Josef Attenberger  
Bavarian State Ministry of Agriculture and Forestry  
Munich

The right mix of instruments – land consolidation, land management and land banking in Bavaria

Ladies and gentlemen,

It’s a pleasure, to give you a short report about Land Consolidation (L.C.) in Bavaria. To make you familiar with our work first of all I’ll show you some exemplifications.

Exemplifications

These days we have about 140 000 peasant farmers in Bavaria. The peasant agriculture in Bavaria is characterized

- by relatively small plots (on the average we have 1.2 ha per plot)
- by scattered parcels, especially in regions where real estates had been divided for the heirs.

Therefore it is more than ever an essential task for L.C.- in Bavaria to consolidate the scattered property to facilitate an economic cultivation.

Besides the plots shall be made accessible by ways and roads, which make the usage of modern machines and equipment possible. Due to ecological requirements we make great efforts to construct ways and roads suitable to the landscape.

Generally ecological goals in L.C. have gained a great importance since decades in Bavaria. Therefore we also perform for example renaturations of water bodies. Their construction being close to nature they also serve for preventing flood protection in downstream areas and settlements.
The conservation of damp areas has as well a great priority. They enrich the landscape and provide habitats for rare animals.

Further we turn our attention to important cultural parts of the landscape remembering on the historical past. If the peasants know the backgrounds about these memorials and the round about area, they are rather appreciated them and prepared to guard them.

At the moment the support of projects of public interest is an important task, if – for example – national motorways have to be constructed. In this case we intend to reach several goals:
1. we intend to avoid compulsories for the landowners which are concerned
2. we intend to repair transsections of agricultural areas and
3. we intend to consolidate the scattered property of the peasant farmers.

A rather good example for this is a procedure, which had been performed a few years ago northern of Munich. There we had the task to support the expansion of the national motorway from Munich to Deggendorf, a city in eastern Bavaria. To do this with as few disadvantages as possible for the landowners and the benefit of general public we acquired a lot of land within the L.C. area. By the way we don’t need any notary act for the purchase of land within the L.C. area.

We transferred this land into the route of the new motorway, into the site of a planned new recreation area, into the site of an afforestation area and into areas for other public facilities.

This example shows the most effective potency of L.C.:
The possibility to buy land, to bank land and to transfer this land to any sites, where it is needed.
And at the same time: to protect the rights of landowners and to give them plots anywhere at any places which are equivalent to previous plots.

The balance of purchased and banked land in this example is as follows:
The procedure area included 591 ha. In this area 63 ha of agricultural land have been purchased in total.

From these 63 ha
- 48 ha have been used for the new national motorway
- 13 ha have been used for the new recreation area
- 1 ha has been used for nature and landscape conservation and
- also 1 ha has been used for the afforestation area.

The same way we proceed for the securing potable water areas for example. Also in this case we purchase land within the procedure area of L.C. and transfer it to the water protection area. This way the cultivation of the water protection area with respects necessities of potable water can be guaranted the best.

In L.C. procedures we consequently bank land for public facilities. Between 1996 and 2000 we have purchased 6400 ha agricultural land in total. This land partly has been sold to peasant farmers to encrease their property area, partly for natural environment and especially also for infrastructure facilities, publics transport facilities as well as for water bodies and water protection (s. encl. 1).

We also use the advantages of real estate regulations for the creation of new building land. Originally agricultural used parcels are transferred this way to house building areas. It is a very important task in rural areas in Bavaria to offer building land for housing, but also for handcraft or industry. Only if there are enough housing areas and workplaces in a good reachable distance for the citizens they will be willing to remain there.

We also include the villages into the L.C. consolidation procedure. The villages namely are the germ cells and centres for rural life and rural development. Therefore especially the villages have to be in charge of a sustainable development of rural areas. That`s why in general development plans for the villages are worked out. They include measures concerning for example the shaping of places and buildings but also measures for improving the economic, ecological and cultural situation in the villages.
Based on these plans measures are performed for example

- for a better shaping of village roads, flanking buildings and built-up surfaces
- for harmonic water bodies in the village; often these water bodies have been canalised in the past because of absolute and one-sided technical points of view.

Since the permanent structural change in agriculture is characterised by a decrease of peasant enterprises it is an important and actual focal point to find a new utilisation for buildings previous used agriculturally. Only if a new utilisation can be found, their continuance can be secured.

So – for example – an old building can be transferred to a new village shop, where people now again can buy goods for their daily supply.

Today one of the most important basics of L.C. is the participation of citizens. According to our experience they are willingly prepared to be engaged for common tasks and to contribute to common works, if they can influence the plans and decisions concerning the development of their living area.

But participation and cooperation in this field isn’t easy. Often the basic conditions and possibilities of rural development are known only sufficiently. Therefore in Bavaria we have founded three schools for village and rural development about ten years ago.

There citizens can get further education in this field and may get the experience, that village renewal not only consists of constructing measures which are according to the village character but also a change in village life and mind should be intended.

