

06.01 Actual Use of Built-up Areas

06.02 Inventory of Green and Open Spaces (Edition 2008)

Overview

Social, political and economic changes generate new tasks and assignments for a city, many of which cannot be satisfied within the framework of existing urban structures. Also 17 years after the reunion of the two separated parts of the city, Berlin is in a prolonged process of the **economic and demographic restructuring**. This was formulated in the [Berlin master plan \(FNP 94\)](#) in the beginning of the 90s, but the development expectations (cf. text edition 1995) have only partially been fulfilled up to present moment. For the Berlin metropolitan area and its surroundings, a major growth impetus was predicted until 2010 as a result of planning for the capital. According to the prognoses of the Berlin Master Plan, the population should grow by some 300,000 people by the year 2010, to some 3.7 million inhabitants; 400,000 new housing units will be required over and above the existing stock. The estimated requirement for additional commercial space was 1,000 ha. In addition, it was assumed that some 11 million m² of office space and 1.4 million m² of retail-sales space would be required by the year 2010 (figures refer to gross floor-space).

The real development between 1990 and 2005 shows a slightly decreasing population with 3.39 million inhabitants in 2006 and has to report a drop of jobs from 1.7 million to 1.55 million.

Housing existence had increased from 1.7 million to 1.88 million, 181,000 new flats were built. The office space had also increased by 7 million m². Retail space are today with 1,5 million m² clearly over the increase assumption for 2010. Unforeseen developments, like social and spatial segregation, clearance of surfaces, vacancy of apartments and decrease of financial resources, demand new strategical considerations about the planning of urban development, like it was presented with the project of the Stadtentwicklungskonzept Berlin 2020. It is assumed that there will be an essential reduced projected growth until 2010: stagnating rate of inhabitants and jobs, 45,000 additional apartments, 480 ha new commercial areas, 4.5 million m² and 0.4 million m² additional office and retail space.

The general urban and **enviromental planning** is a process, what needs a continuous monitoring. The aim is to audit the presumed development on the basis of the actual progression. For the period of 1990 - 2000 these basic data are presented within a report of landuse ([Stadtentwicklung 2000, Bericht zur Flächenentwicklung 1990-2000 / 2001-2020](#)).

An understanding of the current land use situation in Berlin is needed, too, for the tasks and issues of landscape planning. Thus, an evaluation of the needs of the population for recreational possibilities near their homes requires information about the location of residential areas and of open spaces. Also, the close proximity of certain polluting uses and sensitive uses, such as commercial and residential areas, or allotment gardens in the neighborhood of commercial areas, can provide indications on existing conflicts (noise pollution, air quality, heavy-metal pollution of the soil), and strategies for solutions can be developed.

An understanding of the current land use situation in Berlin is also an important base for the development of the tools for **ecological planning**, i.e. for the soil concept map, the vegetation types or the delimitation of climatic zones.

The data compilation in the Urban and Environmental Information System (UEIS) of the Berlin Department of Urban Development (SenStadt) permits interfacing with other factual data managed here, for example the contaminated site register, and thus enables new statements to be made regarding a multitude of issues.

Maps 06.01 and 06.02 fit together to form a **comprehensive presentation of actual land use** in Berlin, and should, in terms of their content, be considered a single map, was printed, for reasons of

readability, on two map sheets. The following text thus refers in principle to both maps, unless reference is expressly made to a particular map.

Beside this map of the Environmental Atlas Berlin exist two further evaluation approaches in order to describe the spacial parts of the different uses of areas. By reason of different objectives and different methods the three approaches lead to different outputs. You will find a comparison of the "methods" in the chapter: Methodology of the map 06.03 Development of Open Spaces (only in German).

Statistical Base

The data on use of built-up and non-built-up areas in West and East Berlin derive from a large number of sources which are differentiated described in the respective edition.

The basis for the categorization and use assignment was provided by the land use maps in the **1985 Umweltatlas (Environmental Atlas)** for West Berlin, 06.01 "Actual Use of Built-up Areas," 06.02 "Inventory of Green and Open Spaces" and the edition from total area of Berlin **1995** (06.01/06.02) (data base 1990) and **2002** (06.01/06.02) and **2004** (06.01/06.02).

The update of the **edition 2008** (data base 31.12.2005) was implemented by an external contractor. Changes of land use between 2001 and 2005 were mapped and adaptations of geometries of the Digital Basic Map Berlin 1:5,000 (ISU 5) were made. The following statistical bases were used:

- Digital Map of Berlin 1:5,000 of the Urban and Environmental Information System (ISU) of the Senate Department for Development, III F; status: 2005-12. with new block segments and actual block numbers
- Geometrical changes of the blocks from the Spatial Framework (Räumliches Bezugssystem RBS) of the Department of Statistics (Amt für Statistik in Berlin-Brandenburg, formerly Statistisches Landesamt Berlin) 2002-2005
- Digital aerial photographs (orthophotographies), 2006, SenStadt Abt. III (archive for aerial views)
- Area inspection by Cornelia Nitzsche
- Update and mapping of all railroad areas, 2007, Geoinfo, Cornelia Nitzsche

With help of the data bases specified above, limitations, use and section type of altogether **806 sections and for 696 railroad sections** (compared to edition 2004), were defined.

