

Turning *Point*

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Occupational health and safety of agricultural workers: ILO conventions and gaps

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**Occupational health and safety
of agricultural workers:
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Arnold J. Padilla

SUMMARY

Agricultural work is considered one of the most dangerous occupations in the world. Data from the International Labor Organization (ILO) and the Food and Agriculture Organization (FAO) show that 170,000 out of the estimated 335,000 fatal work-related accidents every year occur in agriculture.

Work environment in agriculture is exposed to various hazards. Physical hazards, for instance, include exposure to weather, terrain, fires and machinery. In addition, agricultural workers are also prone to toxicological hazards brought about by pesticides, fertilizers and fuels, as well as health insults of dusts. Other hazards cited by the UN agencies are those inherent in animal handling and contact with dangerous plants and biological agents, and give rise to allergies, respiratory disorders, zoonotic infections and parasitic diseases.

A particular concern in agriculture is the exposure of workers to agrochemicals that pose serious health risks. Through the decades, pesticide sales and use have continued to rise. Based on FAO data, the global pesticide trade in terms of value has been growing by more than 10% in the past 50 years. Risks due to increasing use of toxic chemicals are greater among workers and farmers in poor countries. They are exposed to the continued use of pesticides already banned or restricted in other countries, mostly the developed ones. According to the ILO and World Health Organization (WHO), the use of pesticides causes some 70,000 poisoning deaths each year, and at least seven million cases of acute and long term non-fatal illness.

Aggravating the problem is that agricultural workers are excluded from social security, workers benefits, employment injury benefits, medical insurance, or any insurance scheme. Also, there are groups of agricultural workers that are considered most vulnerable and particularly at risk of occupational hazard. Some of these groups are women workers, child laborers, migrant workers, and seasonal and temporary workers, among others. They are considered at highest risk for occupational exposures, diseases, and injuries due to their economic, social, or biological characteristics.

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Recognizing the magnitude of occupation-related health and safety risks facing agricultural workers worldwide, and especially in poor countries and among vulnerable sectors, UN agencies have established a number of instruments seeking to protect and promote the health and safety of agricultural workers. However, challenges continue to face the implementation and use of these instruments.

This scoping paper primarily aims to identify gaps in existing ILO Conventions pertinent to occupational health and safety in agriculture. Specifically, it seeks to review the 1990 Chemicals Convention (C190) and the 2001 Safety and Health in Agriculture Convention (C184). Secondly, the paper intends to identify areas for campaigning and engagement to improve agricultural workers' rights and welfare.

As of the latest count, the Chemicals Convention has been ratified by only 17 ILO member states while the Safety and Health in Agriculture Convention has had only 15 ratifications. To be sure, the low number of ratification is not unique to agriculture-related conventions but to occupational safety and health conventions of the ILO, in general.

Encouraging members to ratify the conventions is already a challenge by itself, but even in those countries which already ratified, the conventions are undermined by gaps in effective implementation. The paper presented case studies of countries that ratified the said conventions, how they have been implemented through national policies, and the challenges they face. Countries presented are Burkina Faso and Tanzania in Africa; China in Asia; and Argentina and Brazil in Latin America.

Burkina Faso has reported various laws and decrees as part of its compliance under the Safety and Health Convention. However, those national policies merely covered provisions on the sound management of chemicals, specifically pesticides. Other provisions that cover the various aspects of occupational safety and health in agriculture remain largely unaddressed.

In Tanzania, issues have been raised in its compliance (under the Chemicals Convention) to clearly define in legislation the coverage on

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agrochemicals or chemicals used in agriculture, the proper labeling of chemicals, and the mandatory use of personal protective equipment (PPE) regardless of the level of exposure, among others.

China has reported compliance to several specific provisions of the Chemicals Convention although a comprehensive assessment has yet to be conducted in the overall implementation of the convention.

In Argentina, progress has been noted in the legislation of agriculture-specific occupational safety and health policy. However, gaps have still been identified, in particular institutional mechanisms that will coordinate and ensure the implementation of the provisions of the Safety and Health in Agriculture Convention.

A similar situation is observed in Brazil which has unclear policies on how to implement key provisions of the Chemicals Convention including the classification of hazardous chemicals and mechanisms for consultations and follow-up among the stakeholders. The Brazil case study showed as well how other government branches like the judiciary and legislature could undermine the effective implementation of the convention.

The paper concludes that at the level of the ILO, efforts must be pursued to initiate a global campaign to promote and encourage the ratification of the Safety and Health Convention, Chemicals Convention and other agriculture-related occupational safety and health conventions. This can be integrated in the Decent Work Agenda of the ILO particularly in three of the agenda's four strategic objectives, namely guaranteeing rights at work, extending social protection and promoting social dialogue.

However, the paper also reminded that the Decent Work agenda is premised on the flawed assumption of "fair globalization". Thus, the engagement with the ILO should be critically pursued. Even as we take advantage of legal instruments such as the conventions to benefit the interests of agricultural workers and make governments and employers accountable, we must continue to expose and oppose the attempts of the ILO to deodorize globalization.

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At the national level, campaigns must be launched to pressure governments to ratify the occupational safety and health conventions and/or pass laws and regulations that will protect agricultural workers from occupational risks. In cases where conventions have already been ratified or national occupational safety and health laws are already in place, reforms to make the existing legal and institutional mechanisms truly effective and beneficial for agricultural workers should be pursued.

Finally, the paper emphasized that the foundation on which the engagements with the ILO and the national governments should be built upon is the strong organizing at the community level, which will help create the conditions for effective and improved monitoring of the implementation of government obligations under the ILO conventions and national laws. A crucial component is the establishment and strengthening of political organizations of agricultural workers from the community level up to the national level and their linkages at the regional and global levels.

PART 1 BACKGROUND AND OVERVIEW

It is estimated that about half of the global workforce is engaged in agriculture, data from the International Labour Organization (ILO) show. Of those involved in agricultural work, almost 60% are in poor countries while just 9% are in industrialized countries. A great majority of workers in the agricultural sector is concentrated in Asia with China accounting for 40% of global agricultural population and India, more than 20 percent.

Overall, the Asia Pacific region comprises more than three-fourths of all agricultural workers in the world. Africa is a far second with 16%; all industrialized countries, 4%; Latin America, 3%; and transition countries, 3 percent. Incidentally, the ILO observed that the distribution of agricultural workers worldwide is proportional to the incidence on poverty. Asia Pacific, for instance, has a 76% poverty incidence; Africa, 17%; Latin America, 3%; and other regions, 4 percent.

Along with construction and mining, agriculture is considered one of the most dangerous sectors in which to work. According to the ILO and the Food and Agriculture Organization (FAO), agriculture accounts for more than half of all fatal workplace accidents that occur yearly worldwide. About 170,000 fatal work-related accidents that happen every year involve agricultural workers out of the estimated annual total of 335,000, said the two United Nations (UN) agencies. Moreover, statistical data show that, worldwide, the highest rates of occupational deaths occur in agriculture, forestry, mining and construction. The ILO estimates that about half of the world's 1.2 million fatalities occur in the agricultural sector.

In its online database listing the number of cases of fatal and non-fatal occupational injury in agriculture, fishery and forestry (AFF), the ILO reported more than 213,000 cases in 2009 (31 countries) and more than 222,000 cases in 2010 (30 countries). (See Annex 1)

The actual number of cases, to be sure, is far bigger than the data culled by the ILO. For one, the small number of countries that submitted

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report on AFF-specific occupational injuries will not provide a truly global picture of the extent of the problem. It has been noted also that the incidence of occupational hazards in agriculture is generally poorly recorded and documented. Official data also tend to under-report occupational accidents and agricultural illnesses, making all recorded data likely to be a significant underestimate.

Various occupational hazards in agriculture

Work environment in agriculture is exposed to various hazards, according to the ILO-FAO. Physical hazards, for instance, include exposure to weather, terrain, fires and machinery. However, two of the primary causes of injuries and diseases in agriculture are exposure to pesticides and other chemicals, and accidents with machinery.

Tractors, harvesters and other machinery are said to account for the highest rates of injury and death among agricultural workers and self-employed farmers. In addition, agricultural workers are also prone to toxicological hazards brought about by pesticides, fertilizers and fuels as well as health insults of dusts.

Thus, there is a high incidence of certain health and safety risks among agricultural workers including particular cancers, respiratory diseases and injuries. Tuberculosis and other infectious diseases are rampant among migrant farm laborers. In cases where male migrant workers predominate, sexually transmitted diseases (STDs) are also a problem, said the ILO-FAO.

Other hazards cited by the UN agencies are those inherent in animal handling and contact with dangerous plants and biological agents, and give rise to allergies, respiratory disorders, zoonotic infections and parasitic diseases. Agricultural workers are also at risk of noise-induced hearing loss, musculoskeletal disorders, such as repetitive stress injuries and back pain, as well as stress and psychological disorders.

Aggravating the situation is the lack of health services in most agricultural communities, as well as proper health and safety measures, information and training among agricultural workers.

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 wastes, 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 status postures, carrying of heavy loads, repetitive work, excessive long hours;
- extreme temperatures due to weather conditions;
- contact with wild poisonous animals: insects, spiders, scorpions, snakes, certain wild mammals

Source: ILO

Pesticides

A particular concern in agriculture is the exposure of workers to agrochemicals that pose serious health risks. Through the decades, pesticide sales and use have continued to rise. Based on FAO data, the global pesticide trade in terms of value has been growing by more than 10% in the past 50 years. (See Annex 2)

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The ILO-FAO observed that the risks due to increasing use of toxic chemicals are greater among workers and farmers in poor countries. They are exposed to the continued use of pesticides already banned or restricted in other countries, mostly the developed ones. Agricultural workers are also vulnerable as they often do not have suitable personal protective equipment due to prohibitive cost. Meanwhile, other cases involve incorrect application techniques, poorly maintained equipment, inadequate storage practices and the reuse of old chemical containers for food and water storage. These are worsened by the lack of information on the risks associated to the use of chemicals and on the necessary precautions and correct dosage.

According to the ILO and World Health Organization (WHO), the use of pesticides causes some 70,000 poisoning deaths each year, and at least seven million cases of acute and long term non-fatal illness.

Table 1 summarizes the estimated number of fatalities that are attributed to occupational exposure to hazardous substances.

