



Safework



ILO Activities on Work-Related MSDs In Agriculture

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International Labour Office, Geneva

**Implementing policies to prevent work-related
MSDs in agriculture: development of the European
agreement from 21 November 2005 on preventing
MSDs in agriculture**

Maastricht (NL) from 7 - 10 June 2012





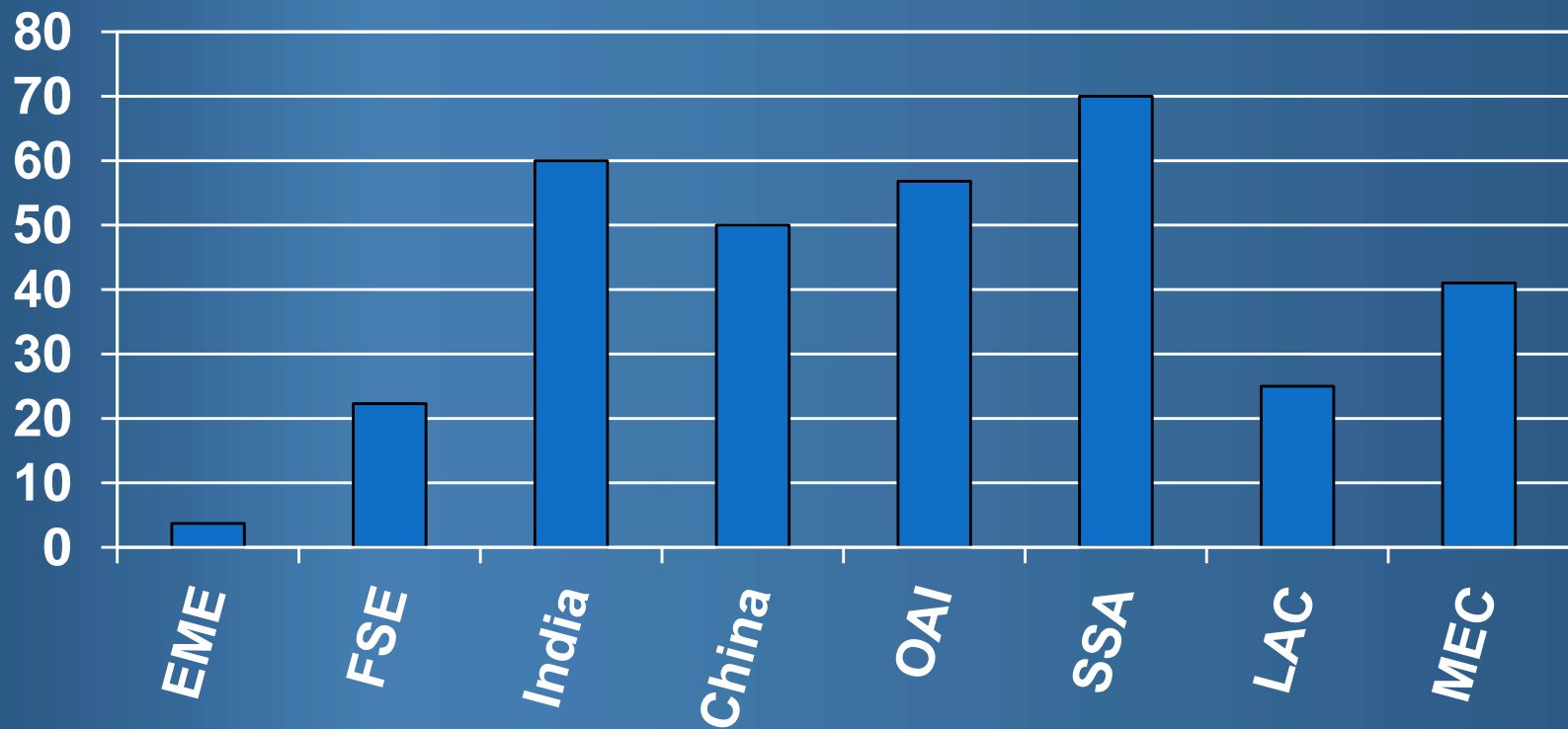
Global Economically Active Population

3.27 billion economically active population (2011)

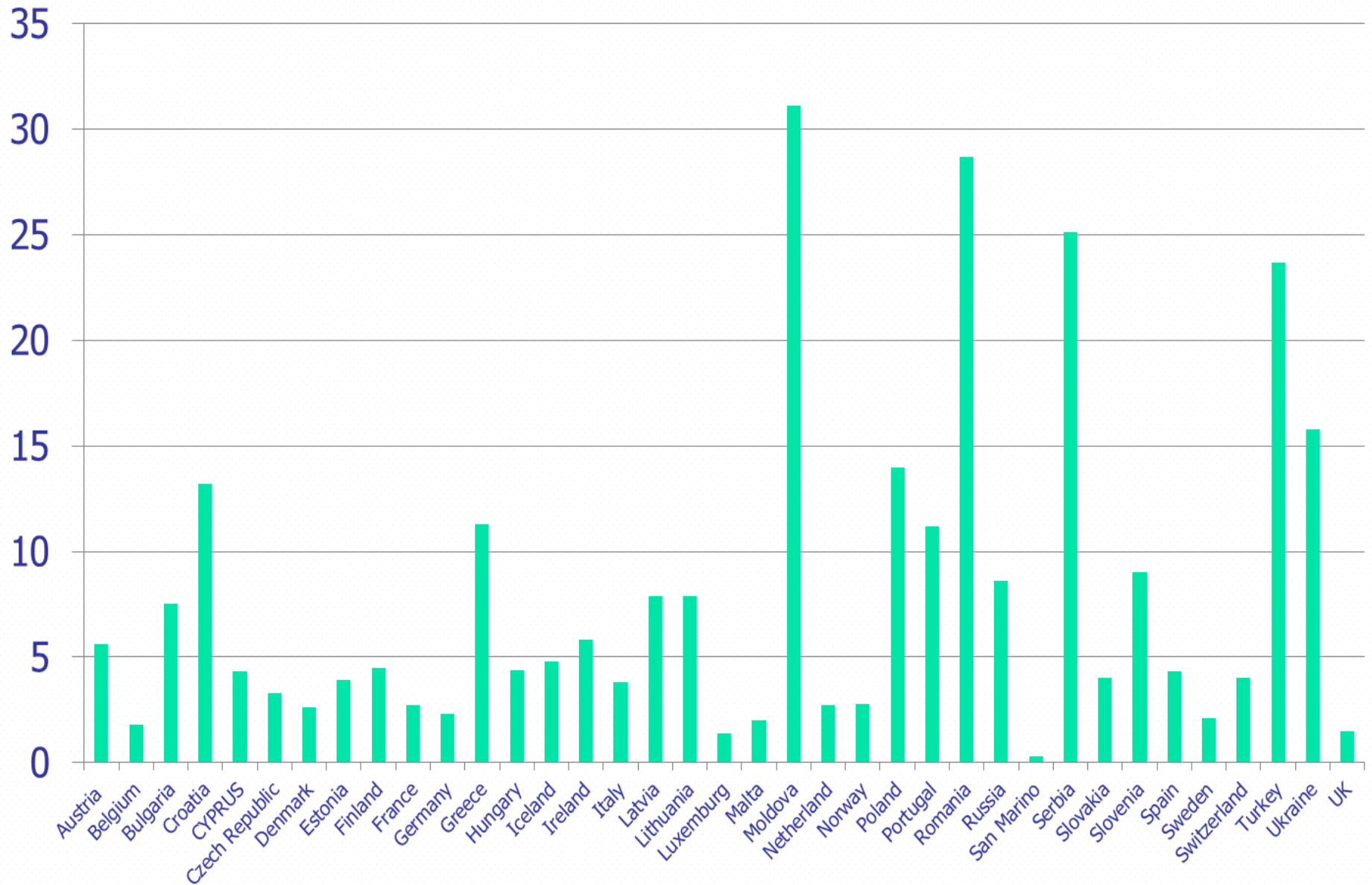
1.34 billion workers are active in agriculture