Methodology

All information about actual land use is managed and processed at the ISU (*Informationssystem Stadt und Umwelt*: Urban and Environmental Information System). This makes possible a graphic data processing of the **factual data** on basis of a **uniform spatial reference system**.

The spatial reference system (edition 2007) is provided by the **digital map of Berlin in a scale 1:5,000** - the ISU5 of the ISU (Urban and Environmental Information System). This map differs from former editions based on ISU50 (generalized map for the scale 1:50 000) by its higher accuracy due to its scale of 1:5000. It shows each individual statistical block, which is as a rule delimited by streets like in the ISU50. The numbering and limitation of the blocks are carried by the State Statistical Office (*Statistisches Landesamt*).

The smallest reference segment is formed by the **block segments**, which were delimited for different land use within a statistical block.

The uniform reference system makes possible a clear spatial identification of all factual data. Over a common key, which contains, among other things, borough, block and **block segment numbers**, these data are assigned to the spatial reference system.

Update of the Digital Map 1:5000 (ISU5)

The update of the **edition 2008** was implemented by an external contractor by means of aerial photography and personal area inspections. Changes of land use between 2001 and 2005 were mapped. Adaptations of geometries and actual block numbers from the department of statistics (Amt für Statistik Berlin-Brandenburg) were made.

According to the methodology of portraying uses and types of areas of the Environmental Atlas Berlin blocks were separated into **block-segments**. This happened when the current use of a block area could be separated into a residential or open-space type of use. These block-segments were documented by a **unique code** in the GIS database and the statistical data base. All together **806 new block/block-segments** were created.

Further all railroad properties were updated in 2007, altogether **696 railroad properties and rails** were marked off.

Categories of the Map 06.01 "Actual Use of Built-up Areas"

The methodology for building the categories of uses is portrayed in detail in the text of the edition 1995 in the chapter Methodology.

The categories **residential areas, mixed areas, core area and small-business/ industrial area** are defined by the ratio between housing and business/industry (cf. Tab. 1).

Tab. 1: Shares of residential areas, business, commerce and industry of each category in percent		
Category	area portions in %	
	Residence (R)	Commerce/Service (CS); Business/Industry (BI)
Residential Area	75 – 100	0 – 25
Mixed Area I (R)	50 – 75	25 – 50
Mixed Area I (CS)	10 – 50	50 – 90 predominantly commerce/service
Mixed Area I (BI) (only East-Berlin)	10 – 50	50 – 90 predominantly small business
Mixed Area II (West-Berlin)	25 – 50	50 – 75 predominantly producing business
Mixed Area II (East-Berlin)	10 – 50	50 – 90 predominantly producing business
Core Area	0 – 30	70 – 100 predominantly commerce/service
Small Business/ Industrial Areas	0 – 30	70 – 100 predominantly producing business

Tab. 1: Shares of residential areas, business, commerce and industry of each category in percent

Residential Areas are characterized by housing and by the infrastructure required for living, such as shopping possibilities and service enterprises (laundries, restaurants, schools, etc.). The housing share in terms of floor-space is dominant, constituting 75-100%, compared with commercial, service and small business use. Residential areas include both the dense inner city development and the open settlement development at the edge of the city (cf. Map 06.07, SenStadtUm 2004).

The **Mixed Area I** areas are similar to the residential areas in appearance. However, the housing is more strongly interspersed with commercial and service enterprises (department stores, offices, etc.) and small businesses in lofts and courtyards. As a rule, housing predominates, with a share as high as 75%, but it may drop as low as 10%, with the rest being commercial and service enterprises and small businesses. The negative impact of this commercial use on neighboring residences is overall minimal. Large tour-restaurants in recreational areas have also been assigned to this category.

The **Mixed Area II** category is characterized by a high share of production-related enterprise, with the corresponding building complexes and warehouse/ storage areas. A third of the area, and no more than half, is generally used for housing; in East Berlin, this can drop to 10%. The appearance is that of a small business area. Major inconvenience for residents due to noise and emissions can be assumed.

In **Core Areas**, the office and business centers of commercial and service enterprises predominate, with 70-100% of the space. The residential share is very low, 30% at a maximum. Business and shopping streets are as a rule not categorized as core areas, since, for reasons of visual representation, entire blocks and not single streets along a block, were used as the basis for assignment to use categories (e.g., Wilmersdorfer Strasse). Especially in the Borough of Mitte, public,

largely federal administrative buildings, embassies and other comparably-used building, which are as a rule assigned to the category "Public Facilities," may be assigned to the category "Core Areas," since these facilities are marked as core areas on the land use map of that borough (cf. the category "Public Facilities").

Characteristic of **Small Business / Industrial Areas** are large industrial buildings and warehouses and storage areas. The housing share is subordinate, with 30% at a maximum. Inconvenience due to noise and emissions can be rated very high. The category Small Business / Industrial Area also includes railway freight yards and small business areas on railway land, as well as clearly small business-used waterside areas (shipyards, boatyards, etc.).

Sites of the category **Public Facilities Areas** include cultural, university and research, health care, administrative, postal and law-enforcement facilities, and also day care centers, playgrounds, schools, sports facilities, youth centers and retirement homes, and religious institutions such as churches. **Special Use Areas** are built-up areas with a specific purpose, such as the Olympic Stadium and the *MesseGelaende* (trade fair complex).

The sites of the category **Utilities Areas** include power, gas, water and sewage-treatment plants, facilities of the sanitation department and the public transportation system, including railway stations and port facilities, central market halls (the Central Market, the Flower Market, the slaughterhouse) and other service facilities, such as broadcasting facilities.

