposing both the children and themselves to occupational hazards. With the introduction of non-traditional crops in small-scale farming, men are found to share the work with women but not the profits from sales. This is likely to have a disproportionate effect on women since they have traditionally been the producers and marketers of food for the local market.
What is the impact of working conditions on women’s health?

Women in agriculture, like many other rural workers, have a high incidence of injuries and diseases and are insufficiently reached by health services. Most of them have practically no education, training or access to information on the risks involved in their work.

Exposure to poor working conditions has serious repercussions on pregnancy, and can worsen pathologies brought on by old age. The risk of miscarriages, premature deliveries and spontaneous abortions has been directly related to work in greenhouses microclimates and to exposure to pesticides. Heavy work during crop cultivation and harvesting is frequent. Some studies have shown that traditional "female" tasks, such as sowing out, picking out, and clearing, implies a significant workload, particularly because they are not assisted by mechanical means during irrigation, ridging and farming. When such tasks involve machinery handling, they are traditionally undertaken by male workers.

Carrying loads is one of the major chores of rural women-workers in developing countries. They can spend over 20 hours a week on trips collecting water, firewood, laundry and livestock, tending and marketing goods and carrying weights of more than 35 kg on their heads and backs over considerable distances. Carrying heavy loads can cause serious musculoskeletal disorders, such as chronic back pain, chest pain and miscarriages.

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In today's world the agricultural sector employs half of the world's labour force with an estimated 1.3 billion workers active in agricultural production worldwide. The majority of agricultural workers are found in developing countries. A great majority are small scale farmers. They have been more often victims rather than beneficiaries of the green revolution, the technological development and the globalization trends which characterized the 20th century.

Agriculture is one of the three most hazardous sectors of activity, both in industrialized and developing countries. According to estimates from the International Labour Office (ILO), some 170,000 agricultural workers are killed each year. This means that workers in agriculture run at least twice the risk of dying on the job as compared with workers in other sectors. Agricultural mortality rates have remained consistently high in the last decade as compared with other sectors, where fatal accident rates have decreased. Millions of agricultural workers are seriously injured in workplace accidents with agricultural machinery or poisoned by pesticides and other agrochemicals. Furthermore, due to the widespread under-reporting of deaths, injuries and occupational diseases in agriculture, the real picture of the occupational health and safety of farm workers is likely to be worse than what official statistics indicate.

Although conditions vary greatly from one country to another, in most countries only some categories of agricultural workers are covered by national legislation, employment injury benefits or insurance schemes. A large number of agricultural workers are thus deprived of any form of social protection. When national regulations exist, they are often sporadically applied. Effective enforcement is poor due to insufficient labour inspection, lack of understanding and training on hazards and their prevention of both of employers and workers and low levels of organization among agricultural workers.

In order to guarantee sustainable agricultural development in the new millennium, rural workers and their families should have access to adequate working and living conditions, health and welfare. An adequate balance between agricultural growth and the protection of the environment is also crucial for the future of the world's food production and for its sustainability. Occupational health in agriculture must be integrated into a rural development policy with a well-defined strategy. It should place an emphasis on prevention and environmental protection to be consistent with current trends and should be addressed both at national and international levels.

New standards on safety and health in agriculture
Although waged-workers in agriculture are protected by the Plantations Convention, 1958 (No. 110) and agriculture is generally covered by the Occupational Safety and Health Convention, 1981 (No. 155), there is no comprehensive international standard dealing with the problems of safety and health in agriculture. Therefore, the Governing Body decided, at its 271st Session (March 1998), to place an item on this subject on the agenda of the 88th Session (2000) of the International Labour Conference. This item will be addressed under the double-discussion procedure foreseen in article 39 of the Standing Orders of the Conference.
The Office has prepared two reports to serve as a basis for the first discussion. The preliminary report (Safety and Health in Agriculture, Report VI(1), International Labour Conference, 88th Session, 2000) was accompanied by a questionnaire to which Governments were asked to reply, stating the reasons for their replies. These replies have been summarized in the second Report VI(2), which also indicates the main points that the Conference may wish to consider. This new international standards intend to contribute to set the framework on which national policies on occupational safety and health in agriculture could be developed.

