

Wanted: alternatives for program-driven land consolidation

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Key words: land consolidation, challenges, rural-urban interplay, modern governance.

SUMMARY

Like many instruments for spatial policy, land consolidation has been subject to continuous modification since its legal emergence. Such modifications initially were optimisations of the procedure, with the intention to enhance the effectiveness of land consolidation in rationalising agriculture. But today, land consolidation faces challenges that are so profound that in some countries the system seems no longer appropriate to apply. The dynamics and complexity of society conflict with the original program-driven and top-down approach. Furthermore, the original procedures are too time-consuming compared to the pace of rural changes.

Although spatial developments – in terms of population density and agricultural difficulties – are very much alike in the Netherlands and Germany, the modern challenges have a devastating effect on the Dutch system, whereas in German practice it seems to be business as usual. This difference is on the one hand understandable because the procedures are completely different. But it is also surprising because up to the 1990s the evolution of both countries' practices was identical. The comparison of the Dutch and German experiences presented in this paper exemplifies what elements in a procedure and what characteristics of rurality make land consolidation cope.

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1. INTRODUCTION

Like many instruments for spatial policy, land consolidation has been subject to continuous modification since its legal emergence. Such modifications initially were optimisations of the procedure, with the intention to enhance the effectiveness of land consolidation in rationalising agriculture. Section 2 gives a brief description of that period.

But today, land consolidation faces challenges that are so profound that in some countries the system seems no longer appropriate to apply. The dynamics and complexity of society conflict with the original program-driven and top-down approach. Furthermore, the original procedures are too time consuming compared to the pace of rural changes.

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This paper explores the before mentioned modern challenges and what we can learn from the Dutch-German divergence in Section 3.

2. THE APPLICATION OF TOP-DOWN CORRECTION

Let us first see what the traditional application of land consolidation looked like, and the context that made that possible. The main characteristic is a clear division of interests and power: rural areas are monofunctional production-space, increased agricultural production is in the common interest and the national government provides the laws and the money to accomplish this increase.

2.1 Clear monofunctional challenges: food security as key policy objective

Just after World War II, the issue of parity between the rural and urban standard of living arose all over Europe and there was a strong awareness of the importance of food security partly induced by wartime experiences. This triggered a widespread urge to rebuild and expand agriculture. The typical reaction was to use land consolidation as a tool. In the heydays of land consolidation, the instrument was embedded in explicit programs (or campaigns, if you like) for rural improvement.

Leading document for the program in the Netherlands was the priority scheme (CCC, 1958) that had to be made - in order to secure coherent policy and to prevent discouraging waiting applicants - in reply to the introduction of the 1954 Law that caused land consolidation to play a role of national importance and the number of requests to exceed the available budget by far. This multi-annual plan defined targets for land consolidation policy, as well as requirements for requests and a measure for urgency that involved only agricultural

considerations. In Germany the so-called *Lübke*-plans were the leading documents for this agricultural restructuring operation.

2.2 Governmental efforts through funding and refining

The by that time generally accepted importance of land consolidation for food security triggered two governmental efforts: (1) providing an advantageous financial basis for a high pace of land consolidation project and (2) making the procedure as effective as possible.

The financial basis foremost implied heavily subsidising the costs of the land consolidation projects. The projects entail costs like making physical changes in the landscape, reallocating farm buildings, notary costs for new land ownership certificates, surveying costs, etc. The more subsidies, the lower the remaining costs to be paid by the participants, the better the support among farmers.

Apart from subsidising the costs of project execution, the Netherlands and Germany also established and financed proper organisational backing for intensive land consolidation. Special governmental departments were assigned with managing the projects and contributing and acquiring the knowledge needed for thoroughly improving the agricultural production conditions in the project areas.

As for the second governmental effort, in Dutch and German land consolidation history we can observe continuous fine-tuning of the procedure in order to raise its effectiveness. Especially on who has the power to start a project, there appears to be a constant relaxation in response to the growing confidence that this untested and powerful instrument received. Details about this fine-tuning are provided in Van Dijk (2004).

