

The role of permits in regulating livestock production and manure spreading – experiences from FI and DK

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Livestock production and agricultural water pollution

- Livestock production: cultivation of feed for livestock, spreading of manure produced by the livestock.
- As compared to the whole agricultural sector in Europe, livestock production contributes to 73 % for water pollution (Leip et al. 2015).
- Twofold identity of manure: source of “diffuse” water pollution and emissions to air (ammonia); but also a valuable resource as a potential fertilizer or source of energy
- Policy goal: from a pollutant to resource; sustainable recycling

Scope & questions

- Agricultural water pollution often regulated through policy-mix: advice schemes, subsidies, general legal standards, permits.
- In the EU, environmental permits are widely applied to livestock production.
- Evolution of the regulatory sphere:
 - structural change in livestock farming and agriculture: specialization, increased farm size
 - technology for handling and using manure;
 - ambitions related circular economy, streamlining regulation

→ Should the permit cover both livestock installation and the application of manure, or should the latter be left for other instruments?

→ What can we learn from DK and FIN?

	Denmark	Finland
Overall	Intensive production all over country, 90 % exported	Intensification, but mainly for Finnish markets
Farm structure	Big and specialised farms	Towards bigger and more specialised
Average pig farm	3200	318
Spatial concentration of livestock	Western Denmark	Ostrobothnia and South-West Finland
P balance	5 kg surplus	4 kg surplus
N balance	77 kg surplus	48 kg surplus
Manure as a fertilizer	Major in both P and N	Major in P, minor in N
Manure for biogas	6 %, target 20% by 2020	No political targets

Regulatory developments in FIN & DK

- FIN

- Economic instruments favoured: environmental subsidy considered as the most important, legal standards serve as “the bottom line”
- Criticism: complex and ineffective; declining coverage of the subsidy scheme
- **Reform under preparation: from permits to more standardized registration procedure**

- DK

- Legal instruments favored over economic
- Criticism: over-regulation, loss of production because of too low N-levels in some parts of the country
- **Regulatory reform into force from August 2017: manure spreading excluded from the permit; regulated through general, but “targeted” standards**

General: functions of permits

- Administrative law instrument through which regulators can intervene risky “point source” activities *ex ante*.
- Offers participation and access to justice when the legal boundaries of activity are defined.
- Allows regulation to be tailored according to **site** and **operator** specific conditions.

Functions of livestock permit scheme: FIN

- Direct regulation of manure within the livestock installation
 1. Storage and handling of manure on the farm; distant storages excluded (KHO 28.9.2010 T 2505)
 2. Spreading of manure on nearby fields as part of the installation (“*technical and functional unit*”)
- Indirect regulation of manure spreading on distant fields
 1. “Manure management plan” required as part of the permit application: suitable spreading area must be equal to the amount of manure produced
 2. Obligation of the permit holder to inform farmers who use manure about the specific limits or requirements relating to spreading manure (KHO 2003:40, KHO 20.9.2005 T 2667).

Livestock permit scheme FIN: uncertainties

Legal uncertainty on the scope of permit

- The scope of installation as a “technical and functional unit” – how far from the actual animal farm?
- Duplication or even contradiction with general legal standards (decrees and municipal regulations)
- No level playing field: different permit practices in different authorities
- Future: increasing legal weight of RBMP (Weser judgement C-461/13)
→ gradual tightening of livestock permits?