Technical cooperation: The ILO’s Central American Project on Safety and Health in Agriculture.

A Central American Technical Cooperation Project on Occupational Safety and Health in Agriculture was developed from 1993 to 1998. This project drawn up and tested a model strategy for the development national policies on occupational safety and health in agriculture in developing countries, in order to orient future ILO action in this area.

The target beneficiaries of the project were agricultural workers and their families (women and children) including temporary workers. Special attention was paid to the active participation of rural women in the project. A number of them have been trained as trainers and actively participated in awareness raising and training of other agricultural workers.

The project strategy was oriented towards the implementation of a national policy for the improvement of working and living conditions of rural workers and the prevention of occupational accidents and diseases in agriculture. It had the following main components: a legislative framework including the updating of occupational safety and health legislation; a national policy on occupational safety and health for the sector; a system of classification of agrochemicals; a preventive health surveillance system; national capacity building and supportive mechanisms to implement the programme; a network of information and training on occupational safety and health and an environmental protection approach towards sustainable agriculture. The experience gained has contributed to the development of a number of training tools, policy guidelines and model regulations used for technical cooperation activities. Such model will be further developed through the launching of an International Programme on Safety and Health in Agriculture within the framework of the SafeWork Programme. The impact and visibility of the ILO Programme on Agriculture will be enhanced by combining standard setting, safety and health promotion, information exchange and capacity building.

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E-mail: safework@ilo.org – Website: www.ilo.org/safework
1. Plantations Convention, 1958 (No. 110), and its accompanying Recommendation (No. 110).
2. Guarding of Machinery Convention, 1963 (No. 119), and its accompanying Recommendation (No. 118).
3. Employment Injury Benefits Convention, 1964 (No. 121), and its accompanying Recommendation (No. 121) [Schedule I amended in 1980].
4. Maximum Weight Convention, 1967 (No. 127), and its accompanying Recommendation (No. 128).
5. Labour Inspection (Agriculture) Convention, 1969 (No. 129), and its accompanying Recommendation (No. 133).
6. Minimum Age Convention, 1973 (No. 138), and its accompanying Recommendation (No. 146).
7. Occupational Cancer Convention, 1974 (No. 139), and its accompanying Recommendation (No. 147).
10. Occupational Health Services Convention, 1985 (No. 161), and its accompanying Recommendation (No. 171).
11. Safety in Construction Convention, 1988 (No. 167), and its accompanying Recommendation (No. 175).
12. Chemicals Convention, 1990 (No. 170), and its accompanying Recommendation (No. 177).

Ratifications of ILO Conventions of direct relevance to safety and health in agriculture