Agricultural Workers in Total Employment



Percentage of Employment in Agriculture in Europe in 2008





Features in Agriculture Work

- Young, women, old and migrant workers
- Temporary and seasonal workers
- Irregular and casual forms of employment
- Self employed workers
- Workplace and home





Challenges in Prevention of Occupational Accidents & Diseases in Agriculture



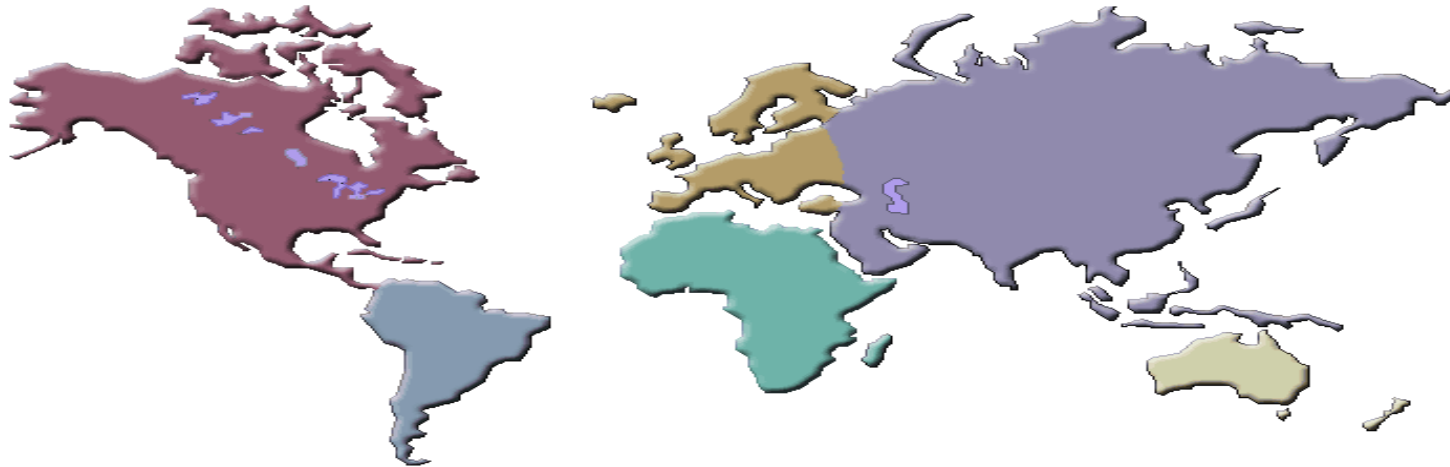
- **Vulnerable people**
- **OSH services**
- **Health care coverage**
- **Poverty**



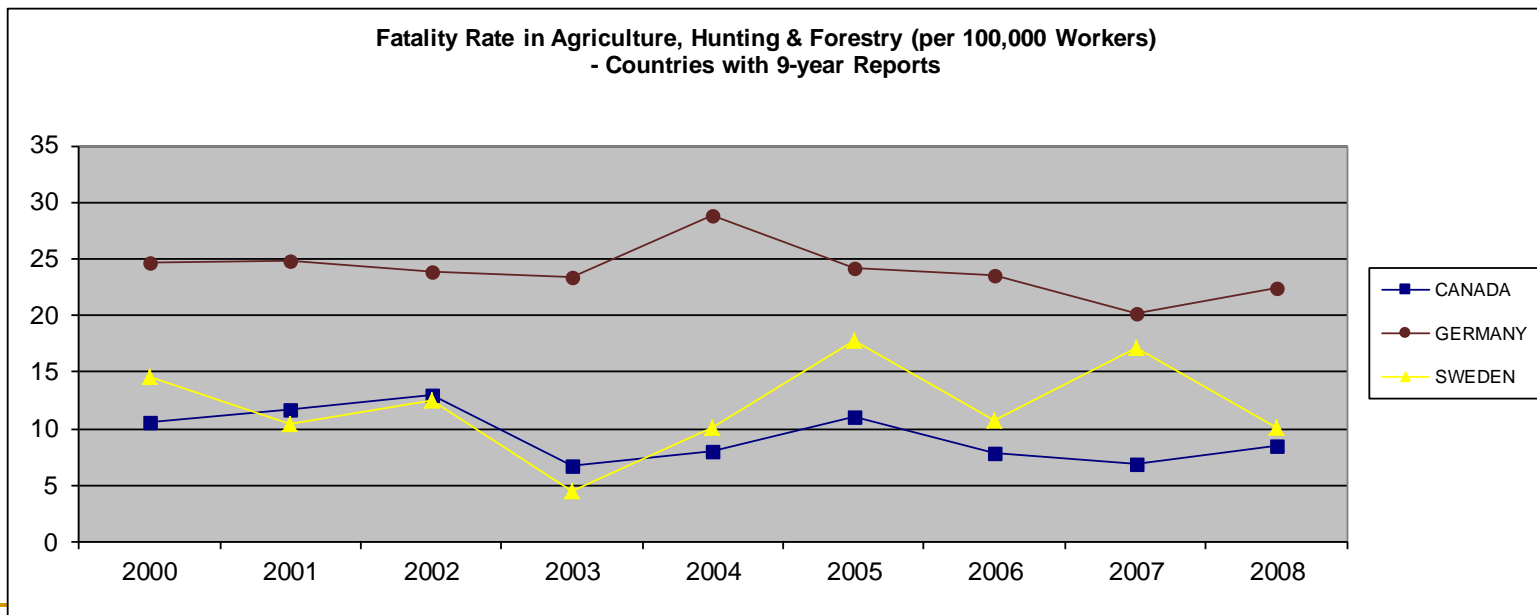
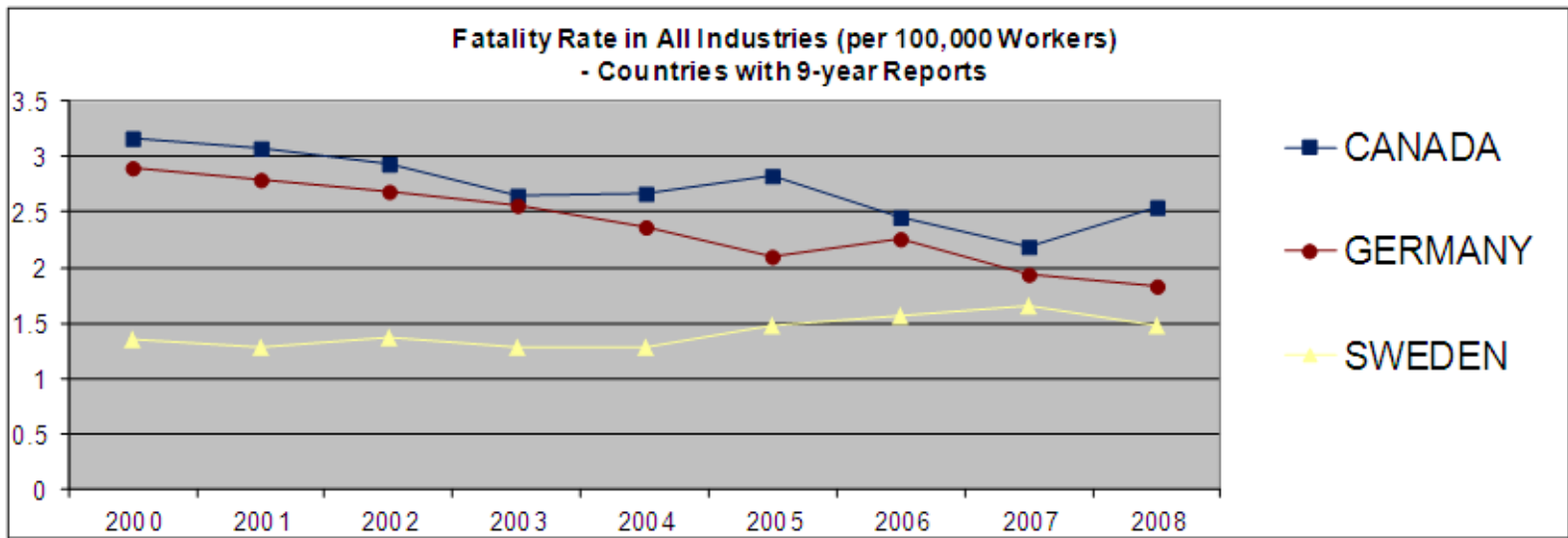
Some Decent Work Deficits in Agriculture