Vulnerable sectors

The problems of occupational health and safety in agriculture are compounded by the reality that there are very few resources available for compensation among farmers and agricultural workers. Agricultural workers are said to be among the occupational groups with the highest poverty incidence in several countries, their wages often lower than the amount required for subsisting. In many countries, agricultural workers are excluded from social security, workers benefits, employment injury benefits, medical insurance, or any insurance scheme. Self-employed farmers are also rarely covered by any recording or notification system.

However, there are groups of agricultural workers that are considered most vulnerable and particularly at risk of occupational hazard. Some of these groups are women workers, child laborers, migrant workers, seasonal and temporary workers, among others. They are considered at highest risk for occupational exposures, diseases, and injuries due

Table 1. Estimated Annual Average Number of Deaths in the World Attributable to Occupational Exposure to Hazardous Substances, by Condition, 2003						
Causes of Death	No. of Deaths per year (Men)	No. of Deaths per year (Women)	Estimated Percentage Attributed to Hazardous Substances at Work (% Men)	Estimated Percentage Attributed to Hazardous Substances at Work (% Women)	No. of Work-related Deaths Attributed to Hazardous Substances	
Cancer (TOTAL)					314,939	
Lung cancer and mesothelioma	996,000	333,000	15	5	166,050	
Liver cancer	509,000	188,000	4	1	22,240	
Bladder cancer	128,000	42,000	10	5	14,900	
Leukemia	117,000	98,000	10	5	16,600	
Prostate cancer	253,000		1		2,530	
Cancer of mouth	250,000	127,000	1	0.5	3,135	
Cancer of esophagus	336,000	157,000	1	0.5	3,517	
Stomach cancer	649,000	360,000	1	0.5	8,290	
Colorectal cancer	308,000	282,000	1	0.5	4,490	
Skin cancer	30,000	28,000	10	2	3,560	
Pancreas cancer	129,000	99,000	1	0.5	1,785	
Other and unspecified cancer	819,000	1,350,000	6.8	1.2	71,892	

Table 1. Estimated Annual Average Number of Deaths in the World Attributable to Occupational Exposure to Hazardous Substances, by Condition, 2003

Causes of Death	No. of Deaths per year (Men)	No. of Deaths per year (Women)	Estimated Percentage Attributed to Hazardous Substances at Work (% Men)	Estimated Percentage Attributed to Hazardous Substances at Work (% Women)	No. of Work-related Deaths Attributed to Hazardous Substances
Cardiovascular disease, 15-60 years old	3,074,000		1	1	30,740
Nervous system disorders, 15 +	658,000		1	1	6,580
Renal disorders, 15 +	710,000		1	1	7,100
Chronic respiratory disease, 15 +	3,550,000		1	1	35,500
Pneumoconiosis estimate	36,000		100	100	36,000
Asthma, 15+	179,000		2	2	3,580
TOTAL					438,489

Source: Cited in (5), Safety in Numbers: Pointers for Global Safety Culture at Work, ILO 2003 and African Newsletter on Occupational Health and Safety, 2006

to their economic, social, or biological characteristics. These groups have long performed agricultural work, and their participation in agricultural work heightens the importance of recognizing the hazards and risks that they face.

The gender division of labor has an impact on women's safety and health in agricultural work, which goes beyond reproductive hazards. Agriculture is considered as one of the most vulnerable works, and the share of women in vulnerable employment surpasses that of men. A significant number of women are often employed as casual or temporary workers, while majority of seasonal workers in agricultural subsectors are dominated by women. As such, they are particularly at risk because of less training and instruction. Being employed on a casual basis also deprives them of medical insurance coverage or on-site health facilities and services.

In 2003 the ILO reported that 170,000 agricultural workers were getting killed every year as a result of workplace accidents, and some 40,000 of these were exposure to pesticides – a task dominated by women. Women are often relegated to do the mixing and application of pesticides without enough information, training and protective clothing, and are exposed to reproductive and other health hazards, intoxication, and in some cases, deaths.

Women do repetitive work that can result in musculoskeletal problems. Heavy work during cultivation and harvesting may lead to incidence of stillbirths, premature births, or death of a child or the mother. The workload can be heavier for women since the manual tasks are assigned to them while the tasks assigned to men such as irrigation, ridging and fanning are somehow assisted by some tools, no matter how backward.

Meanwhile, around 70% of child laborers are found in agriculture. They often work as unpaid family workers and are exposed to hazardous work. This is despite the ratification of the 1999 Worst Forms of Child Labour Convention (No. 182), 1999, and the implementation of its provisions and those of its accompanying 1999 Recommendation (No. 190).

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Another increasing importance in the area of agricultural safety and health are the migrant and seasonal farm workers. By its very nature, migrant and seasonal work means that they have little access to more stable jobs, and have poor access to medical facilities. Moreover, migrant workers usually work longer hours, receive less wages than their local counterparts, and are not covered by the standard employment benefits or insurance.

ILO conventions on safety and health in agriculture

The ILO policy on occupational safety and health in agriculture is essentially contained in several international labour Conventions and their accompanying Recommendations. Table 2 below summarizes the various ILO conventions that are directly relevant to the issue of safety and health in agriculture. For purposes of this study, two of the conventions – the 1990 Chemicals Convention and the 2001 Safety and Health in Agriculture Convention – are discussed in detail in the preceding sections.

1. 1990 Chemicals Convention (C170)

Most chemical accidents in the workplace are caused by routine activities and are not usually reported or documented. In many cases, however, these accidents have disastrous effects on workers' health and the environment. For instance, plantation workers spraying pesticides without protection are prone to chemical poisoning and accidents.

One of the key labor standards implemented by the International Labour Organization (ILO) in the area of chemical safety is the 1990 Chemicals Convention No. 170. The Chemicals Convention No.170 was adopted at the 77th Session of the International Labour Conference on 25 June 1990 and entered into force on 4 November 1993. The purpose of the Convention is to prevent and reduce chemically induced illnesses and injuries at work, and to protect the general public and the environment in the process.

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Table 2. ILO Conventions of Direct Relevance to Safety and Health in Agriculture Adopted Since 1919 (As of March 2013)		
Convention	Countries that have ratified	No. of ratifications
C. 110 Plantations Convention, 1958	Brazil; Côte d'Ivoire; Cuba; Ecuador; Guatemala; Liberia; Mexico; Nicaragua; Panama; Philippines; Sri Lanka; Uruguay.	12
C. 119 Guarding of Machinery Convention, 1963	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; Luxembourg; Madagascar; Malaysia; Malta; Morocco; Moldova; Montenegro; 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.	52
C. 121 Employment Injury Benefits Convention, 1964 [Schedule I amended in 1980]	Belgium; Bolivia; Bosnia and Herzegovina; Chile; Croatia; Cyprus; Democratic Rep. of the Congo; Ecuador; Finland; Germany; Guinea; Ireland; Japan; Libyan Arab Jamahiriyah; Luxembourg; Montenegro; Netherlands; Senegal; Slovenia; Sweden; The former Yugoslav Rep. of Macedonia; Uruguay; Venezuela; Yugoslavia.	24
C. 127 Maximum Weight Convention, 1967	Algeria; Brazil; Bulgaria; Chile; Costa Rica; Ecuador; France; Guatemala; Honduras; Hungary; India; Italy; Lebanon; Lithuania; Luxembourg; Madagascar; Malta; Rep. of Moldova; Nicaragua; Panama; Peru; Poland; Portugal; Romania; Spain; Thailand; Tunisia; Turkey; Venezuela.	29
C. 129 Labour Inspection (Agriculture) Convention, 1969	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.	38

Table 2. ILO Conventions of Direct Relevance to Safety and Health in Agriculture Adopted Since 1919 (As of March 2013)		
Convention	Countries that have ratified	No. of ratifications
C.138 Minimum Age Convention, 1973	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; 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.	85
C.139 Occupational Cancer Convention, 1974	Afghanistan; Argentina; Belgium; Bosnia and Herzegovina; Brazil; Croatia; Czech Rep.; Denmark; Ecuador; Egypt; Finland; France; Germany; Guinea; Guyana; Hungary; Iceland; Ireland; Italy; Japan; Nicaragua; Norway; Peru; Portugal; Slovakia; Slovenia; Sweden; Switzerland; Syrian Arab Rep.; The former Yugoslav Rep. of Macedonia; Uruguay; Venezuela; Yugoslavia.	34
C.148 Working Environment (Air Pollution, Noise & Vibration) Convention, 1977	Azerbaijan; Belgium; Bosnia and Herzegovina; Brazil; Costa Rica; Croatia; Cuba; Czech Rep.; Denmark; Ecuador; Egypt; Finland; France; Germany; Ghana; Guatemala; Guinea; Hungary; Iraq; Italy; Kazakhstan; Kyrgyzstan; Latvia; Lebanon; Luxembourg; Malta; Montenegro; Niger; Norway; Poland; Portugal; Russian Fed.; San Marino; Seychelles; Slovakia; Slovenia; Spain; Sweden; Tajikistan; United Rep. of Tanzania; The former Yugoslav Rep. of Macedonia; United Kingdom; Uruguay; Yugoslavia; Zambia.	45

