

# Review on the future of Agriculture and Occupational Safety and Health (OSH)

***Übersicht zur Zukunft der Landwirtschaft und  
der Arbeitssicherheit und dem  
Gesundheitsschutz***

# People involved in preparing study

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# European Agency for Safety and Health at Work (EU-OSHA)

- Set up in 1994 by the European Union
- Responsible for the collection, analysis and dissemination of relevant information to serve the needs of those involved in safety and health at work

## New project Lift-OSH in supply chains

### What we don't do

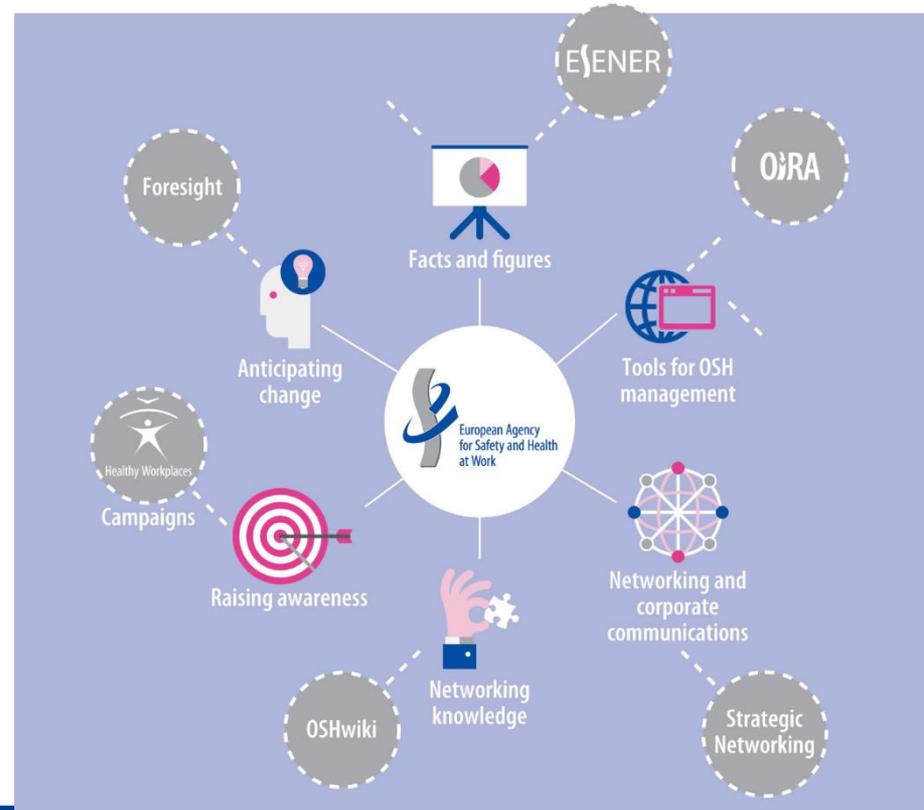
- Write legislation
- Inspect workplaces
- Enforce the law

### How we do it

- Produce reliable and relevant information
- User-friendly tools
- Share good practices
- Network with organisations across Europe

## EU-OSHA Priority areas and activities

Multi-annual Strategic Programme 2014-2020



# Key aspects of the Study

Expert review on “main trends affecting agriculture, the resulting technological and organisational changes and the consequent implications for the health and safety of workers in the sector”.

1. Key trends affecting the agriculture sector in general.
2. Resulting technological and organisational changes to the sector.
3. Occupational safety and health outcomes.

*Sectors covered:* agriculture, horticulture/greenhouse activities, livestock farming and forestry.

Target audience: policy makers at EU and national level, incl. social partners, legislators and enforcement authorities, researchers and policy-makers in related areas.

# OSH situation in agriculture

## A sector with serious occupational safety challenges

- Agriculture and forestry are among the most dangerous professions in Europe with a high level of accidents affecting the sustainability and viability of the sector.
- Over the last 10 years, there has been an average of over 500 registered deaths per year in the agriculture and forestry sector and over 150,000 non-fatal accidents per year (Eurostat, 2019).
- Recent research indicates that there is significant under-reporting of both fatal and non-fatal accidents in the agriculture and forestry sectors throughout Europe (Merisalu, E. et al., 2019).
- In many instances, national reporting also places agriculture and forestry top or nearby in terms of risk sectors.