By the way meanwhile we also have transferred our experience and methods in other countries, for example in the Federal Republic of China.
There in a small community a L.C. procedure has been implemented according to L.C. in Bavaria. It has to be noticed, that there are no property rights on real estates but only usage rights.
These usage rights have been rearranged. These rearrangement has been extended not only to the field area but also to the village area. Also the groups therein built for the common cultivation have been rearranged. Further also a plan for the development of the village has been worked out, which meanwhile is performed.

Now I will try to point out important basics and results of L.C. in Bavaria in the second part of my short report.

**Basics**

**Legal foundation**

It is the topmost intention of L.C. to protect the property rights of the landowners. The property right is guaranteed by the constitution of the Federal Republic of Germany. There is a cadastral register, which guarantees the location and the boundaries of parcels and there is an official land registry that provides definite information about the owner of the parcels and who has certain rights to them (such as mortgages etc.).

We have a very good legal foundation given by the Federal L.C. Act. Therein especially is ruled

- an expansive mandate for rearranging agricultural land holdings

- the organisation of special public authorities for performing L. C. procedures

- and last but not least the possibility to work out plans for common and public facilities in rural areas and their realisation.
Thereby the Federal L.C. Act

- aims not only at improving the production and working conditions in agriculture and forestry
- but also at promoting the common culture of the country
- and at promoting the rural development of the country.

As the term L.C. describes this wide mandate not any longer correctly ten years ago the name L.C. Administration in Bavaria has been changed into Administration for Rural Development.

Administration

The Administration of Rural Development is organised as follows

- supreme authority is the Bavarian State Ministry of Agriculture and Forestry. One of it’s ten directorates is the directorate of rural development with a staff of 15 employees.
- According to seven districts of the regional commissioner there are seven higher authorities with a staff of about 1700 employees. These higher authorities are interdisciplinary equipped. The staff consists in geodesists, jurists, experts for agriculture, architects, landscape architects and construction engineers.
- Essential tasks in performing L.C. are delegated to the body of participants. This body of participants includes all the landowners in the L.C. area. The body of participants is a body corporate, which comes into existence when the L.C. decision of the higher authority for Rural Development takes effect. The participants elect the board of the body of participants; the chairman of the board is appointed by the higher L.C. authority. So L.C. and village renewal in Bavaria are organised according to the principle of subsidiarity. The administration doesn’t undertake tasks which also can be accomplished by local representatives.
At the moment in about 1700 procedures of L.C. an area of about 700000 ha is involved. These procedures have rather different tasks: we have voluntary land exchanges without any construction measures, we have simple and lower-cost procedures, we have projects which support facilities of public interests and we have regular procedures with extensive tasks. About 1800 village renewal projects are included (s. encl. 2).

So – if necessary – graded instruments for implementing are available. This is also effective on spatial respect: there are procedure areas from a few ha up to 10000 ha and more.

Also L.C. makes available a great spectrum of measures – in economic, ecological and cultural aspects (s. encl. 3).

**Investments and financing, subsidies**

The total investments for the actual pending procedures amount to about 260 Mio € per year, thereof 110 Mio € for L.C. and 150 Mio € for village renewal. The financing of these costs consists of subsidies of public funds, costs which especially communities have to pay and contributions in money of the participants. On the average the participants have to support about 15 % of the implementation costs. At least they can decrease partly contributions in money by contributions in kind, work or other services.

At the moment, the State of Bavaria makes available subsidies from EU, from the Federal Republic of Germany and from own programs. In the year 2000 these subsidies amounted to about 70 Mio € for L.C. and about 45 Mio € for village renewal (s. encl. 4).

**Costs in general**

The costs for actual pending procedures amount to 1.4 Billion € or 2000 € per ha of cultivated agricultural land, not included the internal costs of the procedure at about 90 Mio € per year, which are supported by the state of Bavaria.
The participants have to support about 200 Mio €. Generally the participants have to support 20 % of the costs of implementation. In the case of particular environmental records the payment can be decreased down to 10 % (s. encl. 5). Compared to the costs of land these payments amount on the average from 0.7 % up to 3 %.

**Results**
Surely You will ask You, if the payments of the land owners and of the communities and if the subsidies of the State of Bavaria for L.C. are well done. To this I’d like to say the following (s. encl. 6):

As a very important result of L.C. the involved peasant farmers get a reduction of variable costs for machines and equipment and also for energy. And they can do their work faster than before. This leads

- to an increase of cross proceeds up to 140€ per ha and year
- to a reduction of working hours up to 11 manpower per ha and year respectively 39% of working hours in the field

So the payments for L.C. are amortised within several years.

With respect to the communities a research project had the result, that communities which have had a L.C. procedure gain a competitive edge of about 15% in comparison to communities without L.C.. Basic indicators for this result have been significant changes concerning the tax yield, the number of inhabitants, of building sites, of the number of peasant farmer enterprises etc..

