

# Transformation of rural areas into sustainable energy landscapes

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## SUMMARY / ABSTRACT

In the Danish government's foundation, the green transition from a fossil society to a sustainable society is a high priority and must be accelerated, at the same time that we must make ourselves independent of Russian gas. Future energy production must be green. Denmark is facing a land-intensive transformation of parts of the rural areas into energy landscapes – energy islands with windmills, solar parks and Power-to-X-plants.

The challenge is not lessened by the fact that 60 percent of the rural areas are privately owned cultivated agricultural land, and that the government's goals for land use in Denmark include ambitious climate protection, nature and biodiversity goals with the establishment of more forest, reservation of 30 percent of the land area for protected nature and removal of low-lying soils from agricultural production

In order to reach the goals of the ambitious plans, there will be a need for strengthening physical planning, prioritizing interests, managing rights, changing land use and changing the property structure - to protect our world and conquer new frontiers.

This presentation outlines how these energy parks are developed, planned and realized in a property rights context, while at the same time other ambitious SDG-goals for land use in Denmark are being met.

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## **1. INTRODUCTION**

The UN SDG set a significant and ultimate agenda for the great social task of creating the sustainable landscapes of the future. Much is at stake – the climate, biodiversity, the aquatic environment, groundwater, energy supply, food security, health, the living and housing environment.

Since the interests in the use of the open land are diverse and the space is at the same time tight, it is necessary that several considerations are taken care of on the same areas. There is a need for multi-functionality. This has created a political realization that a land reform is necessary. At the same time, several demonstration projects have shown that local dialogue-based solutions can achieve several objectives in the open country.

In this paper a number of proposals will be pointed out to optimize the process in multifunctional projects in the open country.

## **2. AVOID SILO THINKING**

Realization of multifunctional projects in the open country calls for flexible cooperation across sectors.

The Danish Association of Surveyors therefore proposes that the municipalities establish transversal management units for planning and management of multifunctional land use in the open country.

In addition, there is a general need to reassess many of the locked guidelines from the county sector planning, which were transferred to the municipal plans during the structural reform in 2007. The current municipal planning framework for the open country should be changed from being guidelines and designations that prioritize certain land uses over others, to being a politically prioritized framework for the development of land use in the open country by designating and guidelines for areas for multifunctional land use.

The sector legislation contains, to a certain extent, expropriation authority to promote specific projects. The Association of Land Inspectors recommends using this tool when authority is present, if voluntariness cannot be achieved.

An expropriation option is not in conflict with multifunctional land distribution and dialogue-based solutions – it can encourage skeptical landowners to actively participate in the

negotiations when they know that society is ultimately prepared to expropriate to achieve a multifunctional land use.

### **3. INVOLVEMENT AND PRIORITIZATION OF INTERESTS**

A land reform, where many and different interests must come into play in the development of the sustainable landscapes of the future, calls for a timely process where the interests can be prioritized. The sooner the prioritization of interests takes place, the better.

The Danish Association of Surveyors proposes that interest protection and prioritization in large-scale projects take place in a democratic planning paradigm, as we know it from the Planning Act. Elements from the municipal and local planning processes can be implemented in a new landscape plan process and type.

The Danish Association of Surveyors proposes that the representation of interests in smaller local projects be carried out at citizen and stakeholder meetings with the participation of authorities and under the professional facilitation of a neutral professional.

### **4. FACILITATION AT ARM'S LENGTH**

A successful, locally rooted multifunctional land reform based on planning methods, multifunctional land distribution and other negotiation-based tools will contain complex negotiations, where the solutions cannot be given in advance, but emerge as a result of the dialogue with landowners, authorities and stakeholders.

This dialogue requires a creative and targeted effort to be able to lead the negotiations in the right direction – also in situations where momentary moods and conflicts can block negotiation solutions.

The Danish Association of Surveyors recommends that multifunctional projects be facilitated by a neutral professional - according to an arm's length principle, where the facilitator seeks negotiated solutions without having vested interests or authority powers to take care of.

### **5. WHO IS GOING TO PAY?**

The state, the regions and the municipalities cannot finance a land reform alone. If we are to succeed with a multifunctional land reform, it is essential that all sectors of society share responsibility.

Foundations, associations, associations etc. can play an active role as purchasers and managers of, for example, marginal agricultural land, which in future will serve as nature corridor and climate adaptation areas.