<table>
<thead>
<tr>
<th>Convention</th>
<th>Countries that have ratified the Convention (by March 2000)</th>
<th>No. of ratifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.110 Plantations Convention, 1958</td>
<td>Brazil; Côte d'Ivoire; Cuba; Ecuador; Guatemala; Liberia; Mexico; Nicaragua; Panama; Philippines; Sri Lanka; Uruguay.</td>
<td>12</td>
</tr>
<tr>
<td>C.119 Guarding of Machinery Convention, 1963</td>
<td>Algeria; Azerbaijan; Belarus; Bosnia and Herzegovina; Brazil; Central African Republic; Congo; Croatia; Cyprus; Democratic Rep. of the Congo; Denmark; Dominican Rep.; Ecuador; Finland; Ghana; Guatemala; Guinea; Iraq; Italy; Japan; Jordan; Kuwait; Kyrgyzstan; Latvia; Madagascar; Malaysia; Malta; Morocco; Nicaragua; Niger; Norway; Panama; Paraguay; Poland; Russian Fed.; San Marino; Sierra Leone; Slovenia; Spain; Sweden; Switzerland; Syrian Arab Rep.; Tajikistan; The former Yugoslav Rep. of Macedonia; Tunisia; Turkey; Ukraine; Uruguay; Yugoslavia.</td>
<td>49</td>
</tr>
<tr>
<td>C.121 Employment Injury Benefits Convention, 1964 [Schedule I amended in 1980]</td>
<td>Belgium; Bolivia; Bosnia and Herzegovina; Chile; Croatia; Cyprus; Democratic Rep. of the Congo; Ecuador; Finland; Germany; Guinea; Ireland; Japan; Libyan Arab Jamahiriya; Luxembourg; Netherlands; Senegal; Slovenia; Sweden; The former Yugoslav Rep. of Macedonia; Tunisia; Turkey; Ukraine; Uruguay; Venezuela; Yugoslavia.</td>
<td>23</td>
</tr>
<tr>
<td>Convention</td>
<td>Countries that have ratified the Convention (by March 2000)</td>
<td>No. of ratifications</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>C.127 Maximum Weight Convention, 1967</td>
<td>Algeria; Brazil; Bulgaria; Chile; Costa Rica; Ecuador; France; Guatemala; Hungary; Italy; Lebanon; Lithuania; Madagascar; Malta; Rep. of Moldova; Nicaragua; Panama; Poland; Portugal; Romania; Spain; Thailand; Tunisia; Turkey; Venezuela.</td>
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<tr>
<td>C.129 Labour Inspection (Agriculture) Convention, 1969</td>
<td>Argentina; Belgium; Bolivia; Bosnia and Herzegovina; Burkina Faso; Colombia; Costa Rica; Côte d'Ivoire; Croatia; Denmark; El Salvador; Finland; France; Germany; Guatemala; Guyana; Hungary; Italy; Kenya; Latvia; Madagascar; Malawi; Malta; Rep. of Moldova; Morocco; Netherlands; Norway; Poland; Portugal; Romania; Slovenia; Spain; Sweden; Syrian Arab Rep.; The former Yugoslav Rep. of Macedonia; Uruguay; Yugoslavia; Zimbabwe.</td>
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<td>C.138 Minimum Age Convention, 1973</td>
<td>Albania; Algeria; Antigua and Barbuda; Argentina; Azerbaijan; Barbados; Belarus; Belgium; Bolivia; Bosnia and Herzegovina; Botswana; Bulgaria; Burkina Faso; Cambodia; Chile; China; Congo; Costa Rica; Croatia; Cuba; Cyprus; Denmark; Dominica; Dominican Rep.; Egypt; El Salvador; Equatorial Guinea; Ethiopia; Finland; France; Georgia; Germany; Greece; Guatemala; Guyana; Honduras; Hungary; Iceland; Indonesia; Iraq; Ireland; Israel; Italy; Jordan; Kenya; Korea, Republic of; Kuwait; Kyrgyzstan; Lithuania; Libyan Arab Jamahiriya; Luxembourg; Malaysia; Malta; Morocco; Mauritius; Nepal; Netherlands; Nicaragua; Niger; Norway; Philippines; Poland; Portugal; Romania; Russian Fed.; Rwanda; San Marino; Slovakia; Slovenia; Senegal; Spain; Sweden; Switzerland; Tajikistan; The Former Yugoslav Rep. of Macedonia; United Rep. of Tanzania; Togo; Tunisia; Turkey; Ukraine; United Arab Emirates; Uruguay; Venezuela; Yugoslavia; Zambia.</td>
