



Document title	Revision of Annex III part 2 of the Helsinki Convention
Code	3-15
Category	DEC
Agenda Item	3 - Matters arising from the HELCOM Groups
Submission date	23.05.2019
Submitted by	Executive Secretary
Reference	

Background

The Contracting Parties agreed in the 2013 Ministerial Meeting to review the part 2 of Annex III of the Helsinki Convention "Prevention of Pollution from Agriculture", in order to better serve the purposes of reaching good environmental status. The revision of Annex III part 2 was included in the Work Plan of the HELCOM Group on Sustainable Agricultural Practices. The revision work was organized in two steps.

At the first step the scope, including a glossary of terms, and basic principles of the revision were agreed (HOD 53-2017). The working method and timetable were agreed by HOD 54-2018.

Regarding the Glossary of terms, HOD 54-2018 agreed to take into account of the concern expressed by Denmark regarding potential consequences of adding of the glossary to the Annex for the whole text of the Convention. In this respect, the Meeting suggested to establish the Glossary of terms and decide on its place after consultations.

The following principles were agreed for the revision:

- the suggested glossary to the Annex III should be in line but not be singularly based on the legal terms of the EU legislation but suite to all Contracting Parties to the Helsinki Convention and serve for the purposes of the Convention.
- the Annex III requirements should not be weakened as the result of the revision, but the aim is to modernize the text to include recent development of the scientific knowledge on good agricultural practices.
- the revision should not imply any double reporting or otherwise increase the administrative burden.

A drafting group consisting of Denmark, Finland, Germany, Latvia, Poland, Russia, Sweden, BFFE, CCB and WWF was formed to carry out the revision of the annex and the work was shared between four lead countries as follows:

- Glossary of terms, Denmark;
- Regulation 2 item 3 "Manure storage", Poland;
- Regulation 2 item 6 "Application of organic manures", Germany;
- Regulation 2 Item 7 "Application rates for nutrients" only starting from the sentence "The amount of livestock manure applied to the land each year...", Poland;
- New paragraph on nutrient recycling based on the outcome of MM 2018, Finland.

According to the timetable, the first draft is to be submitted to the Heads of Delegation in spring 2019 and the revision is to be finalized by end of 2020.

The drafting group has held three online meetings to discuss the draft texts provided by lead countries and the Agri group discussed the draft texts in AGRI 6a-2018, AGRI 7-2019 and AGRI 7a-2019 Meetings. AGRI 7a-2019 agreed to submit to the Heads of Delegation a progress report containing draft texts agreed by AGRI group and working documents that have not yet been fully agreed.

The attached document contains drafts of the revised regulations of Annex III part 2 of the Helsinki Convention in accordance with the scope of revision.

The following parts have been agreed by the Agri Group:

- Draft Regulation 2 item 3 as agreed by AGRI 7a-2019
- Draft Regulation 2 item 6 as agreed in AGRI 7-2019
- New paragraph on nutrient recycling as agreed in general in AGRI 7a-2019, pending study reservation by Poland on bullet points 4 and 5.

The following parts have not yet been agreed:

- Working draft on Regulation 2 item 7.
- Working draft of the glossary of terms

The original texts for Regulation 2 items 3, 6 and 7 are also included in the document for comparison.

Action requested

The Meeting is invited to:

- take note of the progress made for revision of Annex III part II;
- provide guidance for the continuation of the work.

Draft Regulation 2 item 6

New draft

Construction of Livestock Manure Storage

Livestock manures must be stored in environmentally friendly way and should be handled in such a way that it promotes as high utilisation efficiency as possible. Co-operation among farmers in the use of livestock manures has to be encouraged.

Storage capacity shall be at least 6 months and sufficiently large to store livestock manures that accumulate during the longest period when land application is prohibited. Livestock manure processing, and/or transfer to other farms for immediate application or for sufficient storage when land application is prohibited, may be taken into account when required capacity is determined.

Livestock manure storage facilities should be constructed and regularly inspected to safeguard against spillages and be of such a quality that prevents losses. With regard to different types of livestock manures, the following principles should be considered:

- solid livestock manure should be stored in places with watertight floor and side walls;
- liquid livestock manure should be stored in containers whose bottoms and walls are made of material impermeable to moisture and resistant to impacts of livestock manure handling operations;
- manure storages should preferably be covered to prevent emissions.