2.3 Non-agricultural interests arise: objection against agricultural pollution

The first disturbance of the clear division of interests and power came in the 1970s. Food security, namely, came with a price: rationalisation of the landscape. In both the Netherlands and Germany, hedgerows were removed, meandering brooks were canalised, flowering meadows were converted into billiard sheets. As the intensity of agricultural production kept rising under the continuous supply of cattle food and fertilising inputs from outside, the surface water that once was home to many plants and diverse aquatic fauna turned either brown or green.

In both countries, the public demand for ending this pollution grew together with a rising appreciation of nature and landscape. At the same time, the need for a further raise of agricultural production had disappeared but was replaced by the need for ensuring reasonable agricultural incomes. Nonetheless, the political power of the agricultural lobby was considerable.

One could ironically say that land consolidation was criticised for being successful. For land consolidation had accomplished the goals it set out to achieve. The 1970s brought a counter-movement, like history on all kinds of themes shows so often.

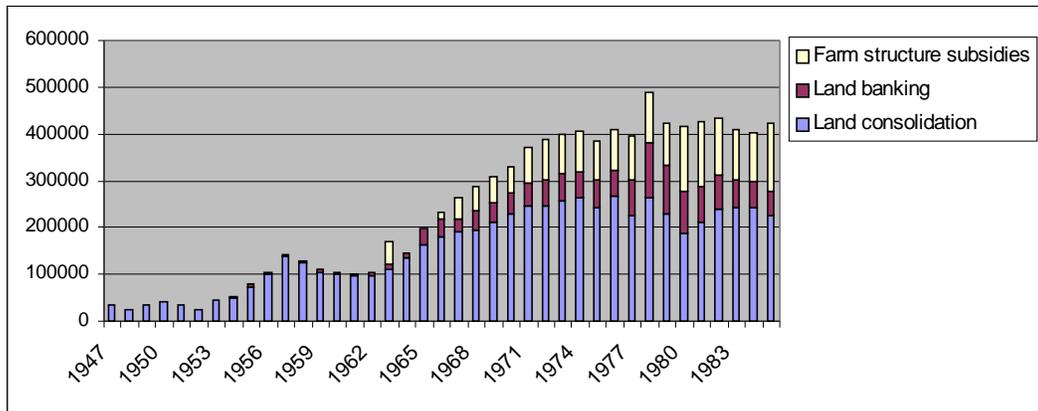


Figure 1: Dutch governmental expenditures on improving agricultural production structure.
Source: appendix of Van den Brink (1990)

So, despite its success in achieving the goals it was designed for, the **Dutch** 1954 Land Consolidation Act was evaluated in the years 1964-1968 by a special working group (Witt, 1968). Despite the criticism, the working group did not plea for a totally new, more comprehensive instrument, but suggested a revised version and special laws for specific areas.

Soon after the commission completed its work, the land consolidation budget was restricted (See Figure 1), meaning reduced initiation of new projects (a maximum of 40,000 ha per year from 1974 on) and an increase of the share the farmers would have to pay (Greve, 1988). The explicit target of farm enlargement soon disappeared from the land consolidation plans (Van de Kamp, 1994).

In 1985, long after the first serious attempts to reform land consolidation, a new Law was established (the draft law had been deposited in 1979 already). The new Law made land consolidation subordinate to spatial planning, enabling projects that strengthened and integrated several types of land use. The dominance of agriculture was supposed to be erased. In practice, however, the achievements in terms of broader planning were disappointing. As a consequence, a new commission was appointed to advice on altering the procedure. The conclusions included focussing on improving the project area instead of the separate sectors represented in that area, and more importantly, changing the constitution of the executive organisations (Gorter, 1990).

This painstaking incorporation of broader objectives resembles the **German** practice where despite the public debate, the legal renewing of 1975 did not actually change the procedure and thus ecological and agricultural interests did not cease to collide. In the 1970s, conservation of nature and environment became an issue that did not leave land consolidation unaffected. Land consolidation became the centre of dispute between ecology and economy.

3. CHALLENGES OF RURAL-URBAN INTERPLAY

The 1970s eco-movement set the trend for the decennia to come. The clear objectives were replaced by more complex issues. Increased agricultural production was no longer a common interest, rural areas no longer merely production space, governments no longer the monopoly of power and wisdom.

