The State Land Office and Its Functions in the Rural Areas of the Czech Republic

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SUMMARY

The State Land Office of the Czech Republic was established on January 1st 2013 as an organizational unit of the Ministry of Agriculture by the Act no. 503/2012 Coll., about the State Land Office. The office fulfills three main agendas: restitution of agricultural and church property, state property management, and land consolidation. Land consolidation in the Czech Republic is perceived as a multidimensional instrument for landscape planning, supporting sustainable development of rural areas. Land consolidation spatially and functionally arranges the land in public interest; consolidates or splits plots (parcels) while ensuring their accessibility; and provides conditions for improving the environment, land resources protection, water-management and improving the ecological stability of the landscape. Drought has recently been introduced (alongside soil erosion and soil degradation) as the key topic which needs to be addressed by the State Land Office policies. New mitigating strategies will improve drought resilience by supporting irrigation and soil drainage infrastructure. Alongside these processes the emphasis is placed on the sustainable agriculture which significantly helps developing rural areas. Land consolidation is perceived as a key tool for increasing drought resilience of the landscape through improved land management projects that include soft (soil management) and hard (infrastructure) measures.
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1. INTRODUCTION

Development of rural areas in the Czech Republic has been influenced by many factors during the last 100 years. From a historical point of view, the most significant changes happened during the period of communism between 1948 and 1989. This period was characterized by the suppression of property law of private persons and legal entities, when property including land was transferred to the state. Collective farms were established and many land plots were merged into large plots. From the climate point of view, mean air temperature in the Czech Republic has increased by approximately 1.3°C in the last 150 years. Mean precipitation has remained the same, but the distribution has changed obviously. The Czech Republic encounters rainfalls of shorter duration and higher intensity. This causes not only flash floods, but also droughts (both agricultural and hydrological drought). From the environmental perspective, more than 50% of agricultural land is affected by soil erosion and almost 50% of agricultural land by compaction. More than 40% of soils are affected by acidification. Soil sealing is reaching around 11–16 hectares/day. At present state, from the ownership point of view, more than half of the land area of the Czech Republic is used for agriculture purposes. The dominant part of agricultural land, more than 3700 thousand hectares, is owned by private persons or different types of legal entities. A minor portion, about 320 thousand hectares (illustration 1), is owned by the state. Private persons manage only about 30% of agricultural land, while the remaining 70% manage legal entities, cooperatives and other companies that have leased the land from private persons. This means that the farming entity in majority is not the entity owning the land and hence has low intentions in preserving the soil.

![Illustration 1: Share of agricultural land](image-url)
The factors mentioned above place high demands and priorities on the land consolidation process, which can help mitigate these negative factors. Land consolidation in the Czech Republic is administered by the State Land Office.

2. **STATE LAND OFFICE**

The State Land Office of the Czech Republic was established on January 1st, 2013 as an organizational unit of the Ministry of Agriculture by the Act no. 503/2012 Coll., about the State Land Office. It is endowed with national authority. The organizational structure consists of the main office, 14 regional Land Offices and 64 district Land Offices (see illustration 2).

![Illustration 2: Overview map of the State Land Office authority](image)

The State Land Office fulfills three main agendas:
- restitution of agricultural and church property,
- state property management including privatization, property transfers, and management of small water management structures,
- land consolidation.

Restitution has been carried out during the last 20 years according to the Act No. 428/2012 Coll. on Property Settlement with Churches and Religious Institutions. Currently, this agenda is diminishing.

The agenda of state property management is based on the Act No. 92/1991 Coll. on the Conditions of Transfer of the State Assets to Other Persons and the Act No. 229/1991 Coll., on the Ownership of Land and Other Agricultural Properties. The State Land office
administers the agricultural land owned by the state as well as some small water management structures, such as main drainage channels and small water bodies. Land consolidation is implemented by the Act. no. 139/2002 Coll., about Land Consolidation and Land Offices, and amending Act No. 229/1991 Coll. mentioned above, and according to the Decree implementing this Act No. 13/2014 Coll. Other applicable regulations are the Act No. 500/2004 Coll., Code of Administrative Procedure and the regulations related to the cadastre (Cadastral Act, Cadastral Regulation etc.).

3. LAND CONSOLIDATION IN THE CZECH REPUBLIC

Land consolidation in the Czech Republic is perceived as a multidimensional instrument for landscape planning, supporting sustainable development of rural areas. Land consolidation consists of spatially and functionally arranging land in public interest and consolidating or splitting plots while ensuring their accessibility. Land consolidation provides conditions for improving the environment, land resources protection, water management, and ecological stability of the landscape. According to current legislation, land consolidation may take two forms:

- complex land consolidation, or
- simple land consolidation.

