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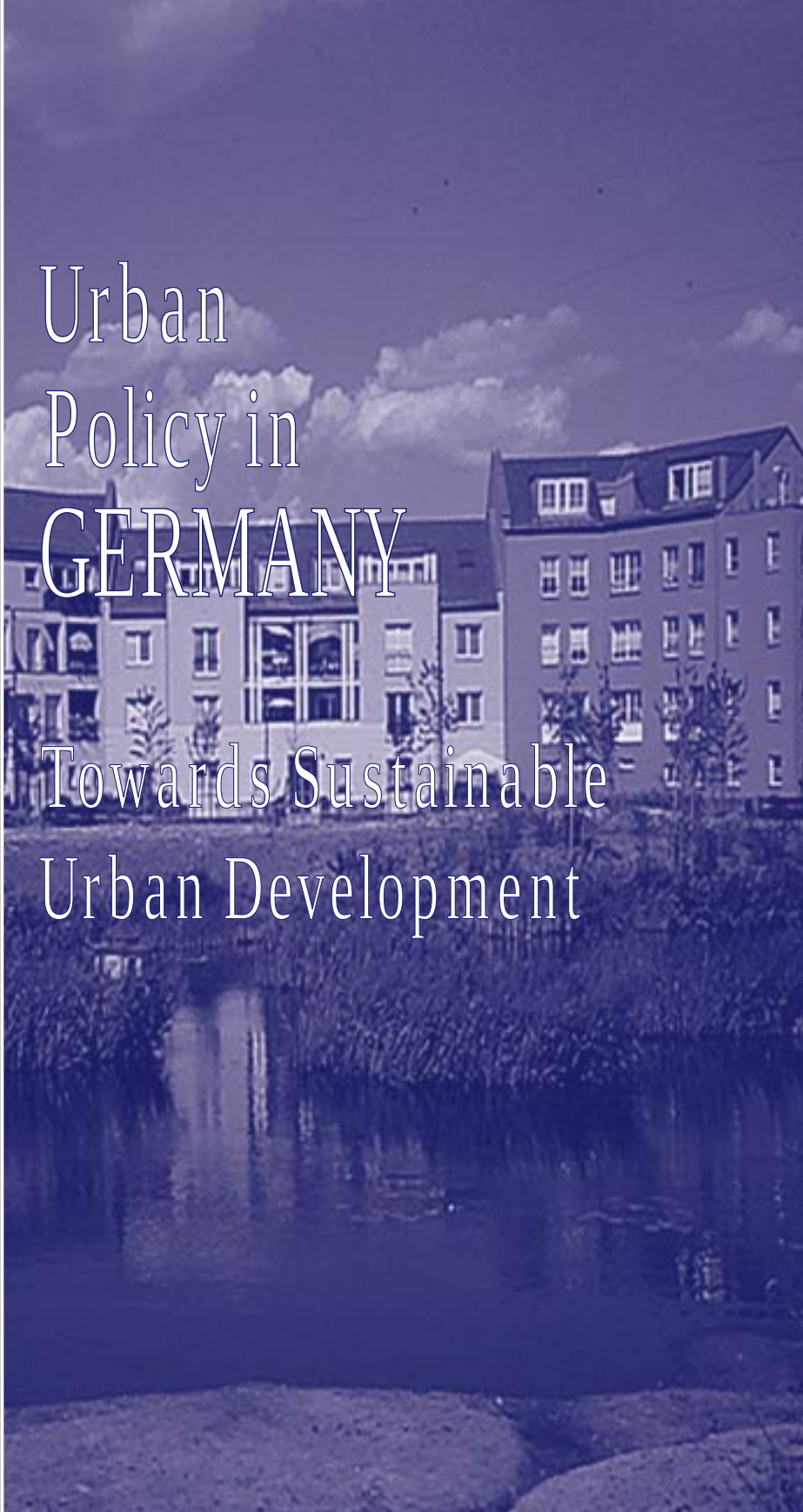
Urban Policy in GERMANY

Towards Sustainable Urban Development



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Towards Urban Sustainable Development

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Vers un développement urbain durable

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Introduction

This evaluation, which is a pilot study which should be followed by other country reviews, explores the issues raised by policies for sustainable urban development in an international context. Like sustainability itself, this exercise is essentially forward-looking because it attempts to identify some current or emerging problems. Until more evaluations of other countries are made, it is difficult to know how well Germany compares internationally but even in the absence of more comparative evaluations, this report already shows that Germany has made significant progress to remediate many problems inherited from the past, and to put in place measures that anticipate some of the problems of the future.

This evaluation of urban policy in Germany focuses upon the challenges of making urban development sustainable. The government of Germany was very supportive of the OECD Project on the Ecological City (1992-95), which promoted the integration of environmental issues into urban policy. On the eve of the 1996 UN Conference on Human Settlements convened in Istanbul, Germany and the OECD organised a conference in Berlin at which the OECD publication *Innovative Policies for Sustainable Urban Development* was made public. Such policies should aim to achieve economic growth and environmental improvement together rather than sequentially through a better integration of various sectoral strands (housing, transport, environmental protection, etc.). Because cities are the places where most of the environmental and social problems associated with economic activity can be found, sound urban policies are needed if progress at both the local and the national levels is to be made.

Sustainable urban development is a process. The successful implementation of policy, in turn, leads to new efforts to improve on what has already been accomplished. There is no single model or list of attributes of a sustainable city. And in any case, given the nature of technological and social change, no solution remains permanent.

Sustainable urban development stands right at the centre of various sectoral policies, at once being influenced by them and influencing them: social development, finance, economics, environment, traffic are among the most relevant. Urban development is relevant to all levels of government: the national level, the level of

the federal states (Länder) and the municipalities. Various actors are involved: home and property owners, tenants, planners, investors, traders etc. The framework conditions depend on trends such as demographic dynamics and levels of wealth, trends in mobility and technology as well as social and economic trends. In addition, public awareness, values and perceptions as well as policy trends are generating new models for urban development. Ideas about what is possible, which in the past have largely reflected the status quo, are now leading to the discovery of options and opportunities in existing cities.

At this time, to promote sustainable urban development, governments want to improve the attractiveness of city centres for business and residential use, modify land-use practices, enhance social cohesion, curb peripheral urban development, reduce car dependency and use, and strengthen the capacity of urban institutions to solve problems. A national strategy for sustainable development will have to be implemented through policies and programmes that are best adapted to local conditions,which vary from city to city. The 1996 OECD publication on *Innovative Policies for Sustainable Urban Development* highlighted national policies which strengthen the ability of governments at all levels to develop and implement better environmental policies for cities. Furthermore, the report urged governments to enhance procedures for cross-sectoral co-ordination at the national level and for multisectoral, integrative administration at the state and municipal level; co-ordinated transport and land-use planning was identified as a priority; and regulations, subsidies and taxes which promote unsustainable patterns of urban development were targeted. Sustainable urban development, of course, involves more than environmental problems: the social and economic dimensions of urban development cannot be disentangled from its spatial and environmental aspects.

This report highlights how the German federal government provides a comprehensive urban policy framework consistent with the role of the German Federal Länder and of the municipalities; it calls attention to recent policy innovations to promote inner city centres and to take account of recent trends in car use and suburbanisation; and it indicates some of the emerging issues that may call for a further strengthening of policies for sustainable urban development. Although the problems of sustainable development have to be solved in individual cities one at a time, this does not mean that the problems are a local matter only. This report demonstrates the complementary relationship between local, regional and national policies and innovations in a federal system.

Evaluations of this kind which are the building-blocks of policy analysis can only be undertaken with broad support across Member countries. The core of the exercise involved a study mission in Germany carefully prepared by Dr. Claus Wiegandt of the Bundesamt für Bauwesen und Raumordnung (Bonn), and by many people in the places visited by the expert team. The team consisted of

Stefaan De Rynck (DG XVI, EC), Ingrid Ernst (France), Hyun-Sik Kim (Korea), Carlos Salone (Italy), Michael Bach (UK), and Anton Kreukels (Netherlands, rapporteur). Their participation is warmly appreciated. Debra Mountford (Consultant, OECD) assisted in the preparation of the final report.

Executive Summary

This evaluation of German urban policy focuses upon the challenges for making urban development sustainable. Many of the problems nations confront that are associated with social and economic change, such as suburbanisation, rising car use, the regeneration of previously developed land, and the demands of global competition, are provoking a reassessment of existing urban policy goals and methods. The concepts of sustainable development call attention to the interrelationships among social, economic and environmental conditions which are often more apparent at the urban than at the national scale. Because urban development involves investments that have a useful life-cycle measured in years or decades, the quality of life that people will enjoy in the future will be shaped in part by commitments made now. On the one hand, therefore, urban policy is remedial insofar as it tries to cope with problems that already exist; on the other hand, it is forward-looking because it tries to guide development as it occurs, to provide better cities for the future. From this perspective, not only is sustainable development an appropriate concept for urban policy; the goals of sustainable development will be more easily achieved through effective policies for urban development.

Sustainability has become the organising concept for urban policy in the 1990s. Germany has been a leader among OECD Member countries in developing urban policies in pursuit of sustainability. Perhaps this has been a more urgent concern in Germany, given the dual challenges of globalisation and unification: the former has been accompanied by a process of structural adjustment which has called attention to the strategic importance of Germany's main urban centres even at the same time as it has led to the loss of many industrial jobs, with an impact on housing, the environment and economic opportunity in older industrial areas; unification has led to major investment in infrastructure, regeneration and housing in the formerly eastern Länder. As a result, the experience of Germany on such urgent problems as urban brownfields may be well in advance of other countries. An evaluation of German urban policy is therefore doubly interesting: first, to assess, not only for the benefit of the policy community in that member country, what has been accomplished in Germany and to identify future problems; and second, to share the German experience with the other member governments.

A survey of trends and conditions in the 1980s and 1990s is provided in the first chapter. This shows how suburbanisation and the growth of car use have affected settlements of different size categories. Both east and west are experiencing deconcentration in smaller urban areas. The polycentric settlement system of Germany has characteristics of flexibility and resilience which are assets at a time of rapid socio-economic change, accompanied by the growing importance of the global economy to more sectors and locations within Germany itself. This polycentric system appears to contain suburbanisation better than monocentric systems. When reinforced by policy measures, the polycentric system can have a positive effect on the vitality of urban centres.

The second chapter provides an overview of the constitutional and institutional framework for urban policy in Germany. The federal structure is of course found in several OECD Member countries. The unique properties of the German system involve the degree to which the rights and responsibilities of all three levels of government are elaborated in the framework legislation of the country. The German example shows that a central government in a federal system can have an important role to play through policy and public expenditure, to give shape and direction to policy and planning at the sub-national levels of the Länder and municipalities (with examples on infrastructure and urban competition, housing and housing). The German example is of interest at a time when many governments, in centralised and federal systems alike, are re-assessing the roles and responsibilities of all levels of government. Because the goals of sustainable development necessitate better coordination among different levels of government as well as across sectors, these issues are important.

The third chapter provides an overview of policy concepts and measures to guide more development to the cores of urban regions. It also provides a more detailed accounting of inititiaves across Germany to improve existing cities by combining social and environmental renewal with investment and job creation. Examples cited include Nordhorn, the International Building Exhibition IBA at Emscher Park, Leipzig, Osnabrück, large housing estates in the east such as the Marzahn estate in Berlin, Potsdam, and Münster. This overview concludes with observations about public-private partnerships, public acceptability and conflict resolution, and coordination between local and national levels to achieve policy goals.

To provide a comparative perspective on German problems and policies, Chapter Four focuses on brownfields and car traffic. These two themes are selected because they are important in the overall agenda of sustainable urban development. By looking at these issues, however, it is possible to see that the progress is uneven. The impressive gains that have been made concerning the regeneration of contaminated urban sites, with positive economic and social as well as environmental outcomes, give grounds for optimism that a public commitment, to control

urban sprawl and provide a better framework for investment, can produce tangible results. The extension of car use and its association with suburbanisation, however, show how difficult it can be to coordinate trends in urban lifestyle and consumer behavior with land use measures. Regeneration of urban brownfields can bring to urban land markets attractive alternatives to suburban and greenfield development.

The final chapter presents for consideration by policy makers, several recommendations for an improved response to the challenges facting the German urban system. These are divided into three categories.

1. Spatial planning and economic development covers the competitive pressure facing cities in Germany as in all countries, pressure which can put short-term results ahead of medim-term goals. The evaluation report recommends measures for a better use of urban centres, for more mixed-use development and more flexible zoning, for better cross-sectoral integration, support for the regeneration of urban brownfields and for the rehabilitation of large post-war housing estates.

2. Given the growing international dimension to German urban development, shaped at once by the European Union and by globalisation, the institutional context of policy will change. Competitiveness and attractiveness of cities are increasingly assessed according to international standards. Cities must become more sensitive to the international framework. Recommendations call for better coordination and information sharing across ministries and between the national and lower levels of government. Cross-border co-operation between cities, and in EU border regions, with cities in other countries, is also important. Finally, Germany should maintain its commitment to international co-operation in the field of sustainable urban development.

3. The last section identifies emerging trends which call for continual innovation in urban policy. These trends include changes in household size, changes in the nature of work and the distribution of income, ageing, technological innovation, and changes in lifestyles and values. The evaluation report recommends that planning systems should be more adaptable, so that mid-term revisions can be made more easily. Research and information should remain a priority, so that government has the capacity to make forecasts based on high quality data and qualitative analysis.

The report concludes that urban policy in Germany is making a positive contribution to the country's competitiveness and sustainability. At the same time it points at opportunities for policy innovations which will be needed to bring the goals of competitiveness and sustainability together.

Chapter 1

Changing Patterns of Urban Development in Germany

1.1. Urban trends in Germany: an overview

Current trends in settlements and urban development show that urbanisation is continuing. Demand from private households for accommodation and the location demands of companies, in conjunction with economic cost/benefit considerations, are the primary driving forces for the continuing expansion of settlement areas. Settlement growth is shifting further from central towns into towns and communes in the surrounding areas. The result is a land-consuming spatial expansion of urban agglomerations, an increase in motor traffic with a consequent increase in environmental pollution due to emissions and noise, a further loss of green areas near the settlements, and a further reduction in ecological compensation functions.

Generally, an unrestricted urbanisation process causes both ecological and social problems. In the central towns, it results in structural deficits. Whilst the high-income population groups move into the urban fringe, the lower income groups are left behind. Many households in metropolitan areas which have difficulty finding affordable accommodation have limited mobility. The problems of poverty predominantly produced by unemployment often only become visible in large towns. This is further intensified by rapid changes in economic structures which lead to considerable job losses in traditional industries and to the emergence of a large number of new, poorly paid jobs with no job security in the consumption-oriented service sector. The price of modernisation and restructuring are social segregation processes in certain urban areas.

The economic development perspectives of cities in Germany and their finances are diverse. Polarising patterns are to be seen. Some West German towns and urban regions face a future characterised by stability or strong growth. A few East German towns will, in the long term, take on the development pattern previously known in the West. Many of the towns in the east of Germany, however, are affected by persistent unemployment and job market problems and a further decrease in the population. Although the economic gap between West and East

Germany will be reduced in the medium term, at the same time, the differences between the East German towns and cities, and thus the differences in the economic and financial power between the towns and cities in Germany, could nevertheless become larger. As a result, the scope for a sustainable settlement policy will differ greatly from town to town.

Certain factors and trends influence policy for sustainable urban development:

- demographic and geographical patterns, including demographic distribution, mugration flows and age distribution;
- features and dynamics of the German polycentric system;
- economic and social issues, including employment structure and availability, income development and distribution; and
- land, housing and infrastructure.

1.2. Demographic and geographical patterns

This section presents some basic facts and figures about the German urban system and its dynamics. The starting point is the classification in Germany of three types of regions, with a subdivision of different area settlement units at the local level.

1. Agglomerations or strongly urbanised regions with pronounced densely built up areas;
2. Urban regions, areas which are in a process of becoming more urbanised;
3. Rural regions: areas that are rural.

The western part of Germany has 64 million inhabitants, representing 78% of the national population. Over 50% live in strongly urbanised regions. Of the 18 million inhabitants of the eastern part some 30% live in the urban centres of the strongly urbanised regions. Berlin – with 3.5 million inhabitants – counts alone for 2/3 of this.

As Table 1 reveals that the population increase in the western part of Germany was positive, whilst negative in East. This contrast in the demographic dynamics is related to the fall of the East German regime in 1989 and re-unification in 1990. Inward migration was largely responsible for the increase of population in the west between 1989-1991 in all regions, although some regions also experienced positive birth ratios. Migration was both external, aliens and "Aussiedler" (ethnic Germans returning from abroad) and internal, "Übersiedler" (immigrants from previous Eastern Germany). The decline in population in the east was exacerbated by a negative birth ratio in all East German regions. Berlin was the only region during this period to experience inward migration in the period of 1989 and 1991.

Table 1. **Population of Germany differentiated by area type, 1996**

Settlement structural area types	Inhabitants in 1 000 31.12.96	Area in km² 31.12.96	Population density 31.12.96	Growth 1990-96
Agglomeration areas	**34 576**	**67 173**	**515**	**3.5**
Central towns	14 993	7 247	2 069	0.7
Suburban counties	19 583	59 926	327	5.8
Urbanised areas	**22 679**	**116 931**	**194**	**6.0**
Central towns	3 444	2 922	1 179	1.8
Suburban counties	19 235	114 009	169	6.9
Rural areas	**7 166**	**64 347**	**111**	**5.8**
Old Länder total*	**64 421**	**248 450**	**259**	**4.6**
Agglomeration areas	**8 216**	**29 092**	**282**	**–1.3**
Central towns	4 771	1 561	3 056	–2.0
Suburban counties	3 445	27 532	125	–0,4
Urbanised areas	**5 828**	**35 455**	**164**	**–5.0**
Central towns	1 402	1 266	1 107	–8.0
Suburban counties	4 426	34 189	129	–4.0
Rural areas	**3 548**	**44 010**	**81**	**–4.7**
New Länder total*	**17 591**	**108 557**	**162**	**–3.3**
Agglomeration areas	**42 792**	**96 265**	**445**	**2.5**
Central towns	19 764	8 808	2 244	0.0
Suburban counties	23 028	87 457	263	4.8
Urbanised areas	**28 507**	**152 385**	**187**	**3.6**
Central towns	4 846	4 188	1 157	–1.2
Suburban counties	23 661	148 197	160	4.6
Rural areas	**10 714**	**108 357**	**99**	**2.1**
Germany total	**82 012**	**357 007**	**230**	**2.8**

* Berlin is regarded as belonging to the new Länder.
Source: *Aktuelle Daten zur Entwicklung der Städte, Kreise und Gemeinden, Bundesamt für Bauwesen un Raumordnung,* 1998.

During the eighties in West Germany the population first declined in the agglomeration areas, but given the increase in cross-border immigration in the second half of the decade, the overall population increased between 1980 – 1989 by 0.6%. The population in the urbanised areas and in the rural regions grew by 1.9% and 2.6% respectively. Similarly the agglomeration areas in eastern Germany only grew by 0.7%. In East Germany this growth was a result of migration towards the strongly urbanised regions, especially towards East-Berlin, from the (lesser strongly) urbanised regions and the rural regions. The latter two regions in eastern Germany experienced even a decline of –1.8% and –0.9%, respectively. Migration within Germany resulting from the changes in the 1989/1990 period focused in

Table 2. **The population in the 15 biggest cities in Germany, 1996**

	Population 31.12.96 (× 1 000)	Density 1996 (inh./km^2)	Growth 80-92[a] (in %)	Growth 89-97[b] (in %)
Berlin	3 458.7	3 882	13.7	1.4
Hamburg	1 707.9	2 261	2.7	5.0
Munich	1 225.8	3.948	–3.3	1.6
Cologne	946.3	2 336	–1.6	0.0
Frankfurt/Main	647.3	2 606	5.5	1.9
Essen	611.8	2 908	–3.1	–2.0
Dortmund	597.0	2 130	–1.3	0.5
Stuttgart	585.5	2 824	3.2	2.6
Düsseldorf	571.4	2 633	–2.1	–0.5
Bremen	548.8	1 681	–0.1	0.8
Duisburg	532.7	2 288	–3.4	0.1
Hannover	522.5	2 560	–2.0	3.3
Nüremberg	492.8	2 652	3.3	1.5
Dresden	457.1	2 888	–11.7	–13.8
Leipzig	461.3	2 032	–6.7	–8.0

a) (Number of inh. 31/12/1992 – Number of inh. 31/12/1980)/Number of inh. 31/12/1980 × 100.
b) (Number of inh. 31/12/1996 – Number of inh. 31/12/1989)/Number of inh. 31/12/1989 × 100.
Source: Continual Spatial Monitoring System BBR.

absolute terms on the strongly urbanised areas in the western part of Germany. In relative terms the urban and rural regions in the western part experienced the strongest growth in the period after re-unification, where as the less highly dense municipalities and rural municipalities actually experienced an increase in population. In the eastern part of Germany the strongly urbanised regions were less affected by outward migration than other regions.

Central towns experienced some growth in 1991, largely as a result of the significant number of migrants from abroad. Aliens migrating to central towns increased as a percentage of the population of these centres between 1989 and 1992 from 3.8% to 15.2%. In 1992 almost 40% of migrants settling in Germany lived in central towns, compared to only 25% of the overall population living in central towns. In the agglomeration areas in the eastern part of Germany all types of municipalities experienced population decline in 1991 as a result of migration to elsewhere in Germany.

Migration flows show an overall pattern, in which intra-regional suburbanisation in agglomeration areas, resulting from the loss of population in the central towns, is compensated for by migrants from elsewhere in Germany and from abroad. The structure of the territorial system of the agglomeration areas remains intact, but its social form has changed: families with children in the western and

eastern part of Germany have moved outwards from the central towns to the surrounding municipalities, and in contrast with this, young people (18-29 year) located in central towns.