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<tr>
<td>C.139 Occupational Cancer Convention, 1974</td>
<td>Afghanistan; Argentina; Belgium; Bosnia and Herzegovina; Brazil; Croatia; Czech Rep.; Denmark; Ecuador; Egypt; Finland; France; Germany; Greece; Guyana; Hungary; Iceland; Iraq; Ireland; Italy; Japan; Nicaragua; Norway; Peru; Portugal; Slovakia; Slovenia; Sweden; Switzerland; Syrian Arab Rep.; The Former Yugoslav Rep. of Macedonia; Uruguay; Venezuela; Yugoslavia.</td>
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<tr>
<td>C.148 Working Environment (Air Pollution, Noise &amp; Vibration) Convention, 1977</td>
<td>Azerbaijan; Belgium; Bosnia and Herzegovina; Brazil; Costa Rica; Croatia; Cuba; Czech Rep.; Denmark; Ecuador; Egypt; Finland; France; Germany; Guinea; Hungary; Iceland; Iraq; Ireland; Italy; Japan; Nicaragua; Norway; Peru; Portugal; Slovakia; Slovenia; Sweden; Switzerland; Syrian Arab Rep.; The Former Yugoslav Rep. of Macedonia; Uruguay; Venezuela; Yugoslavia.</td>
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<tr>
<td>C.155 Occupational Health and Safety Convention, 1981</td>
<td>Bosnia and Herzegovina; Belize; Brazil; Croatia; Cuba; Cyprus; Czech Rep.; Denmark; Ethiopia; Finland; Hungary; Iceland; Ireland; Kazakhstan; Latvia; Mexico; Mongolia; Netherlands; Nigeria; Norway; Portugal; Russian Fed.; Slovakia; Slovenia; Spain; Sweden; The Former Yugoslav Rep. of Macedonia; Uruguay; Venezuela; Viet Nam; Yugoslavia.</td>
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<tr>
<td>C.161 Occupational Health Services Convention, 1985</td>
<td>Bosnia and Herzegovina; Benin; Brazil; Burkina Faso; Chile; Croatia; Czech Rep.; Finland; Germany; Guatemala; Hungary; Mexico; San Marino; Slovakia; Slovenia; Sweden; The Former Yugoslav Rep. of Macedonia; Uruguay; Yugoslavia.</td>
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<tr>
<td>C.167 Safety and Health in Construction Convention, 1988</td>
<td>Colombia; Czech Rep.; Denmark; Dominican Rep.; Finland; Germany; Guatemala; Hungary; Iraq; Lesotho; Mexico; Norway; Slovakia; Sweden.</td>
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<td>C.170 Chemicals Convention, 1990</td>
<td>Brazil; Burkina Faso; China; Colombia; Mexico; Norway; Sweden; Tanzania, United Rep. of; Zimbabwe.</td>
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</tbody>
</table>
1. Right of Association (Agriculture) Convention, 1921 (No. 11).
2. Workmen's Compensation (Agriculture) Convention, 1921 (No. 12).
3. Unemployment (Agriculture) Recommendation, 1921 (No. 11).
4. Living-in conditions (Agriculture) Recommendation, 1921 (No. 16).
6. Migration for Employment Convention (Revised), 1949 (No. 97), and its accompanying Recommendation (Revised) (No. 86).
7. Minimum Wage Fixing Machinery (Agriculture) Convention, 1951 (No. 99), and its accompanying Recommendation (No. 89).
8. Holidays with Pay (Agriculture) Convention, 1952 (No. 101), and its accompanying Recommendation (No. 93).
9. Maternity Protection Convention (Revised), 1952 (No. 103) and its accompanying Recommendation (No. 95).
10. Protection of Migrant Workers (Underdeveloped Countries) Recommendation, 1955 (No. 100).
13. Medical Care and Sickness Benefits Convention, 1969 (No. 130) and its accompanying Recommendation (No. 134).
14. Rural Workers' Organisations Convention, 1975 (No. 141) and its accompanying Recommendation (No. 149).
15. Human Resources Development Convention, 1975 (No. 142) and its accompanying Recommendation (No. 150).