3.1 Challenges of dynamics and changing rural value

By 1990, rural areas had been granted a completely different value compared to the time that land consolidation was conceived. Rural areas no longer represent the space that agricultural enterprises use to provide food for the society (production-space). The production of food is no longer an uncertain and carefully safeguarded issue. Instead, overproduction and management of surpluses have become important agricultural and political problems. Rural areas have made a perceptual turn from production-space (a utilitarian discourse) into

		<i>Densely populated regions</i>	<i>Regions with signs of urbanisation</i>	<i>Rural regions</i>
1989	Acreage (sq.km)	67,084	96,262	84,885
	% of total	27.02	38.78	34.19
	Inhabitants (x 1000)	32,766	17,905	9,877
	% of total	54.12	29.57	16.32
2000	Inhabitants	35,499	19,586	10,719
	% of total	53.95	29.75	16.3
	Growth inhabitants (%)	8.34	9.39	8.52

Table 1: Developments in rural urbanisation in former Western Germany. Growth is partly induced by migration from East to West within Germany. Source: Borchard et al, 1994

consumption-space (an arcadic discourse).

The reason for this transition is that people now have the possibility and the drive to enjoy rural space. The possibilities obviously lie in the fact that (1) people have much leisure time that they want to use to the full, (2) car-mobility provides the means to swiftly travel large distances against low prices, enabling (3) ever more people to choose for commuting to country houses or villages. Rural areas thus are no longer the countermold of the urban environment, but a consumable for all civilians.

The motive of this living and relaxing in the countryside may be the hectic educational and professional carriers that Western European people now have. The rural living-environment is a welcome compensation for the stress and chaos of daily life. Villages appeal to the need for space, to being in control and to being part of a stable situation. Living in a village provides chances for self-fulfilment as one can give his house a personal signature as well as his role in the local community (see Heck, 1990; RLG, 2002, p. 6).

Dutch and German rural areas have thus to an important extent become metropolitan landscapes: open and green but within the influence of urban concentrations. The prognoses are that there will remain a considerable demand for rural living in the next decades (the Netherlands: Van Dam *et al*, 2003 (approximately 200,000 dwellings); Germany: Schrader, 1997). The above mentioned motives apparently represent a process of deconcentration (Gatzweiler, 1999), since surprisingly, the growth of the total Dutch population is modest and declining (CBS, 2004) and in Germany even negative (Schmid *et al*, 2000), although migration toward big-city regions results in a patchwork of growing and shrinking regional populations (Kocks, 2003).

The result of this trend toward a metropolitan landscape is fundamental, namely a gap between societal objectives for rural areas and the interests of landowners. The objectives and interests on a local level of scale no longer correspond.

3.2 Need for lean and flexible instruments

The response of land consolidation to the challenges of the 1990s is only partly the same in the Netherlands and Germany. There is similarity on making land consolidation leaner – less time-consuming procedures for fast results against lower costs.

Dutch ideas for ‘leaning-up’ procedures were generated by several working groups. The process was called ‘*herijking*’ and the main objectives were to save time and money. Governmental budgets for agricultural restructuring were dropping and the projects took so much time that plans were outdated even before they were completed.

The working groups concretely proposed adaptations of the procedure, of which the implications on the daily land consolidation practice are not always clear yet and counter arguments are put forward.

§ Restricting the reallocation plan to exchanged parcels only; the normal land consolidation procedure in the Netherlands affects all parcels within the project boundaries. So, all parcels are valued and surveyed and newly inscribed in the land registry. Although, some 60 percent of the parcels do not change owners at all (Holtslag, 1997). However, Groot Nibbelink and Sonnenberg (1999) point out that separating the exchanged parcels from the untouched parcels means additional work, whereas the seemingly unnecessary effort in the normal procedure in fact does not need extra work.

§ Improving parcel exchange; in many projects, relatively limited goals are justified. Choosing for voluntary parcel exchange (‘*kavelruil*’), that would save time because it does not require a comprehensive analysis of all interests and problems that affect the project area, like land consolidation projects do. However, Holtslag (1997) argue that the obstacle of a more large-scale application of parcel exchange could very well be the absence of regulation that allow forcing unwilling participants to co-operate.