- ❑ 70 per cent of all (352 million) child labour employed in agriculture
- ❑ 80 million children aged 5-14 work in the worst forms of child labour in Agriculture (hazardous work, forced and bonded labour, etc)
- ❑ Agricultural workers are among the groups with the highest incidence of **poverty** in many countries
- ❑ 95% of the agricultural workers have **no** access to any **labour inspection** system
- ❑ The majority of waged agricultural workers are **excluded from social protection**

Number of countries frequently reporting fatalities in Agriculture, Hunting, Forestry & Fishing to the ILO from 2000 to 2008



Number of Reporting Year	9	8	7	6	5	Total
Europe	5	6	5	2	3	21
Asia	1	1		2		4
America	2			2		4
Oceania		1				1
Africa					1	1
Total	8	8	5	6	4	31





Pesticide Poisoning in Agriculture

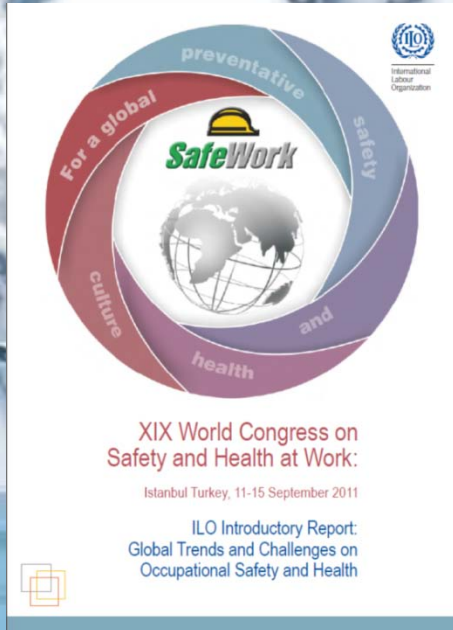
✓ **40,000 deaths** from exposure to pesticides

✓ **3 - 4 million** people affected by hazardous pesticides and suffer from **severe poisoning**, work-related cancer or reproductive impairments



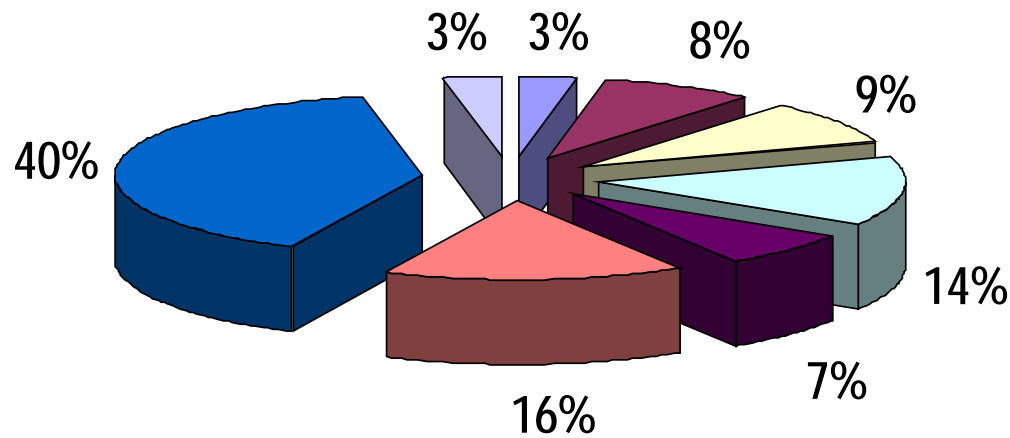
Work Related Injuries and Diseases in Agriculture

- 321,000 work related fatal accidents
- (half of them due to agricultural work)
- 317 million occupational accidents.
- (in agriculture?)
- 160 million work related diseases.
- (in agriculture?)



Injuries and Diseases Caused by Adverse Ergonomic Working Conditions

Costs by disease



- Tumors
- Respiratory Diseases
- Mental Disorders
- Musculoskeletal Diseases
- Central Nervous System
- Accidents
- Heart Diseases
- Skin Diseases



Work-related MSDs

- Work-related MSDs comprise well over **half of all reported occupational illnesses** in the United States
- At any one time, **30% of American adults are affected** by joint pain, swelling, or limitation of movement
- Musculoskeletal conditions **cause more functional limitations** in the adult population in most welfare states than any other group of disorders
- They are a **major cause of years lived with disability** in all continents and economies



The Fourth European Working Conditions Survey in 2005 (EWCS 2005)

MSDs are the most common work-related problems in the EU-27 countries

- 25% of European workers complain of backache
- 23% of muscular pains
- **62%** of respondents are exposed to **repetitive hand and arm movements**
- **45%** report working in **painful or tiring positions**
- **35%** are required to handle **heavy loads** in their work
- For certain risks, prevalence is higher amongst **female workers**, notably in education and health.

(http://eurofound.europa.eu/exco/surveys/EWC_S2005/index.htm).



Musculoskeletal Disorders & Agricultural Work



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Introduction

Musculoskeletal disorders (MSDs) cover a broad range of health problems. The main groups are back pain and injuries, and Work Related Upper Limb Disorders, commonly known as “repetitive strain injuries” (RSI). Lower limbs can also be affected.

MSDs are one of the most common work-related health problems affecting millions of European workers across all employment sectors at a cost of billions of Euros to European employers. This is not surprising, as:

- 45% of European workers report working in painful or tiring positions;
- 33% are required to handle heavy loads in their work

European workers commonly report MSDs as a work related health problem:

- 30% complain of backache;
- 17% complain of muscular pains in their arms and legs.