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Table 2. ILO Conventions of Direct Relevance to Safety and Health in Agriculture Adopted Since 1919 (As of March 2013)		
Convention	Countries that have ratified	No. of ratifications
C.155 Occupational Health and Safety Convention, 1981	Albania; Algeria; Antigua and Barbuda; Australia; Bahrain; Belarus; Bosnia and Herzegovina; Belize; Belgium; Brazil; Central African Republic; China; Croatia; Cuba; Cyprus; Czech Rep.; Denmark; El Salvador; Ethiopia; Fiji; Finland; Grenada; Guyana; Hungary; Iceland; Ireland; Kazakhstan; Latvia; Lesotho; Mexico; Moldova; Mongolia; Montenegro; Netherlands; New Zealand; Niger; Nigeria; Norway; Portugal; Russian Fed.; Sao Tome and Principe; Serbia; Seychelles; Slovakia; Slovenia; South Africa; South Korea; Spain; Sweden; Syria; The former Yugoslav Rep. of Macedonia; Tajikistan; Turkey; Ukraine; Uruguay; Venezuela; Viet Nam; Yugoslavia; Zimbabwe.	60
C.161 Occupational Health Services Convention, 1985	Antigua and Barbuda; Belgium; Benin; Bosnia and Herzegovina; Brazil; Bulgaria; Burkina Faso; Chile; Colombia; Croatia; Czech Rep.; Finland; Germany; Guatemala; Hungary; Luxembourg; Mexico; Montenegro; Niger; Poland; San Marino; Serbia; Seychelles; Slovakia; Slovenia; Sweden; The former Yugoslav Rep. of Macedonia; Turkey; Uruguay; Yugoslavia; Zimbabwe.	31
C.167 Safety and Health in Construction Convention, 1988	Algeria; Belarus; Brazil; China; Colombia; Czech Rep.; Denmark; Dominican Rep.; Finland; Germany; Guatemala; Hungary; Iraq; Italy; Kazakhstan; Lesotho; Luxembourg; Mexico; Norway; Panama; Serbia; Slovakia; Sweden; Uruguay.	24
C.170 Chemicals Convention, 1990	Brazil; Burkina Faso; China; Colombia; Dominican Rep.; Germany; Italy; Mexico; Norway; South Korea; Lebanon; Luxembourg; Sweden; Syria; United Rep. of Tanzania; Zimbabwe.	17
C.184 Safety and Health in Agriculture Convention, 2001	Argentina; Bosnia and Herzegovina; Burkina Faso; Fiji; Finland; Ghana; Kyrgyzstan; Luxembourg; Moldova; Portugal; Sao Tome and Principe; Slovakia; Sweden; Ukraine; Uruguay	15
<i>First compiled by the ILO Secretariat in 2000 in the publication "Safety and health in agriculture" and updated based on the ILO website</i>		

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The 1990 Convention established basic principles for national policies for the promotion of chemical safety at workplaces. It also requires the establishment of national criteria and systems for the classification of chemicals according to their intrinsic hazards. The convention provides a binding obligation to member-states which ratify it but also gives guidance to all member-states, including those that did not ratify the convention.

The provisions of the Chemicals Convention No. 170 address the following:

- Establishing the evaluation of chemicals to determine their hazards
- Obtaining information by employers from their suppliers
- Providing information to workers and creating appropriate preventive measures, and
- Establishing protective programs for workers, as well as principles for such programmes to ensure that chemicals are used safely

Part I of the Convention contains provisions on scope and definitions, part II establishes general principles, part III relates to classification systems and related measures, parts IV and V refer to the obligations of employers and the duties of workers respectively, while part VI stipulates workers' rights, including the right of the workers to remove themselves from a dangerous situation while remaining protected against undue consequences when exercising their rights. Part VII relates to the communication duties involved in exporting towards importing ILO Member States.

It was also during the onset of the 1990 Convention that the idea for a globally harmonized system for the classification and labeling of chemicals (GHS) was developed. The 1990 Convention became the basis for the GHS, and has been recognized in the Strategic Approach to International Chemicals Management (SAICM) as the

main convention dealing with the management of chemicals in the workplace. The GHS is an international standard for classifying chemicals and communicating hazard information. It was designed to cover all chemicals and to provide information on their hazards in the workplace, during transport, on consumers and the environment. As such, the GHS is a universal standard that should have a broad impact on all national and international chemical safety regulations. This, in fact, should be used by countries as basis for creating national chemical safety programmes.

To date, the Chemicals Convention No.170 has been ratified by only 17 State parties to the ILO, although more than 100 member states have reportedly used it as a basis for their chemicals legislation. The 17 countries that ratified the Convention are the following: Brazil, Burkina Faso, China, Colombia, Dominican Rep., Germany, Italy, S. Korea, Lebanon, Luxembourg, Mexico, Norway, Poland, Sweden, Syrian Arab Rep., Tanzania, and Zimbabwe. The 1990 Convention is among the ILO Conventions that have been classified by the Organization as up to date and actively promoted.

The ILO, however, recognizes that the successful implementation of the Chemicals Convention is primarily the responsibility of Governments. Thus, the creation of national policies or guidelines should be encouraged and strictly enforced. This is especially urgent in least developed countries where there are cases of banned fertilizers and pesticides being exported from producing countries and made available to local agricultural workers. In some cases, despite adequate warnings and guidelines on fertilizers and pesticides, the labels are unreadable when they reach the farms, or are written in languages that the farmers could not understand.

In the recent Rio+20 Conference, the United Nations expressed its deep concern that many countries, especially the least developed nations, remain lacking in capacity for the sound management of chemicals. The UN urged the countries and stakeholders to prevent illegal dumping, particularly in these countries where national implementation and enforcement of international agreements still need to be strengthened.

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Related UN instruments

C170 Recommendation No. 177 – This recommendation is an accompanying document to the 1990 Chemicals Convention which carries proposals regarding the safe use of chemicals at work. The recommendation states that a competent authority in the workplace should specify categories of workers and conditions where they are allowed to use certain chemicals. The competent authority will limit the disclosure of confidential information, update list of chemicals in the workplace, and revise relevant hazard information, among others.

The recommendation also contains the criteria for classifying chemicals, the responsibilities of employers, and the rights of workers.

2. 2001 Safety and Health in Agriculture Convention (C184)

Agricultural workers are among the most under-protected compared to workers in other sectors. Workers in agriculture suffer noticeably higher rates of accidents, fatal injuries and ill-health than other workers. Worldwide, they are not only considered as among those experiencing high levels of poverty, but are also excluded from adequate forms of health, safety and social protection.

Until 2001 when the ILO signed the Safety and Health in Agriculture Convention and Recommendation (C184), there was no comprehensive document dealing with the safety and health problems faced by agricultural workers. Prior to the convention, agricultural workers were covered by the 1958 Plantations Convention (No. 110) and the 1990 Chemicals Convention (C170), while the agricultural sector was among the economic activities covered by the 1981 Occupational Safety and Health Convention (No. 155).

The 2001 Convention was adopted at the 89th Session of the International Labour Conference on 21 June 2001, and came into force on 20 September 2003. The Safety and Health in Agriculture Convention is considered as the first international instrument that

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addresses comprehensively the safety and health hazards that agricultural workers face.

Among the provisions of the 2001 Convention are the following:

- Obliges ILO Members to formulate, carry out and periodically review a coherent national policy on safety and health in agriculture
- Requires Members to designate competent authorities on the national level to implement the policy and enforce national laws and regulations on occupational safety and health in agriculture, as well as to specify the rights and duties of employers and workers
- Requires the Members to ensure that an adequate and appropriate system of inspection for agricultural workplaces is in place and is provided with adequate means
- Establishes as a duty of employers to ensure the safety and health of agricultural workers in every aspect related to their work, including conducting risk assessments in the workplace before exposing workers to the hazards covered by the convention, including exposure to chemicals
- Provides workers the right to remove themselves from workplace danger when they have reason to believe that there is imminent risk to their safety and health
- Establishes preventive and protective measures regarding machinery safety, handling and transport of materials, chemicals management, animal handling, and the construction and maintenance of agricultural facilities
- Addresses the specific needs of temporary and seasonal workers, and of women workers before and after childbirth

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- Sets as a general prohibition for young persons below 18 years old to be involved in hazardous agricultural work; it allows for this age limit to be dropped to 16 years of age in case young workers hold prior training, and their safety and health to be fully protected
- Requires that agricultural workers be covered by an insurance or social security scheme against occupational injuries, diseases, invalidity, and other work-related risks, providing coverage that is at least equivalent to that enjoyed by workers in other sectors

However, even as the 2001 Convention was hailed as a historic labor standard for agricultural workers, the convention's definition of farming excludes subsistence farming; any industrial process using agricultural products as raw material; and the industrial exploitation of forests. This means that the categories of self-employed farmers, small tenants, share croppers and subsistence farmers are not covered by the convention.

Thus, it is not clear how the major sector of the agricultural economy in poor countries will be covered by adequate health or safety protection. Despite the convention and its guidelines, the problems of safety and health faced by subsistence farmers in poor countries remain unaddressed.

At present, only 15 countries have ratified the 2001 Convention, namely Argentina, Bosnia and Herzegovina, Burkina Faso, Fiji, Finland, Ghana, Kyrgyzstan, Luxembourg, Moldova, Portugal, Sao Tome and Principe, Slovakia, Sweden, Ukraine, and Uruguay.

Related UN instruments

1. C184 Safety and Health in Agriculture Recommendation No. 192 – The non-binding Recommendation provides additional guidance on the provision of the 2001 Convention. It clarifies that the measures concerning labor inspection in agriculture, prescribed by Article 5 of the Safety and Health in Agriculture Convention should be taken in light of the principles embodied

in the 1969 Labour Inspection (Agriculture) Convention and Recommendation. The Recommendation specifies various obligations and rights of competent authorities, for which the Convention requires to be formed at the national level by the Members, in the maintenance of occupational safety and conduct of health surveillance.

The Recommendation obliges multinational enterprises to provide adequate safety and health protection for their workers in agriculture “in all their establishments,” without discrimination and regardless of the place or country in which they are situated. The safety and health protection should be in accordance with national laws and practices, and the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy.

2. Code of Practice on Safety and Health in Agriculture (2010) – The new code was adopted in October 2010 and endorsed by the ILO Governing Body in 2011. It complements the 2001 Convention and its supplementing Recommendation 192 and provides further guidance in applying their provisions. The code raises awareness of the hazards and risks in agriculture work and their effective management and control; prevents occupational accidents and diseases and improves the working environment in practice; encourages governments, employers, workers and other stakeholders to cooperate to prevent accidents and disease; and promotes more positive attitudes and behavior towards occupational safety and health in the sector.

The new code also seeks to establish a national framework specifying the roles of the competent authorities, employers, workers and their organizations, and contains specific provisions for identifying and addressing the main hazards and risks in the sector. The ILO code of practice is intended to be used by both the public and private sectors that are responsible for occupational safety and health management. However, the code of practice does not intend to replace national laws, regulations or accepted standards.

PART 2

REVIEWING THE IMPLEMENTATION OF THE ILO 1990 CHEMICALS CONVENTION (C170) AND THE 2001 SAFETY AND HEALTH IN AGRICULTURE CONVENTION (C184) IN SELECTED COUNTRIES

This part presents an overview of how the conventions of the International Labour Organization (ILO) on occupational health and safety (OHS) in the agricultural sector are being implemented. To provide focus, it will look into the implementation of the 1990 Chemicals Convention (C170) and the 2001 Safety and Health in Agriculture Convention (C184) in five countries across various global regions – Burkina Faso and Tanzania in Africa; China in Asia; and Argentina and Brazil in Latin America.