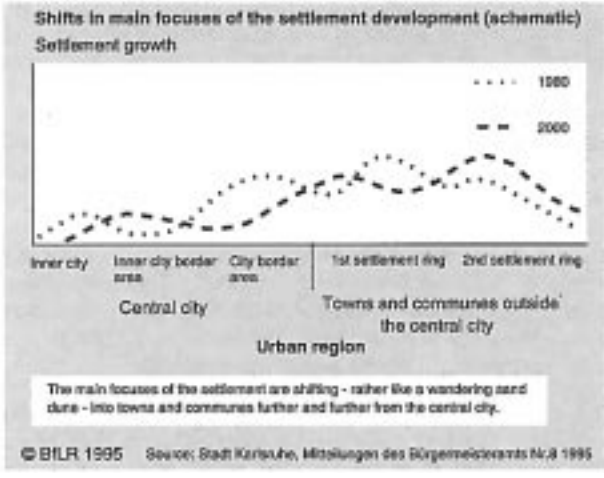
The divergence between the east and the west in the recent past appears to be of a temporary nature. Statistical evidence over a longer period reveals a convergence and return to the trends that were typical for Germany, as for most western countries, from the seventies onwards. In both parts of Germany city centres have lost functions, and outside areas have gained new ones. This transition is shown more dramatically in the restructuring of eastern cities compared with western cities, particularly in terms of the social composition and with regard to the overall situation of urban and rural areas (Göddecke-Stellmann, 1995). Nevertheless, some differences between eastern and western parts are pronounced. City centres in the western part of Germany show a mix of functions and often high quality housing compared to the less pronounced multi-functional profile and lower housing quality of city centres in the eastern part of Germany. Similarly, peri-urban housing estates which had a low profile in the west had a high profile in the east. Of particular importance is the difference between the eastern and western parts of Germany with regard to suburbanisation, which was pronounced in the west from the end of the sixties, whilst it was marginal in the east.

Germany, as with most western countries, is more generally characterised by increasing suburbanisation, not only in terms of housing, but also for economic and other functions. Figure 1 explains this process of suburbanisation as a "walking dune" from the towns and urban centres into the surrounding areas, nearby and further away (Böltken, 1995, p. 217-p. 219).

With regard to the age structure of the overall trend is an ageing of population: for the year 2010 the Federal Statistical Office expects 25% of the population to be over 60 years old and 19.3% under 20, meaning that at most 55% of the poplation would be employed. Household sizes are shrinking and families tend to be smaller. Taken with the rising proportion of older people, this results in an increasing demand for smaller housing units and appartments.

To conclude: suburbanisation is related to the technical and organisational restructuring of the economy (rationalisation and growth), changing living patterns, housing, employment, the regrouping of facilities, the delivery of goods and services, and leisure provision. The result is an ongoing fragmentation and specialisation of urban areas over an increasing surface. Driving forces here are the price differences between the core areas and the surrounding suburban areas and the attractiveness of these latter areas as areas to live. Firms and companies also suburbanise more if as flexible organisations they are able to locate at new places, and are independent of any particular locations. Suburbanisation is an issue for both the old and new states with the increased significance of the private motor car

Figure 1. **Urbanisation between Urban Centres and their Surrounding Areas**



Source: Human Settlements Development and Policy Report, 1996, p. 42.

growth, especially after the re-unification in the Eastern part of Germany (where a growth of motorisation of over 250% occurred between 1990 and 1995). Whilst the process of suburbanisation and even exurbanisation in western Germany was dominant before unification, the regime of Eastern Germany specifically focused on urban areas and concentrated its investments in housing there. East and west had also differing approaches to housing and social groups. In the eastern states investments in housing were concentrated on large prefabricated housing estates in the outer areas of the cities or outside the cities that were occupied by middle or mixed middle-lower classes, whilst those living in city centres were lower class. In contrast with this, in western Germany the large post world war II housing estates were occupied in general by lower social classes.

1.3. Features and dynamics of the German polycentric system

An overview of the fifteen main German cities gives an indication of the polycentric character of urban Germany.

This polycentric system of cities, characteristic for Germany, manifests itself at different levels. The introduction of the federal system resulted in states with their own capital, thus developing a polycentric system within extended regions. At the

level of agglomerations, the central city is surrounded by a number of middle sized centres. The system implies that Germany has no megalopolis equivalent to London or Paris. Berlin has only 3.5 million inhabitants, followed by Hamburg with 1.6 million, Munich with 1.2 million and Cologne with around 1 million. The polycentric system presents itself first of all at the level of urban centres. The most pronounced example of a polycentric structure at the level of agglomerations is found in the Rhine/Ruhr area and the Rhine/Main area where, instead of one predominant town there are often several towns of roughly equal size. Industrial urban development in the mid 19th century and globalisation in the late 20th have been associated with large megalopolitan centres, or world cities, that have more in common with each other than with their domestic hinterlands. This is not what Germany has. Several large German cities have important multi-sectoral roles, often with an international dimension. This gives the German urban system considerable flexibility.

The polycentric character can also be seen in the functional specialisation of urban centres in Germany. Main functions are spread over a great number of urban centres. Apart from the future status as the capital, Berlin is the centre for culture, art and the media. Hamburg is a centre for the media and high tech and aviation industries, together with Bremen is the main port of Germany, Frankfurt is the financial centre of Germany (along with Düsseldorf). Stuttgart and Munich are industrial centres particularly for electronics and cars. However, some of the companies in these cities have decided to move their headquarters to Berlin. Leipzig is a centre for the international trade market and is trying to revive its former role in publishing and the media, and Hannover will be the location of the world fair 2000.

"The central places", as defined by the regional planning of the states, are a decisive factor in this settlement system. In this conception of central places the highest order is the city with more than a million inhabitants. In this category are the four biggest cities: Berlin, Hamburg, Munich and Cologne. A second class of cities between 500 000 to 650 000 inhabitants includes Frankfurt, Essen, Dortmund, Stuttgart, Düsseldorf, Bremen, Duisburg, Hannover, Nuremberg, Leipzig and Dresden. A third category contains urban centres between with 100 000 and 500 0000 inhabitants. The polycentric character can not be illustrated better than by referring to the total number of 83 cities with at least 100 000 inhabitants. All these are also the centres for the larger, supra-regionally significant economic and job market centres. Three-quarters of the population in Germany can reach such centres within 30 minutes. Middle-order centres, generally towns with 20 000 to under 100 000 inhabitants, fulfil important functions in the regional supply of jobs and consumer goods for the short and medium-term requirements. In the rural areas, the lower-level central towns (small towns) are particularly important for meeting the requirements of the local population. While in the sixties the industrial oriented town dictated the settlement system, nowadays the major service and administration centres are decisive. The importance and functions of the towns are to be seen

from their size and economic specialisation and to the extent by which their influence extends to their hinterland. The catchment areas of the largest towns and most populous agglomeration areas extend well into the rural areas, for example as regards commuter traffic (*Human Settlements Development and Policy Report, 1996,* p. 19).

The specific polycentric urban system of Germany is illustrated in the following maps.

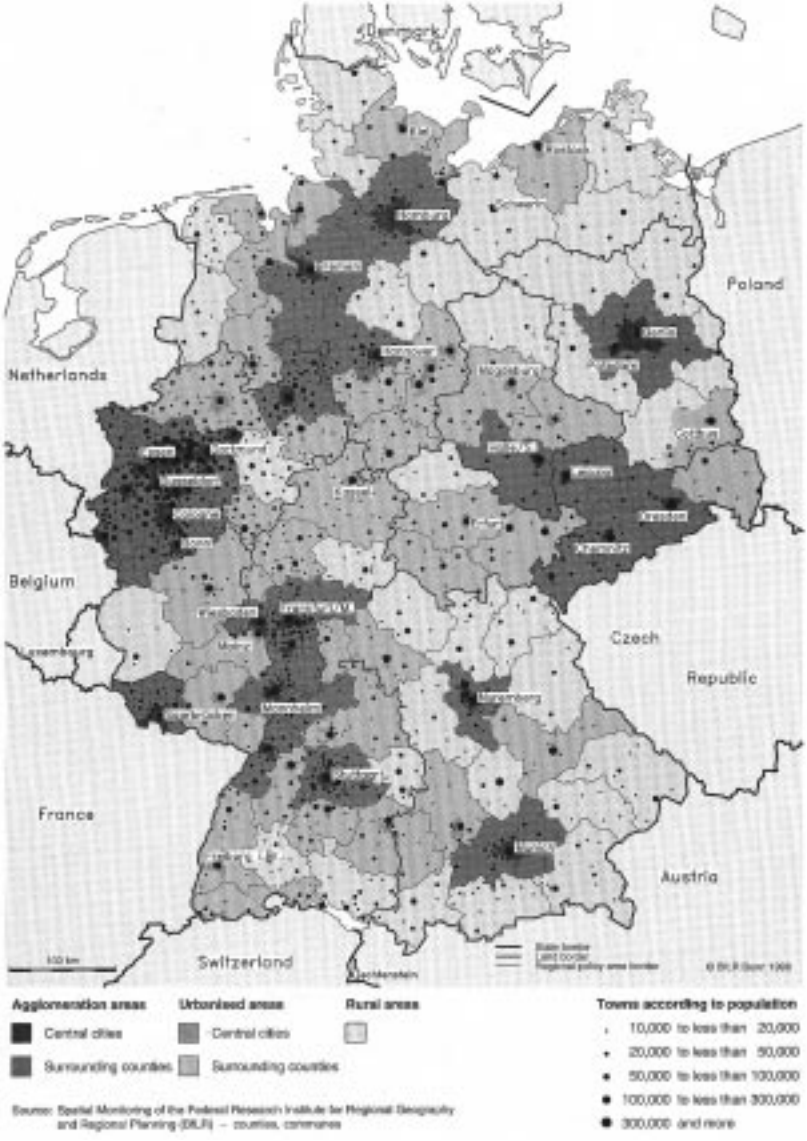
The following map shows dynamics in the demographic and settlement structure of the urban system.

1.4. Economic and social issues

About 39% of employment is provided in the central towns and almost half the total gross national product in Germany is earned in the central towns. The situation in the old and new Länder is quite different with regard to economic development. The old Länder were the first to experience positive development after the unification, particularly with regard to consumer and investment goods. The new Länder, however, initially experienced an extreme fall out of production, followed by low level growth in 1992, and a sharp rise thereafter. Productivity (gross national product per employed person) in the new Länder in 1994 was only slightly more than the half that in the old Länder.

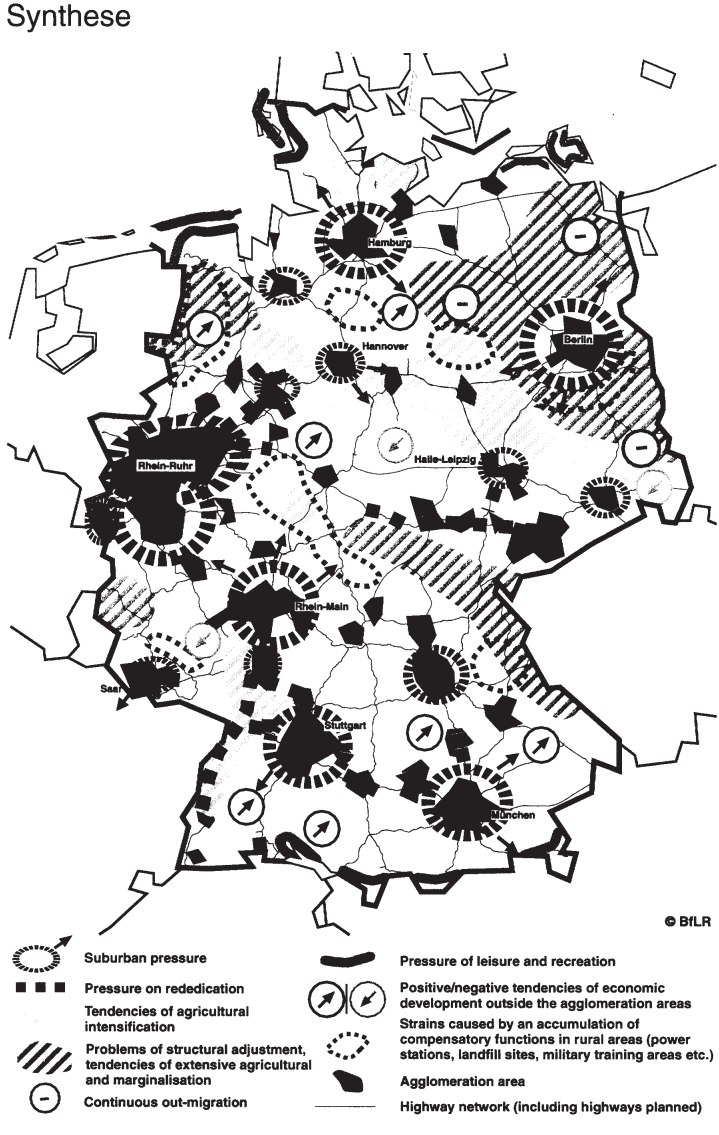
Employment in the old Länder rose in 1992 to the record level of 29.1 million, a growth of 2 million compared with 1980. This growth was primarily achieved in the tertiary sector (service sector through part-time jobs). However, since then a decrease in the number of jobs has been apparent. In 1993 alone job losses in the industrial sector and shifts in employment led to a drop of 1.5%. In the new Länder the development was rather different; the number of jobs fell here between 1989 and 1994 by one third, from 9.8 to 6.6 million. The industrial sector was the most severely affected by this change. Since 1993/4 the employment market has stabilised at a low level in West Germany. The following explanation is given of this: "The economic structural change towards service-oriented employment is accompanied by extensive job losses in the production sector and by a growing wage differentiation. The gap between the household incomes is increasing again. This applies particularly for the central towns of the growth regions in which economic growth is closely related to the rapid rise in production and enterprise-oriented services. The tertiary sector is predominant in the central towns. Only one-third of the jobs for the dependent employees in the central towns belong to the secondary sector. In the last 10 years, the towns have lost around 20% of their jobs, whilst the hinterland districts have shown a slight increase. Overall, the towns are losing out relatively, and in some cases even in absolute terms, an economic basis to the surrounding counties" (*Human Settlements Development and Policy Report,* 1996, p. 26)

Figure 2. **Large-scale Settlement Structure and Urban Settlement System**



Source: Human Settlements Development and Policy, National Report Germany Habitat II, Federal Ministry for Regional Planning, Building and Urban Development, 1996, p. 18.

Figure 3. **Dynamics in the demographic and settlement structure of the urban system. Urban rural relationships.**



Source: BfLR (1995*b*), Trendszenarien der Raumentwicklung in Deutschland und Europa. Beiträge zu einem Europäischen Raumentwicklungskonzept, Bonn, Kart 2.2.

Table 3 and Table 4 give an overview of employment nowadays and the changes in time by type of urbanised regions and type of settlement units.

The longer-term structural change in the West, aggravated and superimposed by a sharp recession in 1992 and 1993, and in the East the abrupt changeover from a more or less centrally controlled economy to a market economy, have led to profound problems in the employment market. In the West, these are to be clearly seen in the central towns. 36.8 per cent of all the unemployed in the West live in central towns (with a population share of only 29.4 per cent). In the East the corresponding figure is 30.4 per cent (with a population share of 36.4 per cent).

The reduction in the working population and resulting change in income levels have had a negative impact upon the financial situation of the municipalities in Germany. In turn this has been exacerbated by the increase in recipients of regular subsistence allowances payments. These factors reduce the resources of the municipalities for urban development and restructuring. Municipalities are constrained to define priorities.

Internal statistics of the Federal Research Institute for Regional Geography and Regional Planning show that the gross value added per employee, average purchasing power and communal tax revenue per inhabitant in German cities (as indirect measures of income) are in some way parallel to the degree of urbanisation. With regard to gross value added per employee none of the cities with a net urban

Table 3. **Job availability and job structure in 1994**

Settlement structural area types	Employees in 1 000	Share of employees in %	Employees per 1 000 capable of work	Employees in tertiary sector in %
Agglomeration areas	12 389	56.6	535	59.3
Central towns	6 918	31.6	681	66.2
Suburban counties	5 472	25.0	421	50.6
Urbanised areas	6 165	28.2	480	53.3
Central towns	1 696	7.6	718	65.2
Suburban counties	4 496	20.5	428	48.9
Rural areas	3 343	15.3	478	48.7
Old Länder total	21 897	100.0	509	56.0
Old Länder	21 897	77.5	509	56.0
New Länder	6 341	22.5	547	61.9
Germany total	28 238	100.0	517	57.3

Source: *Human Settlements and Development Policy, National Report Germany, Habitat II* 1996, p. 26 (originally *Spatial Monitoring of the Federal Research Institute for Regional Geography and Regional Planning, BfLR*).

Table 4. **Population and employment development**

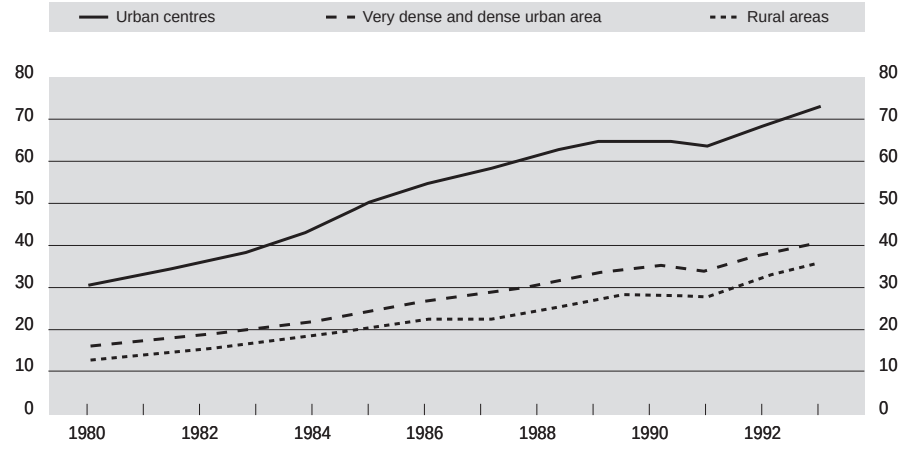
Settlement structural area type	Development population 1989-1993 in %	Development employment 1989-1993 in %	Internal migration balance 1991-1992 per 1 000 inhabitants
Agglomeration areas	4.2	5.5	1.8
Central towns	2.7	3.5	–1.6
Suburban counties	5.4	8.3	4.5
Urbanised areas	6.0	8.0	1.7
Central towns	3.8	4.8	1.3
Suburban counties	6.5	9.2	1.8
Rural areas	5.7	8.4	4.4
Old Länder total	**5.0**	**6.6**	**2.2**
Agglomeration areas	–2.8	–22.7	–4.3
Central towns	–1.2	–24.6	–3.0
Suburban counties	–5.0	–20.3	–5.9
Urbanised areas	–6.1	–30.9	–8.9
Central towns	–6.5	–62.5	–9.4
Suburban counties	–6.0	–20.9	–8.7
Rural areas	–5.2	–29.7	–11.5
New Länder total	**–4.3**	**–26.6**	**–7.0**
Agglomeration areas	2.6	–2.3	0.4
Central towns	1.7	–4.1	–2.0
Suburban counties	3.5	0.1	2.6
Urbanised areas	3.1	–5.2	–0.7
Central towns	1.0	–15.7	–1.5
Suburban counties	3.6	–1.4	–0.5
Rural areas	2.9	–5.4	0.4
Germany total	**2.8**	**–3.6**	**0.0**

Source: *Human Settlements and Development Policy, National Report Germany, Habitat II* 1996, p. 21 (originally *Spatial Monitoring of the Federal Research Institute for Regional Geography and Regional Planning, BfLR*).

population smaller than 70 000 people has above-average values, and nine out of 13 cities with more than 500 000 inhabitants shows a value which is higher than the average.

Through the income of the communes from taxation (land tax and a share of income tax), considerable differences can be seen between individual large towns: "While the income per resident in Frankfurt am Main was 3 168 DM, in Dusseldorf 2 593 DM and in Munich 2 458 DM, it was only 1 384 DM for example in Dortmund and only 1 250 DM in Duisburg (1992 figures)" (*Human Settlements Development and Policy Report*, 1996, p. 27). Furthermore, income differentials between cities and city regions have become more noticeable.

Figure 4. **Recipients of Subsistence Aid per 1000 of Population in the Period 1980 and 1993 (The Western Part of Germany, without Berlin)**



Source: Derived from: K. Veith, Quantitative Analyse des Armutsproblems, Bundesforschungsanstalt fur Landeskunde und Raumordnung, Internal Report, without date, p.4.

The Commission of Inquiry "Protection of Man and the Environment" states in its recent report "The concept of sustainability" that growth of incomes per household will slow down and disparities will widen. That will influence the purchasing power of households for housing, thus influencing urban development. In addition, there is a change in the trend in saving behaviour of younger people: while the older generation is holding property and real estate especially as an old-age reserve, saving in the youger generation is not as popular. Since 1993 the saving rate fell from 12.9% to 12.4%. In the long term this might affect the demand for ownership of housing and space. Private capital in real estate amounted to about 5.4 billion DM in 1993.

The Federal Republic of Germany, at the end of 1997, accommodates some 7 365 800 foreign nationals, approximately nine per cent of the entire population. The German foreign population ratio is one of the greatest in Europe. Although Germany followed a policy to distribute immigrants/foreigners all over the country, the urbanised areas, and particularly the urban centres accommodate the greatest numbers (DSI Data Service and Information).