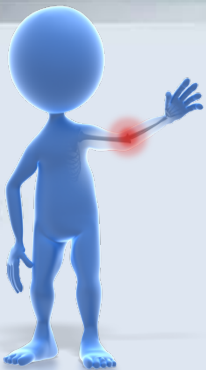
The 30% who complain of backache each year amounts to a figure of 44 million European



MSDs in Agriculture

Musculoskeletal disorders are a particular problem in agriculture:

- Almost **60%** of workers in agriculture and fishing are exposed to **painful positions** at work half the time or more, the highest of any sector
- Nearly **50%** of workers in agriculture and fishing carry **heavy loads** half the time or more
- Over **50%** of workers in agriculture and fishing are exposed to **repetitive hand movements** half the time or more





MSDs in Agriculture

Workers in the **agriculture and construction sectors** are most at risk to **lower back disorders**, and those in **agriculture, forestry, and fisheries** face the greatest risk of work related **upper limb disorders**



European Agency for Safety and Health at Work

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Musculoskeletal disorders in agriculture

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Introduction

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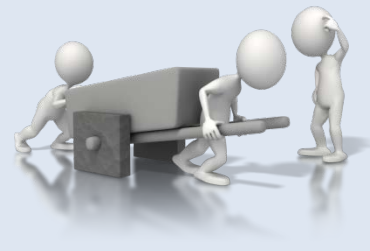
- 30% complain of backache;
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The 30% who complain of backache each year amounts to a figure of 44 million European



Ergonomic risk factors at the Workplace

- Repeated or forceful efforts
- sustained static loading
- anatomically non-neutral posture
- accelerated movements,
- externally applied compressive forces and peak overload
- Vibration
- Environmental factors





Psychosocial factors

Psychological job demands, decision latitude and social support are three key measures of psychosocial factors at the workplace affecting workers' health.

High psychological job demands in combination with low decision latitude may not only result in **residual job strain** but also cause chronic adverse health effects such as **cardiovascular diseases** if exposure is prolonged



Injuries and Diseases Caused by Adverse Ergonomic Working Conditions

Visual, muscular and psychological disturbances:

- eye strain
- Headaches
- Fatigue
- **musculoskeletal disorders (MSDs)** such as chronic back, neck and shoulder pain, Cumulative Trauma Disorders (CTDs), Repetitive Strain Injuries (RSIs) and Repetitive Motion Injuries (RMIs)
- **psychological tension, anxiety and depression**



Cost of Work Related MSDs

For workers:

- **Pain and suffering** due to injuries and occupational diseases (including RSI, CTD and RMI)
- **Medical care cost**
- **Lost work time**
- **Lost future earning** and fringe **benefits**
- **Reduced job security** and **career advancement**
- **Lost home production** and **child care**
- **Home care costs** provided by family members
- **Adverse effects on family relations**
- **Lost sense of self-worth** and **identity**
- **Adverse effects on social and community relationships**
- **Adverse effects on recreational activities**





Cost of Work Related MSDs

For employers:

- Increased **absenteeism** & lost working time
- Adverse effects on **labour relations**
- Higher **insurance** and **compensation** costs
- Increased probability of **accidents and errors**
- **Restriction, job transfer** and higher **turnover** of workers
- Scrap and **decreased production**
- **Lawsuits**
- Low-**quality** work
- Less **spare capacity** to deal with emergencies
- High **administrative** and personnel **costs**.

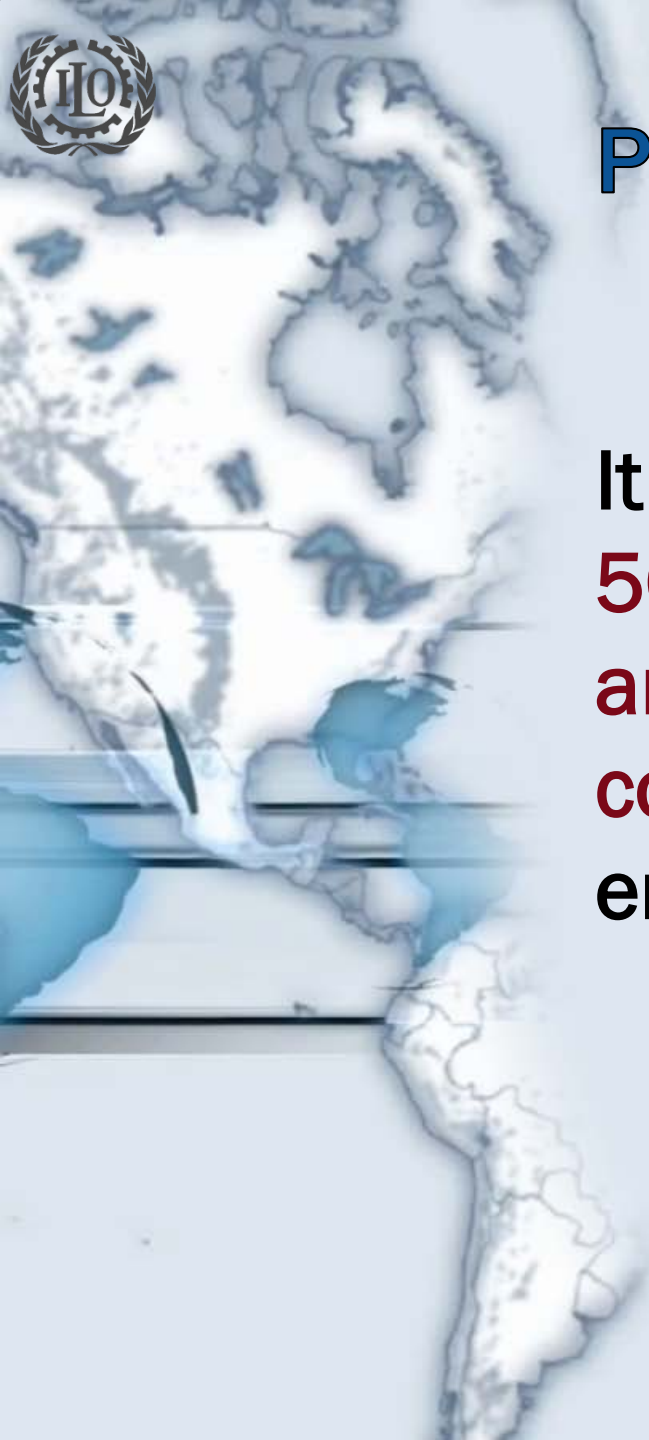




Work Related MSDs

It was predicted that **in UK by 2030 there will be a 9 per-cent increase in MSDs**, affecting more than 7 million workers and a 5 per-cent rise in the rate of mental illness in the workforce to affect 4.2 million employees (Vaughan-Jones H & Barham L, 2009).





Prevention of MSDs

It has been estimated that at least **50% of all work-related MSDs among the working population could be prevented** by appropriate ergonomic job design.

(Snook SH, et al,1978 & Snook SH, 1987).



Prevention of MSDs

The most effective intervention programmes seem to be those with multiple, coordinated activities, including:

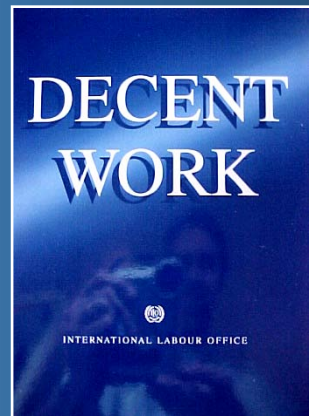
- application of the principles of **ergonomics in the design of equipment, workstations, products and working methods** according to human capabilities and limitations
- **training** of workers
- improving **health surveillance and management systems**
- general **workforce empowerment**
- top management's active **leadership** and delegation of decision-making authority regarding occupational safety



ILO Response

The International Labour Organization was founded to ensure everyone the right to earn a living in freedom, equity, dignity and security, in short, the right to decent work. We have never accepted the belief that injury and disease "go with the job"

Decent Work must be Safe Work





Recognition of Occupational MSDs

- Diseases caused by work have to be **discovered** and their victims be properly treated and compensated.
- Preventive and protective measures must be taken at the workplace.
- Definition of occupational diseases is usually set out in **legislation**.