The **Traffic Areas** include the areas required for truck and rail service, other than public roadways. Traffic islands and airports also count as Traffic Areas. Parking lots and parking garages are only recorded as Traffic Areas if they occupy an entire block. Parking lots which exceed the minimum ascertainment limit of 1 ha, but which are within one statistical block, and connected with other uses, such as residential areas, have not been delimited through the definition of a corresponding segment formation, but have rather been assigned to the dominant use category. The category "Traffic Area" also includes track-beds and railyards of the city and long-distance railways, and also those portions of the subway running outside the tunnels in open right-of-ways or as elevated railways, and also streetcar-related areas. Median strips are assigned to the "Traffic Area" category if their use justifies their categorization as motor-vehicle parking. Freight yards and commercial facilities on railway land are not classified as Traffic Areas (cf. the category "Small Business Areas").

The **Weekend Cottage Areas** differ hardly at all in appearance from the Allotment-Garden or Residential Area. Those areas assigned to this category in the 1985 *Umweltatlas* were retained; for the eastern boroughs, areas were assigned to the category "Weekend Cottage Area" only if they were neither residential nor allotment-garden areas (cf. also use category "Allotment Gardens" in Map 06.02, "Inventory of Green and Open Spaces").

Areas classified as **Construction Site** were those with a typical construction site character: as a rule open areas with soil disturbed by construction vehicles. Often, the foundations or the first stories are recognizable.

Categories of the Map 06.02 "Inventory of Green and Open Spaces"

The category **Forest** includes all wooded areas of the Berlin forests, as well as those wooded stands outside the Berlin forests which appear clearly in aerial photography as self-contained forest stands. The forests include reforested former sewage farms.

Bodies of Water include all natural bodies of water - rivers, lakes, ponds - and also canals and reservoirs belonging to the Berlin Water Authority.

The category **Meadows and Pastures** includes meadows, pastures and enclosures used for agricultural purposes, and also experimental areas used by the universities for similar purposes, and former sewage fields.

Farmland includes areas identified in aerial photography as being used for agricultural purposes. The difference from "Meadows and Pastures" is that in this case, the land is periodically sown, fertilized and harvested.

Parks or Green Spaces include those facilities listed in the *SenStadt* Directory of Green Spaces, other city squares with a sealing level of less than 30%, and median strips used as green spaces. In addition, playgrounds, the Botanical Garden, the Zoos in Tiergarten and Friedrichsfelde, the Charlottenburg Palace Gardens, and similar facilities were assigned to the category "Parks/Green Spaces." Green spaces around public facilities such as hospitals were not marked separately.

City Squares and Promenades serve as places of leisure for free time and recreation, as places of assembly, markets, etc. They generally have the word "*Platz*" (square) in their names, i.e., *Alexanderplatz*. They are defined differently from green spaces due to their high degree of sealing, which is 30% or more for both city squares and promenades. Promenades also include median strips with sealing levels of over 30%, unless they are used as parking lots.

Cemeteries are areas used for burial purposes.

The basis for the assignment and delimitation of the category **Allotment Gardens** was the SenStadt map and list of Berlin allotment garden colonies, which record the allotment gardens as defined by the Federal Allotment Garden Law, which are used as such and are on leased land.

Vacant Areas are areas currently not used or cared for, on which variegated stands of vegetation can develop. Sand beaches and other non-vegetation-filled areas also belong to this category. In addition, a few artificial rain catchments, ditches, landfills and wet areas are assigned to this category.

The category **Campgrounds** includes areas used for occasional residence in mobile shelters, such as tents, trailers and campers. These include both tent camps and permanent campgrounds.

The category **Sports Facilities/Outdoor Swimming Pools** includes, in addition to sports facilities, swimming pools and beaches, riding facilities and water sports areas. The water sports areas are characterized by small dockyards, boat-hangars, club houses, parking lots, etc.. Clearly commercial water sports areas (dockyards, boat-building facilities, etc.) are assigned to the category "Small Business Area" of Map 06.01 "Actual Use of Built-Up Areas."

The category **Tree Nursery/Horticulture** includes, gardening schools, and the planting fields of private tree nurseries and market gardens, except for those areas marked as having solely greenhouse cultivation.

Maps 06.01 "Actual Use of Built-up Areas," and 06.02 "Inventory of Green and Open Spaces" fit together to provide a comprehensive representation of actual land use. **Overlapping** occurs with "Public Facility" and "Special Use" Sites, with "Utilities Areas", with "Small Business Areas" and "Industrial Areas" and with "Traffic Areas". Areas of these categories are in some cases represented on Map 06.02 "Inventory of Green and Open Spaces," if their character, regardless of their use, is more like that of a green or open space. A sports facility for example, would be represented on Map 06.01 as a Public Facility, and on Map 06.02 as a "Sports Facility"; a median strip might simultaneously be shown as a "Traffic Area" (Map 06.01) and as a "Vacant Area" (Map 06.02). Churches on city squares are shown on Map 06.01 as "Public Facilities" and in Map 06.02 as "Parks/Green Spaces" or as "City Squares/Promenades", depending on their degree of sealing.