It is possible to temporarily store solid livestock manure directly on utilised agricultural area, but it requires a set of coherent mitigation measures on site, which prevents nutrient losses under specific local conditions. The interim storage of livestock manure cannot be a part of required storage capacity of the farm.

These storage requirements should preferably be considered also for other types organic fertilizers.

Original text

Construction of manure storage

Manure storage must be of such a quality that prevents losses. The storage capacity shall be sufficiently large to ensure that manure only will be spread when the plants can utilize nutrients. The minimum level to be required should be 6 months' storage capacity.

Manure storage should be constructed to safeguard against unintentional spillages and be of such a quality that prevents losses. With regard to different types of manure, the following principles should be considered:

- solid manure should be stored in dung yards with watertight floor and side walls
- liquid manure and farm waste should be stored in containers that are made of strong material impermeable to moisture and resistant to impacts of manure handling operations.

Animal manure should be used in such a way that as high a utilisation efficiency as possible is promoted.

Co-operation between farmers in the use of manure has to be encouraged.

Draft Regulation 2 item 6

New draft

Application of organic fertilisers and organic residual materials

Organic fertilisers and organic residual materials are valuable sources of nitrogen, phosphorous, potassium and organic carbon which are required for the replenishment of nutrients and humus in soil.

In addition to the amount of these nutrients, amounts of harmful substances, phyto-/ bioavailability and mineralisation rate of different organic fertilizers types should also be considered in order to ensure the optimal supply of the plants and to avoid eutrophication and contamination.

In order to facilitate high utilization efficiency, the best available application technique should be used, depending on the type of fertilizer, crop and location characteristics.

Organic fertilisers and organic residual materials should be incorporated as soon as possible after spreading and always in case of application on bare soils.

The nutrients should be available to the plants during the growing season taking into account the turnover rate of different fertilizers. If soils are frozen, water saturated, flooded or covered with snow no application of organic fertilisers and organic residual materials is permitted. Further periods with high risk of leaching shall be defined when no application is accepted.

Original text

Application of organic manures

Organic manures (slurry, solid manure, urine, sewage sludge, composts, etc) should be used in such a way that a high utilisation efficiency can be achieved. Organic manures shall be spread in a way that minimises the risk of loss of plant nutrients and should not be spread on soils that are frozen, water saturated or covered with snow. Organic manures should be incorporated as soon as possible after application on bare soils. Periods shall be defined when no application is accepted.

Working draft for Regulation 2 Item 7

New working draft (not agreed)

[...] The amount of nutrients in livestock manure applied to agricultural land, including excreta from grazing livestock, should as a general rule not exceed an amount containing:

- 170 kg total nitrogen per hectare per year
- 25 kg phosphorus per hectare per year on average over a 5-year-period.

Subject to the precondition of preventing nutrient losses to sensitive environment and avoiding nutrient surplus by taking soil characteristics, soil nutrient status, agricultural practices and crop types into account, more specific, national or regional rules may derogate from these general application rates.

Original text

[...] The amount of livestock manure applied to the land each year including by the animals themselves should not exceed the amount of manure containing:

- 170 kg/ha nitrogen
- 25 kg/ha phosphorus

with a view to avoiding nutrient surplus, taking soil characteristics, agricultural practices and crop types into account.

Draft new paragraph on nutrient recycling

In order to reduce nutrient loss to the Baltic Sea and achieve nutrient saving, efficient use of nutrient resources in agriculture and recovery of nutrients from various flows in society back to agriculture, countries are encouraged to design nutrient recycling strategies, which should include:

- providing current region-specific information about production of nutrient rich biomasses, especially livestock manure and sewage sludge;
- providing current region-specific information of the nutrient status of fields, and national soil maps particularly in regard to phosphorus;
- encouraging close cooperation between livestock and crop producers to use nutrients efficiently and to secure soil fertility;
- [encouraging farmers to utilize all nutrients from livestock manure within their own farms in accordance with soil status and crop nutrient requirements and replacing mineral fertilisers within the given limits.]
- [transporting nutrients from regions with high surplus in order to replace mineral fertilizers in other regions within the given application limits;]
- developing actions for improved recycled fertilizer production, including information of product safety, production technologies and logistical solutions.