Definition of occupational diseases

Paragraph 6(1) of ILO Recommendation concerning Employment Injury benefits, 1964 (No. 121) defines occupational diseases as follows:

Each Member should, under prescribed conditions, regard diseases known to arise out of the exposure to substances and dangerous conditions in process, trades or occupations as occupational diseases.



Definition of occupational diseases

The Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155) specifies -

occupational diseases as any disease contracted as a result of an exposure to risk factors arising from work activities.

The image shows a large conference hall during the 90th session of the International Labour Conference in June 2002. The room is filled with delegates seated at long tables, facing a stage. On the stage, a large emblem of the International Labour Organization is mounted on the wall. Below the emblem, a black sign with red text reads "CONFERENCE INTERNATIONALE DU TRAVAIL" and "90ème Session - Juin 2002". The hall is well-lit, and the atmosphere appears formal and professional.

90th Session of the International Labour Conference, June 2002, Geneva

Recommendation No. 194

Recommendation concerning the List of Occupational Diseases and the Recording and Notification of Occupational Accidents and Diseases.

List of occupational diseases (revised 2010)

(In the application of this list the degree and type of exposure and the work or occupation involving a particular risk of exposure should be taken into account when appropriate.)

1. Occupational diseases caused by exposure to agents arising from work activities**1.1. Diseases caused by chemical agents**

- 1.1.1. Diseases caused by beryllium or its compounds
- 1.1.2. Diseases caused by cadmium or its compounds
- 1.1.3. Diseases caused by phosphorus or its compounds
- 1.1.4. Diseases caused by chromium or its compounds
- 1.1.5. Diseases caused by manganese or its compounds
- 1.1.6. Diseases caused by arsenic or its compounds
- 1.1.7. Diseases caused by mercury or its compounds
- 1.1.8. Diseases caused by lead or its compounds
- 1.1.9. Diseases caused by fluorine or its compounds
- 1.1.10. Diseases caused by carbon disulfide
- 1.1.11. Diseases caused by halogen derivatives of aliphatic or aromatic hydrocarbons
- 1.1.12. Diseases caused by benzene or its homologues
- 1.1.13. Diseases caused by nitro- and amino-derivatives of benzene or its homologues
- 1.1.14. Diseases caused by nitroglycerine or other nitric acid esters
- 1.1.15. Diseases caused by alcohols, glycols or ketones
- 1.1.16. Diseases caused by asphyxiants like carbon monoxide, hydrogen sulfide, hydrogen cyanide or its derivatives
- 1.1.17. Diseases caused by acrylonitrile
- 1.1.18. Diseases caused by oxides of nitrogen
- 1.1.19. Diseases caused by vanadium or its compounds
- 1.1.20. Diseases caused by antimony or its compounds
- 1.1.21. Diseases caused by hexane
- 1.1.22. Diseases caused by mineral acids
- 1.1.23. Diseases caused by pharmaceutical agents
- 1.1.24. Diseases caused by nickel or its compounds
- 1.1.25. Diseases caused by thallium or its compounds
- 1.1.26. Diseases caused by osmium or its compounds
- 1.1.27. Diseases caused by selenium or its compounds
- 1.1.28. Diseases caused by copper or its compounds
- 1.1.29. Diseases caused by platinum or its compounds
- 1.1.30. Diseases caused by tin or its compounds
- 1.1.31. Diseases caused by zinc or its compounds
- 1.1.32. Diseases caused by phosgene

2.1.11. Upper airways disorders caused by recognized sensitizing agents or irritants inherent to the work process

2.1.12. Other respiratory diseases not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the disease(s) contracted by the worker

2.2. Skin diseases

2.2.1. Allergic contact dermatoses and contact urticaria caused by other recognized allergy-provoking agents arising from work activities not included in other items

2.2.2. Irritant contact dermatoses caused by other recognized irritant agents arising from work activities not included in other items

2.2.3. Vitiligo caused by other recognized agents arising from work activities not included in other items

2.2.4. Other skin diseases caused by physical, chemical or biological agents at work not included under other items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the skin disease(s) contracted by the worker

2.3. Musculoskeletal disorders

2.3.1. Radial styloid tenosynovitis due to repetitive movements, forceful exertions and extreme postures of the wrist

2.3.2. Chronic tenosynovitis of hand and wrist due to repetitive movements, forceful exertions and extreme postures of the wrist

2.3.3. Olecranon bursitis due to prolonged pressure of the elbow region

2.3.4. Prepatellar bursitis due to prolonged stay in kneeling position

2.3.5. Epicondylitis due to repetitive forceful work

2.3.6. Meniscus lesions following extended periods of work in a kneeling or squatting position

2.3.7. Carpal tunnel syndrome due to extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three

2.3.8. Other musculoskeletal disorders not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the musculoskeletal disorder(s) contracted by the worker

2.4. Mental and behavioural disorders

2.4.1. Post-traumatic stress disorder

2.4.2. Other mental or behavioural disorders not mentioned in the preceding item where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the mental and behavioural disorder(s) contracted by the worker

3. Occupational cancer

3.1. Cancer caused by the following agents



2.3. Musculoskeletal disorders

- 2.3.1. **Radial styloid tenosynovitis** due to repetitive movements, forceful exertions and extreme postures of the wrist
- 2.3.2. **Chronic tenosynovitis of hand and wrist** due to repetitive movements, forceful exertions and extreme postures of the wrist
- 2.3.3. **Olecranon bursitis** due to prolonged pressure of the elbow region
- 2.3.4. **Prepatellar bursitis** due to prolonged stay in kneeling position
- 2.3.5. **Epicondylitis** due to repetitive forceful work
- 2.3.6. **Meniscus lesions** following extended periods of work in a kneeling or squatting position
- 2.3.7. **Carpal tunnel syndrome** due to extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three



2.3. Musculoskeletal disorders

2.3.8. Other musculoskeletal disorders not mentioned in the preceding items where a direct link is established **scientifically, or **determined by methods appropriate to national conditions and practice**, between the exposure to risk factors arising from work activities and the musculoskeletal disorder(s) contracted by the worker**

Working Meeting on Diagnostic and Exposure Criteria Guidance for Occupational Diseases

10-14 October 2011, ILO Geneva

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Prevention of MSDs at work

ILO Policy on the Improvement of Working Conditions and Environment

- Work should take place in a **safe and healthy working environment**;
- Conditions of work should be consistent with **workers' well-being and human dignity**;
- Work should offer **real possibilities for personal achievement, self-fulfilment and service to society**.



Aims of Occupational Health

The **promotion and maintenance** of the highest degree of physical, mental and social well-being of workers in all occupations;

The **prevention** amongst workers of departures from health caused by their working conditions;

The **protection** of workers in their employment from risks resulting from factors adverse to health;

The placing and maintenance of workers in an occupational environment adapted to their physiological and psychological capabilities.