Map Description

Map 06.01 "Actual Use of Built-Up Areas"

Map 06.01 "Actual Use of Built-up Areas" shows the different use categories by their shares of the built-up area of Berlin and their distribution throughout the city area (status 2005-12-31). Figure 1 elucidates the distribution of the use shares further.

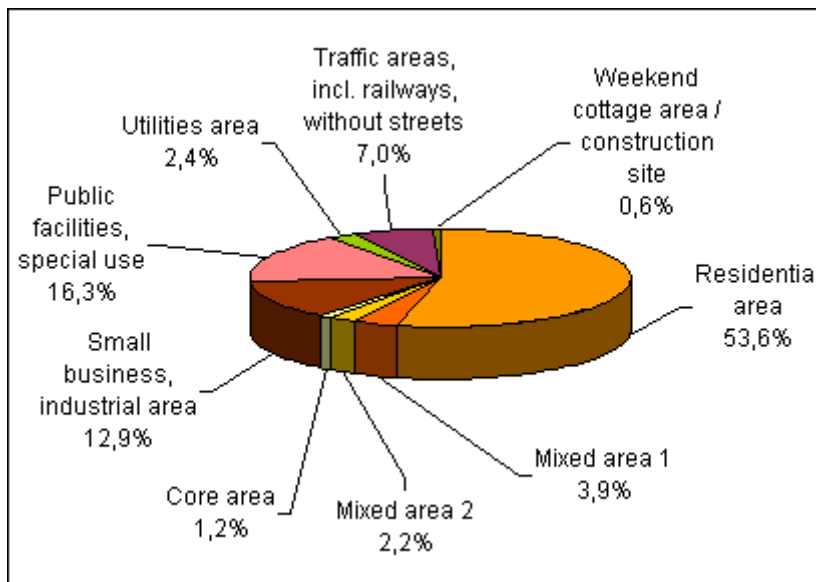


Fig. 1: Shares of the Various Use Categories of the Total Built-Up Area of Berlin, height of areas based on ISU5, segment block map

More than the half of the built-up area of Berlin is used for **housing**. **Small-Business and Industrial Areas and Public Facilities** account for 12% and 16%, respectively - still a relatively large part of the built-up area of Berlin. The **Traffic Areas** are next, without the roadways, which are not shown as traffic areas, with 7%, and then the **Mixed Areas I and II** with together 6%. Very little space is taken up by the Core Areas, Utilities Areas, Traffic Areas, Weekend Cottage Areas and Construction Sites.

Compared to the edition 2004 appears an increase of the portions of traffic areas, small business and industrial areas meanwhile the portions of building sites decreased as a result of the completion of many building projects (from 1.2 % including weekend cottages to 0.6 %).

In the **distribution of the use categories** of the built-up areas within the urban area, characteristic structures can be recognized. Thus, purely residential and small business areas exist in the **outskirts** area much more frequently than within the City Rail Circle Line; the Mixed and Core Area use categories are more heavily represented there. Particularly, Small Business Areas are concentrated along from waterways and railroad lines, due to the more favorable transport conditions. One often finds Mixed Areas and scattered Core Areas in the **old village centers** in the different parts of town, as a consequence of the well-developed structures. Striking is the concentration of the Core Areas in both **city center areas**, of West and East Berlin, i.e., around Kurfuerstendamm / Tauentzienstrasse and around the area of Alexanderplatz / Friedrichsstrasse, respectively. Public Facilities Areas are distributed throughout the entire urban area relatively evenly. Utilities Areas occur mainly in the outskirts, frequently in the neighborhood of Small Business Areas.

The described structures are also reflected in a comparison of the distribution of the land use categories within the individual boroughs (cf. Fig. 2).