Last but not least a few years ago a well known institute for economic researches has found out, that L.C. and village renewal have very positive effects in economic aspects, especially

- that the granted subsidies cause individual, common and public investments up to the sevenfold
that 130 places of employment can be secured per 1 Mio € subsidies of the State
that the additional production induced by L.C. leads to an increase of tax yield; so 65% of granted subsidies flow back to the treasury.

These positive effects I think are the reason, that L.C. and village renewal also in future should be important tasks in Bavaria.
This is also an advantage for public interests:
Meanwhile namely it is commonly respected that L.C. and village renewal on the basis of participation of citizens can effectively contribute to sustainable development of rural areas (s. encl. 7). These rural areas also in future should be a pleasant living area for the citizens.

This is what I’m also hoping for the rural areas in CEEC-States. Perhaps an adopted usage of similar methods and instruments there like in Bavaria can contribute, that there too the rural areas will have a good future.
### Land Consolidation and land banking (ha) (1996 – 2000)

<table>
<thead>
<tr>
<th>acquisition</th>
<th>land banked and applied for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>reprivatisation</td>
</tr>
<tr>
<td>6.400</td>
<td>2.770</td>
</tr>
</tbody>
</table>

### Pending Procedures (31.12.2000)

<table>
<thead>
<tr>
<th></th>
<th>ha</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Procedures</td>
<td>421 000</td>
<td>59</td>
</tr>
<tr>
<td>Procedures for Large scale projects</td>
<td>162 000</td>
<td>23</td>
</tr>
<tr>
<td>simplified procedures</td>
<td>115 000</td>
<td>17</td>
</tr>
<tr>
<td>Voluntary Land exchange</td>
<td>7 000</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td><strong>705 000</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>pending procedures for village renewal projects</td>
<td>in 1 750 villages</td>
<td>with 500 000 inhabitants</td>
</tr>
</tbody>
</table>
Selective Results of Land Consolidation
in Bavaria 1996 – 2000

Village renewal procedure finished 320
Road and way construction 6 600 km
Rearranged Area 208 000 ha
Number of landowners 69 000
New roads to farmyard surfaces 1 550
Measures for protection of drinking water areas 150
Local retention of surface water 1 600
New bank protection stripes 860 km
1.1 Plantation of trees and bushes 44 000
Securing of monuments in the landscape 660
Construction of village squares and fairgrounds 500
Purchase and new utilisation of buildings 300
Origination of development areas 3 170
Shaping of buildings 660
Construction of footpaths and bicycle lanes 1 220
Support to projects for constructions of mainroads 507
## Investments and Financing (Mio €)

<table>
<thead>
<tr>
<th>Sum</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Consolidation</td>
<td>110</td>
</tr>
<tr>
<td>thereof purchase of land</td>
<td>15</td>
</tr>
<tr>
<td>Village renewal</td>
<td>150</td>
</tr>
</tbody>
</table>

### Financing of Land Consolidation

- costs which thirds (communities etc.) have to support: 110
- remaining costs: 85/100 %
  - subsidies: 70/82 %
  - contributions of participants: 15/18 %

### Financing of village renewal

- costs which thirds (communities and private individuals) have to support: 150
- subsidies: 45/30 %
## Costs of Land Consolidation
(without village renewal)

<table>
<thead>
<tr>
<th></th>
<th>Total (Mio €)</th>
<th>per ha (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the State of Bavaria</td>
<td>1.400</td>
<td>2.000</td>
</tr>
<tr>
<td>For the landowners (on the average)</td>
<td>200</td>
<td>200 – 800</td>
</tr>
</tbody>
</table>

On the average landowners have to support 20 % of the costs of implementation.

In the case of particular environmental records the payment can be decreased down to 10 %.

Any administrative costs incurred by public authorities (personnel and material) shall be borne by the State of Bavaria.

### For comparison

- land price (land used for agriculture): 30 000 €
- costs for tenure land used for agriculture: 250 €/year
### Advantages of Land Consolidation in Bavaria

<table>
<thead>
<tr>
<th><strong>Economisation for peasants and landowners</strong></th>
<th>Reduction of variable costs for machines and energy, faster working</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Increase of cross proceeds up to 140 €/ha and year</td>
</tr>
<tr>
<td></td>
<td>• Reduction of working hours up to 11 Manpower/ha and year resp. 39 % of working hours in the field</td>
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</tbody>
</table>

| **Considerable advantages for rural communities** | Land Consolidation (L.C.) gives the communities a competitive edge on about 15 % in comparison to communities without L.C. |

<table>
<thead>
<tr>
<th><strong>Efficient input of subsidies</strong></th>
<th>The granted subsidies cause individual and public investments up to the sevenfold (Multiplier effect)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Per 1 Mio € subsidies for ca. 130 people places of employment can be secured.</td>
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<tr>
<td></td>
<td>The additional production leads to an increasement of tax yield; 65 % of granted subsidies flow back to treasury.</td>
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</table>
Land Consolidation in Bavaria contributes to a sustainable development of rural areas in

Based on bottom up actions of citizens

Social aspects

Economic aspects

Ecological aspects