

Policy brief

on “D5.1 A policy brief related to sustainable saline agriculture value chain to support national and international agricultural policies (M12-30”

Working Group 5 (Policy framework for the salinisation management, SUSTAIN COST ACTION-CA22144), 30/10/2024

Executive Summary

- **Problem:** Soil salinisation is a growing problem as a result of salty parent material at many places, unsustainable agricultural practices, decreasing good quality water availability and global warming (with implications for the concentration of salts in water). With an increasing population and a growing demand for agricultural and food products, soil salinisation is a serious challenge for food and nutritional security worldwide. Due to long-term and unexpected droughts, agricultural production will become more dependent on irrigation. Supplementary irrigation will be required in areas that did not need to be irrigated before. Moreover, in areas that are already irrigated, marginal quality water will begin to be used for irrigation due to water stress problems. As explained in the main research finding, farmers are currently more preoccupied with water stress because they are not yet aware that yield losses are caused by the silent enemy: salinity. This finding shows that the problem is not only environmental but also educational deficiency. In order to gather input on this issue, “challenges and opportunities of current and future policies on the salinity to support national and international agricultural policies” were discussed with researchers and through meetings with local stakeholders in some countries.
- **Main research findings:** In general, soil salinity is not something that concerns many of the stakeholders contacted in some countries, not least because many of them, despite being willing to talk about the subject in a first informal contact, ended up not answering when asked formally about a date to talk about these issues. They seem

more concerned about the lack of water than soil problems, perhaps because it's not as visible. However, in countries which are hotspots of salinity the stakeholders are looking for the solutions particularly the biological solutions to have a profitable and sustainable utilisation of saline soils. The problem of soil salinisation exists and is a serious challenge, which is why it is urgent to make policymakers and stakeholders aware of the problem. In future work it will be interesting to map the various stakeholders along the value chain and see where the problem of lack of awareness of the problem exists.

- **Key policy alternatives/recommendations:** Specific soil legislation needs to be created at national and European Union level, namely to get stakeholders more involved in solving the problem and thus raise awareness of the challenges ahead. The European Union has only very recently proposed the creation of a soil directive, which is not without controversy. In fact, it seems that policymakers have been more concerned with water and air quality than with soil quality.

1. Introduction and problem statement

Soil salinisation is a problem that is far from being solved and current policies seem insufficient to deal with this challenge properly. The consequences are being felt worldwide with a decline in soil quality and this has implications for the ability to cope with the growing demand for agricultural and food products in the face of an ever-increasing world population. We now have new problems brought about, particularly by climate change, which require new solutions. Existing policies and legislation at national and European Union level have proved insufficient to deal with the scale of the problem. The truth is that there are still discussions today about creating a soil directive in the European Union. In fact, the regulation of the various dimensions related to soil has been controversial and this has led to water and air quality being prioritised to the detriment of soil health. Salinity usually needs to be tackled with an integrated approach that includes soil, water and plant treatments, so an integrated policy framework is suggested.

2. Key findings and their implications in terms of policy

Contact with stakeholders has shown that strategies need to be put in place to make the various public and private institutions aware of the real scale of soil salinisation. There is a need to create policies and legislation that better deal with the problem of soil salinity. Some countries lack specific legislation on these issues and the soil directive under discussion in the European Union addresses soil salinity in a residual manner.

On the other hand, there seems to be a lack of effective methodology for monitoring soil salinisation at national and EU level. Even the methodology adopted by the LUCAS approach seems to use sampling methodologies that may be insufficient to properly monitor the problem. A FAO report on soil salinity will soon be published, with a chapter on Europe, and there is also the FAO Soils Portal which shows what has already been done. There are important insights here that could support greater harmonisation of methodologies and policies at international level.

3. Policy alternatives/recommendations

It is suggested that national and EU policies and legislation be created that specifically address the problem of soil salinisation and its various dimensions. This issue should be interlinked with the new approaches associated with the digital transition, much of which comes under the concept created by the FAO of CSA (Climate-Smart Agriculture).

In practice, it is suggested that the European Union put the various dimensions of soil salinisation on its agenda as a priority, deserving attention in line with the scale of the problem and the real consequences for global food and nutritional security.

4. Conclusions

- Soil salinisation is a growing problem worldwide with serious consequences for the population.
- In many cases, European stakeholders don't really realise the problem.
- This challenge needs more attention from the various policymakers at national and EU level.