Ratifications of ILO Conventions relevant to agriculture

<table>
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<th>Convention</th>
<th>Countries that have ratified the Convention (by March 2000)</th>
<th>No. of ratifications</th>
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<tr>
<td>C.11 Right of Association (Agriculture) Convention, 1921</td>
<td>Albania; Algeria; Antigua and Barbuda; Argentina; Australia; Austria; Azerbaijan; Bahamas; Bangladesh; Barbados; Belarus; Belgium; Belize; Benin; Bosnia and Herzegovina; Brazil; Bulgaria; Burkina Faso; Burundi; Cameroon; Central African Rep.; Chad; Chile; China; Colombia; Comoros; Congo; Costa Rica; Côte d'Ivoire; Croatia; Cuba; Cyprus; Czech Rep.; Democratic Rep. of the Congo; Denmark; Djibouti; Dominica; Ecuador; Egypt; Estonia; Ethiopia; Fiji; Finland; France; Gabon; Germany; Ghana; Greece; Grenada; Guatemala; Guinea; Guyana; Iceland; India; Iraq; Ireland; Italy; Jamaica; Kenya; Kyrgyzstan; Latvia; Lesotho; Lithuania; Luxembourg; Madagascar; Malawi; Malaysia; Mali; Malta; Mauritania; Mauritius; Mexico; Morocco; Mozambique; Myanmar; Netherlands; New Zealand; Nicaragua; Niger; Nigeria; Norway; Pakistan; Panama; Papua New Guinea; Paraguay; Peru; Poland; Portugal; Romania; Russian Fed.; Rwanda; Saint Lucia; Saint Vincent and the Grenadines; Senegal; Seychelles; Singapore; Slovakia; Slovenia; Solomon Islands; Spain; Sri Lanka; Suriname; Swaziland; Switzerland; Sweden; Syrian Arab Rep.; Tajikistan; Tanzania; United Rep. of; The Former Yugoslav Rep. of Macedonia; Togo; Tunisia; Turkey; Uganda; Ukraine; United Kingdom; Uruguay; Venezuela; Yugoslavia; Zambia.</td>
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### Convention

