

Joint input to the CoR consultation on the EU Circular Economy Action Plan – 30 April 2020

Regions in key position for nutrient recycling

SuMaNu is an EU territorial cooperation project in the Baltic Sea Region. It joins i.a. expert institutions, interest organisations, ngo's to synthesize state-of-the-art in sustainable manure and nutrient management to deliver results and recommendations to both policy and practise. The focus of this joint input is in the specific discussion points raised in the rapporteur's working document in support of [the consultation by the Committee of the Regions](#) from the perspective of agriculture and sustainable rural economy. In addition, it includes considerations for the proposed Integrated Nutrient Management Plan. This contribution is based on informal consultations within the partnership and does not necessarily represent the positions of the SuMaNu project partner organisations.

General comments

In general, we support the issues and gaps raised in the Working document. In particular, we welcome references to the planetary boundaries and SDGs to guide target setting and ensure overall positive impact and sustainable development. System shift and multilevel governance are also important guiding principles. We agree that ambitious and clear targets on multiple levels are needed.

The LRAs' role in delivering the circular economy

Local and regional authorities (LRAs) can have a significant role in pushing circular economy forward. With regards to agricultural nutrient recycling, they issue and monitor the environmental and construction permits which direct the choices animal farms make in their practices, including manure management. Manure is a resource to be recycled more efficiently within individual farms, locally and regionally. LRAs can promote nutrient recycling also from other suitable biomasses e.g. via co-processing suitable side-streams with manure. While LRAs typically have detailed knowledge on local level about critical activities, their actions can mostly rely only on prevailing legislation. Therefore, it is important that legislation on environmental permits covers the use of the recyclable nutrients so that they are directed to the most sustainable uses. This can be done on an individual farm (sufficient spreading area) and/or between neighbouring farms (local reallocation of nutrients). In parallel, in the cases of dense animal production and subsequent excess supply of recyclable nutrients (manure), more centralized processing would enable higher valorisation of the nutrients into transportable, concentrated fertilizer products. These can be reallocated to other regions in need of the nutrients (regional reallocation). The practical solutions should be kept technology-neutral so that case-specific best solutions can be chosen. Moreover, the sustainability of the entire management chain should be checked. This includes setting permit conditions evenly so that pollution swapping and/or sub-optimization can be minimized.

Circular solutions also require public support while they are developed. They are rarely feasible directly, but economic incentives from the society are needed to build the market. This applies also to agricultural nutrient recycling. E.g. regional reallocation of manure nutrients requires a large change in the system consisting of farmer motivation to join centralized processing capable of concentrating the nutrients into transportable products, construction and operation of large processing plants, and practices to use the recycled fertilizer products. LRAs can boost such actions with clear rules and practices for successful applications for investment and other support mechanisms enabling the implementation of methods for nutrient reallocation.

To assist with promoting such actions and measures, all EU countries should know the state-of-the-art in their own country, i.e. how much, what kind and where different recyclable biomasses are produced and what is currently happening to them. This is a clear prerequisite to planning more effective measures and targets.

Shifts in the economic system

The need for a well-managed food system with enough self-sufficiency has been discussed in light of the COVID-19 crisis. For this, regional nutrient recycling is one solution increasing the self-sufficiency of agriculture. Nutrients are vital for good yields and while mineral fertilizers are often imported from other countries, recycled fertilizer products are usually domestic, making use of the national recyclable biomasses. Such circular systems may become invaluable at times of global disturbances and support domestic food production.

Taxes are among the economic steering mechanisms that should be considered as measures to promote sustainable nutrient recycling. These should be, however, set in a way which targets the specific negative environmental and societal impacts that this policy aims to reduce, with reference to the planetary boundaries, SDG's and circular economy objectives. A careful consideration and science-based evaluation is needed whether nationally set taxes can help achieve these objectives. In general, taxing negative environmental externalities is more recommendable than taxation measures on economic activity or certain technology. Furthermore, measures to direct the tax revenues to interventions supporting the above objectives should be investigated.