Foreigners comprise nearly 14 per cent of the population in the Land of Hesse, 12.4 per cent in Baden-Wurttemberg, and more than 11 per cent in North-Rhine Westphalia. In urban areas, the proportion of foreigners is more than double the

level in rural areas. At more than 30 per cent (1995) of its population, Frankfurt am Main reports the largest proportion of foreign nationals in the country, followed by Stuttgart with more than 24 per cent and Munich at just under 24 per cent (DSI Data Service and Information).

Among Germany's eastern Länder, Brandenburg leads with a foreign population of 2.4 per cent. By comparison, foreign nationals comprise 1.5 per cent of the total population in the region's other Länder. Even in the Leipzig, Halle, Dresden, and Magdeburg metropolitan areas, the foreign population accounts for only 1.8 to 2.8 per cent of the total population (DSI Data Service and Information).

1.5. Land, housing and infrastructure

Land

Land use in 1997 over different categories is summarised in the following table.

Table 5. **Land use 1997**

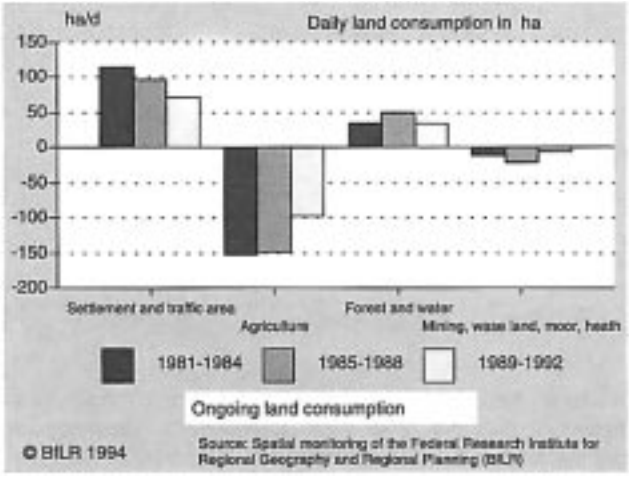
Land use	Area in km²	%
Total area	357 028	100.0
Agricultural land (include, bogs and heathland)	193 136	54.1
Forests	104 915	29.4
Built-up land adjacent	21 937	6.1
Land used for traffic purposes	16 785	4.7
Waters	7 940	2.2
Non-built-up land used for industrial, mining and storage uses	2 515	0.7
Recreation land	2 374	0.7
Land of other use	7 426	2.1

Source: Federal Statistical Office of Germany: Land Use Statistics, Berlin 1998.

The overall changes in land use are indicated in Figure 5.

The forecast by the Federal Research Institute for Regional Geography and Regional Planning (BfLR) of the demand for land is 370 000 ha. for the period 1991-2010, equalling some 51 hectares of gross building land per day. The demand for business purposes will continue to rise in the medium term, approaching to surpass the levels required for residential purposes. Road building to accommodate increases in traffic will also create a greater demand for land, but with a decreasing proportion of land consumption. No change is anticipated in land use

Figure 5. **Changes in Land Use – Old Länder**



Source: Human Settlements Development and Policy, National Report Germany, Habitat II 1996, p. 24, BfLR, 1996.

patterns in the medium term. During the mid-nineties daily land consumption was 84 hectares* reaching the highest gradients outside the agglomerations in the sub-urban counties of the urbanised and rural areas. Land prices differ significantly between urban centres (high) and the surrounding areas (low), whilst buildings costs do not.

Housing

Home ownership in Germany accounts for approximately 39% of the existing housing stock. In the old Länder the rate in 1993 was 41.7% and in the new 26.4%. In comparison, within the European Union home ownership in the United Kingdom is 67.0%, in Spain 88.3%, in Belgium 62% and in France 54.2% (OECD, *Strategies for Housing and Social Integration in Cities*, Paris, 1996, p. 159).

Table 6 illustrates how different types of settlement areas differ with regard to the available housing stock.

* Source Wista 7/1998, p. 583.

Table 6. **Housing availability in the old Länder, 1987/1993**

Settlement structural area types	Ownership quota (households) 1987	Living space per resident in m^2		House rent* in DM/m^2 1987
		1987	1993	
Agglomeration areas	30.8	36.1	36.1	7.29
Central towns	18.1	35.4	34.9	7.36
Suburban counties	45.7	36.8	37.1	7.15
Urbanised towns	45.0	37.3	37.6	6.37
Central towns	22.9	35.1	35.7	6.98
Suburban counties	51.5	37.8	38.0	6.06
Rural areas	50.8	38.0	38.4	5.87
Old Länder	38.1	35.5	36.9	6.93

* Average housing rental, weighted for pure rental housing with indication of rent.
Source: *Human Settlements Development and Policy Report,* 1996, p. 32.

As mentioned before, the changes in Germany between 1989/1991, of pronounced immigration to Germany from abroad, resulted in a shortage of housing which led to an immediate intensified programme of construction.

Household projections between 1994 and 2015 are:

Table 7. **Household projections 1994-2015**

Household size	1994 (in %)	2015 (in %)
1 person	34.7	36.4
2 persons	31.7	33.9
3 persons	16.1	14.4
4 persons	12.7	10.9
5 persons or more	4.8	4.4

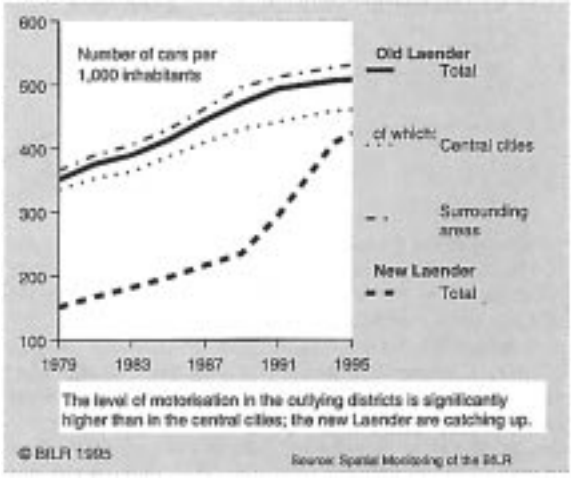
Source: DIW Statistics and Information, undated.

Since 1989 however, 3.4 million new housing units have been built. Investments of about DM 360 Billion were involved. About the same was invested in modenisation programmes. During the same period the available housing space per person rose to about 40 sqm in the West and from 28 to 34 sqm in the East.

Infrastructure

Overall the capacity for motorised traffic (capacity of the national highways, the regional and local road system, the provisions for parking) and for rapid transit (intercity, interregional, (inter)national trains, local and regional buses and trams) is quite good in Germany. The length of other than local roads totalled 231 076 km and was five times as long as that of the railway lines and about 30 times as long as the inland waterways. In the sixties motorisation was highest in the centres of densely populated areas (in the old Länder), in the nineties the reverse is true. The surrounding areas are experiencing a rapid increase in motorisation and the centres and urbanised zones remain under the national average. In general, the number of journeys made has doubled between 1960 and 1990 and the transportation rate (*i.e.* person-kilometres per year) has trebled.

Figure 6. **Motorisation**

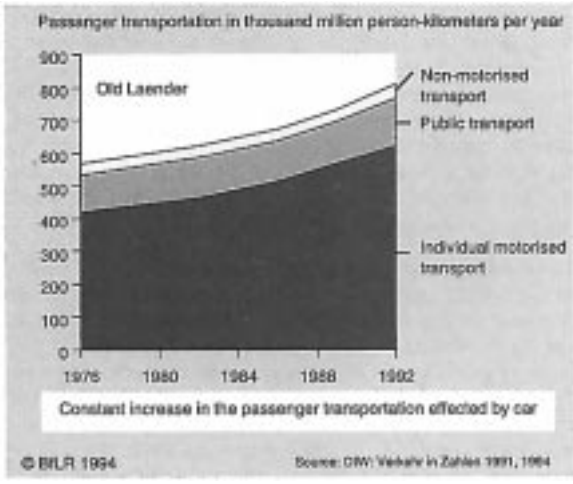


Source: Human Settlements Development and Policy Report, 1996, p. 36.

The dominance of private transport compared with public transport is shown in the Figure 7, giving the modal split between private and public transport over the period 1976 and 1992.

The differences with regard to the modal split between motorised traffic and rapid transit between particular cities is remarkable. This is expressed in the following statement: "According to a survey of towns, the share of the total traffic in towns

Figure 7. **Passenger Transportation**



Source: Human Settlements Development and Policy Report, 1996, p. 37.

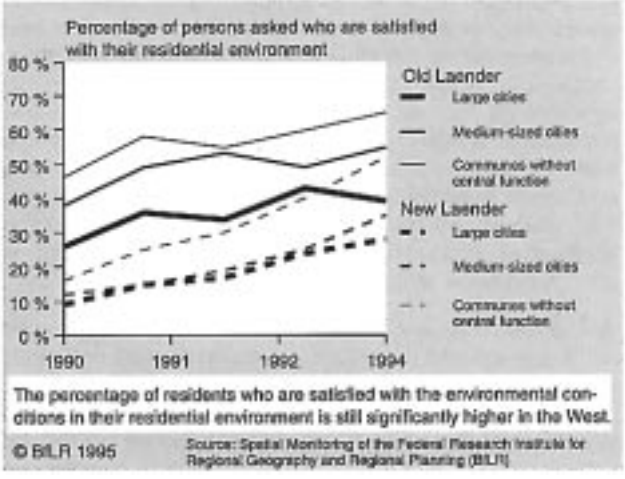
held by the local public passengers transportation lies between 13 and 45 per cent, whereby large towns in the old Länder (West Berlin, Munich) with a good local public passenger transport network and compact, less sprawled large towns in the new Länder (Leipzig, Dresden) with low degrees of motorisation exhibit the highest values. Middle-order large towns in the old Länder with good local public passenger transport networks (for example, Freiburg, Karlsruhe) achieve an average of 39 per cent; in Weimar, as a smaller town in the new Länder (60 000 inhabitants), the figure is 31 per cent. This shows that an acceptable availability of local public passenger transport does not have to be the privilege of large towns" (*Human Settlements Development and Policy Report*, 1996, p. 36).

1.6. Ecological issues

At the end of the sixties Germany embarked on a significant environmental quality programme. This resulted in a remarkable upgrade in environmental quality, aided by the positive effects of an economy shifting from an industrial production process operating in an environmentally polluting way to one that is ecologically responsible. At the same time the economy shifted to the service sector, also having positive effects on the environment but the service sector is also

associated with a more dispersed retail and office park, resulting in increased car use. Surveys (see Figure 8) indicate general environment satisfaction; however, there was less satisfaction in the major towns than in the medium sized towns and considerably less than in small towns and rural communities.

Figure 8. **Environment Statisfaction**



Source: BfLR 1995, Spatial Monitoring of the Federal Research Institute for Regional Geography and Regional Planning.

Although the application of air pollution control policy has been successful, increases in traffic, particularly motorised private transport seriously detract from the benefits achieved, in some areas even neutralising reductions in emissions.

The urbanisation of land over a wider surface has an overall negative impact on the environment. Groundwater quality, rainwater drainage and noise pollution are examples of environmental factors which exacerbate this problem. Furthermore, the need to restrict 'greenfield' land consumption and utilise opportunities for land recycling in the urban areas is being supported, as the following makes clear: "In the '80s, the settlement and traffic areas in the old Länder increased daily by some 100 hectares, generally at the expense of land previously used for agriculture, which was often also meadow and pasture land valuable for nature conservation. In some cases, the open land was sealed over with buildings and roads, in such instances

rainwater can no longer percolate and the natural soil formation is disrupted impairing the water and nature balance significantly. The continuing 'land consumption' could be limited if previously 'used' inner city areas were developed, particularly as economic structural change often leaves trade and industrial sites idle. However, 80 per cent of the towns with more than 50 000 inhabitants have problems in redeveloping these sites. This applies in particular in the new Länder where the rapid economic restructuring created many such areas. New users, however, can only be found in a few towns where there is a high demand for trade land. Rapid re-use of these derelict trade and industrial sites is generally not possible as the land is often contaminated with a variety of substances. On average 4.5 per cent of the communal area in German towns are 'suspected old trade or industrial sites' with the consequent risk of soil pollution; in individual cases, this figure is as high as 14 per cent" (*Human Settlements Development and Policy*, 1996, p. 24).

1.7. Urban trends: key issues and targets

The dynamics in the settlement system in Germany show a tendency for people to move short distances. Moving from a settlement unit of a more urban character to one of a lesser urban character is more typical than moving from a strongly urbanised area to rural area.

As will become clear in chapters 3, 4 and 5, suburbanisation, and with it a new relationship between urban centres and the surrounding areas, forms the first challenge for urban development in Germany in the period to come. Both east and west are experiencing deconcentration in smaller urban areas. In the west 70% of migration is within 100 km, affected in the smaller urban areas by the housing market and in the larger areas by employment. In the east large urban areas remain quite concentrated. For the whole of Germany change will involve the restructuring of urban areas (restrengthening of inner cities and recycling previously used land), guiding the development of new estates in suburban areas to appropriate locations, making an efficient use of infrastructure, and protecting the environment and landscape.

The polycentric settlement system of Germany is considered in Germany itself to be an important asset for the period to come, given the potential of this system for efficient use of land and urban functioning at a time when economy and society are increasingly able to operate as discrete autonomous units at separate locations. However, it is not possible to know whether this polycentric system is overall an optimal model for the urbanised nations in the future because it is also a system associated with suburbanisation and motorisation, two trends which appear to weaken urban centres within the polycentric system. Can the strengths and advantages of this system be enhanced with its disadvantages and costs controlled?

Chapter 2

The Institutional Framework for Urban Development Policy

2.1. Constitutional basis for the relationship between the Federation and the Länder

Urban development policy in Germany is based on democratic and pluralistic principles. Because the German federal system and constitutional setting provide the framework for urban development and settlement policy, a brief introduction on these matters is appropriate.

The origins of the federal character of the modern German state, as laid down in the Basic Law (Grundgesetz), date back to when Germany was composed of a large number of principalities, including autonomous cities.

The Federal Republic of Germany, as the name implies, today has a two-tier federal structure:

- National level (Federal);
- Länder level (Federal States);

that is unique in Europe. Municipalities are part of the Länder according to the Basic Law, but they are autonomous entities. The fundamental importance of this federal structure is emphasised by the fact that the Basic Law stipulated this principle as being irreversible.

The federal principle results in a complex interweaving and meshing of responsibilities and financial relations involving both opportunities for co-operation and potential sources of conflict between the Federation and the Länder in numerous policy areas. Since the accession of the former GDR to the Federal Republic of Germany in October 1990, the Federal Republic of Germany has consisted of 16 federal states – the 11 "old" and the 5 "new" Länder. In keeping with the federal tradition, the Länder are in no way to be seen simply as regional administrative entities serving a central government (*e.g.* as "prefectures"), but rather as possessing to a limited extent their own "independent sovereignty". The Länder have legislative competence for their own territory and are charged with implementing not

only their own laws, but also those of the Federal Parliament. At the same time they can help to shape federal legislation, as well as influence other important decisions taken by the Federation, through their presence in the Federal Council (Bundesrat) which is composed of representatives of the governments of the Länder. This is applicable to most of the legislative work. Thus, the horizontal separation of legislative, executive and judicial powers is supplemented by the almost unique principle of a vertical separation of powers as a "second division of functions".

The organisation of urban policy in the German federal system involves a division between: *a)* Urban Development (*Städtebau)*, concentrating on the concrete and operational tasks of urban restructuring and expansion at the municipal level, and now also increasingly within an intermunicipal setting; and *b)* Regional Planning (*Raumordnung*), concentrating on broad guidelines and framework conditions at the regional level between the municipalities and the states, on the level of the Länder, and finally at the national level in the Federal Government. This division of tasks over different levels of administration is an expression of the subsidiarity principle of the German federal system. This implies an initial responsibility for urban development and planning in approximately 14 000 municipalities, and subsequently in that of the 16 Federal States. Hence, the competence, numbers and training of professional staff and politicians responsible for urban development can compete with that of the higher level of administration not only in the big cities, but also in medium and even small size towns. (See Chapter 3 for examples.) In this context it is important to note that the concrete instruments of the Federal Building Code for municipalities at the local level are more important than those of Regional Planning.

2.2. The administrative structure of the Federal Republic of Germany

The administrative structure within the federally organised Germany is considerably more complex than in a centralised unitary state.

- The Federal Authorities comprise the Federal Government, including the Federal Ministries and various special government departments, which are usually assigned to a specific ministry. The responsibility for settlement policy, *i.e.* urban development and spatial planning, lies with the Federal Ministry for Regional Planning, Building and Urban Development. The Ministry for Transport deals with all regional and interregional roads as well as air and sea traffic. Questions of environment are mainly dealt with in the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.
- The Länder Authorities are responsible not only for the implementation of their own laws, but also for the implementation of the majority of federal laws. Each of the Länder has a Ministry that deals with urban and spatial

development. However, the Länder do not necessarily organise their ministries in the same way.

- Cities and their regional organisation – the counties – perform a dual function, as already mentioned: In their function as local territorial entities, counties and municipalities also have the right to self government. The Basic Law (Article 28, paragraph 2) guarantees to municipalities the right "to take on the responsibility for organising their own local matters". The "institutional guarantee" of "local government" is, however, subject to the provision that it should be exercised "within the framework of the law (federal and Länder laws)". One significant feature of local government is the provision that local populations should elect their own representative bodies – the councils – of local government (Stadtrat/Gemeinderat). The head of each local government is elected either by the local council or directly by the electorate (this varies from Land to Land). One of the essential elements of "local government" is the right to take on the responsibility for planning in the fields of urban development and the utilisation of land within the municipal territory ("planning authority").

Counties too have elected Parliaments and are responsible for a broader range of functions which smaller municipalities are prevented from performing; to some extent they perform the function of state administrative authorities.

The vertical co-ordination between the Federal Government and the Länder is essential to the success of urban policy. It allows issues to be addressed from the top to the bottom (from the Federal Government, to the Länder, to the municipalities), and also from the bottom to the top (from the municipalities, to the Länder, and the Federal Government), called the Principle of the Countermovement (*Gegenstromprinzip*). Länder differ with regard to administrative systems and procedures. With regard to urban development, the Ministers for Urban Development and Building of the Länder consult in the Conference of the Ministers responsible for Building, Housing and Settlement Policy (Arbeitsgemeinschaft für das Bau-Wohnungs-und Siedlungswesen zuständigen Ministers der Länder (ARGE BAU). The Federal Minister is accepted as a guest. The Conference of Ministers of Regional Planning of the States together with the Minister of Regional Planning of the Federation (Minister Konferenz für Raumordnung, or MKRO) represent decisive mechanisms for unity in this policy field which otherwise allows the Länder considerable autonomy.

2.3. Constitutional rules governing public finances

Neither the decentralisation of state powers by the distribution of competence between the Federation and the Länder nor the guarantee of local government

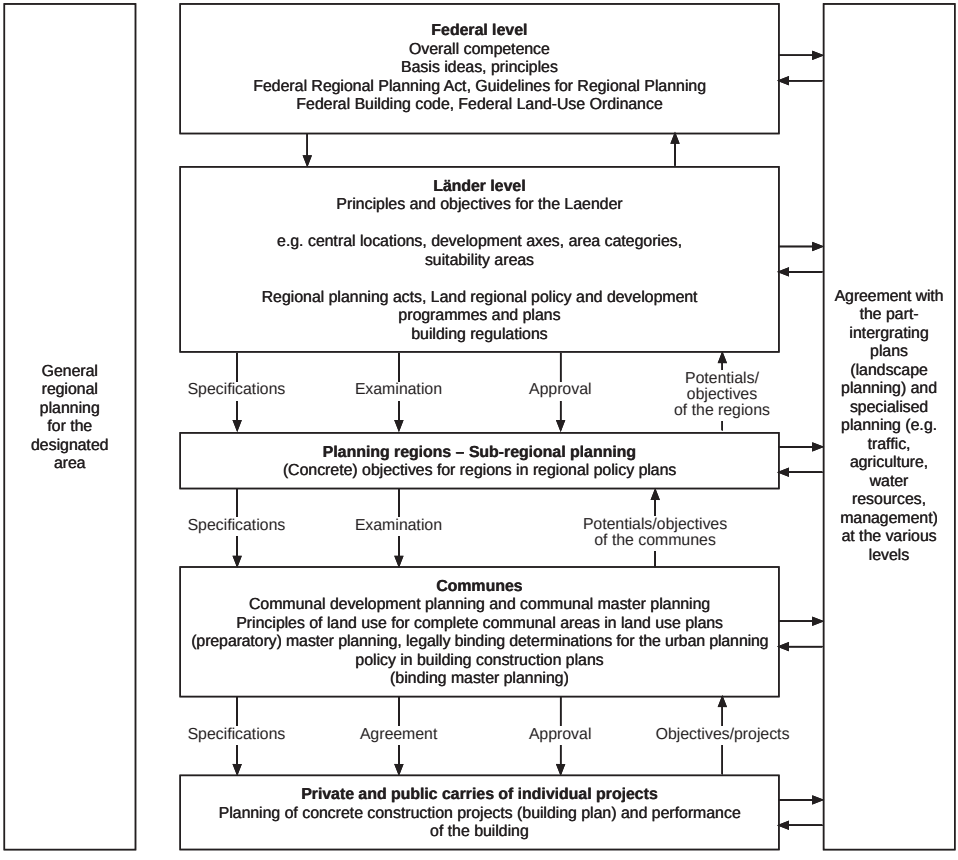
powers would make any sense if the Länder and municipalities were dependent for the funding of tasks exclusively on allocations from the central government budget. Consequently the Federation, the Länder and the municipalities each have their own funds guaranteed to them by the Basic Law. In order to prevent a situation where financial dependence results in the Länder and municipalities being led on the Federation's "golden leash", direct allocation from central government has been replaced by a statutory and highly regulated system of fiscal adjustment involving the Federation, Länder and municipalities (territorial entities). Länder with different economic power and income do to a certain extent have a system of balancing their income provided for through the Basic Law (*Länderfinanzausgleich*).