# The top eight killers in agriculture

- Transportation accidents (being run over or overturning of vehicles)
- Falls from height (from trees, through roofs)
- Being struck by falling or moving objects (machinery, buildings, bales, tree trunks)
- Drowning (in water reservoirs, slurry tanks, grain silos)
- Handling livestock (attacked or crushed by animals, zoonotic diseases)
- Contact with machinery (unguarded moving parts)
- Entrapments (under collapsed)
- Electricity (electrocutions)

Source: European Commission (2011). Protecting health and safety of workers in agriculture, livestock farming, horticulture and forestry

# Key trends and resulting changes in agriculture

Report looked at a number of key trends affecting the future of farming and forestry:

- Technological innovation in agriculture and forestry: digitalisation (smart farming, precision farming, AI, etc.) and other technological developments
- Climate change and environmental issues
- Food and energy demand (food security)
- Trade and economy
- Policy and people
  - Labour market trends
  - Consumer, health and societal demands

# Examples for changes in agriculture

## Technological Innovation, i.e. digitilisation

Benefits: increased production and reduction of production costs

negative impacts: dependency of farmers on large multinational companies

OSH implications: improving health and safety through new smart monitoring technologies and devices

## Climate change, i.e. drought, heat stress or severe weather events

Impacts: unpredictability of production and increased risks for crops, animals and farmers

OSH implications: adapting working hours, adapting working hours and insect-borne diseases

# Examples for changes in agriculture

Labour market trends, i.e. vulnerable populations

Impacts: part-time and seasonal work dominate the sector

OSH implications: training deficit, accident reporting, health monitoring, cultural/language barriers and undeclared work in some instances

Consumer health and societal demands, i.e. pressure on farming from animal health and welfare and environmental measures

Impacts: increasing demands and changing role of farmers

OSH implications: initiatives helping farmers

# General conclusions

- EU Farm to Fork Strategy has recognised the importance of the EU Pillar of Social Rights and its application to the sector
- However, there is still a major social-economic deficit in farming, owing to the marginal profitability and income for many small farmers (who make up the majority of farmers) undermining the social sustainability of farming and forestry.
- Socio-economic deficit affects the ability of the sector to fully embrace and manage the growing trends, such as digitalisation, climate change, society pressures and labour market developments and is very much linked to the poor level of OSH protection.

# General conclusions

To tackle future OSH challenges, there is need to address existing and future OSH challenges:

- lack of investment in and uptake of new smart and safer technologies and machinery;
- a growing number of climate change related risks and occupational health challenges;
- lack of transparent and inaccurate OSH reporting, particularly for self-employed;
- no clear OSH regulatory framework and need to manage OSH, particularly for self-employed;
- a lack of a prevention culture (farmers and foresters tend to give low priority to OSH over other competing issues) as well as a strong skills and training deficit, particularly in OSH;
- widespread atypical, and sometimes irregular, employment practices;
- lack of appropriate labour inspection resources to combat undeclared work and ensure adequate protection for seasonal and migrant workers in the sector;
- insufficient farm income and quality management time with which to prioritise OSH issues, particularly for small and family farmers.

# Recommendations for OSH measures

- Integrate OSH considerations into the development and design of new digital, precision and smart farming technologies (and adapt farm layouts);
- adapt risk assessment techniques and health and safety training to new technologies, such as robots and cobots, Artificial Intelligence (AI), etc.;
- encourage technology use to enhance safety by using smart sensors, IoT, AI and smart PPE;
- adapt risk assessment (RA), workplace design and awareness raising initiatives to climate change circumstances, with RA responsive to extreme environmental conditions;
- improve the prevention culture in the sector, in line with international initiatives, such as SACURIMA and ISSA´s Prevention Zero, by establishing a specific sectoral prevention campaign or EU Network for agriculture safety and health;
- carry out specific OSH research on issues related to safety and health in agriculture (e.g. on quad safety, tractor over-turns, safety-related technologies) to prevent farm machinery accidents and smart PPE.

# OSH related policy recommendations

- include the self-employed in Eurostat OSH reporting for forestry and agriculture and tackle other OSH under-reporting challenges in the sector;
- promote ratification into national law of ILO Convention on Agriculture (and Annex on self-employed) to provide minimum legal OSH framework, particularly for self-employed;
- include agriculture and forestry in 2021-2027 EU OSH Strategy and EU-OSHA work programme;
- include activities on OSH in agriculture and forestry sections of Horizon Europe programme;
- establish link between EU OSH legislation and Common Agricultural Policy (CAP) conditionality (need for negotiation as position of agricultural employers and workers organisations may differ);
- establish rebate scheme for retro-fitting roll-over protection (ROPS) systems (and seatbelts) to farm vehicles, such as tractors and quads (similar to US and Australian schemes).

Thank you for your attention!



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