To summarize, the **adaptation of work to the workers and of each worker to his or her job.**



Adopted by the Joint ILO/WHO Committee on Occupational Health at its First Session (1950)



Ergonomics and Occupational Health

Ergonomics stresses **fitting the job to the worker** as compared to the more usual practice of obliging the worker to fit the job.

The aim of **ergonomics** is to **optimize, first and foremost, the comfort of the worker**, as well as his or her health, safety and efficiency.

Ergonomics is an essential and integral part of occupational health practice.

Applying ergonomic principles is **beneficial to both the workers and the employers.**

ILO Convention No. 127 & Recommendation No. 128



C127 Maximum Weight Convention, 1967

Convention concerning the Maximum Permissible Weight to Be Carried by One Worker (Note: Date of coming into force: 10/03/1970.)
Convention:C127
Place:Geneva
Session of the Conference:51
Date of adoption:28/06/1967
Subject classification: Physical Hazards, Noise and Vibration
Subject: Occupational Safety and Health
[See the ratifications for this Convention](#)

Display the document in: [French](#) [Spanish](#)
Status: Instrument to be revised

The General Conference of the International Labour Organisation,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Fifty-first Session on 7 June 1967, and

Having decided upon the adoption of certain proposals with regard to maximum permissible weight to be carried by one worker, which is the sixth item on the agenda of the session, and



R128 Maximum Weight Recommendation, 1967

Recommendation concerning the Maximum Permissible Weight to Be Carried by One Worker
Recommendation:R128
Place:Geneva
Session of the Conference:51
Date of adoption=28/06/1967
Subject classification: Physical Hazards, Noise and Vibration
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Having decided upon the adoption of certain proposals with regard to maximum permissible weight to be carried by one worker, which is the sixth item on the agenda of the session, and

Having determined that these proposals shall take the form of a Recommendation supplementing the Maximum Weight Convention, 1967,

adopts this twenty-eighth day of June of the year one thousand nine hundred and sixty-seven, the following Recommendation, which may be cited as the Maximum Weight Recommendation, 1967:

I. Definition and Scope

1. For the purpose of this Recommendation--

(a) the term **manual transport of loads** means any transport in which the weight of the load is wholly borne by one worker; it covers the lifting and putting down of loads;

(b) the term **regular manual transport of loads** means any activity which is continuously or principally devoted to the manual transport of loads, or which normally includes, even though intermittently, the manual transport of loads;

(c) the term **young worker** means a worker under 18 years of age.

2. Except as otherwise provided herein, this Recommendation applies both to regular and to occasional manual transport of loads other than light loads.

ILO Convention No. 127 & Recommendation No. 128

Convention No. 127 and Recommendation No.128 which specify the international requirements concerning the manual transport of a load which by reason of its weight is likely to jeopardise a worker's health or safety and the necessary measures needed to protect the workers including women and young workers who are engaged in manual transport of loads other than light loads.

ILO Convention No. 184 & Recommendation No. 192



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C184 - Safety and Health in Agriculture Convention, 2001 (No. 184)

Convention concerning Safety and Health in Agriculture (Entry into force: 20 Sep 2003)

Adoption: Geneva, 88th ILC session (21 Jun 2001) - Status: Up-to-date instrument (Technical Convention)

Display the document in: French - Spanish - Arabic - German - Russian - Chinese

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Preamble

The General Conference of the International Labour Organization,

R192 - Safety and Health in Agriculture Recommendation, 2001 (No. 192)

Recommendation concerning Safety and Health in Agriculture

Adoption: Geneva, 88th ILC session (21 Jun 2001) - Status: Up-to-date instrument (Technical Recommendation)

Display the document in: French - Spanish - Arabic - German - Russian - Chinese

Preamble

The General Conference of the International Labour Organization,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its 88th Session on 2 June 2001, and

Having decided upon the adoption of certain proposals with regard to safety and health in agriculture, which are the fourth item on the agenda of the session, and

Having determined that these proposals shall take the form of a Recommendation supplementing the Safety and Health in Agriculture Convention, 2001 (hereinafter referred to as "the Convention");

which this instrument shall enter into force on 1 July of the year two thousand and one and have the following Recommendations, which may be cited as the Safety and Health in Agriculture



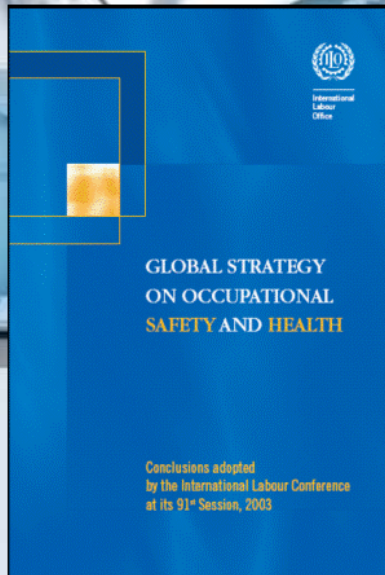
Other Relevant ILO Conventions & Recommendations

- C. 155 & R. 164 on **Occupational Safety and Health**, 1981
- C. 161 & R. 171 on **Occupational Health Services**, 1985
- C. 129 & R. 133 on **Labour Inspection (Agriculture)**, 1969
- C. 187 & R. 197 on **Promotional Framework for Occupational Safety and Health**, 2006



Global Strategy on Occupational Safety and Health Adopted at the 91st Session of the International Labour Conference in 2003

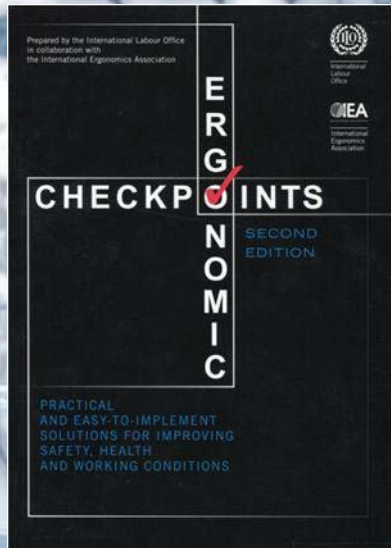
- **The Global Strategy:**
- reaffirmed the importance for all countries to **apply international labour standards on occupational safety and health**
- requested the ILO to give highest **priority to** the development of new instruments in the areas of **ergonomics** and biological hazards.



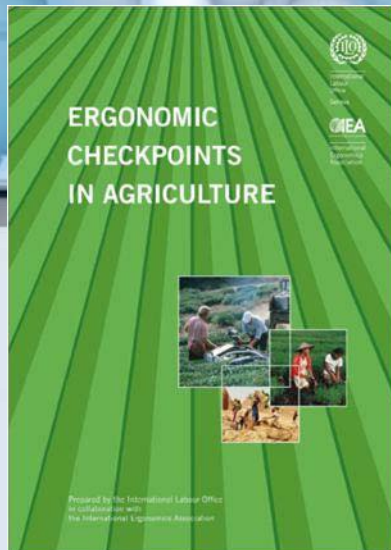
(http://www.ilo.org/public/english/protection/safework/globstrat_e.pdf)