As a matter of general principle, each territorial entity is required to bear the costs arising from the execution of the tasks for which it is responsible. The purpose underlying this principle is similar to that of keeping to a minimum the influence which higher-level territorial entities could otherwise be expected to exert on lower-level entities if the latter were too heavily dependent for funding on grants. In practice there are many exceptions to this rule, for example in the fields of local capital projects, technical infrastructure and transport, all of which are much too capital-intensive for municipalities to be able to fund from within their own budgets (local taxes, charges, fees). In such cases they are dependent on financial support in the form of dedicated grants. In addition, the Basic Law lists a number of tasks in respect of which financial participation by the Federation in measures undertaken by Länder or municipalities is permissible. One of those "joint or mixed funding" is the urban development assistance (further details see Section 5).

2.4. Urban planning law

According to the Basic Law the responsibility for urban development and planning rests with the municipalities. The Federal Government is only responsible to provide the framework under which the local governments execute their authority. Urban planning law is embodied principally in the Federal Building Code. Its role is that of formulating legally binding requirements to be observed in planning and in building construction for the good of the general public. The Code does not provide for general guidelines and visions. However, Article 1 paragraph 5 provides for principles that should ensure sustainable urban development and binds municipalities to consider diverging goals. Article 1 paragraph 5 indicates that policy for sustainable urban development should address the relationship between places of work and of residence and to their impact on health and safety; the social and cultural needs of different ages and social groups; the cultural significance of places and of buildings; the affordability of housing, environmental protection; the use of natural resources and the impact of urban activities on the environment; and the economic functions and structure of cities.

Figure 9. **Types of plan and hierarchy of spatial planning**



Source: Praxis Geographie, 9, 1997, p. 1.

Because legislative competence in the Federal Republic of Germany is divided between the Federation and Länder, not all of the regulations governing building and planning are to be found in the Federal Building Code or Federal Land Use Ordinance (Baunutzungsverordnung)that accompanies the Federal Building Code (Baugesetzbuch). Alongside these, attention has to be paid to:

- Legislation on comprehensive regional and supra-regional planning at both federal and Länder level.

- Sectoral planning laws at federal and Land level with the purpose of regulatory special planning measures (*e.g.* major roads and rail routes) with their own procedures, and for which an independent plan approval procedure exists.
- The building regulations (Bauordnung) of each of the Länder which regulate the requirements affecting the structural characteristics of buildings, made predominantly in the interests of safety, and which also describe the procedure for granting building permission.
- Provisions in other federal and Länder legislation affecting building law – what is known as "auxiliary building law". This includes relevant provisions found in legislation on the environment, safety at the workplace, etc.

At the communal level, questions of smaller scale areas and of the inner city as well as property and building-specific questions come to the forefront of the urban policy. This refers also to inner-city development, *i.e.* measures for urban renewal, urban conversion and urban fringe development as a central component of a town development strategy aimed at sustainability. The primary aim of these measures is to maintain the attractiveness of particular locations.

The attractiveness of a location is a benefit in competition which is reflected in higher investments by the companies and a wider range of jobs. The scope for manoeuvre in urban development and settlement policy depends to a great extent on the economic success of the local companies, on the income of the employees, and on the grants of the Federal level and Länder. Economic strength based on the productivity of the private sector can help cities better meet the need to invest in a more sustainable future and adapt as sectors and technologies evolve. (The economic strength of a town and the scope for investment in urban construction are also reduced by the level of social expenditures. Cities with fewer problems could have a competitive advantage.)

The negative impact which excessive competition for locations between the towns and regions has on sustainability must also be considered. Modern and well developed communications structures, access to the national and international traffic infrastructure, and the availability of adequate reserves of space will be of critical importance for successful competition for companies willing to settle in an area. It is not difficult to imagine that in the light of such competition, sustainability aims can easily fall by the wayside. But it is also in the interest of companies to invest in places making progress toward sustainability. In the long term this necessitates close co-operation between communes and companies. The possibilities for taking environmental aspects into account here can cover a wide spectrum of measures, from the choice of sites for business locations through the type of development (technical supply and waste disposal) and landscaping right up to the selection of business activities. These possibilities must be utilised if towns wish to

make progress as attractive business sites. Maintenance and conversion of the existing land must be used to suppress as far as possible the urge to expand outwards. This necessitates, amongst other things, revitalising town centres and ensuring a balanced mixture of functions. This also includes making towns more pleasant in which to live, for example by conserving buildings of historic or monumental value. These measures also strive to achieve a further concentration of the available land. Unused and under-used land (gap plots, fallow land and conversion land) should be (re)activated and thus the land used more intensively and more efficiently. In particular, concentration in existing settlements offers a chance to improve the economic base with a mix of more complex functions.

Urban expansions will still be necessary. To ensure that the expansion as a whole is kept within ecologically acceptable limits, it will be essential to examine how urban growth can be carried out with less environmental impact than in the past, *i.e.* with better adaptation to the locality, in a more compact form, with less land use and with a better mix of functions.

What role will urban infrastructure play in this? The safeguarding and improvement of the urban infrastructure in Germany starts with two problems: firstly, the serious differences in supply which still exist, particularly between West and East, (and in particular, the social infrastructure); secondly, the infrastructure for transport and traffic for communications and for the treatment of waste, to be maintained and renewed with the aim of improving the environmental situation in the cities and thus retaining the natural fundamentals of life. Infrastructure provision is a major factor in keeping cities attractive sites for business. A mobility policy compatible with the needs of towns and cities must play a key role here in turning the trend in the urbanisation process into a sustainable development.

The sustainable development of the supply and disposal infrastructures are measures aimed at reducing the use of resources and minimising emissions. The saving of fossilised energies plays an central role in a climate protection-oriented energy supply. The amendment to the Heat Protection Ordinance and the Small Fireplaces Ordinance were first steps in this direction in Germany. The use of efficient energy supply systems is to be improved. Energy concepts which have been drawn up in the meantime by most larger towns and communes are important instruments for co-ordination and implementation.

Attempts are being made to promote decentralised and user-friendly structures in order to assure and social and cultural infrastructure systems. For this, itinerant and mobile services are being developed, in an attempt to adapt the delivery of services to the scale and needs of local areas. In order to achieve decentralised supply structures, administration and decision-making bodies must be strengthened at the communal level and residents and social groups involved.

2.5. Urban Development Assistance since 1971

Urban Development Assistance, an important measure provided for in the Federal Building Code (Article 164), aims to achieve the goals of sustainable urban development. It is meant to meet the requirements for urban living by ensuring a healthy mix of housing, working and leisure-time activities, to improve the diversity of functions in town and city centres, and to promote traffic-reducing urban structures. The programme establishes the basis for a systematic, organised and legally regulated renewal and development of towns and communes financed by public resources. The assistance targets a clearly defined area, distinguishing between structural and functional weakness of that area.

The Federation participates by meeting one-third of the costs eligible for assistance; the rest is divided between the Land and the commune, on an equal basis. Even in the context of this programme, direct contact between the Federation and individual municipalities is kept to a minimum. The Federation restricts its involvement to making funds available to the Länder and to regulating the formal details of development programmes; the actual allocation of funds (which municipality receives how much money for what project) and the implementation of these programmes falls to the Länder.

The preconditions, aims, scope and modalities of Urban Development Assistance are basically covered by three regulations:

- the Federal Building Act enacted by the Federal Parliament;
- agreements between the federal and Länder governments;
- guidelines and implementing provisions adopted by the Länder (each Land for itself).

In overall terms the structure, aim, application and results of the programme have proved their value since 1971. The often-amended strategies of the past, based on a variety of priorities for urban development tasks and objectives, illustrate clearly the "open" and flexible implementation of the law and the programme. None of the strategies was limited to the elimination of urban development deficiencies in the narrower sense of "classical" infrastructure components; rather they refer to a modern infrastructure of socio-cultural and socio-economic facilities.

It is also beginning to have an impact on employment, economic and structural policy. Academics and practitioners confirm that investment in urban development not only stimulates high levels of public and private investment and demand but also has a lasting impact with regard to short-term employment promotion as well as long-term employment and growth stimulus. The expertise of a well-known German institute for economic research has found that the use of urban development assistance funds provided by the Federation and the Länder generates six times as much in private investment and in public-private partnership projects,

rising to eight in the case of public and private construction work. Thus, urban development assistance makes a significant contribution to stabilising overall building activity and to securing jobs.

Urban Development Assistance since 1971 in the old Länder and since 1990 in the new Länder amounts to 8 478 billion DM. This was increased by a factor of three, when account is taken of additional spending by the Länder and the municipalities.

Table 8. **Urban development assistance (only federal funding) 1990-1998**

In 1 000, DM

	Old Länder	New Länder
1990	660 000	1 039 250*
1991	380 000	644 500
1992	380 000	630 000
1993	0	1 020 000
1994	80 000	920 000
1995	80 000	620 000
1996	80 000	520 000
1997	80 000	520 000
1998	80 000	520 000
Together (1971-1998)	8 478 500	6 433 750

* *Ad hoc* programme.
Source: BfLR, 1998.

2.6. Experimental Housing and Urban Development

The Federal Ministry, with the aid of case related experimental projects, is analysing the positive and negative impacts of existing statutory and administrative processes to develop flexible new approaches. The Ministry runs a programme of its own for this purpose called "Experimental Housing and Urban Development" (Experimenteller Wohnungs – und Städtebau, or EXWOST) which in the course of the last few years has developed into an important research programme. The assisted projects are scientifically monitored and have become important practice oriented instruments used to guide housing and urban development policy. For all these activities the Ministry has at its disposal a Federal Office for Building and Regional Planning [Bundesamt für Bauwesen und Raumordnung (BBR)], successor of the previous Bundesforschungsanstalt für Landeskunde und Raumordnung (BfLR).

2.7. Spatial planning: promotion of a resource-conserving and environmentally compatible settlements and urban development

The importance of integrated spatial planning for achieving the goal of sustainability is to reconcile the social and economic demands for land use with the natural fundamentals of life.

The programmatic and conceptual ideas of the Federal government for settlement development are put into practice by the Länder, as said before. At Länder level, a well co-ordinated system of development programmes and plans containing general targets for the desired settlement development and the individual "Land"-specific concepts has existed for many years. These general targets are made more specific by regional planning and implemented as binding guidelines for communal planning.

However, plans as instruments for influencing settlements development have lost significance in recent years. Regional planners are increasingly recognising that it is more important to win over the implementing partner, *i.e.* the commune, for the objectives defined in the plan before the plan is finalised. Greater co-operative regional development is demanded in which regional planners take on the role of a regional development manager with the portfolio "settlements development". Co-operation between the central town and the surrounding communes is constantly gaining importance. Different forms of intercommunal co-operation are therefore increasingly important in the complex sphere of settlement policy. Legal provisions are made for in the Federal Building Code.

As far as the Federal level is concerned, the Federal and Länder governments agreed in the Guidelines for Regional Planning of 1992 to align regional and settlements development in Germany around the concept of decentral concentration. This concept aims to control and distribute settlement activity in such a way that on the one hand, unhealthy agglomerations are avoided and, on the other, people can live, work and spend their leisure time in their immediate surroundings without being obliged to drive long distances by car.

Furthermore, market-controlling instruments from the environmental protection policy and settlement policy, *i.e.* instruments distinct from plans and co-operation, have also been increasingly under discussion for some years. Such instruments are designed in the long term to change the behaviour of the different actors (private households, companies) in order to achieve the goals by means of “sustainable ecological prices”, *i.e.* prices intended to induce sparing use scarce natural resources.

2.8. Housing policy

Housing policy in Germany is a pluralistic process. The different level of Federal and Länder governments and the communes as well as a large number of social groups in the run-up to political decisions play a role in conception, legal form and implementation. There is a close link between housing and sustainable urban development. Among other the major links are:

- housing provision and the social role of housing;
- housing and space consumption;
- building materials, their production and use; and
- housing and energy and resource consumption (heating, sparing and efficient use of building materials, recyclability of these materials, water, waste, emissions etc.).

Housing, therefore, plays a major role for sustainable urban development. This evaluation however, will limit itself to discus housing provision and its social role as well as housing and space consumption.

Under the provisions of the Second Housebuilding Act the responsibility for housing policy lies with the Federal and Länder governments and the communes. The general legislative framework provisions for the housing market, for example rental provisions, taxation provisions to promote housebuilding, rental assistance legislation and framework provisions for construction, are laid down at the Federal level. Furthermore, the Federal government supports the Länder governments with funds for social housing construction.

The responsibility for the implementation of the housing policy lies with the Länder governments. They are directly responsible for deciding on the award of direct funds for social housing construction, are involved in the making of Federal law, and enact their own laws which complement or supplement the Federal laws. Within the scope of the framework plan laid down by the Länder government, the communes decide in particular on the designation and provision of building land and also bear a high degree of responsibility for housing policy. In addition the communes also supplement the Länder funds for social housing construction and are responsible for the provisional accommodation of emergency housing areas.

The associations of the building and housing trade, house and property owner associations, tenants' protection associations, settlements associations, building societies and mortgage banks, in particular, are also involved in the making of housing policy as social groups. No fixed organisational framework exists for this. They influence and participate in parliamentary procedures, for example in hearings, and their knowledge and experience is incorporated into the legislation.

Socially cohesive settlements and urban development are guided primarily by targets of social justice in income distribution and opportunity. Efforts are made to recognise and compensate the disadvantages and risks of lower-income and more vulnerable groups of the population (for example, the homeless, single-parent families, foreigners and refugees, older people). Furthermore, socially compatible settlements and urban development must permit chances for individual action and planning. In a pluralistic society individual life planning as well as self-organisation and self-determination in the neighbourhood is possible for private households in different phases of the family cycle, with different cultural backgrounds and different financial scopes for manoeuvre.

There are various approaches to pursuing the targets of socially compatible settlements and urban development (approaches with spatial/object reference, with target-group subject reference and with process reference). The specific approaches to be taken depend mainly on the local conditions. One major focus of attention is concentrated on preventive measures, in other words measures to ensure and expand the availability of low-cost housing as well as measures to counter unemployment and poverty.

In the so-called social housing construction sector, assistance was generally provided for dwellings as "physical entities", which reduced the rents by subsidising the building and financing costs. The users of these properties were therefore spared having to bear the full costs of their dwellings. Social dwellings built under these conditions were subject to nomination rights exercised by the public authorities and could only be allocated to tenants with incomes below certain limits. However, if their incomes subsequently rose, they became what are known as "non-entitled tenants" and were as such later asked to pay a surcharge.

Given the fact that this did not result in enough housing being provided for those in need, a second instrument was developed: housing allowance. This was meant to be "households oriented", to help the tenants to pay the "market rent", including rents for dwellings which had not received any "property led housing assistance".

In addition to this a tax concession was introduced and amended several times (Section 7*b*, later Section 10*e* of the Income Tax Law, currently assistance under the Home-ownership Allowance Act) for the construction of owner occupied property, regardless of whether it involves a house or apartment.

Moreover, a combination of tax regulations have developed in practice which has led in the privately financed housing sector to capital formation benefiting landlords and also indirectly to rent reductions benefiting users. Here too, the users of dwellings are spared having to pay the real costs because the landlord has to pass on, as a consequence of the market prices, part of his (perfectly legal) reduced tax liability to the tenant. (The tax regulations which played an important

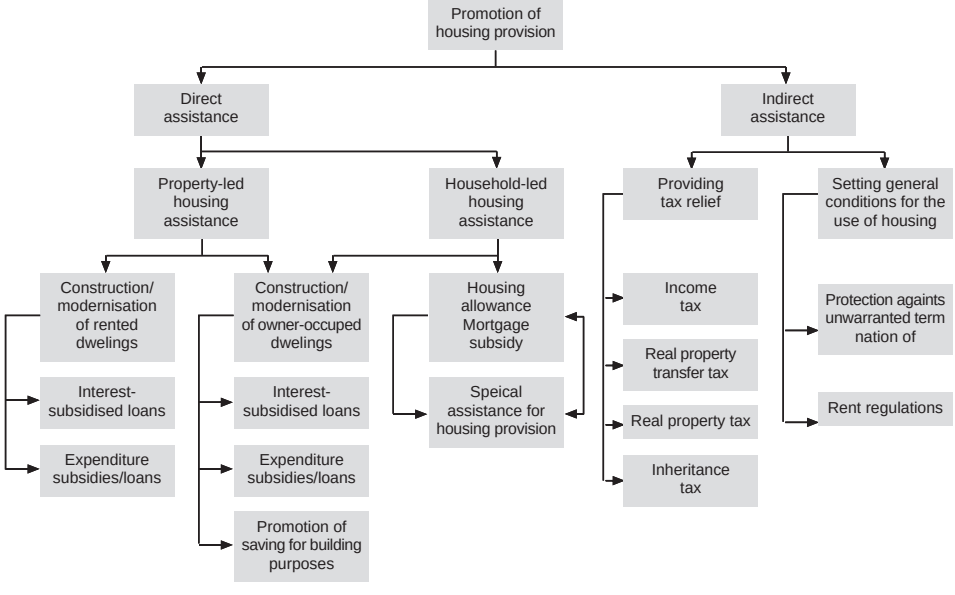
role in this context concerned the depreciation allowances, the setting off of losses from renting and leasing against other forms of income, the tax exemption of speculative profits following increases in value and the expiry of minimum time limits.)

Two trends may be noted as a result of the above:

1. "Property-led housing assistance" has been cut back and largely replaced by "household-led" housing allowance.
2. At first, the effects of the "indirect" tax concessions increased and the "direct" assistance decreased.

Recently, this second trend has been reversed by measures to increase direct subvention. Important measures in relation to sustainable urban development and space consumption are those supporting the modernisation of existing housing stock, thus lowering the pressure on land-use. The Bundestag Inquiry Report "Protection of Man and the Environment" ("Schutz des Menschen und das Umwelt", 1998) lays out the following details.

Figure 10. **The system of housing policy instruments in the Federal Republic of Germany**



Source: Based on a GEWOS document.

General conditions under rent and tax legislation encourage modernisation. The distribution of the costs arising from measures carried out to improve the residential amenity of dwellings can increase the annual rent by up to 11%. Most measures aimed at improving the building stock can be written off against tax as maintenance expenditure in the year the costs are incurred or spread evenly over a period of 2-5 years. This tax has already resulted in measure aimed at improving the housing stock being better treated than investments in new housing construction which can only be written off over substantially longer periods of time.

Funds made available for social housing construction are only used to a limited extent in the old Länder for improvements to the housing stock. By contrast, they account for more than half of the funding made available in the new Länder.

There is a substantial need for refurbishment, modernisation and maintenance work in the new Länder. A special depreciation allowance of 40% has therefore been provided to help meet the costs of modernisation work; this will be replaced from 1998 onwards by an investment grant of 15%. Costs of up to 40 000 DM for modernisation and conversion work can be claimed as special expenses by owner-occupiers over a period of 10 years (Section 7 of the Assistance Areas Act). More than half the funds set aside for social housing have been used for maintenance, modernisation and rehabilitation work.

This programme administered by the Development Loan Corporation (KfW) has a particularly broadly based impact. Mainly the repair and modernisation of 3.3 million dwellings have in the meantime been assisted with loans amounting to almost DM 60 billion.

Chapter 3

Policy in Germany for Sustainable Urban Development

3.1. Policy framework and goals

Given the importance of sustainable development as an objective of urban policy, this chapter will be organised around recent national and local initiatives toward this end. A prominent example for this are policies and programmes which seek to strengthen urban centres. These initiatives involve problems of integrating transport and land-use planning and of greenfield versus brownfield development. To promote and strengthen the economic and social base and environmental quality of cities, the federal government has adopted the objective of the modernisation of urban centres. The policy will be facilitated by specific measures in relation to transport, housing, and urban renewal. This sets such goals for the new Länder as a ten per cent increase in the presence of small and medium size firms in wholesale and retail trade in inner cities, and a comparable increase in housing on protected or reclaimed sites.

Although specific projects in individual cities or regions may emphasise one problem or strategy, it is important to keep in mind that each initiative is not an end in itself but a means toward the attainment of a larger policy goal. Germany has a comprehensive urban policy, but only parts can be featured in this report. The inter-relatedness of the different aspects of sustainable urban development is sometimes more implicit than explicit, but it is always present. Many-perhaps most- of these urban initiatives might not have been undertaken, or completed in the absence of an overall policy framework for sustainable development.

For Germany as a whole, comparable efforts are to be made to guide more development toward the cores of urban regions. Box 1 summarises the German concept.

A city-centred strategy for urban development calls attention to the mutual benefits cities and firms share when the basis for urban development is sustainable. The attractiveness of a good location with quality amenities is a benefit to firms which makes them more competitive, and which results in higher investments and a wider range of jobs. The financial strength of towns and cities is enhanced by

Box 1. **Concepts for vibrant city and district centres**

German Federal Ministry for Regional Planning, Building and Urban Development 1998 Summary

A. The Federal Government has introduced supporting measures aimed at a balanced settlement structure by developing town and city centres as vibrant locations with housing and an appropriate urban diversity of retail trade outlets, services and cultural facilities.