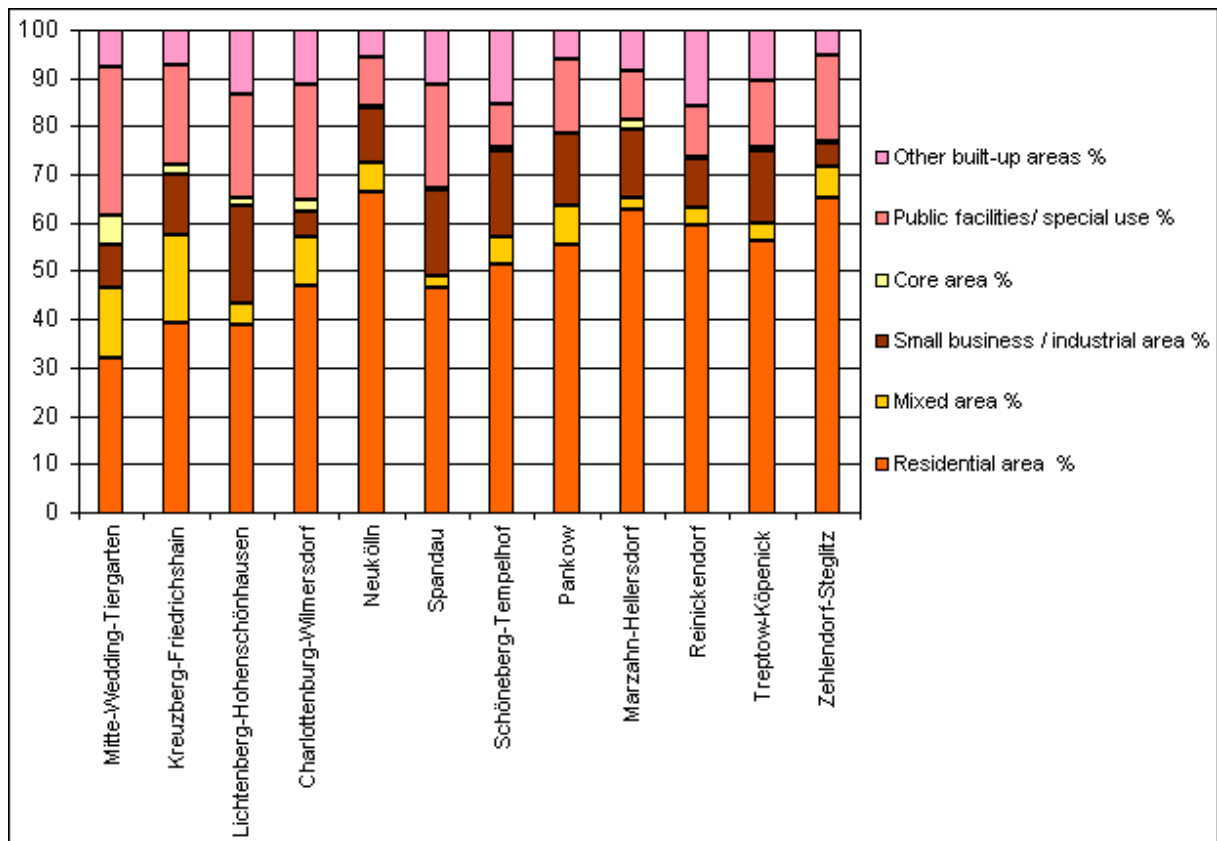


Fig. 2: Proportions of Selected Use Categories in the Built-Up Areas of All Berlin Boroughs based on ISU5, segment block map

1) value of area exists, percentage value = zero because of truncation (see statistical base)

Examples for the characteristic use distribution in the **outskirts** area are the boroughs of Marzahn-Hellersdorf and Reinickendorf, with 63 % and 60 % residential use and 13 % and 10 % industrial use, respectively, while in the borough of **Mitte**, with only 32 % Residential Areas, but 6 % Core Area use, 14 % Mixed Area use and a high share of Public Facilities (31 %), the central functions which have existed for centuries are reflected. This function is not shown so clearly for the West Berlin center around Kurfuerstendamm / Tauentzienstrasse, which has a Core Area share of only 2 % or less, since the core area is distributed among the three boroughs of Charlottenburg-Wilmersdorf, Mitte and Schoeneberg-Tempelhof.

The **inner city boroughs** of Friedrichshain-Kreuzberg and Charlottenburg-Wilmersdorf have, with 39 % and 47 %, a relatively low share of living space. In turn, the share of public facilities is very high, with 20 % and 24 %, respectively. Friedrichshain-Kreuzberg and Mitte are the boroughs with the largest Mixed Area shares (18 % and 14 %). The originally available use mixture can still be recognized most clearly in the boroughs of Mitte and Friedrichshain-Kreuzberg.

Zehlendorf-Steglitz (65% residential use) stand out as neighborhoods with slight industrial use (5%).

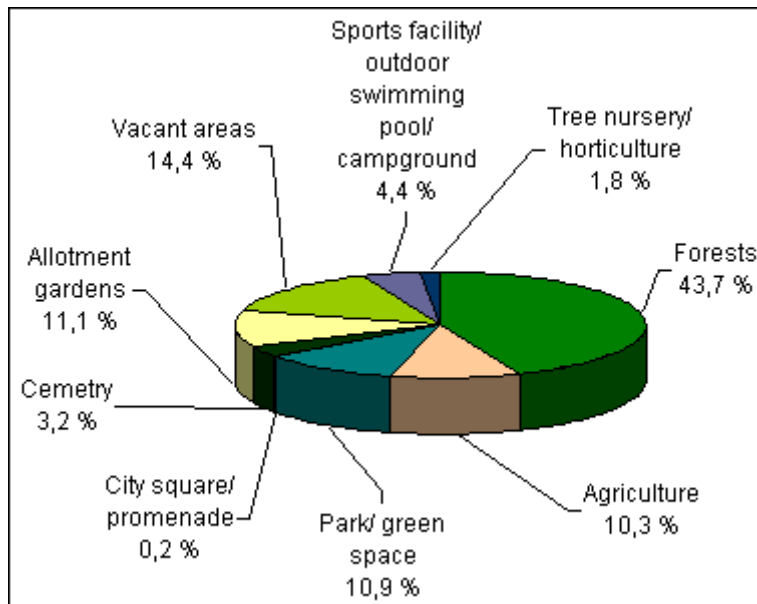
Since the **edition 2007** is based upon the geometry of the digitized work map 1:5000 (ISU5) it is **not directly comparable** with former editions (e.g. edition 2004) with the geometry of the digitized work map 1:50000 (ISU50). Particularly with regard to railway- and traffic areas there is a difference in shares of the different uses. Generally appears, with an altogether insignificant alteration, in almost each borough a small augmentation of residential areas and on the other hand a decrease of business and industrial areas.

Map 06.02 "Inventory of Green and Open Spaces"

shows the different use categories in their shares of the non-built-up areas of Berlin, as well as their distribution throughout the city.