Private companies can get climate credits and greener accounts by acquiring and developing forests, extracting low-lying areas, etc. that contribute to CO2 reduction. And banks and mortgage credit institutions can play a role with entire agricultural properties, from forced auctions to a land pool that can become a catalyst for land distribution locally.

Use of time-limited support to promote an extensive form of operation has been widely used in landscape management. This entails a risk that the land use may revert to intensive agricultural use after the end of the support period. The challenges with climate, biodiversity etc. however, calls for permanent solutions.

The Danish Association of Surveyors therefore proposes that support payments for taking land out of agricultural operations must be made as indefinite agreements that are secured at the property level.

## **6. BOTTLENECKS AHEAD**

If a land reform with suspension in multifunctional land distribution is rolled out, the land distribution expertise may become a bottleneck if all land distribution cases are to be planned by the Danish Agency for Agriculture.

The Danish Association of Surveyors therefore suggests that other private land distribution planners and competent persons be involved in the multifunctional land distributions.

The Danish Association of Surveyors also proposes – in the same bottleneck context – a simplified and delegated process for smaller land distributions. Here, the control of fulfillment of the purpose of the land distribution, ensuring the feasibility of cadastral changes, securing the rights of mortgagee and easement holders and issuing the land distribution order can be appropriately delegated to an appointed land surveyor in collaboration with a credit expert member of the Land Distribution Commission.

## **7. OTHER MEANS OF ACTION**

A good starting point for any land distribution is replacement land, and it becomes even more necessary in multifunctional land distributions, where many lands must be taken from agricultural operations.

The Danish Association of Surveyors recommends that the municipalities take advantage of the Land Distribution Act's existing option to establish municipal land purchase boards for strategic land purchases for land pools in accordance with multifunctional land distributions. In smaller multifunctional projects that will include property changes, a land distribution can be too extensive and a slow process.

The Danish Association of Surveyors proposes that smaller projects which are carried out through completely traditional agreement-based land conversions with subsequent cadastral corrections be exempted from land registration fees. The tax exemption must be conditioned on the project meeting multifunctional criteria

Changes in land use do not necessarily require property changes. The Danish Association of Surveyors will emphasize the use of registered use agreements or availability restrictions against compensation. It is a suitable and flexible tool for e.g. in the event that a plot owner still wishes to retain ownership of agricultural land or other land that is covered by an agreement-based regulation – e.g. a ban on the use of pesticides.

The Danish Association of Surveyors proposes that the Agricultural Act's ownership restrictions in relation to agricultural land be relaxed, as they can be a barrier to ownership and co-financing of multifunctional projects where agricultural land is set aside for nature and recreational purposes. It will open up greater opportunities for foundations, consortia, village communities etc. can obtain ownership of a plot of land which is laid out for a purpose other than agricultural operation – the ownership must be made conditional on the purpose.

Perhaps the agricultural obligation should be completely abolished on lands that are not to be used agriculturally in the future, and where society invests resources in changing and maintaining a more multifunctional land use? If "natural duty" is introduced instead, property and land value taxation could be completely abolished for such natural areas! It would also motivate farmers and other landowners to establish more natural areas.

The zoning rules of the Planning Act and some of the special legislation's protection rules present challenges in relation to multifunctional land use. The Association of Land Inspectors suggests that the rules be reviewed and relaxed so that it becomes easier both practically and administratively to create other uses in the open land.

Finally, it is the experience of land surveyors that unnecessary complications and extraordinary time consumption can arise in connection with the final rectification of property changes if the property rights preliminary investigation in a land distribution has been insufficient.

The Danish Association of Surveyors therefore proposes that the preliminary study, in addition to a technical study and financing plan, also includes a property-related study of claims and cadastral matters, easements, liabilities and access to public roads. Circumstances and rights which are decisive for whether property changes can ultimately be carried out.

## **8. NECESSARY PARADIGM SHIFT**

We are facing a significant paradigm shift in the use of open land – from mono-use of the land zone to multifunctional rural development. If it is to succeed, we must work holistically, but locally rooted.

All resources and skills must be put into play. The Danish Association of Surveyors proposal is not adequate, but a contrivance to optimize the process in multi-functional projects - on the way to a land reform.

## **REFERENCES**

## **BIOGRAPHICAL NOTES**

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