#### Countries that have ratified the Convention (by March 2000)

<table>
<thead>
<tr>
<th>Convention</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.12 Workmen’s Compensation (Agriculture) Convention, 1921</td>
<td>Angola; Antigua and Barbuda; Argentina; Australia; Austria; Bahamas; Barbados; Belgium; Belize; Bosnia and Herzegovina; Brazil; Bulgaria; Burundi; Chile; Colombia; Comoros; Croatia; Cuba; Czech Rep.; Democratic Rep. of the Congo; Denmark; Djibouti; Dominica; El Salvador; Estonia; Fiji; Finland; France; Gabon; Germany; Grenada; Guinea-Bissau; Guyana; Haiti; Hungary; Ireland; Italy; Kenya; Latvia; Luxembourg; Madagascar; Malawi; Malaysia; Malta; Mauritius; Mexico; Morocco; Netherlands; New Zealand; Nicaragua; Norway; Panama; Papua New Guinea; Peru; Poland; Portugal; Rwanda; Saint Lucia; Saint Vincent and the Grenadines; Senegal; Singapore; Slovenia; Solomon Islands; Spain; Swaziland; Sweden; Tanzania, United Rep. of; The Former Yugoslav Rep. of Macedonia; Tunisia; Uganda; United Kingdom; Yugoslavia; Zambia.</td>
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<tr>
<td>C.97 Migration for Employment Convention (Revised), 1949</td>
<td>Algeria; Bahamas; Barbados; Belgium; Belize; Bosnia and Herzegovina; Brazil; Burkina Faso; Cameroon; Cuba; Cyprus; Dominica; Ecuador; France; Germany; Grenada; Guatemala; Guyana; Ireland; Italy; Jamaica; Kenya; Malawi; Malaysia; Mauritius; Netherlands; New Zealand; Nigeria; Norway; Portugal; Saint Lucia; Trinidad and Tobago; United Kingdom; Uruguay; Venezuela; Yugoslavia; Zambia.</td>
</tr>
<tr>
<td>C.99 Minimum Wage Fixing Machinery (Agriculture) Convention, 1951</td>
<td>Algeria; Austria; Australia; Belgium; Belize; Brazil; Cameroon; Central African Rep.; Colombia; Comoros; Costa Rica; Cote d’Ivoire; Cuba; Czech Rep.; Djibouti; El Salvador; France; Gabon; Germany; Grenada; Guatemala; Guinea; Hungary; Ireland; Italy; Kenya; Malawi; Malta; Mauritius; Mexico; Morocco; Netherlands; New Zealand; Papua New Guinea; Paraguay; Peru; Philippines; Poland; Senegal; Seychelles; Sierra Leone; Slovenia; Spain; Sri Lanka; Swaziland; Syrian Arab Rep.; Tunisia; Turkey; Uruguay; Zambia; Zimbabwe.</td>
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<td>C.101 Holidays with Pay (Agriculture) Convention, 1952</td>
<td>Austria; Azerbaijan; Belarus; Bolivia; Bosnia and Herzegovina; Brazil; Chile; Croatia; Cuba; Ecuador; Equatorial Guinea; Ghana; Greece; Guatemala; Hungary; Italy; Kyrgyzstan; Libyan Arab Jamahiriya; Luxembourg; Moldova; Rep. of; Mongolia; Netherland; Poland; Portugal; Russian Fed.; San Marino; Slovenia; Spain; Sri Lanka; Tajikistan; The Former Yugoslav Rep. of Macedonia; Ukraine; Uruguay; Uzbekistan; Yugoslavia; Zambia.</td>
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<tr>
<td>C.103 Maternity Protection Convention Vibration (Revised), 1952</td>
<td>Bolivia; Cuba; Czech Rep.; Costa Rica; Denmark; Ecuador; Finland; Germany; Libyan Arab Jamahiriya; Luxembourg; Norway; Slovakia; Sweden; Venezuela.</td>
</tr>
<tr>
<td>C.130 Medical Care and Sickness Benefits Convention, 1969</td>
<td>Afghanistan; Austria; Belgium; Brazil; Burkina Faso; Cambodia; Canada; Central African Rep.; China; Czech Rep.; Denmark; Germany; Greece; Guatemala; Hungary; Indonesia; Iran; Iraq; Italy; Japan; Jordan; Kenya; Luxembourg; Madagascar; Malaysia; Malawi; Malta; Mauritius; Mexico; Monaco; Morocco; Netherlands; New Zealand; Nigeria; Norway; Pakistan; Panama; Peru; Philippines; Poland; Portugal; Puerto Rico; Senegal; Sierra Leone; Senegal; Singapore; Slovakia; Slovenia; Spain; Sri Lanka; Sudan; Sweden; Switzerland; Taiwan; Tunisia; Turkey; Uganda; United Kingdom; Uruguay; Venezuela; Yemen.</td>
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<tr>
<td>C.144 Workers’ Organisations Convention, 1975</td>
<td>Afghanistan; Austria; Belgium; Brazil; Burkina Faso; Cambodia; Canada; China; Czech Rep.; Denmark; Germany; Greece; Guatemala; Hungary; Indonesia; Iran; Iraq; Italy; Japan; Jordan; Kenya; Luxembourg; Madagascar; Malaysia; Malawi; Malta; Mauritius; Mexico; Monaco; Morocco; Netherlands; New Zealand; Nigeria; Norway; Pakistan; Panama; Peru; Philippines; Poland; Portugal; Puerto Rico; Senegal; Sierra Leone; Senegal; Singapore; Slovakia; Slovenia; Spain; Sri Lanka; Sudan; Sweden; Switzerland; Taiwan; Tunisia; Turkey; Uganda; United Kingdom; Uruguay; Venezuela; Yemen.</td>
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<tr>
<td>C.142 Human Resources Development Convention, 1975</td>
<td>Afghanistan; Algeria; Argentina; Australia; Austria; Azerbaijan; Belarus; Bosnia and Herzegovina; Brazil; Cuba; Cyprus; Czech Rep.; Denmark; Ecuador; Egypt; El Salvador; Finland; France; Georgia; Germany; Greece; Guatemala; Hungary; Iran; Iraq; Israel; Italy; Jordan; Kenya; Korea; Rep. of; Kyrgyzstan; Latvia; Lithuania; Luxemburg; Malaysia; Malta; Mauritius; Mexico; Netherlands; Nicaragua; Nigeria; Norway; Pakistan; Portugal; Russian Fed.; San Marino; Slovakia; Slovenia; Spain; Sweden; Switzerland; Tajikistan; Tanzania; United Rep. of; The Former Yugoslav Rep. of Macedonia; Tunisia; Turkey; Ukraine; United Kingdom; Venezuela; Yugoslavia.</td>
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<tr>
<td>C.160 Labour Statistics Convention, 1985</td>
<td>Australia; Austria; Azerbaijan; Belarus; Bolivia; Brazil; Canada; Colombia; Cyprus; Czech Rep.; Denmark; El Salvador; Finland; Germany; Greece; Guatemala; India; Ireland; Italy; Korea; Rep. of; Kyrgyzstan; Latvia; Lithuania; Mauritius; Mexico; Netherlands; Norway; Panama; Poland; Portugal; Russian Fed.; San Marino; Slovakia; Slovenia; Spain; Sri Lanka; Swaziland; Sweden; Switzerland; Tajikistan; Ukraine; United Kingdom; United States.</td>
</tr>
<tr>
<td>C.169 Indigenous and Tribal Peoples</td>
<td>Bolivia; Colombia; Costa Rica; Denmark; Ecuador; Fiji; Guatemala; Honduras; Mexico; Netherlands; Norway; Paraguay; Peru.</td>
</tr>
</tbody>
</table>