The largest part of the inventory of green and open spaces lies in the **outskirts area**. The large wooded areas of the Grunewald and the Dueppel forests in the southwest, the Spandau and Tegel forests in the northwest and the large forest areas in the borough Koepenick in the southeast of Berlin

stand out particularly. Forests account for 45% of all Green and Open Spaces (without waters) (cf. Fig. 3).



*Fig. 3: Shares of the Various Use Categories of the Total Inventory of Green and Open Space of Berlin
height of areas based on ISU5, segment block map*

Agriculturally-used areas, which account for almost 11% of the inventory of open space, are found particularly in the northeastern area (Pankow and Weissensee). Other agricultural areas are located in the eastern, southern and western outskirts. **Allotment Gardens**, which account for an additional 11% of the open space inventory, are found almost exclusively outside the City Rail Circle Line, in the outer boroughs. Often, they are located near canals, rivers and railroad lines. The currently unused **Vacant Areas** are distributed throughout the entire urban area, particularly along railroad lines and bodies of water as well as on the airfields. **Tree Nurseries and Horticulture areas** are found only in the outskirts area, while **Sports Facilities, Cemeteries**, as well as **Parks and Green Spaces** are located throughout the entire urban area. The area sizes of the individual open spaces increases as one moves from the inner city area toward the outskirts. In the **inner city boroughs**, the open space inventory consists mainly of smaller parks - with the exception of the *Tiergarten*, Sports Facilities, Cemeteries, Vacant Areas and City Squares and Promenades. In the **outer areas**, the different open-space categories appear frequently in association with one another, e.g. Green Spaces, Allotment Gardens and Sports Areas; or Tree Nurseries, Vacant Areas and Allotment Gardens; or Forests, Meadow and Pastureland and Farmland, while the various open spaces in the inner city area usually occur in isolation, and are surrounded by built-up areas.

Even though a direct comparison with the edition 2004 is **not possible** a small decrease of the shares of vacant areas and allotment gardens can be observed as well as an increase of forests.

Use distribution for Berlin

The utilisation proportions shown in Figures 1 - 3 show the proportional values with reference to all built-up and all non-built-up areas, respectively, which in each case represents 100%. The following figures show the **proportions of all use types** with reference to the total area of Berlin.

Note that **1250 areas** have been assigned a utilisation both in a category of built-up areas (10 - 90) and in a category of non-built-up areas (100 to 200). Under this procedure, potential green and/or open areas can be documented on areas with other uses. This involves primarily the sites of public facilities and special uses, supply and disposal facilities, commercial and industrial areas, and traffic areas. These areas are hence shown on both maps, i.e., double. Thus, a sports field would be represented both on Map 06.01 as a public facility, and on Map 06.02 as a sports field; a median strip can be listed simultaneously both as a traffic area (Map 06.01) and as a fallow area (Map 06.02).

Since for the evaluation of the overall area proportions, each area can only be taken into account once, both instances - **green priority or building priority** - were calculated separately. In addition, there is an evaluation of the dual-use areas.

Table 2 shows the absolute and proportional area shares for various uses, based on the **total area of Berlin**.

Tab 2: Area shares of the various uses, in the total area of Berlin								
Use		Number of blocks with open-space priority	Number of blocks with building priority	Number of blocks with dual use	Area size [ha] with open-space priority	Area size [ha] with building priority	Percentage distribution [%] with open-space priority	Percentage distribution [%] with building priority
					see 1)			
10	Residential area	10.586	10.593	7	22.518	22.524	25,3	25,3
21 - 23	Mixed area	1.102	1.110	8	2.511	2.529	2,8	2,8
30	Core area	283	284	1	487	487	0,5	0,5
40	Commercial and industrial area	1.071	1.164	93	5.085	5.412	5,7	6,1
50	Common use and special uses	1.604	2.100	496	4.746	6.842	5,3	7,7
60	Supply and disposal facilities	153	181	26	870	1.025	1,0	1,2
70	Weekend home area	76	76		213	213	0,2	0,2
80	Traffic area	773	1.374	601	1.313	2.921	1,5	3,3
90	Construction site	13	31	18	19	51	0,0	0,1
100 - 102	Forest	2.634	2.589	45	15.913	15.657	17,9	17,6
121	Green land (meadows and pastures)	56	50	6	349	308	0,4	0,3
122	Farmland	366	358	8	3.396	3.357	3,8	3,8
130	Parks, green spaces	1.527	1.444	83	3.959	3.683	4,4	4,1
140	Town squares/promenades	185	162	23	88	74	0,1	0,1
150	Cemeteries	191	189	2	1.168	1.153	1,3	1,3
160 - 162	Allotment gardens	999	978	21	4.049	4.011	4,5	4,5
171 - 174	Fallow areas	1.741	1.037	702	5.273	3.032	5,9	3,4
180	Camping sites	24	24		90	90	0,1	0,1
190	Sports fields/open-air swimming pools (incl. water sports, tennis courts, riding areas etc.)	433	79	354	1.511	204	1,7	0,2
200	Tree nurseries/horticulture	176	170	6	654	638	0,7	0,7
110	Bodies of water	676	676		5.388	5.388	6,0	6,0
	Roads				9.490	9.490	10,7	10,7
Total, without roads		24.669	24.669	2.500	79.600	79600	89,3	89,3
Total for Berlin, incl. waters and roads					89.090	89.090	100	100

The calculations are based on the area measurement information of the ISU. The block areas were calculated from the GIS. Each block areas or block segment is assigned a proportionate road share, with the exception of bodies of water.