Functions of the livestock permit scheme DK

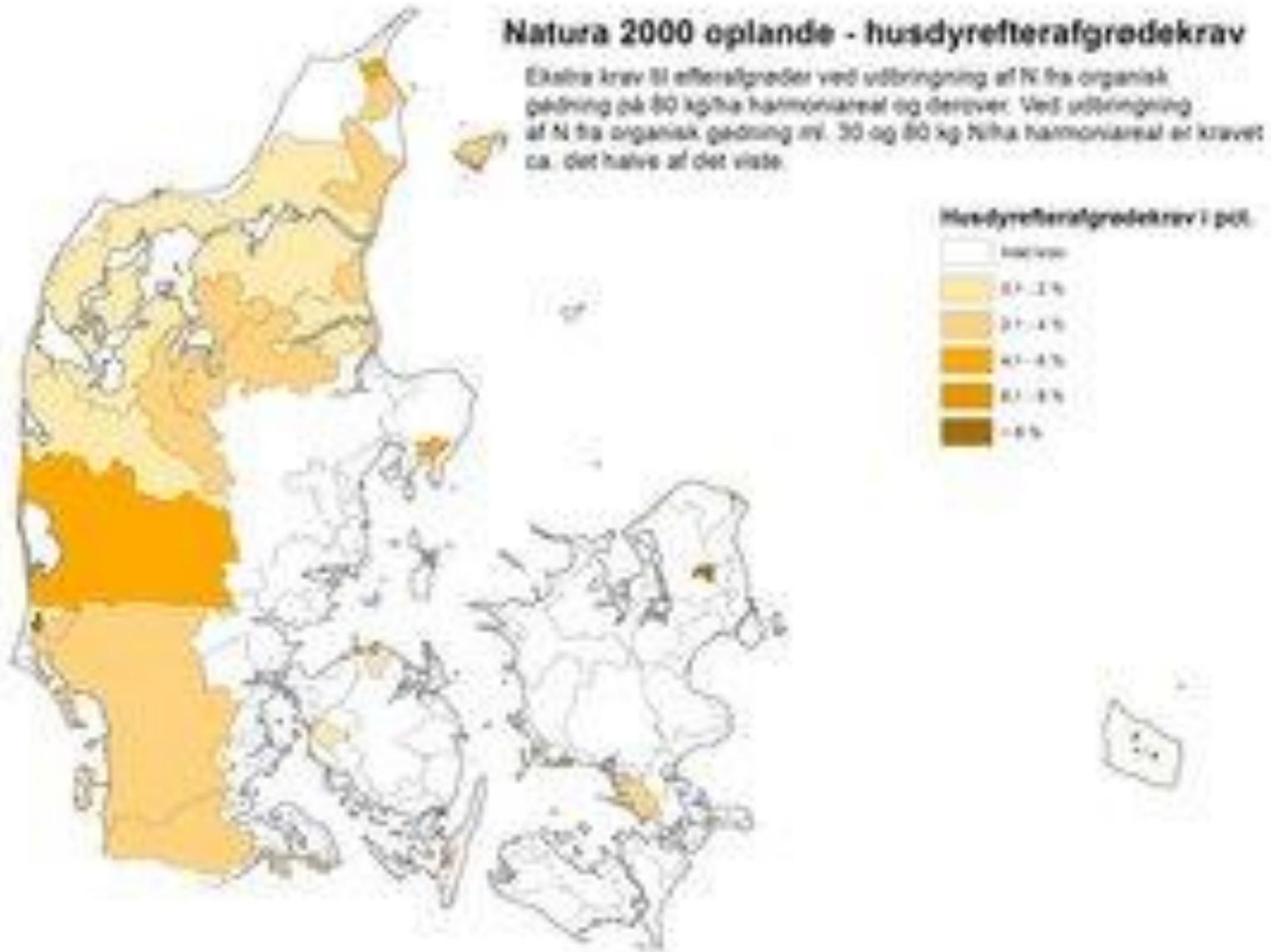
- Permit thresholds
 - Simple permit: above 100 m² production area
 - Advanced permit: above IED thresholds or above 3.500 kg NH₃/year
- Permit scheme coverage
 - the livestock installation
 - manure spreading no longer covered by the installation (Aug. 2017-)
- Regulation in the permits
 - Prerequisite for granting a permit to demonstrate that there is sufficient land available for spreading the manure – the so-called “harmony” requirements equivalent to approximately 170 kg N/ha with some variations.
 - Permit conditions according to the environmental state and sensitivity at the local level: surface and groundwater status, aquatic Natura 2000-sites (**until Aug. 2017**).
 - Specific conditions regarding e.g. crop rotation, additional catch crops etc. in order to reduce N- and P-load to the aquatic environment. (**until Aug. 2017**)