Simple land consolidation, unlike the complex one, deals with smaller areas and is often focused on some particular issue.

The whole process of land consolidation in the Czech Republic lasts an average of 4 to 6 years. The process consists of the following phases displayed in illustration 3 below.

3.1 Initiation

Land consolidation is initiated in the following cases:
- if more than 50% of acreage of owners in a particular cadastral unit apply,
- if municipality applies.

Land consolidation may be initiated:
- if external subjects apply (e.g. construction company),
- based on the initiative of the State Land Office.

3.2 Preparatory Work

Preparatory work includes:
- reconnaissance, measurement, restoration and establishment of geodetic points,
- survey (measurement) of the actual state of the area,
- definition of the perimeter of land consolidation,
- terrain analysis (morphology, hydrology, soil and erosion conditions)
determination of owners’ claims.

3.3 Design Phase

During the design phase, a proposal of the Common Facility Plan is created and discussed. The Common Facility Plan is approved by the municipality council and related public authorities. Common facilities include measures in public interest, such as:

- soil erosion control (organizational, agronomic or technical measures),
- water management (reservoirs, revitalization),
- land accessibility (field roads, fords, etc.),
- increasing ecological stability.

During the design phase, a series of spatial analysis is performed, one example focusing on soil erosion is displayed in illustration 5.

Illustration 5: Soil erosion analysis.

The map of the actual state and the Common Facility Plan are the basis for the design of a new plot arrangement. In such structure (“skeleton”), new plots are designed for each owner that adequately correspond to their original plots within the tolerance of the following variables:

- price (4%),
- acreage (10%),
- distance (20%)

New plots may have different boundaries than the original ones or more plots of one owner may be unified.

3.4 Realization
Realization is the construction of proposed measures (including designs of construction projects). The realization phase has no time frame, since it can be initiated and finished any time depending on the individual projects.

Illustration 6: Example of realization of water management measure – stabilization of concentrated runoff paths

In summary, the main results of land consolidation are:
- Common Facility Plan,
- renewal of the cadastral (new digital cadastral map),
- realization of the proposed measures.

3.5 The State of Art of Land Consolidation

Land consolidation in the Czech Republic started in 1991. In July 2016, complex land consolidation processes have been finished in 16% of acreage of the Czech Republic. In counting unfinished land consolidation processes, land consolidation covers almost 38% of acreage. Spatial distribution of land consolidation is displayed in illustration 7 below. Land consolidation is initiated in about 200 cadastral units each year in the Czech Republic.
The ratio of realized measures according to the Common Facility Plan is displayed in illustration 7.

3.6 Financing Land Consolidation
The costs of land consolidation are covered by the government budget or by the Rural Development Program of the European Union. The chart in illustration 8 shows total costs including design and realization during the last years. Between 2007 and 2015, the realization of projects of Common Facility Plans alone cost 320 mil. EUR.

Illustration 8: Total costs of land consolidation in the Czech Republic

4. CONCLUSION

Land consolidation in the Czech Republic is perceived as a multidimensional instrument for landscape planning, supporting sustainable development of rural areas. It introduces effective tools for solving water retention in the landscape, soil erosion and flood protection. Land consolidation faces new challenges such as climate change (flash floods as well as droughts), soil erosion, setting the role of farmers and more. New mitigating strategies will improve drought resilience by supporting irrigation and soil drainage infrastructure. Alongside these processes, the emphasis is placed on sustainable agriculture, which significantly helps developing rural areas. Land consolidation design needs to be addressed from a complex perspective with respect to the effectiveness of both – functions of new measures and their financial costs.

REFERENCES


BIOGRAPHICAL NOTES
Arnost Muller graduated in 2010 from the Department of Mapping and Cartography at CTU in Prague with his thesis called “Spatial modeling of climate”, in which he presented animated maps of annual mean air temperatures and rainfall at high spatial resolution. During his undergraduate studies he spent two semesters at Kansas State University in USA, where he obtained the Undergraduate GIS Certificate and during his master studies he studied one semester at the University of Adelaide in Australia. He focuses on integrating GIS in the public sector, working at the State Land Office as a GIS analyst implementing GIS into the process of land consolidation. He is also a member of a team developing new GIS strategy for the Czech Republic, so called Geoinfostrategy.

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