- **Concentration of urban development assistance for the sustainable development of city and neighbourhood centres:**
  - The inclusion of urban development assistance in the Federal Building Code makes it possible to strengthen town and city centres and to re-use derelict sites in inner cities as well as land previously used for military purposes or by the railway authorities. This is also desirable from the point of view of achieving a better mix of land uses.
  - Urban development funding is to be concentrated on focal areas relevant to city centres from 1998 on.
  - Funds to promote social housing construction are increasingly being focused on urban renewal areas.
  - Urban development assistance funding is to be used for "additional city centre requirements" as well, starting in 1998.
- **The funding concept for the new Länder will give priority to city centres and modernisation from 1999 on.**
- **The 1998 Building and Regional Planning Act will strengthen city centre functions and structures, in particular with the aid of:**
  - control under planning law of the siting of large retail outlets on greenfield sites achieved by carrying out regional and environmental impact assessments;
  - the possibility of excluding the location of large retail outlets in unplanned areas;
  - modification of regulations on intervention under nature conservation law which is resulting in a better use of planning areas in town and city centres;
  - the social protection statute which is acting against the displacement of the residential population in inner-city areas;
  - project and development plans as project-based binding construction plans which are resulting in the rapid establishment of construction rights and the implementation of these projects in town and city centres.

Box 1. **Concepts for vibrant city and district centres** *(cont.)*

- **The practice of social housing construction is increasingly contributing to the stabilisation of the social structure in towns and cities, in particular with the aid of:**
  - the well-targeted use of funds for social housing construction in urban development and redevelopment measures (DM 250 million in 1998);
  - promotion of the modernisation of the housing stock in the new Länder;
  - the flexibility given to the Länder.
- **Transport concepts aimed at improving urban functions, in particular by means of:**
  - promoting local public transport by providing funding under the Local Government Transport Finance Act and with the aid of the regionalisation of local public rail transport introduced on 1 January 1996;
  - promoting local government road construction on the basis of the Local Government Transport Finance Act;
  - applying modern transport telematic services with a view to improving the linking of transport networks and achieving a more efficient use of the road network in agglomerations by providing funding under the Local Government Transport Finance Act;
  - reducing town and city centre traffic with the aid of the Federal Government's programme of bypass construction for the period 1993-2000 which covers a total of 428 by passes with funding amounting to DM 9.2 billion;
  - identifying design possibilities under regulatory policy on the basis of the German Road Traffic Regulations;
  - enhancing the design of railway stations;
  - selling off sites and property not required by the railways;
  - finding efficient solutions for freight transport in agglomerations;
  - applying the research programme on urban transport (FOPS) to alleviate traffic and transport problems in town and city centres.
- **Strengthening retail trade in town and city centres:**
  - The Federation provides equity capital assistance loans, ERP-funded loans for business start-ups and small and medium-sized enterprises, and also has other loan programmes.
  - City-centre and/or business sites, on which businesses that are not eligible for funding, can be promoted since 1995 within the scope of GA-assisted infrastructure measures.
  - Extension of opening hours introduced on 1 November 1996.

Box 1. **Concepts for vibrant city and district centres** *(cont.)*

The existing measures must be systematically implemented and supplemented at federal level by:

- drawing up a housing code; and
- amending the Federal Land Utilisation Ordinance.

B. Greater commitment by the Länder and the Communes in favour of town and city centres required to achieve equality of opportunities compared with greenfield sites.

The Länder Ministers responsible for Building, Housing and Human Settlements and the Standing Conference of Ministers responsible for Regional Planning adopted a Joint Resolution entitled "Town and City Centres as Locations for Retail Trade" on 29 March/21 June 1996. The resolution adopted by the standing conferences was an important signal, drawing attention at regional and local authority level to the problematic situation of town and city centres and the resulting need for action to be taken. The Federal Chancellor and the Minister-Presidents of the Länder asked the standing conferences responsible for economics and urban development on 18 December 1997 to carry out a re-evaluation of the factory outlet centres.

- **The package of measures contained in the Joint Resolution must be increasingly translated by the Länder and the Communes into practical application in the field of urban development, in particular by:**
  - systematically applying planning law and carrying out infill development;
  - creating clear objectives in land planning;
  - drawing up local authority concepts for retail trade;
  - reviewing old binding construction plans for "critical" unplanned inner urban areas;
  - taking co-ordination among neighbouring local authorities seriously;
  - rectifying abortive developments on greenfield sites or integrating locations;
  - strengthening advice and information given to local authorities and retail traders;
  - using urban development assistance to promote town and city centre retail trade as well;
  - influencing locational competition through city marketing and city management to benefit town and city centres;
  - reducing city-centre traffic with the aid of city logistics;
  - improving the accessibility of town and city centres;
  - building more dwellings in city centres;

Box 1. **Concepts for vibrant city and district centres** *(cont.)*

– making town and city centres safer;
– using vacant properties to achieve an attractive mixing of housing, trade and business;
– developing integrated concepts for providing assistance.

A holistic strategy aimed at strengthening and revitalising city and neighbourhood centres requires the concerted action of the participants at all levels – residents, private property owners, traders, businesses, politicians and administrators.

the economic success of local companies and the rising incomes of their employees; trade and income taxes reflect this. On the other hand, if social problems in cities worsen, and more money must be spent on social assistance, less will be invested in infrastructure or public amenities, making cities less attractive as a business location. This shows that an attractive urban setting for business is composed of many factors, and cannot be reduced to short-term calculations of lower costs. A sustainable development approach helps to keep all the variables that affect urban development in focus, and fosters an integrative, multi-sectoral strategy.

Excessive competition between cities and regions for business location and investment threatens sustainability, and often diverts attention away from factors that ought to be important to firms looking to establish a long-term base in an area, such as modern and well-developed communications, access to national and international infrastructures, the availability of space for future expansion, and the quality of the environment. Businesses are increasingly identifying social and environmental conditions as in their interest. A long-term perspective which can be grounded in closer co-operation between communes and companies would take better account of environmental aspects covering a wide spectrum of measures, from the choice of sites for business locations through infrastructure, landscaping, housing, and ecological construction practices. Thus, an urban policy that tries to meet the needs of business can also make progress toward sustainability.

Creating more sustainable patterns of development, and in particular, creating more compact or denser cities, means, inter-alia, reusing previously developed land and buildings. But there are obstacles to be overcome. Physical degradation, contamination (or the risk of contamination), and a lack of maintenance or modernisation especially in the East all compromise reuse. In addition, in the eastern Länder, the uncertain legal status of property rights made redevelopment of many

buildings and sites difficult if not impossible, at least in the first years following unification. This was a contributing factor to the increased use of greenfield sites for development in the East. Although fiscal incentives have been given to private individuals to invest in renewal (mainly in the forms of direct subsidies and income tax deductions), there is apparently no discrimination between reusing previously developed land, and developing greenfield sites. Fiscal measures that are neutral in respect of the location of development appeared to have their logic in the tax system as a means of giving high-income residents a measure of relief, rather than in urban policy. Recently these provisions were deleted.

Germany has several remarkable examples of successful brownfield redevelopment and inner city renewal, only a few of which are discussed in this chapter. These examples, which are often studied by planners, developers and architects from other countries, contain several lessons for success, as well as pointers for policy reform. While of interest for their own sake, these examples also illustrate more general issues in German urban policy and its implementation.

The examples and cases studies which follow highlight the success factors:

- the need for public-private partnerships in reclaiming contaminated land for housing or other appropriate uses;
- the benefits of a comprehensive approach to regenerating large-scale areas of previously-developed land and of vacant industrial buildings, and to link this to efforts to control out-of town shopping and leisure developments, and to improve public transport;
- the need to enlarge the scope of economic development beyond only providing space for firms to include other aspects of entrepreneurship, especially for new local firms;
- the potential of the existing social infrastructure in existing urban areas to contribute to employment and social integration;
- the need for continual investment in both social and physical infrastructure and for strategic planning to manage the scale and location of urban growth.

3.2. Urban initiatives in Germany

A former textile factory district in *Nordhorn* provides a good example of the reuse of an 18 hectares edge-of-centre site for housing and employment in a medium-size city. Before the Povel-van Helden factory closed in 1979, there had been 12 000 jobs in the textile firms of Nordhorn; now, unemployment, at 11 per cent, is slightly below the national average, and the city has a better sectoral mix than before. The cleanup effort was undertaken in co-operation with the Federal Ministry of Spatial Planning, Construction and Urban Development, the Federal Environmental Agency, and the University of Oldenburg, thus giving researchers in

the region an opportunity to improve their skills and knowledge for soil treatment using biological means and succeeding in developing lower-cost mixed-strategy solutions for cleaning polluted sites. In turn, several environmental service firms have located in Nordhorn as a base of operations. Six hundred people now reside in the restored area, which supports 700 jobs; the area itself is framed by canals and watergardens that not only make it more attractive, but also reconnect the area to the old city and a nearby lake. The city has been able to attract a large Citicorp office, partly on the basis of the improved quality of life and lower housing costs in the city, and partly because an appropriate building from the era of textile manufacturing (but outside the regeneration zone) was vacant and available. The first project of the cleanup was funded by the federal government as an experiment; 30 million DM were provided for infrastructure construction and clean up costs, and 230 million DM came from private sources. Now that the experiment has been completed successfully, however, the second project of the clean-up, to house 300 more residents on a site slightly more remote from the city centre, will not benefit from federal funding. Seventy million DM in private funds are needed, but the market demand for the land is low. The success of the first project however will not be compromised if the second phase takes longer to complete.

The problem of attracting investment to brownfield sites is also illustrated by *Osnabrück*, a city of 170 000 where the site of a large steel plant remains vacant after clean-up. There are still 120 industrial firms in the city with about 20 000 employees in metalworking, automobile production and paper processing. Osnabrück has a land-use policy of restricting retail development to the inner city; the former steel works is within the city limits, but on the other side of the railroad station and tracks from the city centre. Here, the problem is to find a use for the land that is acceptable to the city and at a price that is profitable to the owner of the site. In 1972, the city began the redevelopment of the inner city for housing and retail; this involved turning several streets into a pedestrian area, modernising many buildings, extensive relandscaping and infrastructure work (sewers, car parks, etc.), and controlling the location of retail activities elsewhere. Now that the city is concerned that a large retail facility on the site of the former steel works would weaken the economic base of the city centre, and would create unmanageable traffic conditions, there is an apparent tension between an older and successful policy for regenerating the city centre, and the need to redevelop a brownfield site between the city centre and the periphery.

The *International Building Exhibition (IBA) at Emscher Park* in the Ruhr district (5.6 million inhabitants) is a regional development programme committed to Agenda 21 and to a revival in urban development. Redevelopment of old industrial land became urgent, not only because economic restructuring made it imperative to provide facilities for leisure, retailing and services as an effort to regenerate the economic base of the region, but also to reduce pressures on greenfield

development. Since 1961, population in the Ruhr has fallen slightly, but the consumption of land has nearly doubled. IBA has provided design and management guidance for nearly 100 projects involving between 4 and 5 billion DM, three-quarters coming from the Land North Rhine Westphalia. Although the IBA project itself will end soon, after ten years, maintenance has been programmed for the future. Cities in the Ruhr were free to take initiatives outside the IBA framework, and many have done so, especially to facilitate large car-oriented projects with private finance. This gives rise to the impression that IBA has been largely involved in projects with low economic value (social housing, cultural facilities, re-landscaping), but the cumulative effect has been to change perceptions of the region, leading to an increase in local investment in housing in areas vulnerable to decline, and leading as well to inward investment. Thus, a complementarity between public and private efforts can be said to exist. Nonetheless, the fact remains that several non-IBA projects have gone forward which on balance may have weakened the economic and employment base of the region's cities. An integrative strategy is needed to maximise the benefits of infrastructure investment and brownfield regeneration. The fact that so many buildings and structures have been adapted imaginatively for new uses also highlights the importance of adaptability as a criterion of design. Many older structures are more easily adapted to new uses than many contemporary buildings ever will be. In a changing economy, therefore, a more adaptable stock of buildings will help cities themselves survive in a more sustainable manner.

When greenfield sites are developed actively, the market demand for redeveloped brownfield sites is further weakened. This appears to be the case in the *Plagwitz area of Leipzig*. In 1989, 530 000 people lived in Leipzig; by 1997, that figure had fallen to 471 000. The collapse of industrial jobs was even more dramatic: 80 000 in 1989 a time when there were 28 industrial plants in the inner city with over 1 000 employees each; 17 000 in 1993. The collapse of the manufacturing economy and the decades of physical neglect meant that with unification, many buildings became available for redevelopment in the inner city. In the urban district of Plagwitz (200 hectares), where 14 000 industrial jobs were lost, the future involves the growth of medium-size firms, retail, and residential uses. The scale of the buildings and its proximity to the city centre make it ideal for mixed use development. But the release of greenfield sites soon after unification meant that at least some of the potential investment has already been drawn outside the city. And plans for suburban development remain on the books. Only a comprehensive vision of the city's future, perhaps as a centre for education, the media and the arts, can guide investment to the Plagwitz district. Meanwhile the redevelopment of the central railroad station for retailing (30 000 square meters, 100 000 visitors a day) stands out as a successful example of public-private partnership for the kind of project that is becoming increasingly common in Europe, and that will be increasingly important if rail networks have a strategic future in regional and metropolitan transport.

Firms need space to function and expand, but the amount varies widely according to the sector, the number of employees, etc. (and estimates of future needs are difficult to obtain). As changes in the structure of work accelerate, the possibilities will grow for more self-employment and home-based work, for work in smaller firms, and for work that can be spread out in time (breaking the standard pattern of morning and afternoon work five days a week). Furthermore, as knowledge-based, service sector jobs expand, the environmental conditions of the workplace – design features both inside and outside – matter more. These changes will favour mixed-use, medium-density building patterns, precisely those patterns which cities, not suburbs, can offer. The older pattern of fixed land-use patterns and zoning, which had been necessary to achieve environmental and social objectives in the past, is already being superseded for social and environmental as well as for economic objectives by more flexible land use planning and by deregulating the times when activities are permitted or prohibited in given areas, both of which are easier to implement in cities than in suburbs. From this perspective, inner cities may have more of the amenities and assets for the economy of the future than suburbs and greenfield developments.

Brownfield sites also often have an advantage in social infrastructure, one however that is not reflected in funding for their redevelopment. A comparison between greenfield and brownfield development that included the need to provide a social infrastructure in the former might well increase the cost of greenfield development, but at present there seems to be no way to recover that cost from the developers. It is often possible to improve an urban area through investment in social infrastructure, especially if combined with other efforts to upgrade physical facilities and make them more ecologically sustainable.

This is the case of the *Marzahn housing estate on the eastern edge of Berlin*, home to about 170 000 people of most socio-economic categories. About 700 000 people live in 17 large post-1945 housing estates on the eastern side of Berlin; another 360 000 live in such estates on the western side. Indeed, the future of such estates is vital because if they lose their ability to retain or attract residents, people may move away, not to inner-city districts, as the planners might prefer, but to settlements even further out on the urban periphery, and those who remain may be increasingly isolated, socially and economically. In the case of Marzahn, a higher level of services can be fitted into an existing settlement at modest additional cost, and certainly for a cost well below that of completely new construction.

The post-1991 renovation strategy includes: reorganisation of the housing companies and the adoption of a customer-oriented strategy; further development of the surrounding residential environment funded through a subsidy form the land currently estimated to cost DM 400 million over a 10-15 year period; subsidies of which have already reached DM 1 billion to correct problems with slab prefab

construction; additional housing with an in-fill strategy on large-scale estates of some 2 000 apartments, together with new infrastructure (schools) and improvements to larger urban countries. These projects and goals require that coordinated, cross-sectoral strategies be implemented.

Redevelopment on this scale can be a part of a local economic development strategy, with a high degree of public participation and public-private partnerships. In East Berlin local residents are involved to develop the mixed-use character of the area. Such a scheme is particularly important to redress the problems of depopulation in Berlin and improve inner-city areas for local residents. A new city district on a former military base in Freiburg which will provide accommodation and work space for 5 000 people is being developed through a coalition of citizens, medium-size firms and scientific institutes.

By virtue of their proximity to other urban services, inner-city areas undergoing renovation can offer residents opportunities that cannot be provided locally on most greenfield sites. In this case, the cost of renovation helps preserve a district that itself can serve a larger community. Berlin is undertaking to improve 37 sites covering more than 1 000 hectares and over 113 000 dwellings.The *Spandauer Vorstadt* district of inner Berlin, which suffered heavy damage during the war and significant demolition after, is one of 37 redevelopment areas in Berlin today. (In the next 15-20 years, an estimated 12 billion DM will be invested by the public sector for all redevelopment areas in Berlin.) With about 10 000 inhabitants, Spandauer Vorstadt represents about 67 hectares near the Alexanderplatz and the Friedrichstrasse; notwithstanding this proximity to more prestigious or central areas, Spandauer Vorstadt has basically solid but unpretentious buildings because for two centuries, it was a district characterised by warehouses and a predominantly Jewish population. Its renovation is part of a strategy of historic preservation, keeping a link between the past and the present in Berlin; the federal and the Land governments have provided funds for the conservation of historic monuments. Its location also makes it attractive to investors, and rent subsidies help to keep a social mix. Not only does the area add to the population base of central Berlin, thus supporting businesses throughout the city centre; it also supports stores, restaurants and galleries that attract people from outside.

Potsdam, with 140 000 inhabitants, the capital of the Land Brandenburg, provides a range of examples. The Hollaendische Viertel, or Dutch District, is an inner-city redevelopment area of historic value, where physical renovation is a precondition to making buildings attractive as housing, offices and light retail use. This and other pre-industrial districts have the advantage of being immediately adjacent to the main public and commercial areas of the city. In an overall strategy of sustainable development, such districts are being upgraded as a priority. A former military site of some 300 hectares on the city's edge, the Bornstedter Feld is to be cleaned

up and redeveloped for the federal horticultural exhibition, or BUGA, in 2001; thereafter, this district will be developed for housing (4 000 homes), a technical college and commercial use. In other words, the BUGA will help Potsdam to expand onto land immediately adjacent to the centre city which had been unavailable for development until now, and it will do so in a way that preserves continuity with the tradition of landscaping in Potsdam extending back to the 18th century (this city is on UNESCO's World Cultural Heritage list). A new urban district further out from Potsdam, Kirchsteigfeld, was begun after unification, and is nearly complete. It borders a village built up during the GDR regime. A tramway connects this area with the city centre since May 1998. Multiple-unit housing for a total of 2 500 apartments at Kirchsteigfeld was designed by 34 internationally-recognised architects from a number of countries, including Italy and the United States. As a new town, Kirchsteigfeld represents a successful public-private partnership. It was built by a private contractor, who assembled the land and concluded a contract to provide housing, schools, stores and a church; the contractor received subsidies for social housing. When completed, the city of Potsdam will take responsibility for its maintenance. Land was set aside for office development, but the site is unattractive. For the time being, Kirchsteigfeld will remain a residential community with local retailing in the green belt on the edge of Potsdam.

These examples show how important the planning framework can be to guide public and private investment, so that cumulatively, the decisions of people about where to live and work create viable cities. Limiting growth where land has not yet been urbanised, extending public transport systems, and strengthening the towns and cities that already exist, are objectives of the *joint planning board established by the Länder of Berlin and Brandenburg*. Berlin is densely populated, Brandenburg far less so. The Land of Brandenburg needs to develop its peripheral areas that are remote from Berlin; otherwise population would migrate to the metropolitan area. Berlin, which is losing population at the rate of 20 000 people a year to small towns and villages in less expensive nearby areas, needs to expand in a way that makes the regional transit system accessible to people as they disperse. The joint board has designated six centres for regional development near Berlin, and others in the peripheral areas of Brandenburg. But it must also work with the market if development is to occur in these preferred localities.

One of the difficulties facing planners concerns retail and leisure facilities that demand large spaces, typically furniture stores, car showrooms, do-it-yourself centres, shopping malls, and multiplex cinemas. The expectation that customers will want to drive and park to these facilities may itself be a justification for placing them outside city centres, but in fact this expectation is often translated into planning rules that call for a minimum number of car parking spaces, which developers cannot meet in cities at an acceptable cost. This is an example of how ecological and economic goals can appear to be irreconcilable. An alternative might be to use

maximum levels of car parking, rather than minimum levels, especially in cities where public transport is being expanded, and where levels of walking and cycling are already high.

The city of *Münster* is one such city where public transport is being provided. A city with a distinctive medieval core that has been rebuilt after the war, Münster has 280 000 inhabitants, and universities with about 55 000 students. Eighty per cent of the work force is in the service and administrative sectors, and many small entrepreneurial firms have grown up in recent years. Future growth will create the demand for 120 hectares of industrial sites, and 8000 apartments. To help guide development during the medium term, Münster has elaborated a strategy involving 21 different dimensions of sustainable development. This is done in the framework of the BMBau project "Cities of the Future". This strategy, the basis for ongoing consultations with the public, calls for development to occur in relation to improvements to the existing transport infrastructure, principally by upgrading the existing rail lines and stations. Thus, it could be possible to accommodate the anticipated additional 23 000 homes that Münster will need by the year 2010 on sites in the inner city or on brownfield (formerly military) sites, and within 400-800 meters of a station.

Innovative local approaches to redress the negative impacts of increased car ownership and use are important. The city of *Freiburg* has developed an environmentally-based, integrated transportation strategy over the past thirty years which has helped bring about a decline in car use in the city centre from 60% in 1976 to 46% in 1992, or about 4 000 fewer cars per day. Despite population increase, total car trips to the city centre actually fell, though modestly, from 236 000 to 232 000, the only case of its kind in Germany. In 1991, the city of Hameln, with 60 000 inhabitants in a commuting region of around 200 000 with high levels of car ownership, adopted a carpooling system, and in 1990, STATTAUTO established the largest car sharing company in Germany in Berlin; with 4 000 members in 1996, predominantly single and between 26 and 40 years of age, the firm achieved a reduction of 510 000 car kilometres, representing a decrease of 80.32 tonnes in CO_2 emissions. These examples show what the potential is, when projects appeal to people, but these successes would have to be multiplied across Germany to reverse the trend toward increased car use in urban areas.