Livestock permit scheme DK: adopted revision

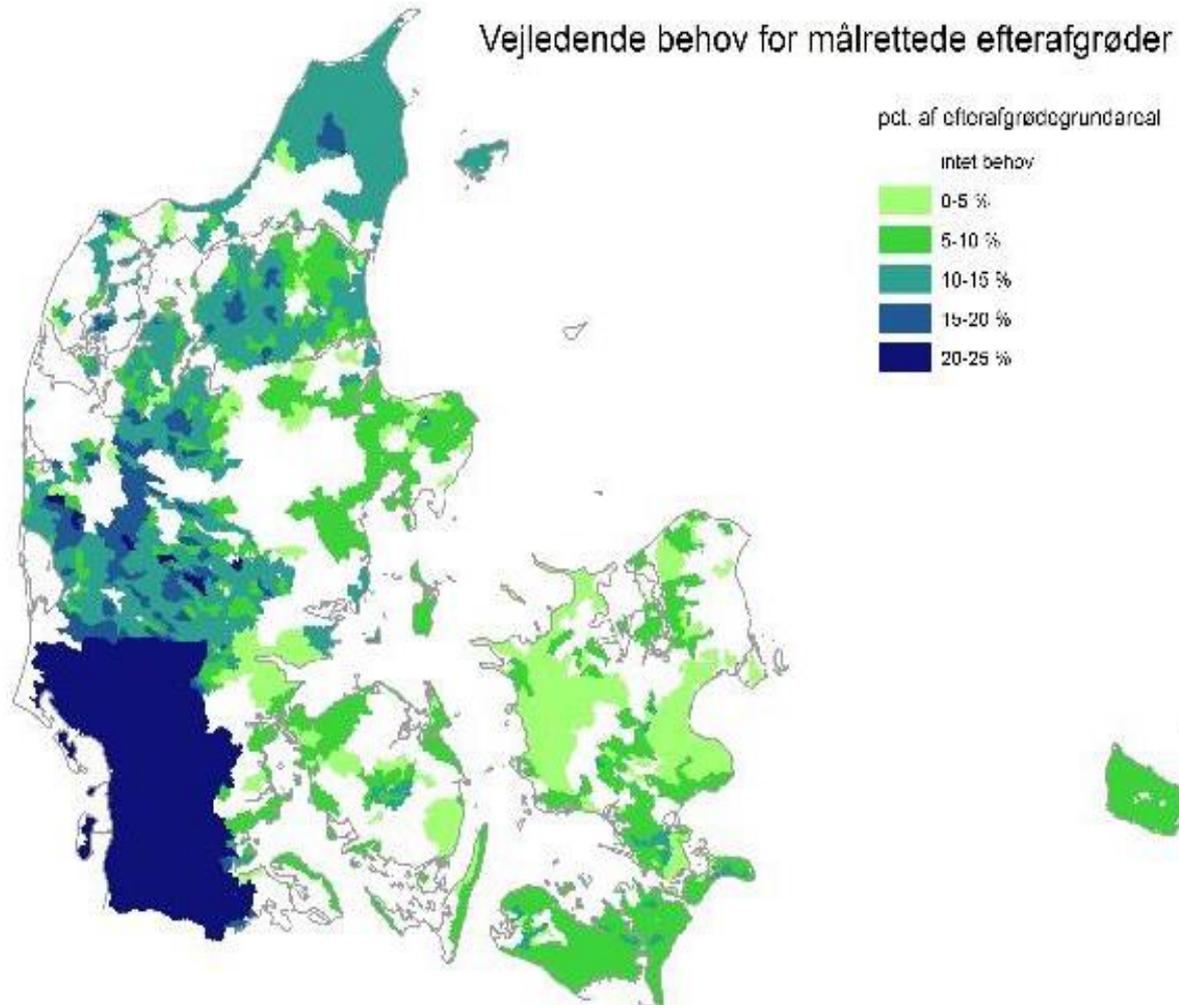
- Livestock installation and manure spreading to be separated.
 1. Permits will only cover livestock installations as a point source.
 1. EIA: broad “project” coverage could be a problem
 2. Manure spreading to be regulated through general – but differentiated – legal standards.
 3. 90 catchments with specific standards!

Natura 2000 oplande - husdyrfeberafgrødekrav

Ekstra krav til efterafgrøder ved udbringning af N fra organisk gødning på 80 kg/ha harmoniareal og derover. Ved udbringning af N fra organisk gødning ml. 30 og 80 kg/ha harmoniareal er kravet ca. det halve af det viste.



Vejledende behov for målrettede efterafgrøder



Summary: the role of permit in FIN and DK

■ Finland

- securing sufficient area for spreading (theoretically)
- Permit has little to do with tailoring general standards
- However, the increasing legal weight of RBMPs may shift the role of permits → new legal limits in hot spot areas

■ Denmark

- securing sufficient area for manure spreading
- From Aug 2017: manure spreading excluded from the permit scheme
- Replaced by *tailoring of* general standards for manure spreading to fit local conditions (surface and groundwater status, aquatic Natura 2000-sites)

Discussion

- Complexity = low effectiveness and high costs
- No one ideal role for permits, depends on the policy-mix.
- Concepts such as “point source” or “diffuse” not very useful
- Tailoring for “hot spot areas” possible through permits but also through general standards → what is most efficient?
- The “bigger picture” of regulation: level playing field for all organic and inorganic fertilizers → general, but “tailored” fertilizer standards!