§ Concentrated public inspection; the (1) list of participants, (2) first valuation, (3) reallocation plan, (4) second valuation and (5) financial arrangements (Boers and Mulder, 1997) all are subject to public inspection, thus stalling the process. Combining them in one document (which must not and may not lead to a reduction of the security for participants; Van der Helm, 1997) means that the total time the project is stalled is seriously reduced. However, the objections that are raised will be of a more complex nature and will therefore need more time to resettle.

§ Abolishment of data-collection when good sources are available; Holtslag (1997) argues that we can now assume that the Dutch land registry has a level of accuracy that no longer requires land ownership data (names of owners and tenants, mortgage data and exact location of boundaries) to be checked and measured again, and soil maps are sufficiently detailed and accurate to allow the design of the reallocation plan.

§ Transparency and mutual understanding; both Van den Brink (1996) and Holtslag and Van Vugt (1997) point out that information management needs careful consideration. When certain data are not transferred to a certain (group of) stakeholders, misunderstandings and mistrust can rise very easily. New participatory ways of project management are gaining importance. For land consolidation in particular, it is considered essential to provide in moderators that have special training for this type of negotiation and are have an absolutely neutral attitude toward the outcomes.

Like in the Netherlands, the emphasis in the most recent **German** legislative revisions is on an increase in the speed and on cost-efficiency. The reasons for this are, again, the decaying governmental financial resources and the increasing dynamics in agriculture. Also in Germany, unnecessary actions are to be avoided, which is sensible for the targets but it can mean reduction of participants' securities.

Thurmaier (2002) gives an overview and relates changes to a broad reconsideration of the role of the government within society. The German federation pursues limitation of governmental responsibilities, improved cost-efficiency and simplicity and transparency. As a consequence, the workforce on the land consolidation agencies has to shrink substantially (29% before 2005), but the organisation structure remains untouched. Concrete proposals for how to change the land consolidation practice are prepared by several working groups, composed from employees of related agencies as well as from organisations that represent employee-interests.

Proposals that may be implemented in due course are:

- § the establishment of a simplified village renewal that can be applied separately from a land consolidation project,
- § emphasis on simple and fast instruments and on infrastructure-related projects. A proposal for completely stalling all new applications for regular land consolidation has been rejected,
- § minimising investments in physical changes in the landscape, like road improvement and adaptations to water courses,
- § simplification of land valuation and not taking sections into account where actual exchange of parcels is not likely,
- § data-collection by surveyors is to be limited to the absolute minimum.

3.3 Challenges of changing governance

Together with the emergence of the urban-rural interplay, we see a shift in the way a government intervenes in society, a public-private interplay, if you like. Among policy-scientists, there seems to be consensus that Western societies are evolving toward a model of horizontal governance, opposite to the classical vertical approach.

Various accents and labels are used: Forester (1993) refers to 'practical-communicative versus instrumental', Driessen *et al* (1995) to 'network planning versus hierarchical planning', De Vroom (1994) to 'negotiation network versus neo-corporatism', De Bruijn *et al* (2002) to 'process management versus project management' and Carton *et al* (2002) to 'development planning versus admittance planning'. But they all refer to the same change in governance as a reaction to societal developments and to the apparent ineffectiveness of the classical top-down approach.

The rural planning system cannot escape from this transition (RLG, 2002). New ways of governmental intervention must be sought, a challenge for the traditional land consolidation practice that still uses the recipes from the glorious 60s.

In the vertical approach, the state had a central role in society and from this position – in the top of the societal pyramid – it aimed to control civilians and private organisations. The process of establishing and implementing policy mainly took place top-down. The centre of power determined how things should be done and then made a program to achieve the required changes. Policy was mainly a matter of control. Legislation is an important way to retain this control (for instance through permits).

The vertical approach in retrospective is an icon of the 1970s and 1980s, a period in which belief in the malleability of society made the state intervene ever deeper and more frequent into civilians' lives. It also is reflected in the way land consolidation was practised: as an