There is no waste, there are just resources

To enable efficient use of wastes and side-streams their masses, characteristics and locations should be known. At present, not many EU countries are able to show clear statistics on recyclable biomasses. Also, in many cases the data available is collected for a specific purpose not serving the needs of planning improved circular actions. This has also been noted in the cooperative work towards nutrient recycling done within the Baltic Sea Region. The framework of data collection and sharing vis-à-vis roles and responsibilities of government actors on different levels and sectors should be investigated in order to improve the common knowledge base.

Moreover, the recycled materials should be followed throughout the chain; from their origin, via processing into new products, all the way to their end use. This would enable their traceability, if needed, and the surveillance of how the recycling measures proceed. In the field of nutrient recycling, the recycled fertilizer products need to be feasible for their uses as fertilizers or soil improvers (quality criteria) and safe in terms of hygiene and contaminants, thus their high traceability is an integral part of the production chain. Implementation of the new EU Fertilising Products Regulation (EU 2019/1009) as the key overall policy should ascertain and enforce quality and safety in the fertilizing products across the market.

End-of-Waste criteria should still be developed. Even though a material is originally a waste or a side-stream of some production, it can turn into a new product, thus being rid of its waste status. This is also important for manure-based recycled fertilizer products.

Setting targets and framing legislation

Similar targets as with renewable energy could perhaps be considered also for other circular targets, such as nutrient recycling. Certainly, this requires setting clear and simple rules on what is considered nutrient recycling and how its development is quantified. In any case targets could boost actions. While some EU-level targets and rules could be set, the situations differ between the countries. Therefore, we recommend also more precise national targets, based on the data of the current state (see above).

Concerning the initiative on Integrated Nutrient Management

SuMaNu supports the Commission's initiative on Integrated Nutrient Management to reduce negative environmental effects (climate change, air pollution, eutrophication and loss of habitats and biodiversity) from excess nutrients lost from agricultural activities. Agricultural nutrient management should be based on soil fertility analyses, sustainable crop rotation and utilization of fertilizers and soil improvers of organic origin, i.e. recycled from e.g. animal manure and municipal and industrial side-streams. Animal manure is an integral resource for nutrient recycling containing the largest share of the recyclable nutrients. Proper methods and calculation tools to assess nutrient content in different manures should be used to ensure efficient nutrient recycling within agriculture. Such have just been developed in a regional Interreg project MANURE STANDARDS which is part of the SuMaNu platform (www.luke.fi/manurestandards/en) and the results are usable in all EU. Further research and knowledge on bio-based fertilisers and their use is produced i.a. by the [Horizon 2020 project Lex4bio](#).

Concerning the use of sewage sludge in agriculture, including the fertilizer use of digestate from anaerobic fermentation of sewage sludge, it is important to safeguard hygienic safety. Co-processing of sewage sludge and manure is not advisable as the risks related to trace elements, organic contaminants and hygiene are typically higher in sewage sludge than in manure. It should be also noted, that phosphorus fertilisation value of sewage sludge is depressed by Fe-salts, commonly used as phosphorus precipitation chemicals at WWTPs. Manure based phosphorus is comparable to mineral fertiliser and co-processing may depress phosphorus fertilisation value of manure. In the use of sewage sludge, the contamination as well as nutrient runoff risks should be minimized regardless of its use or disposal in any form or for any purpose.

Overall, integrated nutrient management should encompass all levels, from farm level to the global level. To address regional nutrient surpluses, SuMaNu welcomes solutions to facilitate regional reallocation of nutrients from surplus to deficit areas and to advance manure processing. Although the probable future growth of farm size by LSU brings huge risks for unsustainable manure nutrient

application, it also allows more options for economically feasible manure processing. Moreover, with increasing farm size manure processing can and should be made obligatory. This may help regional re-distribution of manure nutrients if the demand side follows pace.

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ABOUT SUMANU

SuMaNu (Sustainable Manure and Nutrient Management for reduction of nutrient loss in the Baltic Sea Region) is a platform project which aims to analyse and synthesize approaches to sustainable manure and nutrient management promoted by four international projects. These are Interreg Baltic Sea Region projects [Baltic Slurry Acidification](#) and [Manure Standards](#), Interreg Central Baltic project [GreenAgri](#) and BONUS Programme project [BONUS PROMISE](#). SuMaNu is financed by Interreg Baltic Sea Region Programme. SuMaNu is active from October 2018 until March 2021.