BURKINA FASO

Background

Burkina Faso is one of the poorest countries in the world. It is estimated that its per capita income (in constant 2000 prices) is around US\$270. Majority of its 16-million population lives in the rural areas, where half of the people live with an income under the poverty line. Agriculture plays an important part in the economy of Burkina Faso. Latest available data (as of 2004) from FAO show that agriculture accounts for as much as 92.2% of the total labor force in the country or almost 5.75 million workers. A more recent estimate (2008) though, pegged the proportion of agricultural workers to national employment at 80 percent.

Its biggest agricultural subsector is the cotton industry, which one estimate says employs about 380,000 people. A separate study pegged the portion of the national population linked to the cotton economy at 17% with cotton production comprising 4-7% of the fiscal revenue of the country. Unpaid family labor comprises a huge portion of cotton cultivation not only in Burkina Faso but in West Africa in general. Estimates peg that about two-thirds of the labor in cotton production in the region is performed by family members. This

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unpaid family work makes West African cotton “cost-competitive”. In Burkina Faso as elsewhere in the region, cotton cultivation is highly labor-intensive. Farmers use manual or ox-drawn implements and relatively low purchased inputs per ton of production. Studies suggest that it requires 150 to 186 labor-days per hectare as compared to maize, for instance, which needs only 121 labor-days. Handpicking alone already eats up 50 labor-days. On average, Burkinabé cotton production uses 23% more hired farm labor than other crops. While most cotton farmers also cultivate other food crops, cotton production has become the primary source of family income for Burkinabé farmers. A family of 6-8 people earns an average of US\$240 for the entire season. If spread over a year, each family just makes US\$0.66 per day.

Because farming is largely a family effort, women and youth play a big role in agricultural production. Sadly, they are also particularly disadvantaged in the Burkinabé labour market. According to the FAO, almost 95% of women in the country work in subsistence agriculture or the informal sector and use low levels of technology. Similarly, nearly 85% of Burkinabé youth work in agriculture and 4.1% in the informal rural economy. Poverty among women is also, in general, higher than men, although it is more pronounced in the countryside where 51% of women are poor, compared to 42% among men.

In 2007-2008, Burkina Faso’s social protection budget under the National Social Security Fund (Caisse Nationale de Sécurité Sociale, CNSS) was equivalent to 7% of the gross domestic product (GDP). Of the 7%, half went to health care while 0.2% was intended for insurance against occupational injuries and illnesses, and the rest to pensions, social assistance and family and maternity benefits. But social protection for Burkinabé workers is generally lacking. Only the minority of workers employed in the formal economy (e.g., in 2009, the CNSS had just 200,000 active contributors, a small fraction of the labor force) enjoys relatively better social protection coverage. It is estimated that 94% of workers are engaged in the informal economy, many of them in the agriculture sector, and are excluded from existing social security schemes and protection of labor laws.

Occupational hazards

A 2009 study among 112 farm workers and plant protection agents in the Sahelian region of Burkina Faso demonstrated the harmful effect of exposure to insecticides on hematologic and biochemical parameters. The subjects have been using insecticides for 11 to 13 years. According to the study, the prevalence of liver or kidney dysfunctions was quite high among insecticide applicators especially among plant protection agents. The study defined plant protection agents as those who frequently spray insecticides, i.e., about two to three times a month. It concluded that the prevalence of biochemical alterations seems correlated to the frequent use of insecticides. The study also found out that the great majority of farm workers (who spray insecticides twice a year at most) and plant protection agents reported symptoms associated with insecticide exposure. Among the study's subjects, headache was the most frequently reported symptom (41%); followed by skin itching (37%), diarrhea (28%), fatigue (26%), nausea or vomiting (21%), dizziness (17%), cough or difficult breathing (9%) and rhinorrhea (4%).

Aside from frequency of exposure, the study also attributed the high incidence of insecticide hazards to inappropriate protection equipment used by the subjects. More than 95% of farm workers, for instance, used boots as their only protective equipment and practically none used apron or gloves. Some 30% of them used cloth face mask which does not offer enough protection from some chemicals. Others used improvised forms of personal protection like handkerchiefs and long sleeves. Interestingly, all plant protection agents claimed that they have adequate personal protection equipment when applying insecticides. But the results of the study seem to belie this claim as the incidence of insecticide hazard is also high among them.

Implementation of ILO conventions

Burkina Faso ratified the 1990 Chemicals Convention (C170) on 15 September 1997 and the 2001 Safety and Health in Agriculture Convention (C184) on 28 October 2009.

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As part of its compliance to its obligations under C184, the government of Burkina Faso submitted to the International Labour Organization's (ILO) Committee of Experts on the Application of Conventions and Recommendations (CEACR) a copy of the Decree No. 2011 883. The said decree pertains to the distribution and use of hazardous substances and preparations for industrial use.

The Burkinabé government, in its submission to the CEACR, also referred to the following national laws as part of its implementation of C184:

- Act No. 041/96 (November 8, 1996), which establishes pesticide control in Burkina Faso, amended by Act No. 006-98/AN (March 26, 1998);
- Decree No. 98/427, which establishes the power, structure and operating rules of the National Commission on the Control of Pesticides (CNPC), amended by Decree No. 2005-051 (February 7, 2005);
- Order No. 2007-00001 (January 19, 2007), which establishes appointment of full and alternate members of the CNPC;
- Decree No. 2008-679 (October 27, 2008), which establishes conditions for issuance of licenses to formulators, reconditioners, distributors, retailers and pesticide application service providers;
- Decree No. 2008 (October 13, 2008), which establishes control of the various life cycles, transit and reconditioning of pesticides;
- Order No. 99-0041 (October 13, 1999), which establishes pricing of the fixed applicable duty regarding pesticide control, amended by Order No. 2009-011 (April 8, 2009); and
- Order No. 99-0042 (October 13, 1999), which establishes the distribution of fixed applicable duty products regarding

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pesticide control, amended by Order No. 2009-041 (December 28, 2009).

The CEACR noted that the said legislations cited by the Burkinabé government partially gave effect to Articles 12 and 13 of C184 (on Sound Management of Chemicals), particularly on pesticides. However, they did not provide further information as to the laws' specific provisions that give effect to Articles 12 and 13 of C184.

According to the ILO committee: "the Government's first report on the application of this Convention does not, as required, indicate in detail the provisions of the relevant laws and regulations which give effect to each article of the Convention. The Committee further notes that the referenced legislation does not seem to address the application of any provisions other than Articles 12 and 13 of the Convention."

The CEACR has set a 2013 deadline for the Burkinabé government to submit a more detailed report that shall include specific provisions of relevant laws and regulations, etc., or other measures which give effect to each article of C184.

Meanwhile, for C170, Burkina Faso has not made any submission to the ILO as regards to its compliance and implementation.

TANZANIA

Background

The economy of Tanzania is heavily dependent on agriculture. According to its Ministry of Agriculture, Food Security and Cooperatives, agriculture accounts for 27% of the gross domestic product (GDP) and 35% of its export earnings. Agriculture also provides employment and livelihood to almost 78% of the national population. The sector is mainly dominated by small holder farming that accounts for most of the food produced in Tanzania. There are an estimated 31 million small holder farmers in the country. Main food crops include maize, sorghum, millet, cassava, sweet potato, banana,

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pulse, paddy and wheat. The major cash crops are coffee, cashew nut, tea, cotton, tobacco and sisal.

A relatively small subsector is large-scale or commercial farming. In its 2003 agriculture census, Tanzania reported that there were 1,212 large-scale farms in the country covering an area of 1.11 million hectares. Of the total number of large-scale farms, 59% were involved in crops covering 48% of the total area; 20% in rearing livestock covering 38% of the area; and 21% in both crop production and livestock covering 14% of the area. Large-scale farms, during the census year, employed 70,962 employees of which 72% were temporary workers and 28% were permanent workers. For permanent workers, 76% were male and 24% were female. Among temporary workers, 57% were male and 43% were female.

Occupational hazards

Latest available data compiled by the Food and Agriculture Organization (FAO) show that Tanzania's pesticide importation has grown substantially in recent years. Between 2003 and 2011, its pesticide importation (based on value) grew by almost 27% annually. Importation of insecticides jumped by 118% a year during the same period; fungicides by 30% and herbicides by 23 percent.

Despite the increasing use of pesticides, farmers and farm workers have no access to personal protective equipment (PPE). A case study on the use of pesticides in the area of Ngarenanyuki, for instance, revealed that majority of farmers (55%) do not own and never wear personal protective equipment. Among those who use PPE, boots are the most common protection (50%), followed by gloves (16%); respirators (10%); glasses (10%); overalls (9%); and masks (5%). None of the farmers had a complete set of PPE. Farmers cited non-availability, cost and lack of information as among the main reasons for not wearing PPE.

Pesticide-using farmers also apparently do not have enough information on the proper and safe disposal of pesticides. The Ngarenanyuki case study disclosed that burning or leaving containers

in the field are the most common means of disposal. Seven percent of the farmers, meanwhile, said that they sell empty pesticide containers and none return containers to suppliers. Another reason for alarm is the negligible knowledge of farmers about pesticides. Only 13% of the farmers said that they received training on pesticide application and an even smaller 6% claimed that they are well-informed about pesticides.

Consequently, farmers participating in the Ngarenyuki survey reported various symptoms of acute poisoning from pesticides. More than half experienced headaches, excessive salivation, nausea or vomiting, skin or eye irritation. More than 40% had dizziness, blurred vision, sleeplessness, breathing difficulties, stomach ache, loss of appetite, flu, cough, excessive eye tearing or sore throat. Over 20% reported tremors, diarrhea, chest pain, pain when urinating, fever, wheezing or nosebleed.

Implementation of ILO conventions

Tanzania ratified the 1990 Chemicals Convention (C170) on 15 March 1999. Its compliance to the said convention is primarily contained in its Occupational Health and Safety (OHS) Act passed in 2003.