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For further information please contact

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Knowledge base

With new globalization trends, quality management standards and quality product standards implicitly include improvements in working conditions. Working conditions in agriculture can be significantly improved in a viable and cost-effective way through safety and health measures. Investment on occupational safety and health also provides higher labour productivity and healthier labour relations. The adoption of adequate labour legislation and social protection measures are major steps in that direction.

In order to achieve sustainable agricultural growth, the productivity of the workforce should be raised. This can be achieved by providing agricultural workers and their families with the means to meet their basic needs, with access to adequate working and living conditions, as well as protecting their health and welfare, and promoting the protection of the environment in which they work and live.

Occupational safety and health in agriculture needs to be addressed with a well-defined strategy and must be integrated into a rural development policy involving both commercial (plantations) and small-scale farming. The extension of occupational safety and health to workers in agriculture can be done progressively through its integration into rural development projects. This requires the implementation of effective national policies, specific programmes at the municipal and local level and strategic plans of action at the enterprise level with an emphasis on prevention. The delivery of occupational health to the rural population should be integrated into the primary health care structure.

Guiding principles

The following guiding principles have been identified on the basis of an assessment of law and practice in member States, ILO standards and ILO experience on technical cooperation programmes.

A National Policy on Safety and Health for the agricultural sector requires an integrated approach to:

- occupational safety and health (prevention and protection);
- environmental health (prevention and protection);
- public health/primary health care (protection and referral);
- compensation and social security schemes (protection and rehabilitation);
- the needs of different categories of rural workers and the extension of coverage to those lacking social protection and basic services;
- agricultural production; and
- rural development policies.
The establishment of a National Programme on Occupational Safety and Health (OSH) in Agriculture requires:

- A framework Legislation on OSH in Agriculture.

- Mechanisms of inter-sectoral cooperation among the following partners:
  - Ministry of Labour;
  - Ministry of Health
  - Ministry of Agriculture
  - Social Security Institutions
  - Ministry of Environment
  - Rural Employers’ Organizations
  - Rural Trade Unions
  - Farmers Associations
  - Rural NGO’s

- Decentralized definition of priorities and needs at the municipal, local and enterprise level.

- Improved systems of statistics on occupational accidents, injuries and diseases.

- An adequate inspection system in agriculture which could be organized through one or more of the following options:
  - a single inspection service for all sectors with a unit technically qualified in agriculture;
  - a single inspection service for all sectors with inspectors trained in agriculture;
  - a specialized inspection service for agriculture;
  - a central inspection service assisted for certain functions at the regional or local levels by appropriate services.

- OSH Management Systems at the workplace level, incorporating:
  - a prevention oriented approach;
  - risk assessment measures;
  - monitoring of the working environment and of its impact on the general environment;
  - workers’ health surveillance measures;
  - record-keeping and notification of injuries and diseases;
  - preventive and protective measures;
  - environmental protection measures;
  - information training and advice;
  - occupational health services;
  - welfare facilities and other social services;
  - health promotion and well-being measures;
  - employers' and workers participation.

- Adequate health care services and infrastructure, including extension services.

- Extension of existing rural development programmes incorporating an OSH component.

- A Sustainable approach to agriculture:
  - safety in the use of agrochemicals;
  - alternative methods of pest management;
  - organic agriculture;
  - environmental protection measures;
  - occupational health & environmental health approach.

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