1) 1250 areas have dual use, i.e. these areas were assigned both to a category of built-up areas (10 – 90) and to a category of non- built-up areas (100 – 200).

Data as of: 31 Dec. 2005

Tab. 2: Area shares of various uses, based on the total area of Berlin, Area sizes based on the block segment map ISU 5

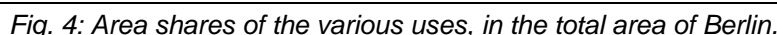


Table 3. Use distribution (with building type/RPA), by borough, in ha and in per cent																																										
Boroughs	Total area (ha)	Total block area without roads (ha)	Building uses										Green and open space uses										Waters																			
			% Road area	% Mixed area	% Core area	% Commercial and industrial area	% Common land and special uses	% Supply and disposal facilities	% Weekend home areas	% Traffic areas and industrial roads	% Construction sites	% Forest	% Green country (meadows and pastures)	% Farmland	% Parks, open spaces	% Team-sports areas (e.g. sports fields)	% Common areas	% Urban green areas	% Fallow areas	% Camping sites	% Sports facilities (e.g. golf courses, tennis courts, riding areas, etc.)	% Recreation areas (e.g. nature reserves, etc.)	% Waters																			
4 Christchurch International	6,472	5,599	68	512.4	144	1,339	267	296	45	1.10	120	23	680	105	59	0.0	0.0	269	42	0.0	1,013	224	0	0.0	0.0	31	48	12	74	13	352	4	146	22	0	0.0	4	0.1	24	14	257	40
2 Friesland/Christchurch	2,013	1,988	78	512.4	268	489	249	228	114	26	1.3	162	80	300	128	12	0.8	0	88	34	13	0.8	0	0	0.0	0.0	122	61	7	84	48	24	6	0.3	26	13	303	5	142	112	85	
1 Leatherside	5,237	4,807	88	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
3 Friesland/International	8,181	7,152	86	512.4	268	489	249	228	114	26	1.3	162	80	300	128	12	0.8	0	88	34	13	0.8	0	0	0.0	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128		
1	3,345	3,191	81	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
8 Heales	4,483	3,982	87	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
3 Parkside	10,253	9,261	90	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
12	8,426	7,434	88	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
5	9,185	8,001	87	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6	0.1	36	87	96
6 Steady/International	10,252	9,261	90	512.4	181	1,187	127	237	48	0.8	612	117	282	183	35	7	0.1	216	41	0	0.0	36	0.7	11	62	136	152	193	37	6	0.1	78	58	248	47	0	0.0	6				

Figures 5 and 6 provide a visual overview of the distribution of use types amongst the **boroughs**, both in absolute terms in hectares, and in percentage of borough area.