In Tanzania's report of its compliance to C170 to the International Labour Organization's (ILO) Committee of Experts on the Application of Conventions and Recommendations (CEACR), the committee noted several inconsistencies, to wit:

- It was not clear whether Tanzanian laws cover the use of chemicals at all the different worksites listed in the Convention's Article 2 which defined the term "use of chemicals at work";
- Tanzania's OHS Act of 2003, in particular section 75(1), imposes an obligation on the employer to ensure that prior to the handling of chemicals, copies and lists of the chemical safety data sheets are given to the workers concerned. But according to the CEACR, Article 10(2) of C170 places an obligation on employers receiving chemicals that have not been labeled or

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marked as required under Article 7, or for which chemical safety data sheets have not been provided as required under Article 8, to obtain the relevant information from the supplier or from other reasonable sources, and not to use the chemicals until such information is obtained. It appears that the requirement of labeling chemicals is not clearly indicated in Tanzania's pertinent national law;

- Government claimed that Section 73(1) and Section 60 of the OHS Act, read in conjunction, provide for the employer to ensure that risk assessments are carried out annually or when deemed necessary by an approved inspection authority, as required under C170's Article 13(1)(a)-(e). Still, the said provisions lack further information on the practical application of the Convention's article on assessment of risks arising from the use of chemicals at work; and
- On the Convention's Article 13(1)(f) which pertains to the use of PPE, Tanzania reported that Section 62 of the OHS Act is its compliance. The said section requires the employer to provide personal protective clothing to workers employed in processes involving exposure to injurious or offensive substances or environment. However, C170 provides that protective clothing and protective equipment shall be provided to workers exposed to all chemicals, irrespective of the level of exposure. Thus, there is a need for government to indicate which laws or regulations are in place to ensure that workers exposed to chemicals have protective clothing and equipment. They must also provide information on how the protective clothing and equipment are maintained.

Moreover, it was also unclear which legislative or other provisions of Tanzanian laws give effect to the following provisions of C170: Article 15 on information and sharing; Article 6(2) on hazardous properties of mixtures of two or more chemicals; Article 12(a) on exposure of workers to chemicals; Article 18(2) and (3)(a)-(d) on the right of workers to remove themselves from danger resulting from the use of chemicals and the rights of workers and their representatives

to information; Article 4 on the formulation, implementation and periodical review of a national policy on safety in the use of chemicals at work; Article 6(3) on classification systems as regards transport and whether, in this context, use has been made of international standards such as the UN Recommendation on the Transport of Dangerous Goods; Articles 7(1) and 9(2) on the identification of all chemicals by labeling and marking and on the responsibility of the suppliers to forward revised labels and chemical data sheets; Article 8(2) on the criteria for the preparation of chemical safety data sheets and whether, in this context, use has been made of the international chemical safety data sheets; and Article 19 on responsibility of exporting States and how the Southern African Development Countries (SADC) code of practice contributes to the application of the Convention in this respect.

Finally, the CEACR noted that there is a dearth of information from the Tanzanian government on its general appreciation of how C170 is applied in the country, including data from inspection reports, statistics on the number of workers covered by legislation, the number and nature of the contraventions reported, the number of occupational diseases reported as being caused by exposure to chemical substances, etc.

CHINA

Background

China is the world's leading agricultural producer. Globally, it is the top producer in terms of value and quantity of at least 50 agricultural commodities in 2011 based on data compiled by the Food and Agriculture Organization (FAO). Two of its most important crops are rice and wheat, having produced almost 203 million metric tons (MMT) of rice worth more than US\$52 billion and more than 117 MMT of wheat worth almost US\$17 billion in 2011. It is also the largest producer of cotton, oilseeds, tea, tobacco, various fruits and vegetables and meat, among others.

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Through the years, the share of agriculture to China's gross domestic product (GDP) and total employment has declined, according to its Ministry of Agriculture. In 1978, for instance, the share of agriculture to GDP was more than 28% while it accounted for almost 71% of total employment. By 2008, the sector accounted for just more than 11% of the GDP and employed less than 40% of all Chinese workers.

Occupational hazards

A 2000 population-based study evaluating the patterns of, and risk factors for, agricultural injuries among farmers in the People's Republic of China found out that a total of 33% of the farmers covered by the study suffered at least one work-related injury in the 24 months before the survey. It also disclosed that the major external causes of the injuries were hand tools (50%), falls (26%), and heavy falling objects (10%). The study noted that statistically significant risk factors for injury were low family income, 1 to 6 school years of education, self-reported pesticide exposure, tension in relationships with neighbors, and stress in life. The authors also pointed out that the most notable result they obtained was the relation between self-reported pesticide exposure and injury, with farmers with greater pesticide exposure at significantly greater risk for injury.

Like in other countries, Chinese farmers are greatly exposed to the risks of harmful pesticides. A 2010 study in Yunnan province revealed that less than three-fourths of farmers wear personal protective equipment when applying pesticides. Of those who do, most used long-sleeved shirt and long pants but a very small percentage uses boots/shoes (7%), overalls (5%), gloves (3%), respirator (2%), mask (2%) and glasses (0%).

Implementation of ILO conventions

China ratified the 1990 Chemicals Convention (C170) on 11 January 1995.

In its report on the implementation of C170 in the country, the Chinese government has cited the following laws in its submission to

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the International Labour Organization's (ILO) Committee of Experts on the Application of Conventions and Recommendations (CEACR):

- Amendments to the Law of the People's Republic of China on Prevention and Control of Occupational Diseases (State Council Decree No. 612), which came into force on 31 December 2011;
- Regulation on Safety Management of Hazardous Chemicals (State Council Decree No. 591);
- Regulation on Registration of Hazardous Chemicals (State Administration of Work Safety (SAWS) Decree No. 53);
- Provisional Rules on Supervising and Regulating Major Risk Sources of Hazardous Chemicals (State Administration of Work Safety (SAWS) Decree No. 40); and the
- Twelfth Five-Year Plan Concerning Safety in Production of Hazardous Chemicals (2011–15).

To implement Article 5 of C170, which refers to the prohibition or restriction on the use of certain hazardous chemicals, China has instituted Section 5 of the new Regulations on Safety Management of Hazardous Chemicals. The said provision puts forward the idea of applying a regime for the prohibition, and restriction for use, of hazardous chemicals, and that studies are under way to prepare supporting rules in this regard. According to the CEACR, the Chinese government has also indicated its plan to introduce a licensing system for the safe use of hazardous chemicals that would require producers or users of such substances to obtain safety licenses.

In addition, as noted by the CEACR, China has formulated the List of First Batch Hazardous Chemicals subject to Prohibition, Restriction and Control in Shanghai (for trial implementation). The list covers 468 hazardous chemicals, of which 139 have been banned from production, storage, operation, transport and use in Shanghai, 170 banned from the central urban district, and 159 of which are subject

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to restriction and control. China has indicated that the trial basis of this list expires on 30 June 2013.

Meanwhile, the Chinese government's SAWS is leading the compilation of the new edition of the Catalogue of Hazardous Chemicals to comply with Article 6 of C170 on classification systems. Aside from this, a new Classification and Code of Dangerous Goods (GB6944-2012) has been approved as well while the serial standards of the Safety Code for Classification, Precautionary Labeling and Precautionary Statement of Chemicals (GB20576~20599, GB20601~20602-2006) is currently being revised.

On information and sharing, which is contained in Article 15 of the Convention, China has required the display of information cards in relation to occupational hazards at workplaces where workers are exposed to hazardous substances, according to the CEACR. It has also indicated its plan to make available chemical safety data sheets at workplaces where chemicals are used.

Lastly, the Chinese government also said that it intends to conduct an assessment on the application of the Convention in the country since its ratification.

ARGENTINA

Background

Agriculture contributes about 10% to Argentina's gross domestic product (GDP) and accounts for 7% of the labor force. While its share to the GDP and employment has declined over the decades, agriculture still plays a key role in the national economy. Agricultural exports, for instance, comprise more than half of the foreign exchange earnings of Argentina. The country's main exports are raw crops mainly soybeans, wheat and maize as well as processed agricultural products like animal feed, flour and vegetable oils.

Argentina currently accounts for about a fifth of the global production of soybeans. Such high production could be attributed to

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the introduction of genetically modified (GM) soybeans in 1996. To illustrate, from 1987 to 1996, soybean production in Argentina was around 10-11 million metric tons (MMT). By 1997, production soared to almost 20 MMT and has since continued to climb, reaching almost 50 MMT by 2008. Soybeans occupy some 18 million hectares or about half of all farmlands in Argentina. Almost all soybeans planted in the country are Roundup Ready (RR), a GM soybean designed by Monsanto to resist heavy dosages of its herbicide Roundup.

Occupational hazards

Government data from the Argentina's Superintendencia de Riegos del Trabajo (SRT) show that in 2005, 40,065 cases of occupational accidents and diseases have been reported in the agricultural sector out of a population of 310,747 workers covered by its occupational risk system. During the same year, some 115 fatalities were registered of which 73 occurred in the context of work for an incidence rate (per million) of 370.1, second only to the mining and quarrying sectors, and well above the overall rate of 142.8.

Massive planting of GM soybeans has greatly increased the use of pesticides in Argentina and along with it, the occupational risks directly faced by farmers and farm workers. According to GRAIN, while GM soybeans increased production fivefold from 1996 to 2008, use of the herbicide glyphosate such as Monsanto's RR increased fourteenfold during the same period. Intensive use of the RR soybean also led to the development of so-called super-weeds which forced farmers to spray the land with even stronger pesticides like atrazine (already banned in the European Union) and endosulfan before planting.

The situation is compounded by the lack of personal protective equipment (PPE) when farmers apply pesticides. In a study of 16 rural communities in Santiago del Estero Province, for instance, researchers disclosed that 55% of farmers do not use any form of PPE (clothing, gloves, mask, glasses, etc.) while 19% use limited PPE. There is also an apparent lack of knowledge on how to deal with used containers of pesticides as the survey revealed that 89% of those interviewed used empty containers to store water. Symptoms of

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acute or chronic pesticide poisoning like dizziness, headache, blurred vision, excessive sweating, excessive salivation, nausea or vomiting, insomnia, difficulty breathing and diarrhea are common among the farmers.

Implementation of ILO conventions

Argentina ratified the 2001 Safety and Health in Agriculture (C184) on 26 June 2006.

