

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

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# OSH situation in agriculture

- Agriculture is a hazardous industry but great challenges in determining numbers of accidents at work.
- According to Eurostat, 4<sup>th</sup> highest sector in terms of fatal accidents.
- However, leading experts and UK HSE and Irish HSA – both confirm as top risk sector.
- Widespread under-reporting (16% - 90% - SACURIMA)



# Key aspects of the Study

Expert review on:

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

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

Deadline for completion – November 2020



# Key trends and resulting changes in agriculture

As a starting point, the 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



# OSH improvements from smart farming

- Labour is replaced by capital – fewer accidents and less illnesses
- Improved process control and safety systems management
- Better machine and process safety – sensors, monitoring, decision-support systems
- Improved safety in livestock handling through PLF
- Improved ergonomics through enhanced design
- Reduced exposure to dangerous substances
- Smart monitoring technologies for health and safety
- Improved work life balance for the farmers
- For forestry, full harvester drastically reduces the risks (reducing chainsaw use and people in harm's way) + remote controlled felling wedges



# Other considerations (smart farming)

- New technologies need to be evaluated for new or additional risks
- Safety protocols need to be established (Human Robot interface, cobots, etc.)
- Lone work may increase
- AI and ethics need to be considered (e.g. monitoring of workers' health vitals)
- Data security, hacking and other interferences
- Education and training needs to be adapted to smart technologies
- No “silver bullet” – slow uptake of smart farming (farm income and scale, age and education/culture, a large number of complex processes to automate, difficult topography and terrain, weather, etc.)



# Machinery: emerging and residual risks

- Farm vehicles and machinery still cause half of all deaths in at least one country.
- Tractors – use of ROPS – one death per week in one country
- Quads – high accident rates in a number of countries
- Chainsaw use in forestry – still most important risk



# Impact of climate change on OSH

- Extreme weather events and fires
- Forestry – debris clearance after calamity situations and beetle damage will increase (more clearing activities)
- Heat exposure, dehydration, changing work patterns
- Solar UV exposure and skin cancer
- Insect-borne diseases and invasion of predatory species
- Dust exposure - dry conditions increase the risk
- Mental health distress, financial losses and other related problems (farmer bashing)



# OSH impacts of labour market trends

- Self-employed farmers (24%) not included in accident statistics, insurance schemes, less inspection, etc. (EU framework directive does not cover the self-employed)
- Temporary/seasonal, part-time, migrant workers – training deficit, accident reporting, health monitoring.
- Older workers (higher OSH risk, reporting, health monitoring).
- Family members (reporting, health monitoring).
- Long working hours – with associated OSH risks.
- Pluri-activity of farmers - increased danger of accidents, stress



# Farmer health and well-being

- Heat stress, sun exposure, skin cancer
- Pesticides and chemicals use (long-term effects and surveillance of temporary workforce + Parkinson's Disease)
- Musculoskeletal disorders – most prevalent work-related health problem (Eurostat).
- Zoonotic diseases – Vector-borne , anti-microbial resistance – significant under-reporting – need for emphasis on preventing occupational exposure
- Noise and hearing loss – 40-50% of farmers and foresters exposed to levels above legal limit
- Respiratory problems – double average of general population
- Stress and psychosocial risks – sectoral suicide rates amongst highest in a number of countries and farmers perceive it as one of biggest challenges of the industry.
- Need for a HOLISTIC HEALTH approach for farmers



# COVID and impact on OSH in agriculture

- High profile cases in fruit picking and meat processing
- Cases of workers working and living in close proximity in difficult conditions (high on political agenda of some MS)
- Important to ensure safe and healthy working conditions while maintain food supply
- Cases highlighted some underlying challenges concerning working conditions in the sector
- COVID-19 recognised biological agent (June 2020)
- European Commission issued guidelines on living and working conditions of seasonal workers
- EU-OSHA prepared specific advice on COVID-19 prevention and OSH and MS resources and guidance related to the agro-food sector



# Social sustainability of farming

## (Farm to Fork, CAP reform and Horizon Europe)

**Farm to Fork strategy** – “protection of health and safety will play a major role in building fair, strong and sustainable food systems” and we must “ensure that the key principles enshrined in the European Pillar of Social Rights are respected”



Source: European Commission



# Farm to Fork, CAP reform and Horizon Europe

- include OSH considerations in digitalisation policies (OSH friendly)
- link between EU OSH legislation and CAP conditionality (differing views of employers and workers)
- include safety measures and training under Pillar II (MS CAP plans)
- Widen concept of risk management tools under Article 70 to include OSH in integrated risk management approach
- Full adherence to seasonal workers directive and EU OSH acquis for workers
- Create 10<sup>th</sup> Objective under CAP reform – Ensuring “social sustainability” and well-being of farmers (farmer income, OSH, labour conditions, generational renewal, rural women, ageing farmers, etc.)



# Farm to Fork, CAP reform and Horizon Europe

- Farmer income – link between OSH management prioritisation, income and competing tasks
- Agri-food imports from third countries – apply ILO labour standards (social sustainability standards as well as environmental sustainability)
- Rebate or incentive schemes for ROPS and safety measures on agricultural machinery (e.g. USA)
- EIP-AGRI and EUFRAS incorporate OSH competences into advisory and extension services (Irish model)
- Horizon Europe – maintain and support proposal on labour conditions & health and safety in farming