**Note: Final acceptance of the draft can only be made after the terms of relevant definitions is worked out.*

**Note: Poland takes a study reservation on 4th and 5th bullet points in brackets.*

Working document “Glossary of terms”

This document contains a preliminary working draft for the “glossary of terms”, which could be included in a revised version of the HELCOM-annex III, part 2 on plant nutrients.

Depending on the final text of the various items, this draft is expected to be revised again.

The previously submitted version of the working draft has been revised on the basis of the input during and following-up on the dedicated HELCOM AGRI 7a-2019 online meeting on the 4th of April 2019. Some new terms have been added to the glossary based on the input from other members of the HELCOM Agri group, but it has not yet been possible to suggest a description/definition of these new terms.

The group members are still welcome to provide amendments or revisions to this draft, which in any case will have to be discussed again. Suggestions for a suitable order of terms in the glossary (e.g. alphabetical order, in order of occurrence in annex, etc.) are also welcome.

“Glossary of terms” - Preliminary working draft (for further discussions):

Fertilizer	Any matter or product containing one or more nutrients utilized on land to enhance growth of vegetation
Mineral fertilizer	Any fertilizer product free of organic matter, which contains nutrients, also sometime referred to as “chemical fertilizer”
Organic fertilizer	Any fertilizer product, containing organic matter and nutrients and may be based on processed livestock manure, sewage sludge or other organic residual materials, such as compost
Organic residual materials	Any organic matter that supplies organic matter together with nutrients to soils, including livestock manure, sewage sludge, compost, organic waste, industrial sludge, residue
Livestock Manure	Any liquid or solid organic matter from livestock production, including excreta (faeces and urine), bedding material etc.
Liquid livestock manure/Slurry	Any manure from housed livestock that flows under gravity or can be pumped. It may contain some bedding material or water. Dry matter content is low (typically below 12%).
Solid livestock manure	Any manure from housed livestock that does not flow under gravity, cannot be pumped and hence can be stacked in a heap. Dry matter content is high (typically above 12%).
Dry matter content	The fraction of livestock manure, organic fertilizer or other organic residual material remaining after drying at 100 degrees Celsius until no more water evaporates/constant mass.
Land application	Addition of matter or product to land, including spreading on the soil, injection into the soil, placing below the soil surface or mixing with the surface soil layers
Livestock	Domesticated animals raised in an agricultural setting to produce labour and commodities, e.g. meat, eggs, milk, fur, leather and wool.
Sewage sludge	
Biomass	Plant or animal material used for energy production, heat production, or in various industrial processes as raw material for a range of products, including e.g. fertilizer.
Nutrient-rich biomass	<i>to be defined – input is welcome! (TBD-input welcome)</i>
environmentally friendly way (of storing manure)	<i>(TBD-input welcome)</i>

(high) utilisation efficiency	<i>(TBD-input welcome)</i>
Storage capacity	<i>(TBD-input welcome)</i>
Emission(s)	<i>(TBD-input welcome)</i>
(coherent) mitigation measures	<i>(TBD-input welcome)</i>
Nutrient	<i>(TBD-input welcome)</i>
Humus	<i>(TBD-input welcome)</i>
Nutrient loss	<i>(TBD-input welcome)</i>
Nutrient surplus	<i>(TBD-input welcome)</i>
Harmful substance	<i>(TBD-input welcome)</i>
Phytoavailability	<i>(TBD-input welcome)</i>
Bioavailability	<i>(TBD-input welcome)</i>
Mineralization	<i>(TBD-input welcome)</i>
Mineralization rate	<i>(TBD-input welcome)</i>
Best available (application) technique	<i>(TBD-input welcome)</i>
spreading	<i>(TBD-input welcome)</i>
Bare soil	<i>(TBD-input welcome)</i>
Growing season	<i>(TBD-input welcome)</i>
Leaching	<i>(TBD-input welcome)</i>
Soil characteristics	<i>(TBD-input welcome)</i>
Crop types	<i>(TBD-input welcome)</i>
Nutrient status (of fields)	<i>(TBD-input welcome)</i>