The International Labour Organization's (ILO) Committee of Experts on the Application of Conventions and Recommendations (CEACR) observed that Argentina has made key steps that constitute "progress in public OSH (occupational health and safety) policies" and facilitate the application of other sectoral and thematic OSH Conventions. In particular, the ILO committee noted the Argentinian Occupational Safety and Health Strategy 2011-2015 adopted on 27 April 2011 with the signature of government and representative organizations of employers and workers. Article 4(1) of C184 called for the formulation, implementation and periodical review of a coherent national policy on safety and health in agriculture after consulting the representative organizations of employers and workers concerned. The strategy also made references to C184 such as Decision No. 11/2011 establishing requirements for the housing of temporary, cyclical and seasonal agricultural workers, which gives effect to Article 19(b) of the Convention.

Other positive developments noted by the CEACR are the approval by the National Congress and the promulgation by the executive authorities of Acts Nos. 26693 and 26694 on 24 August 2011. The said pieces of legislation approved the ratification of the 1981 Occupational Safety and Health Convention (C155) and its Protocol of 2002, and the 2006 Promotional Framework for Occupational Safety and Health Convention (C187).

As for Article 4(2)(b) of C184, which pertains to the specification of the rights and duties of employers and workers with respect to OSH in agriculture, the CEACR reported that a new draft National Agrarian

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Work Regime that will replace the legislation currently in force is still being deliberated by the Chamber of Deputies. It was observed, however, that while the draft text incorporates certain articles of the Convention, it does not give effect to the other provisions.

It was also noted that there are no sufficient information on the mechanisms of inter-sectoral coordination among the relevant authorities and other bodies for the agricultural sector, including those responsible for the approval of machinery and in relation to chemicals as required under Article 4(2)(c) of the Convention. Argentina merely indicated that the competent body for the agricultural sector, without specific competence in the field of occupational safety and health, is the Ministry of Agriculture, Stock-raising and Fishing.

Another problematic area is Argentina's compliance to Article 6(2) of C184 which pertains to the issue of two or more employers in an agricultural workplace and their duty to cooperate in applying the safety and health requirements of the Convention. According to the government, Section 9 of the National Agrarian Labour Act gives effect to the said provision. However, subsections 1 and 3 of the Section establish the joint responsibility only upon request of those who are under contract, subcontract or to whom work or services that form part of the normal production process of the establishment are assigned wholly or in part. Thus, noted the CEACR, the focus is remedial (upon request) and not for preventive purposes. C184's intention is to require governments to take a proactive approach towards collaboration in the implementation of OSH provisions and goes beyond joint responsibility upon request.

Argentina also reported that Annex 1 of the Decree No. 617/97 (its pertinent national legislation on OHS in agriculture) issuing health and safety regulations for agrarian work gives effect to Article 7(a) of the Convention. But there are no information as to the manner of ensuring that appropriate assessments are carried out for (a) employers insured under Employment Risk Insurers (ARTS); (b) self-insured employers; and (c) uninsured employers. Article 7(c) of C184, on the other hand, requires government to take immediate steps when there is imminent danger. But Argentina's policy is inconsistent

with this provision of the Convention. To illustrate, Section 232 of Annex I of Decree No. 651/79 mandates the employer to order the suspension of work involving imminent danger only “upon the requirement of the competent authority”.

Further, the CEACR also observed that Argentina has vague policies to ensure that information is provided to and understood by the workers. There is only a general reference to Annex 1 of Decree No. 617/97. The said annex, however, requires only the receipt of information but not its dissemination in such a way that workers understand the information supplied by manufacturers, importers and suppliers as required by the Convention. There are also no data on the manner in which the authorities ensure that information is supplied and understood, particularly by workers who are unable to read or have only rudimentary reading skills.

Article 11(1) and (2) of C184 on risk assessment, consultation and establishment of safety and health requirements for the handling and transport of materials is not properly reflected as well in national laws. Section 24 of Annex 1 of the Decree No. 617/97 only gives partial effect to the said requirement by placing a limit on weight. But the CEACR noted that the Convention goes beyond the establishment of a maximum weight for loads and provides that the competent authority shall establish safety and health requirements for the handling and transport of materials.

There also appears no clear information as to Argentinian laws that mandate how chemical waste is collected, recycled and disposed of, taking particular account of workers who are illiterate and of the families and children who live with such workers (required under Article 12(c) of the Convention); and on preventive and protective measures for the use of chemicals and handling of chemical waste (required under Article 13).

A particular concern in Argentina on OHS in agriculture is the high accident rate in animal handling. Unfortunately, there is no clear provision in the Decree 617/97 – except for Title X which provides general guidelines on animal handling – which ensures that risks such

as those of infection, allergy or poisoning are prevented or kept to a minimum in the context of protection against biological risks as required under Article 14 of C184.

As for the Convention's prohibition against the employment of young workers in hazardous work as outlined in Article 16(1) and (2), Argentina reported that it has passed several laws to make this effective. In particular, it cited Section 112 of Act No. 22248 which prohibits the assignment of minors under the age of 18 years to work which is arduous, dangerous or unhealthy; and Act No. 26390 which covers the prohibition of child labor, raises the minimum age for admission to employment to 16 years, and penalizes the use of minors in prohibited work. While generally favorable, it remains unclear which work are deemed arduous, dangerous or unhealthy as well as what mechanisms are in place to ensure the implementation of provisions against young workers in hazardous agricultural work.

For the rights of women agricultural workers, Article 18 of C184 covers the issue of pregnancy, breastfeeding and reproductive health. Argentina reported that this provision is applied through Title III, Chapter V, of Act No. 22248 and CNTA Resolution No. 08/2001 on the special paid leave of one day per year for gynecological examinations. However, the CEACR noted that the Convention requires a more comprehensive approach to reproductive health and the measures to be taken by governments. Thus, there should be detailed preventive and protective measures pertaining to the reproductive health of women agricultural workers, including from the onset of pregnancy, taking into account the risks inherent in certain pesticides.

Finally, the Argentinian government reported that as of 2008, the national occupational risk system covers 260,265 workers in agricultural production and 37,224 workers in agricultural services. The CEACR pointed out that the Convention also covers non-registered agricultural workers or those that are not under the occupational risk system. It must be noted that informal hiring in the agricultural sector means that there is no formal employment record and wages to establish eligibility for social protection, especially involving migrant

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workers. In Argentina, for instance, it was estimated in 2003 that there were some 1.2 million unregistered agricultural workers.

BRAZIL

Background

Brazil has been undergoing an “agricultural boom”. From 2001 to 2011, its agricultural exports have grown by 400 percent. It is now the world’s leading exporter of sugar, coffee, orange juice, soybeans and chicken. About 27% of its agricultural exports go to the European Union (EU); China, 14%; US, 7%; Russia, 5%; and Japan, 3 percent. As of 2009, Brazil is the world’s top net exporter of agricultural goods with a net value nearing US\$50 billion. Argentina is a far second with less than US\$30 billion and Thailand, third, with less than US\$20 billion. The turnaround of Brazilian agricultural production, supplier to 212 global destinations, is pretty remarkable considering that it was a net food importer more than 50 years ago.

Thus, the contribution of agriculture to the economy of Brazil is immense. Latest data from its Ministry of Agriculture say that agribusiness accounts for 33% of the country’s Gross Domestic Product (GDP); 42% of total exports; and 37% of the total number of jobs. There are almost 18 million rural workers in Brazil.

Even as it contributes enormously to the economy, the people of the agricultural sector in Brazil suffer the worst social and working conditions. Despite being considered a middle-income country endowed with vast natural resources, poverty levels and human development indicators in the rural areas of Brazil are comparable to those of the poorest Latin American countries. While overall poverty incidence in the country is pegged at 35% (i.e., those living on less than US\$2 a day), poverty in the rural areas afflicts 51% of the population – or around 18 million people. The country’s northeast region is said to host the single largest concentration of rural poverty in Latin America with a 67% poverty incidence. Among the rural poor, women, young people and indigenous peoples are the poorest and

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most vulnerable. Households headed by women account for some 27% of the rural poor.

At the heart of rural poverty in Brazil is the lack of land for the direct producers. As of 2003, it was estimated that there were 20 million landless people in the country while seven million barely survive as squatters, sharecroppers and migrant workers. There is an intense concentration of land in the hands of a few – some 40% of farmers share a paltry 1% of the land while the richest 20% owned 88% of the land.

Such high levels of poverty make a huge number of people exposed to various forms of exploitation. Slave labor, for instance, remains prevalent in Brazil. In 2003, the last year that the International Labour Organization (ILO) made an estimate, between 25,000 and 40,000 Brazilians are working under slave labor conditions. An estimate by the Anti-Slavery International, a UK-based lobbying group, said that about a quarter of modern-day slaves in Brazil work in agriculture. Agribusiness is a politically powerful sector in Brazil, making efforts to institute measures against slave labor extra difficult. For instance, a proposed law which would allow government confiscation of land that uses slave labor has languished in Congress for years due to strong opposition from some legislators.

Occupational hazards

One of the major occupational risks facing agricultural workers in Brazil is pesticide poisoning. The use of pesticides is intensive throughout the country, which is among the largest markets for such products in the world. The drastic increase in pesticide use in the country is being attributed to the legalization of genetically modified (GM) crops through the Biosafety Law passed in 2005. According to one report, the area planted to GM crops tripled from 9.4 million hectares to 32 million hectares between 2005 and 2011. During the same period, the average pesticide consumption jumped from 7 kilos per hectare to 10.1 kilos per hectare, or a huge 43% increase. Pesticide sales grew by 72%, from 480,100 tons to 826,700 tons. GM soybeans consume 48% of all pesticides in Brazil, with those using

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Roundup Ready technology of Monsanto consuming 16% more pesticides than conventional crops.

A 2008 study by the ANVISA (Brazil's National Health Surveillance Agency) disclosed that 15% of fruits and vegetables it sampled contained chemical residue from pesticides exceeding the allowed limits. It also found out that pesticides banned in some countries like acephate and endosulfan, and which expose personnel who manipulate fruit and vegetables, continue to be used in Brazil.