<i>Vertical governance:</i>	<i>Horizontal governance:</i>	
Hierarchy-oriented	Network-oriented	<i>(Driessen et al, 1995)</i>
State outside society	State within society	<i>(Goverde, 2000)</i>
Participation means obstruction	Participation is an opportunity	<i>(Forester, 1993)</i>
State can act independently from society	State heavily depends on other actors for achieving objectives	<i>(idem)</i>
Uncertainty is undesirable	Uncertainty is valued for its opportunities	<i>(Stout, 1994)</i>
Application of legal and financial instruments	Consensus is laid down in covenants	<i>(idem)</i>
Two layers: government and individuals	Multiple layers: government, interest organisations, market parties, individuals	<i>(idem)</i>
Unilateral	Joint responsibility	<i>(Gray, 1989)</i>
Linear decision-making and implementation: phases	Cyclic decision-making and implementation: rounds	<i>(De Bruijn et al, 2002)</i>
Problems are tackled by a project-wise approach	The planning- <i>process</i> is managed instead of the project	<i>(idem)</i>
Problem description is starting point for planning	Problem description is one of the challenges	<i>(idem)</i>
Decide, Announce, Defend	Dialogue, Decide, Deliver	<i>(Van den Bosch, 1995)</i>
External corrections of behaviour	Internalising new values	<i>(De Vroom, 1994)</i>
Stability, predictability	Dynamic, unpredictability	<i>(de Bruijn et al, 2002)</i>
Power based decision-making	Interest based decision-making	<i>(idem)</i>

Table 2: Characteristics of the classical style of governance versus modern trends.

executive tool for the government to tackle problems that the government regarded important and urgent. But for example agriculture had become much more dynamic, and thus required simpler, faster and more flexible instruments. Land consolidation procedures took well over 10 years. A time-span within which the goals set at the beginning of a project could very well have changed considerably before the project's completion.

The horizontal approach, however, acknowledges that the state is not the only actor that can be and should be responsible for problems in society. The dynamics and complexity of society no longer allow such an approach to be successful. The state is just one of the actors in an arena of others. Instead of using rules and procedures to control society, it negotiates with changing sets of actors. These sets are composed according to the problem at hand. Also, the ways in which decisions are laid down vary, from contracts to covenants. Successful governance through horizontal structures (networks) requires that all involved acknowledge their mutual dependency. All involved have to want something the other can provide and also all involved must be able to offer something in advance, i.e. have the flexibility to make concessions to the others. The intention is to achieve a gain-gain situation. This is important because participation in a network is voluntary and actors can join or leave throughout the process. Without mutual dependency, horizontal governance is useless.

4.4 Need for reinvention – but why only in the Netherlands?

Up the 1990s, developments in rural instruments in the Germany are a déjà vu to the Dutch observer and vice versa. Both countries are spitting images on a detailed level in all kinds of themes, from ecological infrastructure to rural diversification, from the clash between agronomists and environmentalists to leaning up procedures.

But with regard to how the Netherlands and Germany differ in the way they managed the other changes: rural areas becoming consumables for urban residents and the changing style of governance. To the **Germans** there was no problem at all. Apart from the modest adjustments mentioned above, literature nor interviews reveal any urge for profound revision of the existing land consolidation legislation.

For the **Dutch** land consolidation, however, the 1990s brought a profound crisis. The volume and investments lag behind compared with history and political ambitions. Particularly the acreage that is in preparation for future consolidation is low; below 400,000 hectares, compared to the 1.3 million in the 1970s. The levels of yearly investments is around 100 million euros, which is much lower than in the 1970s, even without correcting for inflation. The projects that are taken into execution in the last couple of years all have a non-agricultural main objective. Symptomatic is the absence of the term ‘land consolidation’ in recent strategic policy documents on rural areas.

One explanation is that the projects are too time-consuming, leaving farmers in uncertainty for a long time. Moreover, it raises the chance of a project to be never executed because the participants’ interests have changed at the start of the actual execution. Declining governmental financing further depresses the land consolidation pace. A new – leaner and modulated – Dutch Land Consolidation Law (*‘Wet Inrichting Landelijke Gebieden’*), with a much broader objective, has been in preparation since 2000 but political priorities and legal problems stall the process.

Another factor contributing to the Dutch crisis is the gap in perception between farmers and government and, as a consequence, the lack of confidence. The government wants to use land consolidation to accomplish goals that do not have the support of the local farmers. The farmers therefore no longer regard land consolidation as a friend but as a wolf in sheep’s clothes that comes to impose governmental objectives against their will.