Policies for sustainable urban development aim to provide a mix of land uses and social diversity as a strategy for social integration, environmental improvement, and economic development (see Chapter 1.4 the provisions of the Federal Building Code). Of these three elements of sustainability, the social is perhaps the most difficult to understand, which perhaps explains why the social objectives of urban sustainability are more often implicit than explicit. German society has a more complex structure and there is greater income disparity than before, and these trends, as explained in chapter two, have a spatial dimension of which

suburbanisation and deconcentration are perhaps the most significant manifestations. The effort to strengthen core cities and restrict further loss of open land is therefore linked to a positive view of a pluralistic society. From this perspective, it is important that a spatial polarisation marked by concentrations of marginal socio-economic groups should be avoided. The high concentration of immigrants in the large cities of Germany, and the problems of providing an adequate social and physical infrastructure in many parts of cities in the East (as well as in some areas in the West affected by economic restructuring), are indications of the need for preventive strategies that combine sectoral interventions. The social dimension of sustainability means not only that the needs of all members of society for housing, education, social services and opportunities for employment are met adequately in cities, but also that the cities and communities where they live provide them with an environment conducive to participation in civic society.

3.3. Conclusion

The evolution of German urban policy in recent years has itself been an important factor in progress toward sustainability, reflecting growing global concern over the environmental and social consequences of economic development. The implementation of policy makes "bottom-up" initiatives more important. The federal government's programme to support experiments, the ExWoSt programme, provides valuable assistance to local authorities, and facilitates the validation and diffusion of innovation. Stronger public-private partnerships, driven in part by fiscal constraints and partly by the need to attract investment, represent an shift away from heavy reliance on state funding. Many of the projects in the cities discussed above benefited from significant leveraging, as much as 1:8, suggesting that private investors are willing to commit significant sums to urban renovation and development. The role of state financing is still important: it gives the government an opportunity to impose social and environmental standards or conditions, and it sends a signal to the private sector of government commitment.

Greater inter-municipal co-operation, which has been promoted through municipal consolidation or through voluntary and informal modes of consultation, has involved a shift toward a regional conception of urban development. This will, in turn, raise questions about the sharing of fiscal revenues in the future, especially in areas where some small municipalities attract housing or commercial development to greenfield sites as a way of increasing their tax base. Difficult choices remain to be made, and sooner rather than later: investments and plans made today will continue to influence the pattern of urban development in decades to come; at the same time, given the unpredictable nature of urban social, economic and environmental trends, it is important to maintain or increase a degree of flexibility, so that adaptive change can be made more easily and at lower cost.

Planning for urban development lies at the interface between the public and the private sectors, between civil society and professional experts. In the Renaissance, utopian thinkers expressed the idea that cities should be designed in order to foster good government and moral behaviour; this objective often led to the elaboration of social, economic and political relations in spatial form, most visibly in new towns and in the seats of some princely courts. Ideal city planning of this kind was eclipsed by the spread of democratic rights, industrial capitalism and the demographic growth of cities in the 19th century, but without solving an underlying problem, namely, the task of channelling private investment and activity to produce better results for the community at large. Indeed, the high density and poor quality of much of the housing in industrial cities provoked the emergence of the modern approach to city planning early in the 20th century.

In modern planning, most of the funds for urban development are invested by firms or households to meet their demands for space and accessibility, but within a framework of rules and of tax and building codes. This framework can offer firms an opportunity to gain expertise and establish markets for housing and urban development that better meet the objectives of sustainable development. Progress in this direction involves departures from current ways of building and using cities, and for this reason, developers and builders often raise questions about the profitability of innovation, which they see as riskier than something conventional. Because the market for housing and space evolves slowly and because current expectations are largely shaped by what already exists, a transition to a new and more sustainable pattern of urban development involves incremental steps which cumulatively have a significant impact. To make these steps possible, changes in the rules and incentives guiding investment may be needed, not only initially, but at successive intervals. Thus, public policy and private initiative can both evolve in mutually supportive ways.

Hence the importance of public opinion. People need to understand how and why a more sustainable pattern of urban development will be more attractive and better suited to their needs and aspirations, and they need to understand how it can reduce the risks associated with private investment in housing and property development. Many of the large-scale projects involving contaminated land have focused heavily upon public participation and community awareness. Local Agenda 21 has similarly been an effective means by which civil society is involved in the dialogue to achieve sustainable and future oriented development. Many German towns have started Local Agenda 21 processes which will undoubtedly impact upon urban policy in the future.

The policy system has become more open to the public. The methods of urban planning and management may appear technocratic and complex, but the issues they are intended to address involve issues about which public opinion may be

strong. The competence and devotion to the public interest of city managers and planners is very high, and is an important factor in the trust that people have in government. Nevertheless, both the means and ends of urban policy may be controversial at the local or regional level, where decisions of practical consequence to communities are made. Although there may be consensus concerning the objectives of sustainable development, better public information and participation is a precondition for public support for measures to make progress. Indeed, the concept of public participation – of community ownership of a plan – is an integral part of the concept of sustainable development itself, which intends that people become more responsible for the future welfare of their community.

This overview shows that progress toward sustainable urban development is being made in Germany through a mix of national and local initiatives. To an extent that is difficult to estimate, local initiatives are a measure of the influence of goals set by the federal government, as well as a measure of the impact of federal expenditure and other fiscal and regulatory instruments. The gains are often a matter of incremental change, and in some cases, public initiative and investment have only prevented things from getting worse. Local initiatives are important because solutions to problems must be adapted to local needs and circumstances. But they leave open five questions: first, whether the success of some cities is not counterbalanced by a lack of concern and effort elsewhere; second, how to promote innovations in places where they are not being attempted; third, how the private sector and households can better shape demand for land-use patterns and housing that fit in to a strategic framework for sustainability; fourth, whether the influence that the Länder and the federal government have over local decision-making is adequate; and fifth, what incentives and policy measures taken at the federal level could better reinforce socio-economic trends in the direction of more sustainable urban development. At this stage of analysis and evaluation, these questions demand further research before they can be answered. Nevertheless, the examples discussed in this chapter indicate that substantial progress has been made on both the local and national levels, progress which would not have been possible in the absence of federal policies and expenditure, in the absence of regional and local initiative, and in the absence of public support and private investment.

Chapter 4

German Policy in a Comparative Perspective: Brownfields and Car Traffic

The urban policy context in Germany is increasingly shaped by international factors. These include: the integration of the German economy into the European Union, and the eventual enlargement of the EU; the impact of globalisation on the competitiveness of firms in Germany; fiscal constraints at all levels of government; international commitments on sustainable development; and a better informed electorate which is more aware of international trends and which expects to participate in urban decisions. These factors reinforce the thrust of urban policy to strengthen city centres by regenerating previously developed sites, reducing sprawl, and managing car traffic. Developed countries increasingly share the same urban problems. The international context makes policymakers more aware of what other countries are doing to strengthen their urban policies. Thus, Germany can set an example to others in its approach to brownfield issues, but it can also benefit from the experience of others in managing traffic demand and suburban growth.

Germany – with its clearly organised (federal) spatial planning and urban policy – has some distinctive political ideas and missions. The first is that of sustainable urban development. This is illustrated by a number of programmes and projects within Germany such as that of Cities of the Future "Städte der Zukunft (Experimenteller Wohnungs- und Städtebau: ExWoSt)", Regions of the Future, "Large Housing Estates – Attractive Communities for Tomorrow (simulation model Leipzig-Grünau)" and others. It is also evident in the prominent role of Germany in the work of the UN Commission Human Settlements (Habitat), and in the contribution of Germany to the OECD activity on the Ecological City and more generally by in its contribution to the OECD Group on Urban Affairs, chairing the Group in 1996-7. Germany is one the driving forces in the international arena to strengthen cities, not only with regard to ecology, but also to social, economic and political relationships.

The second mission – for which Germany is one of the main protagonists – is the promotion of European spatial planning and of European urban policy. Germany was a key initiator with the agreements in Leipzig in 1994 for

"Europe 2000+ towards an European Spatial Development Perspective" (ESDP). This emphasis on an European spatial planning and subsequently on European urban development (Draft Report on European Spatial Development, May 1998), has been supported by Germany over a long period. The tradition of "double federalism", with which Germany extends its co-operative relations between the 16 Länder and the National Government to that of the European Union, adds further strength to this, allowing Germany to be proactive in many policy areas. The Länder are important partners in European (spatial) policy, and in many cases work with the national government to provide German input. The focus on European spatial planning and urban development was recently illustrated by the promotion of European Metropolitan Regions in 1997 by a MKRO Working Group.

These highly visible initiatives have been taken against the background of growing tensions between long term visions and ambitions, and the need to stimulate growth and employment. The financial situation of many municipalities is one of fiscal austerity, given the reduced taxes and the increased amount of expenditures for social assistance exacerbated by high unemployment. Germany has used urban policy relatively successfully to achieve positive economic outcomes. The issue now is how to sustain levels of growth and demand, particularly in light of monetary conversion and the need to control public spending, and without compromising other aims for sustainable development.

Reviewing policy approaches from an international perspective is a valuable exercise. Just as Germany can learn from other countries, so can others learn from Germany. Important areas of immediate relevance, and which lend themselves to international comparisons, are, inter-alia, the recycling of previously developed (and often derelict or contaminated) land, often called brownfields, and urban travel. Each of these relates to an ongoing activity of the OECD Group on Urban Affairs. These policy areas are not the only important ones, but they do relate in critical ways to the overall objective of sustainable urban development. For example, sustainable urban development involves much more than the problem of urban brownfields, but unless this problem is addressed, progress on sustainability will be difficult to make.

This point needs further elaboration. It would be a misunderstanding of urban policy to reduce it just to a consideration of the few issues selected for discussion in this chapter, or to conclude that urban policy is nothing more than the sum total of several individual problem oriented policies. Urban policy, which is broader than any single issue or bundle of issues, allows a problem such as urban brownfields to be treated in a larger context. The advantages are several:

- each problem can be evaluated for its impact on progress towards urban sustainability;
- priorities among issues can be set;

- the tendency to treat a problem in a technical manner can be controlled by implementing policies in a multi-sectoral approach;
- the public and the private sectors have a better understanding of how public funds are used and of what the objectives of urban policy are;
- cities and Länder can more easily transcend the limiting horizons of their immediate circumstances, and see how their initiatives contribute to a national outcome.

4.1. Brownfields

As detailed in Chapter 3 the reuse of previously developed land forms an integral part of the urban development process in Germany and has proved successful at many levels. Managing urban growth, reducing pressure for greenfield development, inner area regeneration, and employment creation are all by products of recycling previously used land. A 1997 survey of building land availability in German cities indicates that there are 40 000 hectares of former industrial land and 55 000 hectares of abandoned military sites. At present around 40% of this inner-city building land is prepared for the market. However, those sites known as brownfield sites are amongst the more problematic areas for Germany to deal with. As will become clear, the extent of the problem in Germany is considerable and much has been done over the past decade to address the issue. The increased presence of brownfield sites in urban cores, city edges and even entire regions, inextricably linked to the often dramatic and rapid shift from heavy industrial processes to services with their different technological needs and changing employment patterns, inhibits the capacity of areas to undergo an economic transition successfully. Brownfield sites have become a long term problem: each year the number of theses sites grows as enterprises relocate and growth patterns change. The regeneration of urban brownfields has an important role to play in achieving urban sustainability and reinforcing the economic stability of urban areas. Although the scale of the problem is large in Germany, the number of quality successes is also significant. Partly thanks to German initiatives, international recognition is growing that redevelopment of brownfield sites can be economically and socially viable (see the examples in Chapter 3). The advantages of urban regeneration programmes have already been accepted in Germany along with the realisation that local economic decline has to be reversed where possible. Indeed, the projects and initiatives followed in Germany are widely recognised, internationally, as possibly the best examples of multi-sectoral approaches which support sustainable development. Germany's experiences in responding to the problem of brownfield sites influence policies and approaches in Europe and North America. The well developed international partnerships nurtured by Germany over the past decade have a constructive role to play.

The report entitled "Current Status of Contaminated Site Management in Germany" (Freier and Grimski), accepted by the Federal Environment Agency April 1998, confirms that structural change in German industry has raised two main challenges:

- "the remediation of industrial sites and the elimination of hazards to human beings and the environment – a task for environmental policy; and
- the reintegration of rehabilitated sites into the economic cycle (derelict land recycling) – a task for economic and structural policy."

The Agency accepts that whilst considerable advances have been made in solving environmental problems which result from contaminated sites and in developing remediation technologies, the task of revitalising these sites and developing effective concepts for generating economic uses still lies ahead. Land consumption in Germany amounts to several dozen hectares per day and yet there are approximately 25 000 hectares of derelict industrial sites in inner city areas awaiting redevelopment. The integration of environmental policy and economic/ structural policies are accepted by the agency as necessary to bring these hectares back into economic use.

The problems of brownfield sites are twofold, in that site identification and remediation methodology need to be developed, followed by a strategy for economic regeneration. Severe economic decline, high rates of unemployment and issues of depopulation are the stimulus for action in most countries. Within the context of the European Union the amount of contaminated or land suspected of contamination in Germany which are registered are considerably greater than in other Member countries, as shown in the table below. The reasons for this relate both to the industrial and political past of Germany and the proactive approach taken by the Länder to identify sites within their region. Environmental concerns and legal rulings during the 1980's stimulated the Länder into addressing this issue. Reunification exacerbated the problem of brownfield sites in Germany, particularly with respect to the considerable number of army, State owned industries and former military sites for which the Federal Government became responsible. Table 9, from 1993, estimated the number of sites in Germany to be around 200 000.

At present in Germany the Länder are responsible for the identification, registration and first preliminary assessment of suspected contaminated sites, each having the right to develop its own regulations. The Länder compile data on suspected sites, regarding the four main categories: abandoned waste disposal sites, abandoned industrial sites, military contaminated sites and armament production sites. However, the Federal Soil Conservation Act was ratified in February 1998 creating national uniform criteria. Guidelines (Technische Anleitung Altlasten) are expected to be enacted in 1999. The Act and the Ordinance will create the conditions for effective soil conservation and the clean-up of contaminated sites. Uniform standards will be set nationally rather than at the Länder level providing investors

Table 9. **Estimated number of contaminated sites in the EU which require remediation**

	Estimated number of contaminated sites	Estimated number of sites requiring remediation
Belgium/Luxembourg	20 000	5 000
Denmark	7 000	2 000
France	100 000	20 000
Germany	200 000	50 000
Greece	5 000	1 000
Ireland	1 000	200
Italy	30 000	10 000
Netherlands	110 000	30 000
Portugal	4 000	800
Spain	25 000	5 000
UK	100 000	30 000

Source: 4th KfK/TNO Symposium Remediation of Contaminated Sites, Berlin, 1993.

with legal security and making it easier to calculate the risks posed by soil contamination, this being particularly important given that suspected (rather than proven) contamination often hinders urban and economic development. The goal is to permit contaminated land to be kept in beneficial use wherever practicable. The Act is seen to be important in relieving pressure for new development taking place on greenfield sites. The implementation of these regulations will remain the responsibility of the Länder, who prior to the Act were already responsible for the identification, risk assessment and remediation of contaminated sites. The registration of sites by the Länder (bearing in mind differing definitions and criteria) is ongoing, and the final figure is anticipated to be around 200 000 for abandoned waste and industrial sites alone. Table 10 gives a breakdown at Länder level; however, due to the different definitions of suspected contaminated sites in the Länder the data cannot be compared directly.

These figures reveal the "suspected" extent of the problem. Germany has been particularly successful at establishing mechanisms for monitoring the information compared to other countries, as well as achieving successful redevelopment programmes, as detailed in Chapter 3. Such recognition firmly places brownfields on the urban agenda for the country as a whole.

The Länder apply the "polluter pays" principle, wherever the polluter can be identified. If the polluter is insolvent, special funds may be available in the Länder. Additionally, in many cases the Länder are liable for clean-up of orphan sites. Estimates for the total costs of remediation of contaminated sites in Germany vary between 50 and 960 billion DM. A precise estimate is not available because the total number of contaminated sites, the type and the extent of their pollution, the

Table 10. **Suspected contaminated sites in Germany**

Federal States	Registered suspected contaminated sites 1997	Suspected former armament production sites 1995
Baden-Württemberg	6 894	412
Bavaria	12 578	337
Berlin	5 683	80
Brandenburg	15 342	336
Bremen	3 100	11
Hamburg	1 526	60
Hesse	492[1]	109
Mecklenburg Western Pomerania	8 700	196
Lower Saxony	8 656[2]	277
North Rhine Westphalia	28 329	321
Rhineland-Palatinate	10 578[2]	210
Saarland	4 243	13
Saxony	30 331	278
Saxony-Anhalt	19 458	270
Schleswig-Holstein	17 246	107
Thuringia	18 229	223
Germany total	**191 385**	**3 240**

1. Only proven contaminated sites.
2. Without suspected abandoned industrial sites.

Source: Freier, Grimski, Frauenstein, Reppe, Federal Environmental Agency, 1997, *Contaminated Site Management in Germany.*

remedial technology which has to be applied, etc. are unknown. Federal funding has been allocated to register and carry out preliminary assessment revealing some 256 000 hectares of suspected contaminated land on military sites occupied by the former Soviet Armed Forces. The Federal government is providing considerable funding to address the problems of the former east. Exacerbating factors in the former east, as with other former Soviet block countries also concern the complexities of land ownership (Freier and Grimski, 1997).

As in the United Kingdom, Denmark, The Netherlands and France, for example, funds are provided at the national government level with respect to both remediation and redevelopment programmes. These funds only address specific issues, and generally the Länder are responsible for funding.

The Federal Government, through special funds allocated through an Administrative Agreement, spends some 35 billion DM for remediating sites from the former GDR enterprises in the new Länder. The old Länder provide annual financing and do not receive funding from the Federal Government. In Baden-Württemberg, some 61 million DM was spent in 1996 through a joint State Government and local authority fund, with a similar scheme emerging for land in private ownership. In Bavaria an annual budget of 12 million DM exists and in Hesse

between 11 and 44 million DM are provided for the clean-up of sites where the polluter cannot be held responsible. Added to these considerable figures are public investment (national, Länder and municipal) in some of the most successful redevelopment projects of the past decade. Financing may be the only policy area for which Germany can learn from other examples. In the United Kingdom, for example, central government funding is administered through a series of grants and organisations such as English Partnerships and Scottish Enterprise enabling funding to be widely dispersed benefiting more than 'model projects'. Because the amount of land requiring remediation in Germany is almost double that in the United Kingdom, federal contributions on a consistent basis are likely to be necessary for both remediation and redevelopment purposes, and should be closely tied in with urban policy strategies responsible for the many sites identified.

In the past fifteen years the German government has supported considerable amounts of research into the remediation of contaminated land. The Federal Ministry of Education, Science, Research and Technology alone has spent more than 220 million DM; in addition special funds are provided by the Länder and other institutions such as the German Research Community. Overall, approximately 200 projects costing 300 million DM have been funded over the past decade. Methodologies for remediation have been particularly innovative in Germany. The Nordhorn project developed the methodology for remediation on a "High Think – Low Tech" principle facilitating in-situ clean-up (see Chapter 3). Thus costs of 26 million DM were significantly lower than following the "classic method" of complete soil exchange. The land was rehabilitated without incurring excessive costs and perhaps more importantly without damaging any other part of the country by removing the waste elsewhere. Treating problems in-situ raises public confidence and facilitates a more open process of participation, two factors which are particularly relevant in Germany and which provide useful lessons for other countries. Developing an effective methodology that is mindful of costs is crucial to achieving successful brownfield regeneration. Given that many brownfield projects, internationally, are funded at the 'front-end' out of the public purse it is essential that costs be kept to a minimum. The case of Nordhorn, where public investment was met with private investment levels amounting to some 300 million DM, is an excellent example of this. Other countries benefit from attention in this area. The remediation budget allocated in Baden-Württemburg affected methodology choices made by the Basque Autominous Community, Spain. The German Environment Agency, recognising the importance of the international exchange of scientific knowledge has co-operated with The Netherlands and the United States, among others.

Redevelopment projects throughout Germany have focused on holistic approaches which have achieved economic, environmental and social sustainability. Mixed-use projects have provided housing, employment, open space and

Box 2. **North-Rhine-Westphalia**

The government of the North-Rhine-Westphalia has had control of the Ruhr land reserves since 1980, and from 1984 the whole of the State's Länder land reserves, to help the towns and settlements to prepare their larger waste land sites for reuse. This is generally because of the excessive burden of costs, risks, lack of experience and high project management expenditure. This applies particularly to the areas where the economic structure is weak and in which private developers have as yet not been active.

Using a commercial purchase agreement, the LEG State Development Corporation of North-Rhine-Westphalia (LEG NRW), took over the management of the land reserves in total and the management of individual projects. Up until 1997 the land reserve fund (Grundstückfond) has bought about 2 400 hectares and disposed of 971 hectares.

The land fund reactivates areas fallen into disuse which:

- the owner had given up using for commercial, industrial, or mining purposes;
- hinder the town construction planning and structural development, found principally in the town centres, and in some cases posing environmentally sensitive political problems; and
- would by their renovation and reuse permit the utilisation of further open space for other purposes or the cleaning up of a severely dilapidated piece of land.

The important measures in the preparation of sites are:

- the development of a framework for urban planning dependently of considerations of risk or redevelopment;
- clearing the site (remove buildings, obstructions, foundations);
- removal of contaminated soil and/or make it safe;
- open up and shaping the area; and
- marketing.

Modern style trading parks, among other projects, have been established on sites from the land reserves under the LEG philosophy'Arbeiten im Park' (Working in the Park). The successful implementation of this philosophy requires that planning, reparcelling, infrastructure provision, financing public funding and marketing are controlled through one body.