Unfortunately, despite the massive and increasing use of pesticides, official records regarding poisoning are limited to acute cases and are almost absent for cases of chronic poisoning. The official notification system for pesticide poisoning is the National System for Disease Notification (Sistema Nacional de Notificação de Agravos, Sinan). In practice, however, the system is mostly used in the National Toxicological-Pharmacological Information System (Sistema Nacional de Informações Tóxico-Farmacológicas, Sinitox) which mainly picks up the more severe cases.

Based on self-reporting, one study conducted among fruit farmers in Bento Gonçalves, Southern Brazil disclosed that 4% of the subjects reported occurrences of poisoning by pesticides over the 12 months preceding the investigation, and 19% at some time during their lives. Using the criterion proposed by the World Health Organization (WHO), the study classified 11% of the subjects as probable cases of acute poisoning. Among the workers who had used organophosphates over the ten-day period preceding the examination, 2.9% presented two or more symptoms relating to pesticides and a 20% reduction in cholinesterase.

Implementation of ILO conventions

Brazil ratified the 1990 Chemicals Convention (C170) on 23 December 1996.

As part of its compliance to Article 4 of C170, which outlines the formulation, implementation and periodic review of a coherent

policy on safety in the use of chemicals at work in consultation with workers' and employers' groups, the Brazilian government reported that a tripartite working group (GTT) will draw up proposals for submission to a Standing Joint Tripartite Committee (CTPP). A technical cooperation agreement has also been signed between the Ministry of Labor and the National Institute of Metrology, Standardization and Industrial Quality. According to the International Labour Organization's (ILO) Committee of Experts on the Application of Conventions and Recommendations (CEACR), while this process enables consultations regarding the formulation or modification of a standard, it does not specify how consultations are carried out with the social partners during implementation and review, as mandated under the Convention. There is also no particular information on how to ensure a follow-up mechanism that is capable of taking the necessary corrective action that arises from the application of that policy in practice.

One major issue in the implementation of the Convention in Brazil is intervention from other branches of government. The country's Labor Inspection Department reported that the effectiveness of the labor inspectorate to ensure compliance to C170 is undermined by the decisions of the judiciary and legislature, which often interfere in the results of inspection activity without due commitment to the safety and health of the workers. Courts, for instance, have overturned emergency measures, accepting the employers' argument that plant stoppages would cause serious economic damage, without taking due account of the hazard represented by continuation of the work, the CEACR noted in its report.

Meanwhile, Brazil has also not made a report on how it is implementing the Convention's requirement of coherent national policies such as those established in Article 4 and the harmonization of the various bodies and authorities involved in its application.

The CEACR also observed that it is unclear how Brazil is implementing specific articles of C170 such as Articles 6 and 7 on the criteria for the classification of chemicals and assessment of hazardous properties of mixtures; Article 16 on the cooperation between employers and

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workers with respect to safety in the use of chemicals; Article 17 on the duty of workers to cooperate with their employers in the discharge by the employers of their responsibilities; and Article 18(3) on the rights of workers and their representatives. It also noted that while the country's labor inspectorate has initiated activities to implement the Convention, C170 can only be properly and fully implemented if it involves the activity of various competent authorities as the application of specific articles goes beyond the scope of the enterprise and the labor inspectorate.

PART 3

IMPROVING THE ILO CONVENTIONS THROUGH PEOPLE'S STRUGGLES

Low number of countries that ratified the conventions

The commitment of national governments to protect farmers and farm workers from occupational risks, promote their health and safety, and advance their overall rights and welfare could be gleaned from their willingness to adopt binding international instruments such as the conventions of the International Labour Organization (ILO).

As of September 2012, the ILO has 185 member states. However, only 12 members have ratified the 1958 Plantations Convention (C110); 1963 Guarding of Machinery Convention (C119), 52 ratifications; 1964 Employment Injury Benefits Convention (C121), 24 ratifications; 1967 Maximum Weight Convention (C127), 29 ratifications; 1969 Labour Inspection Convention (Agriculture) (C129), 38 ratifications; 1973 Minimum Age Convention (C138), 85 ratifications; 1977 Working Environment (Air Pollution, Noise and Vibration) Convention (C148), 45 ratifications; 1981 Occupational Health and Safety Convention (C155), 60 ratifications; and 1988 Safety and Health in Construction Convention (C167), 24 ratifications.

The subjects of this study, namely the 1990 Chemicals Convention (C170) and the 2001 Safety and Health in Agriculture Convention (C184), suffer the same predicament. As of the latest count, the Chemicals Convention has been ratified by only 17 ILO member states while the Safety and Health in Agriculture Convention has had only 15 ratifications. To be sure, the low number of ratification is not unique to agriculture-related conventions but to occupational safety and health (OSH) conventions of the ILO in general.

Ratification in most countries is a long and sometimes complicated process. In many cases, the ratification process takes several years to complete. Thus, for relatively newer conventions such as the Safety and Health in Agriculture Convention, the drawn-out bureaucratic

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course may help explain the small number of ratifications. But for older conventions like the Chemicals Convention, other factors at the national level are apparently at play, including the appreciation of the convention and the political will of governments to adopt and implement it.

A review of how ILO member states responded to the conventions when they were still being proposed may also prove helpful in explaining the low ratification rate. Some members, for example, have questioned from the onset the need for a sector-specific OHS convention. Australia and New Zealand both raised this point during the 88th Session of the ILO in June 2000. According to Australia, unlike in the case of mining, there was no “forceful reason” to have a separate OSH convention for agriculture. It argued that the ILO’s core Convention on safety and health, the Occupational Safety and Health Convention, 1981 (No. 155), and its accompanying Recommendation (No. 164) already apply to all branches of economic activity, including agriculture. Others, while agreeing to the need for a sector-specific OSH convention like India, pointed out the practice of adopting very prescriptive and detailed Conventions that are not easily accepted and widely ratified because of their prescriptive nature.

Inadequate national legislations to implement the Conventions

While the first step is to adopt and ratify the OHS conventions in agriculture, that alone does not guarantee the protection of the rights and welfare of agricultural workers. Indeed, as presented in the case studies in Part 2 of this report, there remain major gaps in the implementation of the conventions at the national level.

Some countries that have already ratified the conventions have yet to pass a national legislation that will implement the conventions. Burkina Faso, for instance, has reported various laws and decrees as part of its compliance under the Safety and Health Convention. However, those national policies merely covered provisions on the sound management of chemicals, specifically pesticides. Other provisions that cover the various aspects of occupational safety and health in agriculture remain largely unaddressed. And even the

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claimed compliance only covers portions of the obligations outlined in the Safety and Health Convention's provision on agrochemicals.

In many cases, the obligations of ratifying member states under the conventions are not fully complied with. In Tanzania, issues have been raised in its compliance (under the Chemicals Convention) to clearly define in legislation the coverage on agrochemicals or chemicals used in agriculture, the proper labeling of chemicals, and the mandatory use of personal protective equipment (PPE) regardless of the level of exposure, among others.

Meanwhile, in Argentina, progress has been noted in the legislation of agriculture-specific OSH policy. However, gaps have still been identified, in particular institutional mechanisms that will coordinate and ensure the implementation of the provisions of the Safety and Health in Agriculture Convention. There are also specific provisions in Argentinian policies that are inconsistent with the convention such as when and how to suspend work due to imminent danger and the dissemination of information and ensuring that agricultural workers understand them. Vague policies on chemical waste disposal; addressing risk associated with animal handling; definition of arduous, dangerous and unhealthy work where young workers should be protected from; and protection of women agricultural workers undermine as well the implementation of the convention in the country.

A similar situation is observed in Brazil which has unclear policies on how to implement key provisions of the Chemicals Convention including the classification of hazardous chemicals and mechanisms for consultations and follow-up among the stakeholders. The Brazil case study showed as well how other government branches like the judiciary and legislature could undermine the effective implementation of the convention. There were cases where the courts overturned the decision of the Labor Inspection Department to suspend the operation of firms due to chemical risks.

The small number of ratification and inadequate application in ratifying countries are compounded by the fact that existing national

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legislations on OHS exclude agriculture and agricultural workers, or give very limited coverage. The ILO observed that in most cases, general labor laws or labor codes provide no specific reference or are not applicable in full to the agricultural sector. Agriculture tends to be omitted from the occupational safety and health legislation in some countries such as Cambodia, Ghana, Jordan, Morocco, Nepal, Sierra Leone, Sudan, Turkey, Yemen and Zaire.

Furthermore, the highly heterogeneous character of agricultural labor is not properly captured in most labor codes which tend to exclude a huge number of agricultural workers. Most national system of social protection for workers, including occupational safety and health, usually covers waged, permanent workers only. A massive number of agricultural workers such as casual, temporary and seasonal workers who are only engaged at particular times such as the harvesting season; sharecroppers and tenants who generally rent land for farming, are self-employed, and are remunerated through a share of the produce; and unpaid family workers, including children, are excluded.

Challenges and prospects

ILO conventions, when ratified, are legally binding instruments which signatory member states are obliged to comply with and implement. Whether to ratify the conventions or not is a voluntary act on the part of national governments. The small number of countries that have ratified OSH conventions in relation to agriculture is a major challenge that agricultural workers and advocates must confront.

At the level of the ILO, efforts must be pursued to initiate a global campaign to promote and encourage the ratification of the Safety and Health Convention, Chemicals Convention and other agriculture-related OHS conventions. This can be integrated in the Decent Work Agenda of the ILO in particular in three of the agenda's four strategic objectives, namely guaranteeing rights at work, extending social protection and promoting social dialogue. **(See Box)**

ILO's Decent Work Agenda

According to the ILO, the Decent Work agenda “offers a basis for a more just and sustainable framework for global development”. The UN agency works to develop “decent work”-oriented approaches to economic and social policy in partnership with the principal institutions and actors of the multilateral system and the global economy. To put the Decent Work agenda into practice, the ILO’s four strategic objectives, with gender equality as a crosscutting objective, should be pursued and implemented:

- Creating jobs – an economy that generates opportunities for investment, entrepreneurship, skills development, job creation and sustainable livelihoods.
- Guaranteeing rights at work – to obtain recognition and respect for the rights of workers. All workers, and in particular disadvantaged or poor workers, need representation, participation, and laws that work for their interests.
- Extending social protection – to promote both inclusion and productivity by ensuring that women and men enjoy working conditions that are safe, allow adequate free time and rest, take into account family and social values, provide for adequate compensation in case of lost or reduced income, and permit access to adequate healthcare.
- Promoting social dialogue – involving strong and independent workers’ and employers’ organizations is central to increasing productivity, avoiding disputes at work, and building cohesive societies.