IEA/ILO Collaboration on Ergonomics at Work



- 1985 International Symposium on Ergonomics in Developing Countries, Jakarta
- 1988 “Higher Productivity and a Better Place to Work” (ILO)
- 1991 IEA/ILO project (IEA Technology Transfer Committee)
- 1991 Geneva Workshop
- 1993 IEA/ILO Roving Seminars (Indonesia, etc.)
- 1996 Publication of the **Ergonomic Checkpoints** (ILO/IEA)
- 1998- (Translation into many languages)
- 2004 New IEA/ILO projects
- 2005 Bali ILO/IES Workshop on the Ergonomic Checkpoints 2nd Edition
- 2007 Kuala Lumpur ILO/IEA Workshop on the Ergonomic Checkpoints in Agriculture)
- 2010 Publication of the **2nd Edition of the IEA/ILO Ergonomic Checkpoints**
- 2012 Publication of the **Ergonomic Checkpoints in Agriculture**

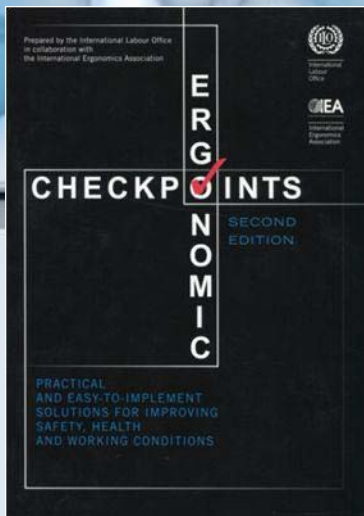




Ergonomic Checkpoints

The practical guides of the checkpoints extends to all the main ergonomic issues which include:

- **Materials storage and handling,**
- **Hand tools**
- **Machine safety**
- **Workstation design**
- **Lighting**
- **Premises**
- **Control of hazardous substances and agents**
- **Welfare facilities, and**
- **Work organization**



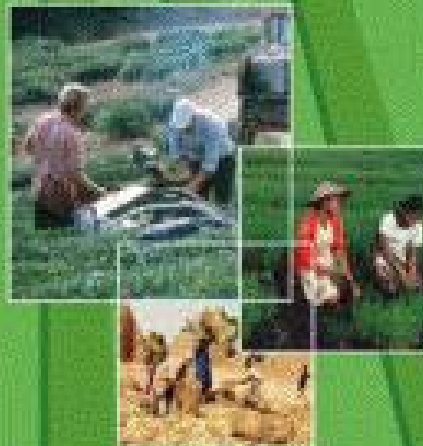


INTERNATIONAL
LABOUR ORGANIZATION



ORGANISATION
INTERNATIONALE
D'ÉTUDES
AGRICOLTES

ERGONOMIC CHECKPOINTS IN AGRICULTURE



Prepared for the International Labour Office
in collaboration with
the International Ergonomics Association

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Ergonomic Checkpoint in Agriculture

Action phrase in a low-cost form

- **Benefits for farmers**
- **How to improve**
- **Ways to promote cooperation**
- **Some more hints**
- **Points to remember**



Illustrations showing good examples

CHECKPOINT 7

Instead of carrying heavy weights, divide them into smaller, lightweight sacks and packages.

WHY

Farmers often have to carry various heavy items during their work. This is strenuous, and can often be dangerous. If these heavy items are divided into smaller loads, the carrying work is both easier and safer.

Fatigue from carrying packages is reduced for lightweight packages than for heavy weights. Farmers can thus save energy and do more productive work by using smaller packages.

By using light packages instead of heavy packages, the risk of low-back injuries is also greatly reduced.

HOW

1. Divide heavy loads into lighter packages, containers or trays, considering the maximum weight that is easy for farmers to carry. For example, two packages of 10 kg each are much better than one package of 20 kg.
2. Dividing loads into smaller amounts may mean increased movements and more trips for carrying the same total amount. Therefore make sure that loads are not too small. Use effective means of moving or carrying these smaller loads, such as rollers or carts.
3. The use of push-carts, trolleys or mobile racks can help save time. For manual transport, a cart can usually transport more loads with less effort. Manual loading and unloading is much easier for smaller and lighter loads.

WAYS TO PROMOTE COOPERATION

Try to get everyone to use the same types and sizes of container, basket or tray for carrying materials or farm products. As people get accustomed to using these, it will make the use of carts and hand-trucks easier.

Encourage people to exchange good examples.

SOME MORE HINTS

- Make available an adequate number of reusable containers, trays and baskets; these facilitate the transport of loads, and help save money.
- When loads are divided or smaller containers are used, try to use labels so as to make it easy to distinguish the different loads or containers.

POINTS TO REMEMBER

A lighter weight is a safer weight. Divide heavy packages into lighter ones to ensure safety and increase productivity.



Figure 14. Put farm products in reusable bags with firm handles. Sharing the weight with both arms makes you work more comfortably.



Figure 15. Using a pole to carry a basket with firm handles, the farmer can carry heavier loads.



Figure 16. It is always better to use smaller packages. Loading and unloading may require more trips, but fatigue will be reduced.

CHECKPOINT 22

Choose work methods that alternate standing and sitting, and try to avoid bending and squatting postures as much as possible.

WHY

Alternate standing and sitting while working. Changing work postures can allow particular groups of muscles to rest after working, so as to avoid fatigue. Muscle fatigue can be prevented, and the quality of work will be improved.

Continuing a single posture is stressful. Continuous standing will cause pains in the shins, feet and back, and then may affect the whole body. Long periods of sitting will increase strain on the low back, and so too cause low back pain.

It is particularly important to avoid stressful work postures such as bending and squatting. These postures place a strain on the back and cause pains, making you prone to mistakes and accidents. Frequent changes of work posture can help prevent such strains and pains.

HOW

1. Provide a chair or stool close to your working position. In a standing position, you can sit on the stool by simply leaning. Choose light materials to make such a chair easy to move.
2. Vary the jobs carried out by one farmer so as to change his or her work posture.
3. Minimize bending postures while working. Various tools will help you. For digging or cultivating, choose tools with long handles. When carrying water, use a yoke.

WAYS TO PROMOTE COOPERATION

Exchange ideas and experiences of practical solutions with your neighbours. Find an opportunity to work together with your neighbours to vary jobs and to avoid a single stressful work posture. For example, during harvesting rice, you and your neighbours may alternate between cutting rice and carrying bundles of rice. Work together, and evaluate the effectiveness.

SOME MORE HINTS

- Standing stools or chairs should be appropriate in size, and portable. Large, heavy stools may disturb your work.
- If it is difficult to alternate standing and sitting, just try to provide standing workers with chairs for occasional sitting, and provide seated workers with an additional space where some secondary tasks can be done while standing.

POINTS TO REMEMBER

Continuing a single working posture for long periods is disadvantageous to your health. Find a way to alternate standing and sitting for greater efficiency and comfort.



Figure 22a. Provide a chair or stool near the work area; from a standing posture, farmers can occasionally sit on the stool using by leaning.

Figure 22b. Choose work methods to alternate between standing and sitting.



Figure 22b. When possible, arrange standing work done at elbow level to require less sitting postures.





Work Improvement in Neighbourhood Development **WIND**

WIND is a programme aiming at promoting practical **improvements in agricultural households** by the initiatives of village families.

WIND approach aims at **improving both working and living conditions** as inter-related aspects of rural life, ensuring the equal **involvement of village men and women** together in planning and implementing improvements and its **close links with community development** and **empowerment of agricultural workers and farmers**.