Town plans indicate that 54% of the development will be for industry and commerce, 42% for public uses and recreation and 4% for housing. Some 40% of the total area has been converted to new uses. The fund has invested 858 million DM between 1980-97 and has been matched by other public funds at a ratio of 2:1, bringing total investment levels to 2 321 million DM.

resulted in the upgrading of existing infrastructure, which helps reduce problems of depopulation. This is particularly true of the IBA Emscher Park project (see also Chapter 3), which aims over a ten year period to achieve the ecological and urban renewal of the northern district of the Ruhr-Area. The project is based on the principle that a widespread ecological renewal must precede any lasting economic perspective. The project demonstrates a partnership approach at its most effective and comprehensive. Seventeen local authorities make up the region and a Steering Committee, chaired by the Minister responsible for Urban Development in North-Rhine Westphalia and comprising members of the Land departments, the member towns, industry, trade unions and representatives of nature conservation, planning and architects associations. This is a unique programme which has had considerable influence internationally. IBA Emscher Park has well established links with brownfield projects in other countries, for example, Nord-Pas-de-Calais; Westergasfabriek, Amsterdam; and the Royal Arsenal site at Greenwich. The positive influence of Emscher Park will be felt for the foreseeable future.

The European Union is an important factor in brownfield redevelopment in Germany and other countries. Various initiatives and funding mechanisms have provided projects in Germany with significant sums of money. In some cases such as Emscher Park which received EU funding of 350 million DM, and Neunkirchen where approximately 50% of the project costs were provided by the EU, it is clear that the co-operation of the EU was essential. A recent report, "Sustainability and the Structural Funds" (Hertfordshire County Council, ECOTECH and Land Use Consultants) considers Emscher Park to be a good example of sustainable economic development but notes the following vis-a-vis Germany as a whole:

"The application of the Structural Funds works well in Germany as there is a good regional planning hierarchy. However, the Funds could:

- have a greater social dimension and provide more funding for urban projects;
- take a more holistic approach and ensure funding in relation to environmental goals."

Urban brownfields have an important role to play if German cities are to attract more activity, investment, and housing in the years to come. The sites are already connected into urban structures and infrastructure. The willingness to follow pilot strategies in Germany has been particularly advantageous of the recent past. As emphasised in this chapter and demonstrated through the numerous examples in Chapter 3 this approach has enormous benefits.

Recent surveys indicate that up to 13% (1995) of new housing units can be realised on brownfield sites. Brownfield site development in Germany has provided considerable opportunities for housing development, which in fact makes up for about 80% of all urban development in Germany. Evolving from the Habitat II

Box 3. **Housing provision and recycled land, United Kingdom**

In England there has been an emphasis on encouraging new housing to be built within existing urban areas and on recycled land. Since 1985 the proportion of all land used for new housing that had previously been developed increased from 35% to about 50% in 1995, which accounted for some 53% of all new housing. In 1998 the Government proposed a new target – 60% of all new housing should be on previously-developed land or created through conversions of existing buildings within 10 years.

Local Development Plans are incorporating national policy to address this issue, for example, Newport County Borough Council has indicated that 70% of new homes will be provided on recycled land over the plan period in its draft unitary development plan.

Agenda, the "Cities of the Future" project initiated by the Federal Ministry for Regional Planning, Building and Urban Development focuses on four pilot cities and seven reference cities; four of these eleven cities propose to redevelop brownfield sites. A mix of uses will be achieved through partnership approaches with significant emphasis on housing provision.

4.2. Car use

Germany currently has the highest car ownership rate in Europe. In the European Union, the stock of private cars will increase by 45% between 1987-2010, resulting in 503 cars per 1 000 inhabitants. In 1994 the western part of Germany had already reached 500 cars per 1 000 inhabitants. There is no evidence of a slowing down of this trend and it is likely that trends in the east will eventually converge. Indeed, car travel is soaring in all Western industrialised nations. Rising incomes, expanding labour forces, changes in household composition, increased leisure time and lifestyle changes have resulted in more car journeys. Trends in spatial planning which have led to increased suburbanisation, "edge city" development, out of town shopping and leisure facilities, as well as and land-use and transport policies throughout OECD Member countries have led to excessive car travel in cities and their immediate surroundings. Redressing the negative impacts of current trends is widely accepted as crucial to achieving urban sustainability. Road transport was the main means of transport used for both passengers and goods, accounting for some 50 million people (84% of all passengers) in 1996. In 1997,

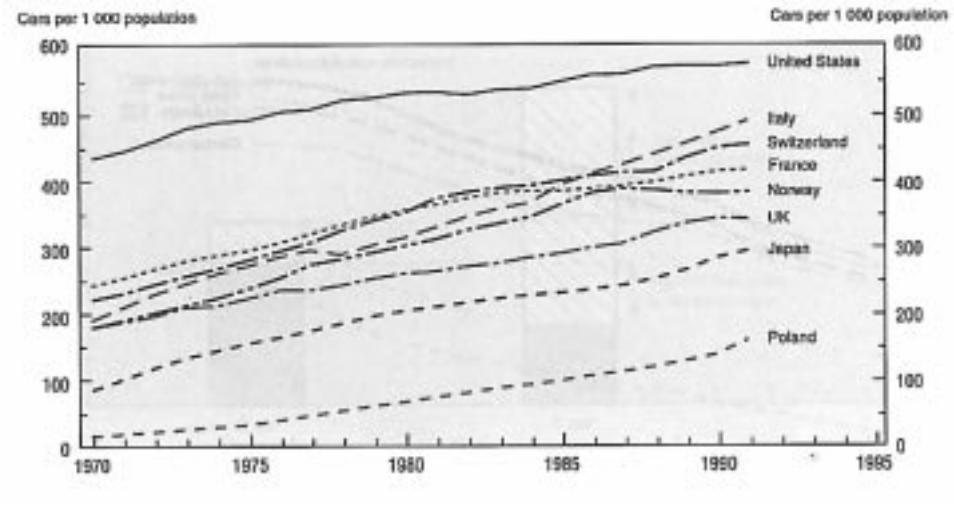
3.5 million passenger cars were newly registered and in that year the total number of passenger cars was 41.4 million, while the number of all road motor vehicles was 49.0 million. Reunification has led to an increase in numbers of cars on the road and brought about the need to upgrade and invest in all areas of transport in the former east. A natural consequence of this has been the need to upgrade and construct roads. The road network in Germany is second only to that of the United States.

The environmental benefits which followed specific legislation aimed at reducing industrial pollution are being counteracted in some parts of Germany through increased car use. With the introduction of the emission-oriented motor vehicle tax on 1 January 1997, the Federal Government has adopted another measure to reduce pollution caused by motor cars. In addition to this, it has also improved the pre-conditions for cycling and hence for a shift away from motor traffic by extensively amending the Road Traffic Regulations. Owing to the federal structure of the country and the extensive decision-making powers of the Communes especially in the field of transport, the possibilities at federal level of influencing mobility particularly at town and city level are very limited. Within the scope of the possibilities permitted by its competence, the Federation supports the switch to an integrated environmental system, public local transport and non-motorised modes of transport. Numerous research demonstration and pilot projects are carried out in this context. Consensus is now emerging in Germany, at all levels of government, that cities with car use related increases in traffic and environmental problems should look for solutions other than roadbuilding to improve the current situation. As detailed in Chapter 3, in many German cities initiatives are being implemented to reduce non-essential traffic as much as possible and to manage essential traffic in an environmentally sustainable way. However, political inconsistencies remain: the use of telematics is likely to result in an increased volume of traffic but in a more efficient use of existing infrastructure. But as the example of Melbourne, Australia in the 1990's shows, through planning and policy, it is possible even in a country with high levels of car use and of suburbanisation to redirect much of the demand for housing to sites within the developed metropolitan area served by public transport. Figures 11 and 12 indicate levels of car ownership in selected OECD countries and in different parts of Germany.

Detailed figures for the former western part of Germany, submitted for the OECD/ECMT Urban Travel and Sustainable Development, study reveal that in Germany car ownership is lowest in city centres, and higher in the suburbs and rural surroundings than in more remote rural areas. The high network density of the road infrastructure promotes use and enables greater connectivity between places.

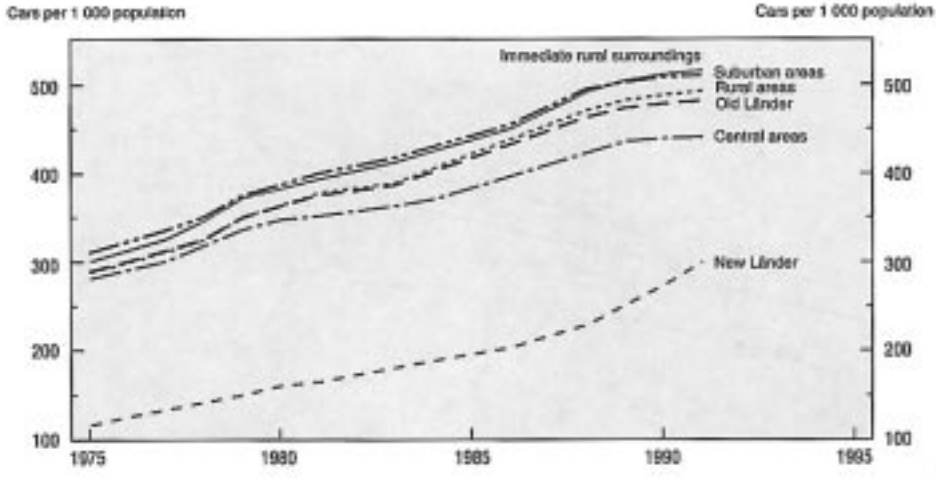
Land-use patterns significantly affect transportation issues. In Germany, where shopping, services and leisure account for the majority of activities generating car use, retail development and leisure development are among the major challenges facing the planning system also in an international perspective with transborder

Figure 11. **Car ownership in selected OECD countries**



Source: OECD, 1993*a*.

Figure 12. **Car ownership in different parts of German Cities**



Source: German National Overview. Urban Travel and Sustainable Development, OECD/EMCT, 1993.

cooperation. Although Germany has pro-active policies to support town centre shopping, out of town retail floorspace in the western Länder accounts for 30% of new space, compared with 25% in the United Kingdom. In the eastern Länder, the figure is as high as 70%, with a considerable amount taking place on greenfield sites. The inflexibility of legally binding development plans and the pressure of the reunification process have had a damaging impact. Out of town retail development is ongoing. In the western Länder at Oberhausen, a British developer has constructed the largest development of its kind, attracting customers from a massive hinterland stretching into the Netherlands. Leisure uses, such as multiplex cinemas pose similar problems, and policies to favour town centres do not yet appear to have significantly discouraged out of town development. Initiatives introduced in (1998), such as the "Pro-Inner City" initiative which includes actors from the public and private sectors will attempt to reverse negative trends. Similarly, the new law for Regional Planning and Building 1998 will further restrict such developments by requiring that for all commercial developments over 5 000 m^2 an environmental impact procedure will be obligatory.

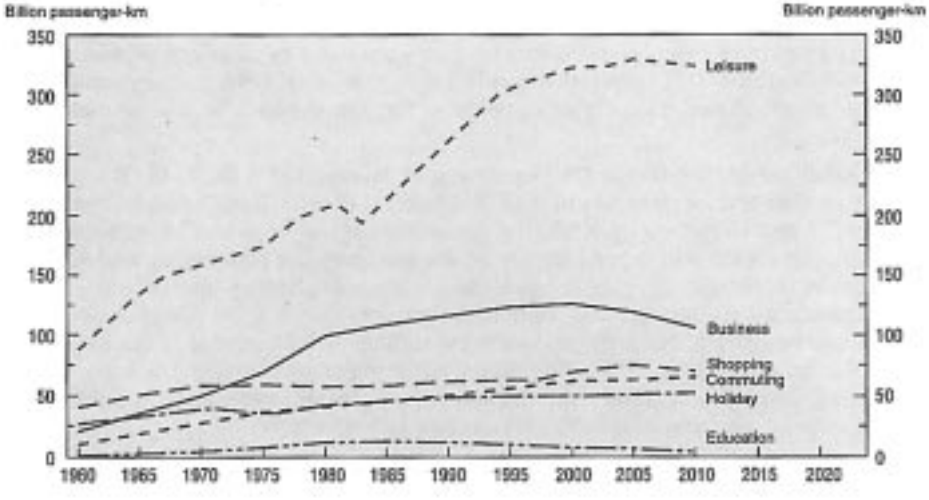
Figure 12 highlights the significance of leisure trips made by car in Germany. Germany is responding by developing stronger and more coherent policy measures that combine transport and land-use to strengthen cities. This, however, only highlights the need for a multi-sectoral approach at all levels of government, and involving different ministries.

The research institute Deutsches Institut für Wirschaftsforshung (DIW) also recognises that land-use lies at the heart of achieving a sustainable transport initiative. It is recognised that regional transport has doubled over the last 30 years in Germany largely as a result of the continual process of suburbanisation and urban sprawl. It is estimated that regional transport of passengers and goods accounts for 20% of primary energy consumed in Germany.

Box 4. **Out-of-town developments, United Kingdom**

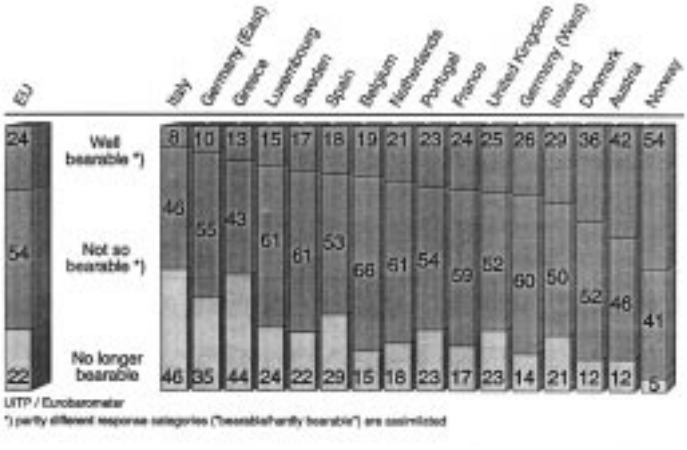
In the 1980's permissive planning policies in the UK resulted in a rapid increase in retail developments outside existing centres. Since 1990 Government planning policy guidance has been reviewed twice, to strengthen control over out of town development. Current policy is to encourage all new retail, leisure, offices and other key town centre uses to locate within or on the edge of existing centres. If other sites are chosen, the onus is on the developer to demonstrate that there are no more central sites. Unimplemented planning consents need to be renewed after 5 years, and will be assessed against the current planning policy.

Figure 13. **Dominance of leisure trips over other vehicle uses in Germany**



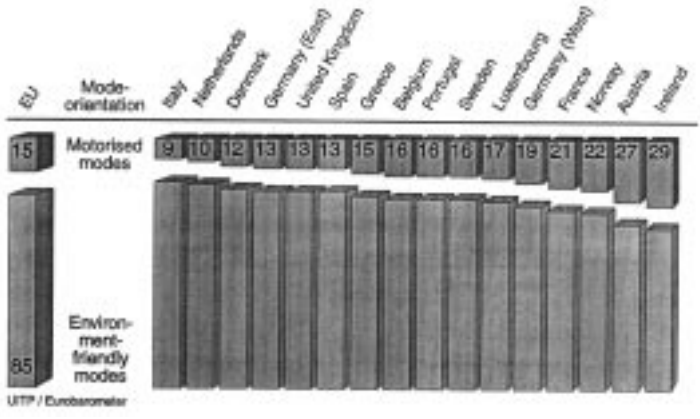
Source: ERTI, 1992. Urban Travel and Sustainable Development, OECD/EMCT, 1993.

Figure 14. **Impacts of Car Traffic**
Citizens



Source: OECD/EMCT, 1996. Round Table 102, p. 54.

Figure 15. **Expectations from Transport Planning/Policy**
Citizens



Source: OECD/EMCT, 1996. Round Table 102, p. 55.

The public transport system in Germany has been expanded since the 1960's and there are ongoing measures, as detailed in earlier chapters to continue investment. Use ranges from 13-45%. Typically in cities with better public transport provision car use is reduced but the overall trend is that of increased car ownership and use. The figure below reveals transport modes in various OECD countries. Policy conflict is again evident in the legal requirement to provide car parking at minimum standards, thus ensuring that space is continually provided in town centres which are generally well serviced by public transport and encouraging more car journeys. In common with other countries it is clear that increased investment in public transport, in order to be effective in environmental terms, could be matched better with coherent policy aimed at reducing car use. Consideration of an integrated transport strategy, as being proposed in the United Kingdom, for example, could prove beneficial. Indeed, within Germany the positive example of the city of Freiburg, voted "Federal capital for the protection of nature and the environment" in 1992 and widely respected throughout Europe for its integrated traffic policy, has resulted in a fall in car journeys of some 13% and an increase in the use of public transport and cycles. Initiatives such as the Eco Ticket, useable throughout the Freiburg region and valid on all means of public transport at low prices, have been adopted by other cities throughout the country. These solutions are frequently compatible with

aims for sustainable development, and as localised initiatives they may be more progressive than federal programmes. This is not unique to Germany. Throughout Europe citizens are more accepting of a transport policy that restricts car use in cities. City and town based initiatives, whilst inspirational, will work best in a national policy framework.

4.3. Conclusions

As has become clear throughout this and preceding chapters, Germany has refocused national urban policy to achieve sustainable urban development. Considerable progress has been made, particularly with respect to large-scale urban renewal programmes which have frequently involved significant areas of derelict or contaminated land. Since the 1980's all levels of government have recognised the need to identify the location of contaminated (and suspected contaminated) sites and attempt to resolve their negative impact through comprehensive redevelopment programmes. Many of these programmes have adopted long-term approaches which involve not only public-private partnerships but also an extended degree of intra-governmental cooperation. The numerous experimental projects which have been supported clearly demonstrate that redeveloping brownfield sites is economically, environmentally and socially viable and makes a considerable contribution towards achieving sustainable urban development.

Table 11. **Variation in mode use in different countries**

	Population (thousands)	Percentage of all trips by:			
		Foot	Bicycle	Public transport	Car
Netherlands (1990)		17	29	5	47
Germany, Fed. Rep. (1990)		27	10	11	53
United Kingdom		39	3	14	45
Groningen (NL, 1986)	160	17	48	5	30
Delft (NL, 1986)	85	25	40	10	25
Vasteras (S, 1981)	117	17	33	10	40
Munster (D, 1990)	253	21	34	7	38
Copenhagen (DK, 1982)	580	27	20	20	33
Salzburg (A, 1982)	128	29	11	20	40
Bologna (I, 1990)	176	23	8	34	35
Grenoble (F, 1985)	170	36	3	10	51
Stuttgart (D, 1986)	561	31	3	22	44
Madrid (E, 1981)	4 400	56	0	29	15

Source: Krag, 1993. OECD/EMCT, *Urban travel and sustainable development.*

Box 5. **Integrating transportation policy and clean air improvements in the United States**

In the United States the Intermodal Surface Transportation Efficiency Act of 1991(ISTEA) and the Clean Air Act Amendments of 1990 (CAAA) combine to provide innovative mechanisms to achieve integrated transportation and air quality planning. They represent a national policy approach which establishes measurable and enforceable air quality targets and ensures that transportation planning emphasises system efficiency and, where necessary ensures that transportation projects contribute to cleaner air. Whilst urban areas have flexibility over the actual application of the Acts strict Federal sanctions and incentives ensure implementation. The autonomy of the federal states is maintained but coherent national guiding principles exist. Since enactment the two Acts have influenced planning processes, permitting flexibility in fund allocation and building the principle of sustainable development into long term transportation strategies. The real long term benefits of this co-ordinated legislative approach have been set back by recent amendments to highway legislation which will delay the requirement upon states to demonstrate how this will be achieved. State compliance with the CAAA is therefore delayed by some 6-9 years; however, this type of legislation is important and will provide many useful examples of innovative approaches in policy integration of both national and international relevance.

The Federal Transit Administration and the Federal Highway Administration initiated a series if joint Enhanced Planning Reviews to assess the impact of the ISTEA on the planning process, an example of which is the Philadelphia Metropolitan Area, Modest growth over recent decades has been characterised by increasing suburbanisation coupled by a loss of residents and jobs in Philadelphia, Trenton and Camden. The region's population grew 12.4% between 1960-1990, reaching 5.2 million people. Employment increased by 28% between 1970-1990, reaching over 2.8 million jobs. Current patterns of growth are predicted to continue, with increases in the fringe of the suburban areas and continuing declines in the cities. The population is predicted to increase by 7% by 2005 and 11% by 2020. Employment growth to 2005 is expected to reach around 3 million jobs.

The *Regional Transportation Plan* is a long range plan, to 2020, which responds to ISTEA and the CAAA and has as a key element the integration of land use with transportation. Part of a more comprehensive effort, Direction 2020, is the Metropolitan Planning Organisation's (MPO) first effort to integrate all modes into the regional planning process. Through a series of reports foundations for policy-making and public participation are established and regional transportation goals, objectives and action steps are defined. Particular areas of importance that have been achieved up to 1996 are:

- Cooperation between states and among local agencies with the MPO.
- Public involvement process.
- Project prioritisation process.
- Linkages between transportation and goods movement.
- Commitment to making travel demand modelling enhancements.
- Consideration of the link between transportation and land use planning.