The Decent Work agenda of the ILO is of course premised on the flawed assumption of “fair globalization”. It obscures the reality that the rights and welfare of agricultural workers, including their

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occupational safety and health, are wantonly compromised in search for greater profits by big agro-corporations and their local agents through liberalization, privatization and deregulation of economies. As an institution, the ILO itself is weighed down by its structural weakness as a tripartite agency that represents not just the interests of the workers but also of the governments and employers. It attempts to reconcile the conflicting and often antagonistic interests of employers and workers.

Thus, the engagement with the ILO should be critically pursued. For instance, even as we take advantage of legal instruments such as the conventions to benefit the interests of agricultural workers and make governments and employers accountable, we must continue to expose and oppose the attempts of the ILO to deodorize globalization. Campaigns on the ILO should also persistently challenge the so-called tripartite nature of the agency and assert that due bias must be accorded to the interest and welfare of workers.

At the national level, campaigns must be launched to pressure governments to ratify the OHS conventions and/or legislate policies that will protect agricultural workers from occupational risks. In cases where conventions have already been ratified or national OHS laws are already in place, reforms to make the existing legal and institutional mechanisms truly effective and beneficial for agricultural workers should be pursued. In most instances, current OHS laws even for other sectors such as industrial workers are weak or not properly implemented. It is therefore imperative that the agricultural workers build strong linkages and alliances with other oppressed sectors in campaigning for a comprehensive and sustainable social protection systems and guarantees for human and labor rights at all workplaces.

The foundation on which the engagements with the ILO and the national governments should be built upon is the strong organizing at the community level. Especially in the poor countries and in the rural communities, the concept of human and labor rights is very weak. An integral part of organizing agricultural workers is therefore a sustained education campaign on the rights at work and the obligations of government to guarantee such rights. ILO conventions and national

laws may provide a reference but should not be used exclusively as they will tend to narrow the issue of rights in terms of legalities and instruments. It should be enriched by the actual experiences of agricultural workers in the communities, including on issues of occupational safety and health, as well as other human rights. It must also be enriched by emphasizing women and children's rights within the context of promoting the rights of agricultural workers.

Strong organizing at the community level will also help create the conditions for effective and improved monitoring of the implementation of government obligations under the ILO conventions and national laws. At present, OHS conventions and state legislations in agriculture are not properly monitored due to weak institutional mechanisms and inadequate regulations that compound geographical factors such as the distance or remoteness of farming areas. A reliable and sustained community-based monitoring will help fill the gap in monitoring, for instance, of the use, sale, handling, storage, disposal and impacts of agrochemicals on agricultural workers or of compliance of plantation operators to decent labor standards, among others. Indeed, the problem of under-reporting and thus the understated extent of occupational hazards and violations occurring in the countryside can be greatly minimized through alert monitoring from the ground. This should go hand in hand with the education and training of the communities.

Finally, the political organizations of agricultural workers from the community level up to the national level and their linkages at the regional and global levels must be established and strengthened. One of the biggest challenges to agricultural workers is that unlike in other industries where workers can be grouped together into unions on the basis of factory or establishment, the situation in the rural areas is that there is a heterogeneous mix of workers. Thus, bringing rural workers together to form a solid organization that can serve as their voice in lobbying for OHS standards and other issues of rights and welfare is far more challenging. Creative ways must be explored outside of traditional forms of organizing based on plantations or farms. Whole communities, including women and the youth, must be involved and encouraged to join political organizations.

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Strong community-based organizations are crucial to make OHS in agriculture effective and beneficial. They serve as the focal point in lobby work and negotiations as well as in monitoring and implementation of standards for decent work. To be sure, ILO conventions and other legal instruments to safeguard the rights and welfare of the direct producer of social wealth are meaningless unless they derive their life and essence from the vigilance and persistent struggles of the people they are written to protect.

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ANNEXES

Annex 1. Cases of fatal or non-fatal occupational injury in agriculture, fishery & forestry		
Country	2009	2010
Country	2009	2010
Austria	-	7,290
Bahrain	4	3
Belize	782	779
Bulgaria	50	65
Croatia	693	599
Cuba	718	577
Cyprus	59	48
Czech Republic	3,344	3,302
Estonia	144	150
Finland	981	956
France	67,652	66,199
Germany	90,420	93,930
Hong Kong, China	17	21
Hungary	853	814
Kazakhstan	117	61
Latvia	35	-
Lithuania	89	124
Malta	57	35
New Zealand	3,108	2,871
Nicaragua	2,864	3,364
Norway	293	233
Panama	1	3
Poland	1,282	1,448
Romania	155	167
Slovakia	643	654

Annex 1. Cases of fatal or non-fatal occupational injury in agriculture, fishery & forestry		
Country	2009	2010
Slovenia	450	-
Spain	27,638	27,447
Sweden	303	348
Thailand	1,721	1,724
Turkey	8	0
Uruguay	8,478	8,502
Zimbabwe	45	425
<i>Source: ILOSTAT Database</i>		

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Annex 2. Global pesticide trade (in \$ thousand)				
Year	Import	Export	Total	Growth
1961	267,224	267,784	535,008	-
1962	305,557	311,052	616,609	15.3%
1963	355,750	339,883	695,633	12.8%
1964	398,474	382,502	780,976	12.3%
1965	399,816	349,984	749,800	-4.0%
1966	473,099	432,075	905,174	20.7%
1967	520,947	465,624	986,571	9.0%
1968	559,149	508,816	1,067,965	8.3%
1969	654,705	572,388	1,227,093	14.9%
1970	737,810	634,678	1,372,488	11.8%
1971	769,052	705,509	1,474,561	7.4%
1972	880,538	804,468	1,685,006	14.3%
1973	1,269,062	1,113,333	2,382,395	41.4%
1974	1,761,603	1,670,468	3,432,071	44.1%
1975	2,310,953	2,027,355	4,338,308	26.4%
1976	2,224,789	1,915,534	4,140,323	-4.6%
1977	2,503,732	2,315,984	4,819,716	16.4%
1978	3,247,253	2,946,178	6,193,431	28.5%
1979	3,808,929	3,475,197	7,284,126	17.6%
1980	4,477,317	4,062,628	8,539,945	17.2%
1981	4,278,794	3,805,195	8,083,989	-5.3%
1982	4,224,897	3,824,715	8,049,612	-0.4%
1983	4,515,104	4,104,055	8,619,159	7.1%
1984	5,136,060	4,449,122	9,585,182	11.2%
1985	5,200,490	4,486,633	9,687,123	1.1%
1986	5,841,589	5,001,559	10,843,148	11.9%
1987	6,688,757	5,732,657	12,421,414	14.6%
1988	7,312,479	6,304,929	13,617,408	9.6%

Annex 2. Global pesticide trade (in \$ thousand)				
Year	Import	Export	Total	Growth
1989	7,306,335	6,878,503	14,184,838	4.2%
1990	8,271,650	7,434,329	15,705,979	10.7%
1991	7,936,782	7,371,117	15,307,899	-2.5%
1992	8,103,444	7,437,818	15,541,262	1.5%
1993	8,039,691	7,662,665	15,702,356	1.0%
1994	8,619,573	9,014,263	17,633,836	12.3%
1995	10,248,705	10,564,424	20,813,129	18.0%
1996	11,167,621	11,403,264	22,570,885	8.4%
1997	11,194,794	10,762,055	21,956,849	-2.7%
1998	11,685,773	11,448,240	23,134,013	5.4%
1999	11,453,616	11,200,838	22,654,454	-2.1%
2000	10,858,197	11,189,754	22,047,951	-2.7%
2001	10,944,920	10,397,128	21,342,048	-3.2%
2002	11,749,900	10,889,510	22,639,410	6.1%
2003	13,083,516	12,437,003	25,520,519	12.7%
2004	15,747,099	15,665,448	31,412,547	23.1%
2005	16,516,004	16,834,121	33,350,125	6.2%
2006	16,508,967	16,813,662	33,322,629	-0.1%
2007	20,114,289	18,921,244	39,035,533	17.1%
2008	25,065,156	24,801,024	49,866,180	27.7%
2009	23,410,924	21,501,420	44,912,343	-9.9%
2010	24,607,643	23,026,838	47,634,481	6.1%

Source: FAOSTAT Database

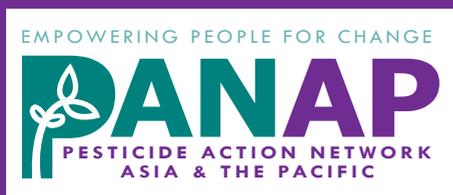
Agricultural work is considered one of the most dangerous occupations in the world. Data from the International Labor Organization (ILO) and the Food and Agriculture Organization (FAO) show that 170,000 out of the estimated 335,000 fatal work-related accidents every year occur in agriculture. This paper aims to identify gaps in existing ILO Conventions pertinent to occupational health and safety in agriculture. Specifically, it seeks to review the 1990 Chemicals Convention (C190) and the 2001 Safety and Health in Agriculture Convention (C184). Also, the paper intends to identify areas for campaigning and engagement to improve agricultural workers' rights and welfare.

Pesticide Action Network Asia and the Pacific (PAN AP) is one of the five regional centres of PAN, a global network dedicated to eliminating the harm caused to humans and the environment by pesticides and promoting biodiversity-based ecological agriculture.

PAN AP's vision is a society that is truly democratic, equal, just, and culturally diverse; based on the principles of food sovereignty, gender justice and environmental sustainability. It has developed strong partnerships with peasants, agricultural workers and rural women movements in the Asia Pacific region and guided by the strong leadership of these grassroots groups, has grown into a reputable advocacy network with a firm Asian perspective.

PAN AP's mission lies in strengthening people's movements to advance and assert food sovereignty, biodiversity-based ecological agriculture, and the empowerment of rural women; protect people and the environment from highly hazardous pesticides; defend the rice heritage of Asia; and resist the threats of corporate agriculture and neo-liberal globalization.

Currently, PAN AP comprises 108 network partner organizations in the Asia Pacific region and links with about 400 other CSOs and grassroots organizations regionally and globally.



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