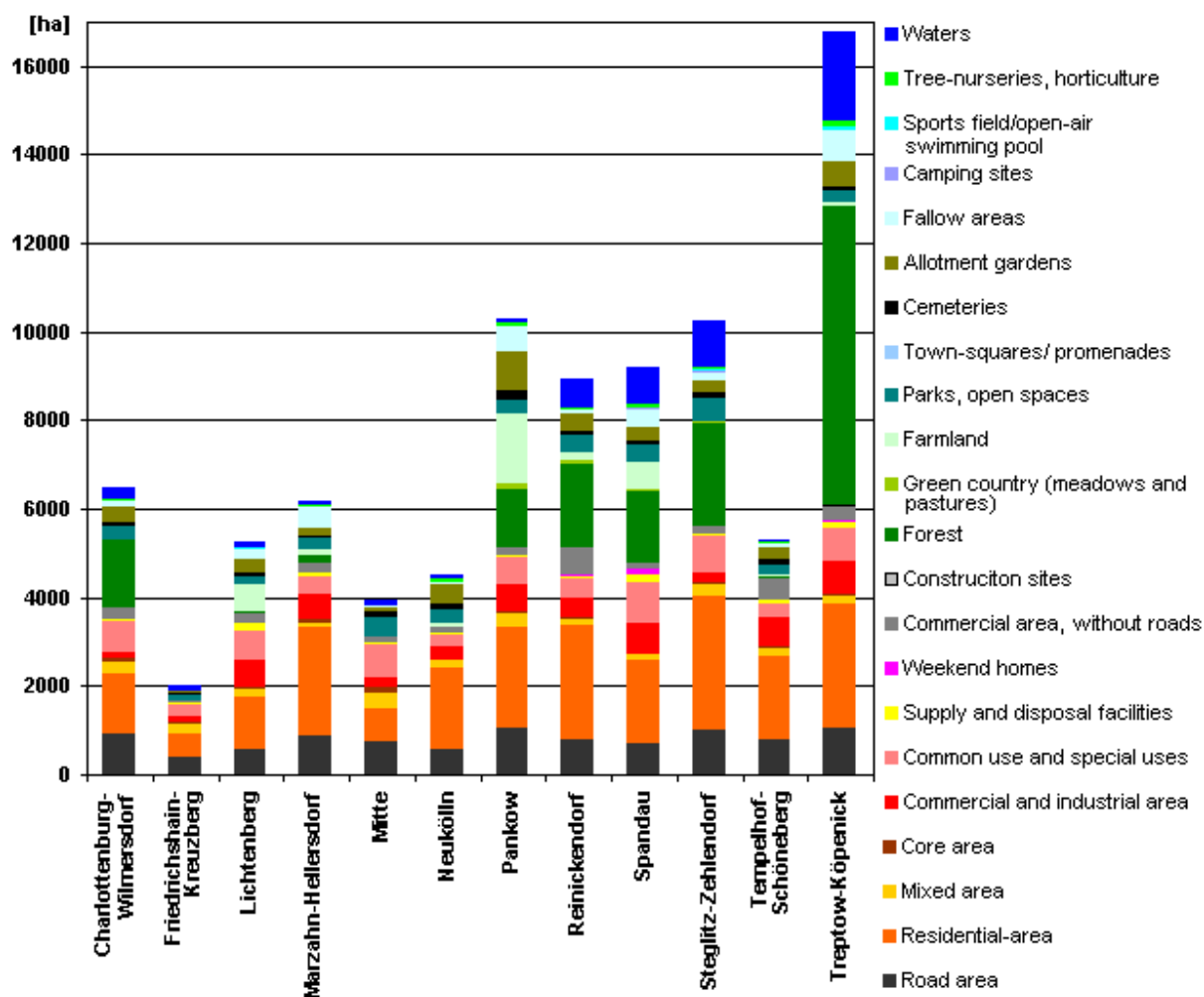


Fig. 5: Use distribution (with building priority), by borough, in ha

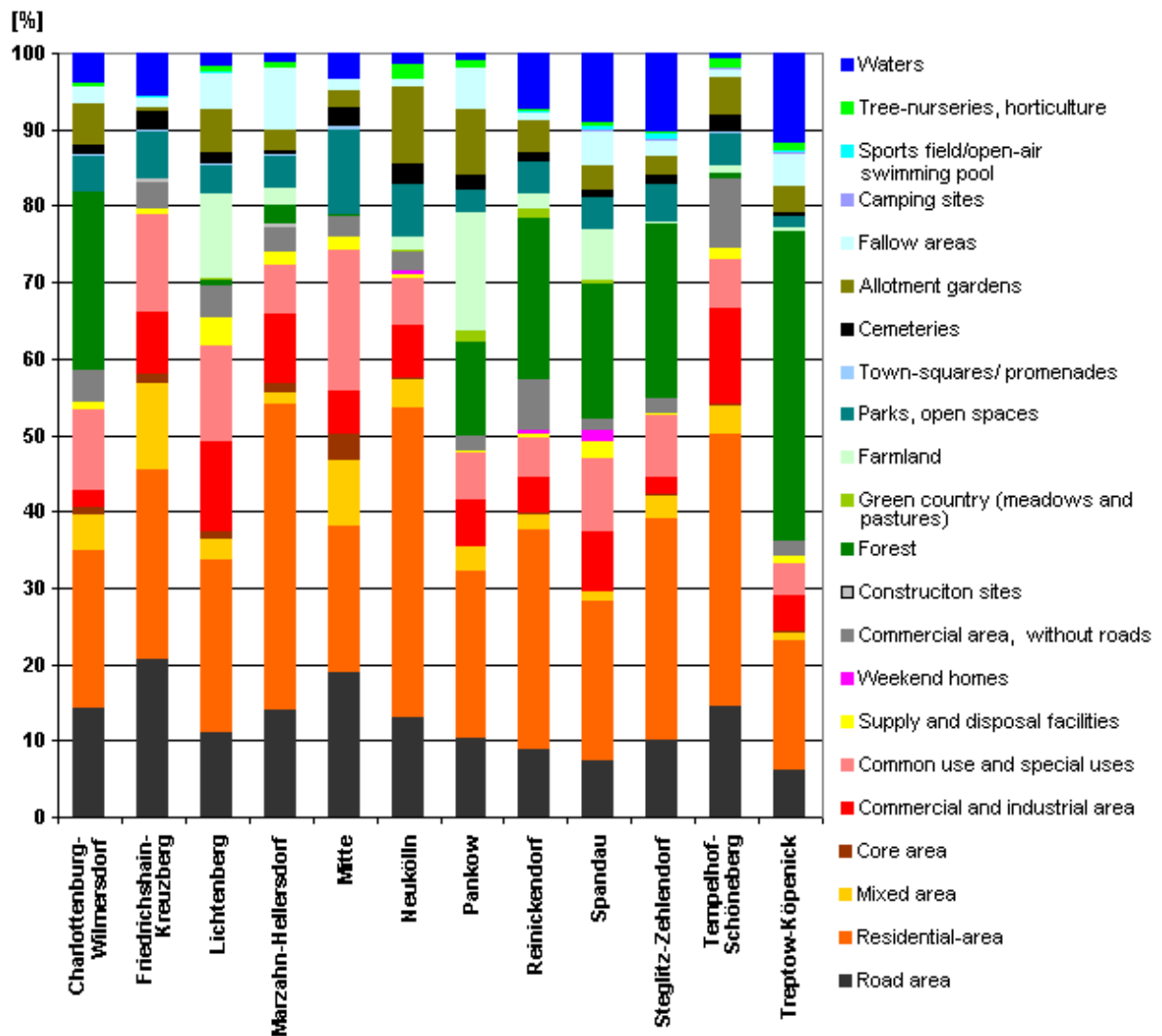


Fig. 6: Proportional shares of different uses of the total area of the boroughs of Berlin in per cent (with building priority)

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