The issue of car use, however, is somewhat more problematic. It is true that experimental projects and localised initiatives have been successful but the sustainable practice of recycling land is combined with a long history of car-based suburbanisation. To be sure, efforts to remediate brownfields and regenerate city centres date from the mid-1980's, whereas the policy response to suburbanisation and problems of urban travel is more recent. For the future, it will be important to see greater emphasis on the inter-relationship between problems and policy mix. Solutions to the redevelopment of brownfield sites, for example, may contribute to reducing trends of suburbanisation, thus resulting in a more sustainable pattern of development. In any case, because the policy means may differ even as countries pursue similar goals, international comparisons will be increasingly relevant as countries assess the impact of policies. As in other countries, in Germany it will be important to see how initiatives on the federal, Länder and local level promote the long term goal of "a city of short distance" which reduces car use and improves the environment.

Chapter 5

Challenges Facing the German Urban System: Conclusions and Recommendations

The overall challenges of urban development in Germany are broadly the same as the challenges facing Germany as a whole. These include:

- stimulating economic growth;
- increasing the level of employment;
- improving the environment;
- strengthening social conditions.

Cities cannot help Germany achieve progress on these issues unless they make progress toward sustainability. This means, in turn, that the main goals of urban policy are:

- promotion of a resource-conserving and environmentally compatible settlements and urban development;
- assurance of socially cohesive cities, and creation and maintenance of adequate availability of housing for all;
- creation of a sustainable urban infrastructure; and
- urban development for attractive and sustainable business locations.

Each of these challenges has an urban dimension which raises questions about urban policy, planning and land-use patterns now and in the future, questions which are highlighted by current trends related to outer-edge development, suburbanisation, and the social patterns of residential choice. Economic development can be improved if planning decisions, urban travel management, and urban renovation can help different sectors to derive greater benefits from urban locations and markets. The environment can be improved through efforts making maximum use of previously-developed land and the renovation of degraded buildings, and through integrative strategies to reduce the demand for car travel in urban areas. Social conditions can be strengthened by addressing the problems of long-term unemployment in urban areas affected by the collapse of established industries,

the concentration of immigrants and of people with below-average incomes in the cores of many cities, and the isolation of different social groups and categories. Taken together, policy measures that would make progress on each of these fronts would produce cities that are more strongly organised around their historic cores, focus development on existing centres, and make fewer demands for outer-edge development. From this perspective, the challenge of urban policy in Germany can be rephrased more sharply. Germany has adopted a broad, multifaceted definition of sustainability for urban development policy. The question is whether the social, economic and environmental strands of sustainability can in fact be pursued together. This in turn calls attention to the capacity of the policy system, in terms of institutions and instruments, to use a more integrated, multisectoral approach.

5.1. Spatial planning and economic development

Urban policy should help cities better meet the demand for attractive housing, a better environment, a growing economy and a more cohesive society. But the growing tendency of families to relocate outside city centres, the spread of peripheral development for economic and residential purposes, and the growth of car traffic – trends which work against an urban-centred pattern of development – indicate that people often prefer alternatives to urban living in the form of a more decentralised spatial pattern. If these trends continue or accelerate, the likelihood is that the cities of Germany today, both large and small, will support a diminishing percentage of the population and of economic activity as people and firms disperse more broadly, especially in regions of intermediate density. This process would have a self-reinforcing effect because it would make it harder for existing cities to attract and retain people and investment.

In some societies, the decline of existing cities in relative or absolute terms is considered to be a natural phenomenon within an economic context reflecting the evolution of firms and sectors, and the expression of lifestyle choices; government, presumably, would do little to interfere. Indeed, trends toward suburbanisation and reliance on cars are likely to persist. But such a passive attitude would be incompatible with a commitment such as Germany has made to emphasise the contribution of cities to sustainable development, a commitment which implies that cities as they are need to be reinforced and strengthened. Even without the pressures of suburbanisation and peripheral development, simply to maintain themselves, cities need continuing inputs in the form of improved public facilities and public spaces, lest the normal process of economic, social and technological change generate problems which become increasingly difficult to manage. The development of policies and of policy instruments should have the objective of guiding or redirecting powerful social and economic trends to produce better urban outcomes, so that cities can contribute more to the sustainable development of the country as a whole, and to the competitiveness of firms in Germany.

The composite blend of buildings and spaces that is characteristic of the historic centres of German cities expresses an ideal of social cohesion and public concern for the common good. The spread of monofunctional land use patterns and the unattractiveness of many modern commercial facilities on the edge of cities in turn appears to attract criticisms and arouse anxieties about the social consequences of economic and spatial change. By trying to give cities the means to grow while retaining their traditional architectonic values, policy aspires to provide urban places where different groups can become better integrated, places which people will take better care to nourish, and where businesses can prosper. This affirmation that the social, economic and physical aspects of urban life are interrelated should guide the implementation of urban policy.

There is a risk in Germany, as in other countries, that the short-term objectives of economic growth may lead to planning and land use decisions which favour peripheral development at the expense of city centres. Thus, the cities of eastern Germany, because suburbanisation is less advanced around them, appear to be in a good position to guide development in a more sustainable way; but the need to generate economic activity in the east also created pressures to facilitate outer-edge development, if only because the time and cost of preparing greenfield sites is so much less than that involved in regeneration in urban centres. The problem in the western part of Germany is not dissimilar. There, cities may be competing for investment on unequal terms if some allow greenfield development and others try to restrict development to inner-city areas. Decentral concentration as a conceptual framework fits well for some metropolitan areas that already have a polycentric structure (*e.g.*, Berlin), but it may be difficult to superimpose on some regions where a more scattered pattern, associated with the growth of small and medium size cities, is already well advanced. There are no simple solutions, but the problems themselves suggest the need for more co-operation among municipalities within an urban region, for better co-ordination between transport and land use planning, and for a more strategic use of economic instruments.

The principle of sustainability does not reduce everything to questions of cost, but rather opens up the policy debate to questions of choices. Frequently linked to the principle of subsidiarity, which is intended to bring policy and decision-making closer to those most affected, strategies for sustainable development may only strengthen reliance on land-use planning, not only because land use has an impact on sustainability, but also because that is the kind of policy that can be implemented at the local and regional level, whereas economic instruments require a greater federal role. Reliance on land-use planning and building codes however can easily limit options and become rule-based; plans themselves can be difficult to change; and planning, even at the local level, can still be more "top-down" than "bottom-up." Moreover, integration at the local level can be difficult when critical areas such as education, health and transport are controlled in a

sectoral manner at regional or national levels. Economic instruments can widen choices in the hands of consumers, and can internalise environmental costs. Both need to be combined in an overall approach to sustainable urban development. But the introduction of economic instruments is more difficult than the modification of (existing) land-use planning.

In the final analysis, policies that make cities more attractive, that draw people to live and work in them because they want more of what cities offer (a pull strategy), are more likely to succeed in a democratic system with a high degree of public participation than policies which constrain people (a push strategy).

Recommendations

1. Better use of existing urban centres – to accommodate more retailing and leisure, currently going to the urban periphery, more space for new (small) firms, more mixed use space and more housing in town centres.

To better examine whether the pressures for development can be accommodated within existing urban areas without greenfield development, surveys should be undertaken of the existing level of retail, office and leisure facilities, and of forecasts of future developments, with attention to such variables as the size of facilities, and the potential demand for travel by car and other modes. Such a study could be compared with similar exercises being carried out in cities in other OECD countries. The implications of the federal fiscal framework for greenfield and suburban development or for urban regeneration need to be examined. This may mean, however, that to reinforce the policy trends toward sustainable development consideration should be given to the potential benefits of changes in land-use planning, "green accounting", pricing measures, and changes in transport policy.

Plans may specify the nature and amount of mixed-use development. Changes in the way in which plans specify densities and the provision of parking may be desirable: car parking standards, which are now expressed as a minimum, might be expressed as maximum levels, and densities might be expressed as a minimum level.

The assumptions around zoning, implying the need to separate land uses, need to be re-examined. More mixed-use activity, and higher densities, may mean changes in land-use regulations and in building codes. This in turn may involve giving property owners more flexibility concerning the use of buildings, subject only to external environmental burdens (noise, traffic, etc.).

Strategies to make urban living more attractive call for better cross-sectoral integration, and for preventive strategies to deal with the emergence of social problems (both of which are addressed elsewhere in this chapter).

2. Focus on the problem of the re-use of previously-developed urban land and buildings to reduce the pressure for greenfield development and to strengthen cities with a national programme.

Many of the initiatives are local, receiving initial funding from the federal government. But the problem is so widespread and critical to the success of any strategy to improve and strengthen central cities as to make continued federal involvement, on a larger scale, worth considering. Some of the financing provided by the federal government to date has been linked to experimental or innovative projects to demonstrate feasibility. This approach by itself has much merit; innovation is needed and often involves some risk. But problems of regenerating brownfields and renovating large post-war housing estates, both of which are needed as part of comprehensive area based approaches, have funding implications that go beyond an experimental stage. It is unlikely that private financing can assume 100% of these costs and there are public purposes of an environmental and social nature that can be advanced if the government is involved in a financial way. Even at a time when public budgets are constrained, a continued infusion of funding and a partnership investment approach to urban development are needed.

Aid for large post-war housing estates is another ongoing priority that goes beyond the showcase city phase. Aid may be needed for an indefinite period because the physical, environmental and social characteristics of large housing estates may never be self-financing by tenants and owners. Without such efforts, these estates could generate considerable migration within Germany and even to other EU countries. Both brownfield regeneration and aid for large housing states should be part of a comprehensive remedial area-based approach that includes measures to improve human capital and foster entrepreneurship.

5.2. Institutional and international contexts

The German approach to urban policy is based on an urban hierarchy, with a polycentric system of central places at different levels of importance. This framework, which has its roots in the urban development of Germany extending back to the Middle Ages, is fundamentally adaptable because the fortunes of individual cities can wax or wane without compromising the strength of the networks linking them together into an urban system. This characteristic is fundamentally consistent with a market-based approach that emphasises competition and change. But it has its limitations for policy-making when trade is increasingly inter-regional and international, and when the economic framework of Europe itself is evolving rapidly. Cross-border economic regions, international logistical centres, and global cities are only three manifestations of current changes, changes which indicate that increasingly, many cities have more in common with cities in other countries than with cities in

their same region at home. Decentralisation within the polycentric urban system can help give many more cities direct access to international markets. But if the urban system becomes excessively deconcentrated, the positive agglomeration effects offered by large, well-functioning metropolitan areas will be weakened. Transport nodes, such as major ports, distribution centres, and airports, which are usually associated with the largest metropolitan areas and are major sources of employment, contribute to the overall productivity of the country. The high cost of modernising and expanding infrastructure capacity, however, limits the potential for more than a handful of cities to compete at the high end, where Germany connects to international and global networks.

In the post-war era as in Germany's pre-industrial past, cities have enjoyed considerable autonomy. This autonomy plays a role in the German federal system as a check on central power by recognising cities as fundamental, constituent parts of the national fabric. Moreover, this high degree of autonomy takes account of the diverse needs of cities, including the relevance of each city's history to its contemporary development. Innovation is more likely under such conditions. From this perspective, the capacity of cities to function well is an important element in the workings of both democracy and the market economy. The autonomy of cities is however under pressure in Germany as in other countries, because the opportunities and consequences of globalisation, technological change, economic integration into multi-national regions, and international commitments to improve the environment, affect both national and local governments. The issues are complex and difficult to understand, a factor which limits public consultation even when efforts are made to increase it. Social and economic change and technological innovation compromise the degree to which cities can control their development. The answer is not to strengthen the isolation of a country from international influences, nor to restrain migration, mobility and investment at home; instead, countries should recognise the need for greater cross-sectoral integration, stronger public-private partnerships and public participation, and greater co-operation among cities. In this, the multi-level character of the German urban policy structure, and the polycentric structure of the German urban system, should prove to be robust, and can emerge strengthened.

Many of the problems – and opportunities – call attention to the potential of different cities and regions in Germany for endogenous development and to take advantage of globalisation and economic integration. Cities around the world are increasingly using strategic assessments that make an assessment of their local strengths and weaknesses, that identify obstacles to development where public policy and investment could make a difference, and that involve consultations with the private sector and with the public at large, and that establish benchmarks for progress in the future. The assumptions implicit in these benchmarking exercises are five: That 1) the quality of life in an urban area is an important factor when trying

to attract investment; 2) a vision of the city's future is an important factor when trying to build public support for public policy and investment; 3) a multisectoral, multifaceted approach including environmental and social conditions is fundamental to economic development; 4) inward investment must be complemented by efforts to promote endogenous development and local entrepreneurship; and 5) quality design, planning and infrastructure contribute not only to economic efficiency and public safety, but a sense of well-being that translates into a positive image of a place. These assumptions, which are grounded in the realisation that successful cities, however large or small, are rarely the product of chance or economic good fortune, bring to the fore many points which were worked out inductively by urban planners and theoreticians, in Germany and elsewhere, in the period 1890-1930: what is new in the 1990s is the effort to apply a holistic, comprehensive approach to urban development – one that is better able to meet the dual objectives of competitiveness and sustainability – by bringing the public, the private sector and government together.

Recommendations

3. Examine policy conflicts and improve interministerial co-operation in relation to:

   a) environment (increase re-use of previously-developed land and buildings in cities to reduce the pressures for greenfield development);

   b) transport (better co-ordination with land use patterns, reduce demand for car travel);

   c) employment and economic growth (more local employment initiatives, creation of new firms);

   d) social cohesion (inter-relationships between housing, education, safety; preventive strategies for distressed urban areas).

This will involve, not only more sharing of information and co-ordination across ministries, but better methods to assess the impact of different combinations of policies on the development of urban areas.

Better inter-sectoral co-ordination requires a better response to the unintended consequences of different sectoral policies or policy instruments (such as income tax deductions for investment in redevelopment or construction which promote greenfield and rather than brownfield development, or programmes to increase road capacity which are often easier to finance and manage than programmes to upgrade public transit systems). Deregulation, privatisation and tax reforms will all have an impact on how cities function and develop, and many of these effects may be positive. Local economic development strategies to promote

self-employment and new firm creation should complement national strategies for employment and growth. Job training and investment should be included in an overall strategy for urban and regional development.

4. Improve cross-border co-operation, between cities, and in EU border regions, with other cities in other countries.

Further promote modes of decision-making that encourage consultation, strategic planning and decision-making involving more than one municipality, or even more than one region, and that can be open to co-ordination with neighbouring jurisdictions. Public participation should remain an important part of the policy process, not in a formalistic way, but strategically, to curb the influence of lobbies and of special interests, and to build support for better policies. The capacity for better cross-sectoral integration and inter-municipal co-operation could be compromised, however, by cost-cutting measures. Subsidiarity may put added pressure on the resources of local authorities. A lack of progress could widen the scope for wasteful competition between localities, which in turn would mean that scarce public resources for investment were being poorly used.

Finally, it is important that Germany maintain its commitment to international co-operation in the field of sustainable urban development. Not only does this leadership encourage others to make difficult choices wisely and to pursue a common goal; it also provides the basis for mutual exchange and learning.

5.3. Emerging trends

A broad, strategic approach based on economic, social and environmental fundamentals is even more necessary once it is recognised that urban policy will have to cope with social and economic trends that are difficult to predict, such as:

- levels and composition of migration (immigrants are concentrated in the largest cities, and there are considerable population shifts within Germany as well);
- income distribution patterns (which could lead to a greater concentration of poor and low income people in cities);
- changes in the nature of work (part-time work, self employment, a later age for retirement);
- more single-person households (already one-third of the population, but above 50% in some cities);
- ageing (percentage of people in Germany over 60 years of age is projected to rise from 16% now to 25% in 2010);
- technological innovation (the impact of new communications technologies on urban settlement patterns);

- changes in values (a transition to post-industrial values, with greater emphasis on the environment and a more positive attitude on participation in civil society).

These factors make it difficult to estimate the type or location of housing that will be in demand, as well as the level and nature of public services, and the resources available to governments to provide them. This is particularly the case concerning two separate yet potentially related issues, ageing and the distribution of income in society.

In the past, urban policy presumed a certain degree of stability and permanency in urban conditions, leading to the formulation of normative rules for land-use decisions and engineering norms for infrastructures with a long useful life-cycle. Urban policy and planning, which must of necessity take a medium-term perspective, must nonetheless function in a context of uncertainty. *The challenge therefore lies in developing policies which can help cities respond to the dynamic and unpredictable nature of social, economic and technological change.* As a result, plans need to be open to revision at shorter intervals, and to take account of a wider range of variables. Given this context of uncertainty, planning needs to create options for the future (consistent with the principle of reversibility in planning), so that people can better adapt their cities tomorrow, as new needs, new problems and new opportunities arise. (In general, mixed land-use patterns, a choice of transport modes, cityscapes that are safe and intelligible, and building designs that can be adapted to different needs, are all aspects of the built environment that favour renewability and adaptability.) In the final analysis, adaptability is more a characteristic of cities than of suburbs, and this could increasingly be the case as cities become "information-rich" in a knowledge-based economy. But it is one which can be increased or diminished over time. What is needed is not a new planning system or changes in the formal regulations, but a more flexible and forward-looking spatial planning and urban policy which is better adapted to changes taking place in the economy.

Because the needs of people in Germany are increasingly diverse, urban policy must be flexible enough to generate solutions that meet local conditions. Individual cities are affected by socio-economic trends to a greater or lesser extent, and in general, these trends have a different dimension in the eastern than in the western parts of Germany. (Thus, mobility and internal migration within Germany will increase the population of the western Länder.) Given the growing importance of local factors in locational and investment decisions shaping the quality of life, German cities and regions should be able to respond by making better use of their specialised strengths and high level of public services. But local initiative alone is not enough, not given the scale of what must be done in many places, nor given the impact of local development on national economic performance. A national policy framework is therefore important, especially one which tries to achieve a more

integrated, cross-sectoral approach, as when physical investment (housing, infrastructure, etc.) must be combined with other strategies and sectors (education, environment, employment) to generate sustainable development.

Recommendations

5. Make the planning system more open to mid-term corrections, revisions.

A shorter time-scale for reviewing planning commitments could enhance the ability of local authorities to adopt more sustainable patterns for development, for example, by reducing the oversupply of land with planning permission for out-of-town retail developments, and by redirecting with housing and commercial development back into urban areas. The institutional problem is often greatest during a time of transition from one mode of planning to another, and Germany appears to be in such a transition phase. Flexibility in the planning system is especially important if mixed land-use schemes and other modifications of traditional zoning patterns are to be introduced, and to integrate land-use and transport policy more effectively. Flexibility will also be needed in the provision of infrastructure in urban areas if the trend toward suburbanisation is to be curbed.

6. Research and information should be a priority.

Questions for the future:

- how to finance urban regeneration and needed new construction, with better market mechanisms, fewer fiscal distortions, and better policy coherence;
- how to produce more jobs with less urban land;
- what changes in lifestyles, values and social structures may favour a more sustainable pattern of urban development;
- what the consequences of deregulation, privatisation, the expansion of the EU, and globalisation might be for urban development, with particular concerns for the different spatial needs of "footloose" firms and sectors, and for small and medium size firms that have a tendency to cluster;
- how the economic consequences of better environmental and social conditions in cities can be assessed.

Better diffusion of innovations from the ExWoSt Programme. Urban problems in Germany, as elsewhere, are rarely the starting point for public or private sector initiatives for research. Efforts to expand incentives for innovation should include helping municipal authorities to better define what cities need and to evaluate technological innovations that may be adaptable to these ends. Germany has a strong track record in applied research, which need to be translated into mainstream programmes.

Better data, and better use of data (especially to integrate economic, social and environmental information) are needed if policy is to remain abreast of current trends, and if evaluation is to be useful. The emerging concept of human or social capital could be pursued in this context.

5.4. Conclusion

Urban policy in Germany is making a positive contribution to the country's competitiveness and sustainability. This forward-looking role, which can help Germany respond to change domestically and in the world, represents an evolution in urban policy, one which is taking place in many Member countries.

Given the explicit role for urban policy at the federal level in Germany, it is not for the federal government to develop detailed plans for Germany's cities, but it can develop and articulate visions of what the future of German cities as attractive and productive places in which to live and work can be. This vision is not something that the private sector can provide alone, however important innovations from the private sector in technology, life style and the built environment may be to the future of cities. Because local government has a role in land use planning and in other aspects of policy that shape urban development, it also has the opportunity to guide private investment toward better outcomes. Policy studies of such issues as infrastructure projects and investment, housing development, and regeneration often point out that there is no simple economic logic to follow in planning, **when the key question is what kind of cities do we want.** On this question there is a clear need for public participation and information as well as for government leadership. The task then remains to decide what combination of policies can best achieve the objectives of policy. Here again there is an explicit role for the federal government, not only through its expenditure in the form of investment in urban renewal and infrastructure, but also through better cross-sectoral policy integration, and efforts to identify and resolve conflicts between policies.

In the past, in Germany and elsewhere, urban policy had to address the mistakes made in earlier periods of urban development, when massive population growth and high rates of rural-urban migration, low incomes and high land prices produced widespread overcrowding and poor living conditions; when inadequate controls on industrial activity led to the pollution of waterways, the contamination of air and land, and an unappealing cityscape; and when municipal institutions often lacked the capacity to handle the increasingly complex problems of urban management. The success of policies at all levels in correcting these problems provides a solid foundation on which to build for the future.

Germany has made impressive efforts adopt a forward-looking approach to complement existing policies, which are still needed to cope with the problems following unification and accompanying economic restructuring. But success is never

complete. Given the legacy of industrial change in both east and west, and the ongoing need to improve basic housing and infrastructure in the east, a remedial approach to urban development is still necessary. Nevertheless, policies which have been appropriate in the recent past to address the problems of the post-war era are not necessarily as appropriate to meet the challenges of the future. The impact of such current trends as globalisation in the economy and the pursuit of an integrative approach to sustainable development call for new ways of guiding urban development, and for better co-operation between ministries and among cities within Germany and internationally. Policy innovations will still be needed to take advantage of the opportunity to bring the goals of competitiveness and sustainability together.

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