This may explain why recent experimental projects (like in Ponte; Van der Stoep, 2003) with a voluntary procedure can be more successful since farmers are much more at ease about what happens to their land; each individual can withdraw from the project when plans prove to be unsatisfactory. Then the power is equally divided. The Ponte-experience actually shows a Dutch move toward an approach that bears more and more resemblance to the German model. This trend also explains why in recent years, the acreage consolidated through voluntary land exchange is around 10,000 hectares, which is about four times as much as in the 1970s.

The Dutch-German development that paralleled for so long and suddenly diverted in the 1990s is quite intriguing. Although more research is still needed to determine the exact reasons for this difference, some tentative observations can be made:

§ The German legislative basis for land consolidation did not need revision to allow the paradigmatic changes to be implemented because the German Law is more flexible than its Dutch counterpart. The German §1 from the Law, refers to ‘general use and development of land’ as one of the main objectives of land consolidation. This term is

wide enough to address all kinds of objectives that society sets for a healthy and appealing rural landscape. In addition, §37 and §38 oblige projects to take into account the frameworks laid down in more comprehensive and higher-level spatial planning documents (like the so-called *Agrarstrukturelle Vorplanung*; see Borchard *et al.*, 1994): ‘the consolidation authority shall safeguard public interests and especially take into account the requirements of physical planning’. These documents reflect broad societal (not only agricultural) desires for the landscape and thus ensure the effectiveness of land consolidation even under new normative conditions.

- § With regard to the changing style of governance, German land consolidation legislation already was very democratic. The Body of Participants, that in a general assembly elects its board from its midst, has full control over the process. The Dutch procedure is mainly expert co-ordinated and farmers only have their votes to exert power onto the process (once whether to start a project, one whether to actually realise the parcelling design), which requires quite some confidence in the project management.
- § The German democratic project-management blends well with the open attitude of farmers toward outdoor recreation. Being aware of their public task of providing an appealing and accessible landscape, farmers generally accept crossing of agricultural parcels by strangers (Adelhardt, 1990, p. 93). The Dutch culture is more exclusive, applying fences and ditches to stress that trespassing is not appreciated.
- § The German culture may in turn partly be a result of the widespread part-time farming. A large share of the farmers has an additional non-agricultural source of income. This may make them more understanding to the ‘consumptive’ aspect of rural areas mentioned above and less allergic to developments that may reduce the agricultural income. In contrast to the German situation, full-time farming is predominant in the Netherlands.
- § The Germans have a flexible system for strategically acquiring pieces of land for future conversion of land use (for instance see Van Dijk & Kopeva, 2004). Objectives of village-extension and infrastructure projects can benefit from these strategic reserves.
- § Metropolitan issues can be managed in the German system through the instruments of village renewal (*Dorferneuerung*) and consolidation for urban purposes (*Baulandumlegung*, see Dieterich, 1996). These instruments have had a close relationship to land consolidation for a long time already. Dutch land consolidation is exclusively focussed on rural areas.

5. CONCLUSIONS

The issues of dynamics and complexity (interplay of interests) that characterise rural challenges in most Western European countries today are in a sense undermining the basis of the land consolidation concept: meticulously optimising the parcelling of individual owners. The carefulness collides with present day dynamics, the optimisation with agricultural policy, the mixed interests with the focus on agricultural ownership.

But apparently not every national translation of the concept into procedures (procedures differ in every country) is equally affected by present day complications. The comparison of the Dutch and German experiences presented in this paper exemplifies what elements in a procedure and what characteristics of rurality make land consolidation cope.

The differences in procedure (German procedure was participatory already) and in society (share of part time farming, culture toward recreational use of arable land) explain why so many decades of parallel development – in spite of the ever-existing procedural and societal differences – suddenly did diverge in the 1990s. This also proves that it would be a mistake to think that the Dutch and the German model are equally qualified for any situation, despite their differences.

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Terry van Dijk graduated in 1997 at Wageningen Agricultural University on the subject of Spatial Planning. After lecturing courses in Wageningen for some years he started a Ph.D. research project at Delft University of Technology in 1999. In 2003, his thesis 'Dealing with Central European land fragmentation' was published.

He is currently employed as a researcher at the TU Delft OTB Institute, and as PostDoc Land Use Planning at Wageningen University. Current research activities focus on the how to manage landscapes near metropolitan areas, that are subject to urban as well as rural interests.

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