TON THAT KHAI

TSUYOSHI KAWAKAMI

WORK IMPROVEMENT IN NEIGHBOURHOOD DEVELOPMENT

WIND PROGRAMME



TRAINING PROGRAMME ON SAFETY, HEALTH AND WORKING CONDITIONS IN AGRICULTURE



Brot
für die Welt

Supported by the ILO/Japan Multilateral Programme

2002

Кыргыз Республикасынын эмгек жана социалдык жактан коргоо министрлигинин алдындагы Мамлекеттик эмгек инспекциясы
Кыргыз Республикасынын Агроөнөржай комплексинин кызматкерлеринин профсоюзунун Борбордук Комитети

ЖЕРГИЛИКТҮҮ ЖАМААТТЫК УЮМДАРДЫ ӨНҮКТҮРҮҮ ПРОЦЕССИНДЕ ЭМГЕК ТАЖРЫЙБАЛАРЫН ӨРКҮНДӨТҮҮ

WIND ПРОГРАММАСЫ



АЙЫЛ ЧАРБАСЫНДА
ЭМГЕК ШАРТТАРЫНЫН
КООПСУЗДУГУН ЖАНА
ДЕН СОЛУКТУ КОРГОО
ПРОГРАММАСЫН ОКУТУУ.



ILO/SECTOR

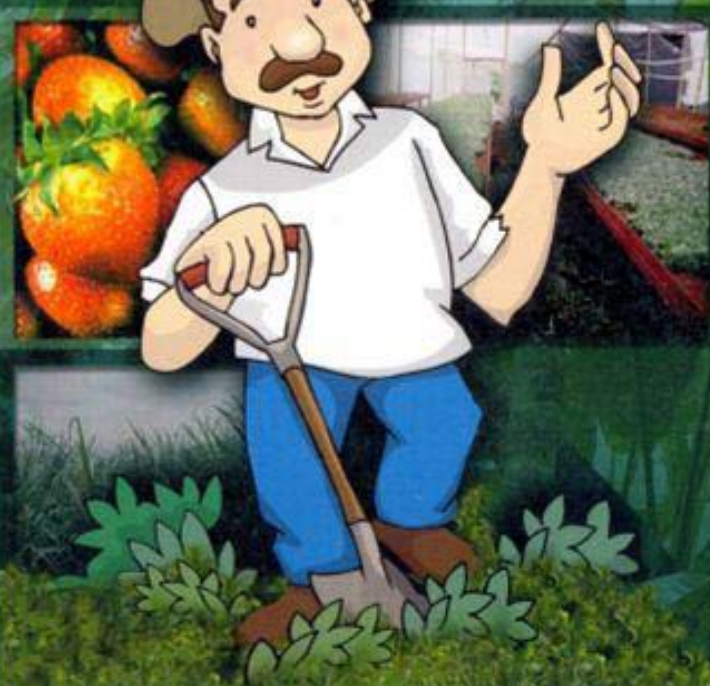


ILO/SAFEWORK

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Чыгыш Европа жана Борбордук Азия өлкөлөрү боюнча ЭЭУнун Субрегионалдык бюросу
(Эмгектин эларалык уюмунун (ЭЭУ) колдоосу менен)

2004 ж.



MEJORES TRABAJOS PARA EL DESARROLLO COMUNITARIO

Programa de formación en seguridad, salud
y condiciones de trabajo en la pequeña producción agrícola



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SafeWork

International Occupational and Safety Information Centre




International Labour Organization
Promoting jobs, protecting people

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International Occupational Safety and Health Information Centre (CIS)

Established as the 'knowledge management' hub of the ILO Programme on Safety and Health at Work and the Environment (SafeWork), the International Occupational Safety and Health Information Centre (ILO-CIS) provides workers and employers with the most up-to-date information regarding occupational safety and health (OSH) and access to the facts concerning the occurrence of occupational injuries and diseases.

The centre supports the ILO's action plan on knowledge management and international collaboration by being responsible for:

- Compiling OSH related information and ensuring worldwide access to it
- Creating and disseminating ILO OSH publications (including the ILO Encyclopaedia and related products)
- Maintaining an international network of national and international OSH institutions

ILO-CIS is a key international player in the field of OSH knowledge sharing due to these specific activities and services in the field of information management. The centre relies primarily on the Internet to disseminate information resources through the SafeWork web site. The management of information on OSH is an essential basis for the establishment and implementation of OSH policies and programmes at the national and enterprise levels.

ILO-CIS Centres Network



Today, the Network of ILO-CIS Centres comprises 152 collaborating centres in 110 countries.

The Centre's activities are supported by a worldwide network of focal points, the ILO-CIS Collaborating Centres. The Network of ILO-CIS Centres contributes to the exchange of information between health and safety professionals and the ILO constituents responsible for the establishment and implementation of national policies and programmes.

Meetings of the ILO-CIS Centres





The role of the CIS.



Support the ILO's action plan in knowledge management and international collaboration by:



Compiling OSH related information and ensuring worldwide access to them;



Creating and disseminating ILO OSH publications (including the ILO Encyclopaedia and related products);



Maintaining the international network of national and international OSH institutions

The ILO Encyclopaedia. New Edition.

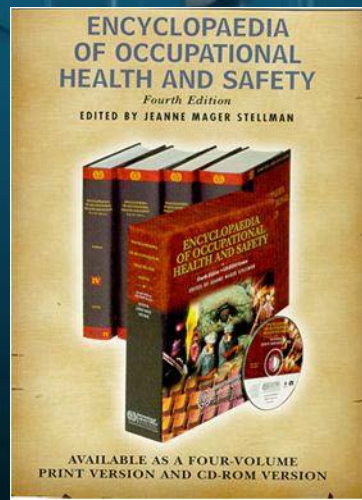


OSH Experts,
specialists.

Periodicals,
publications,
OSH electronic
resources

ILO OSH
Information
Resources

International and
National OSH
organization,
professional
societies



Ergonomics Approaches to the Prevention of Work-Related Musculoskeletal Disorders

An Analysis and Critical Review of Existing National,
and Regional Standards and Guidelines

<i>Prepared for:</i>	The International Labour Organisation (ILO) Geneva, Switzerland
<i>Prepared by:</i>	La Trobe University, Melbourne, Australia <i>for the</i> International Ergonomics Association (IEA)



Ergonomics Approaches to the Prevention of Work-Related Musculoskeletal Disorders

Deficiencies in the existing ergonomics standards and guidance related to work-related MSDs prevention include:

- a narrow focus on a subset of physical hazards (particularly the severity of biomechanical hazards), with **inadequate assessment** of the effects of temporal **exposure and total dose**
- a narrow focus on physical hazards, with **inadequate coverage** of a wide range of other factors that have been clearly established as important in the development of cumulative work-related MSDs, including **psychological stress** and its work-related precursors
- **inadequate coverage** of issues related to **effective program implementation**



Ergonomics Approaches to the Prevention of Work-Related Musculoskeletal Disorders

Recommendations for the ILO to consider in its development of a guidance document:

- To clarify the document's **purpose(s), user group(s), and breadth of coverage.**
- To review and determine its **content and presentation style** required to maximize the likely effectiveness of program implementation.
- To specify whether or not **quantitative risk assessment criteria** in light of the document's intended purpose(s) and users.
- To develop **practicable methods for managing and controlling** temporal **exposure** and overall **hazard** dose.



Thank you!

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ILO/SafeWork

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www.ilo.org/safework





Risks In Agricultural Work

- Biological, chemical and physical **hazards**
- **Arduous work** (e.g. manual handling of loads)
- Night work and long **working hours**
- **Machinery** safety and **ergonomic** hazards
- **Handling and transport** of materials
- **Animal** handling
- **Agricultural installations**
- **Welfare & accommodation**

