

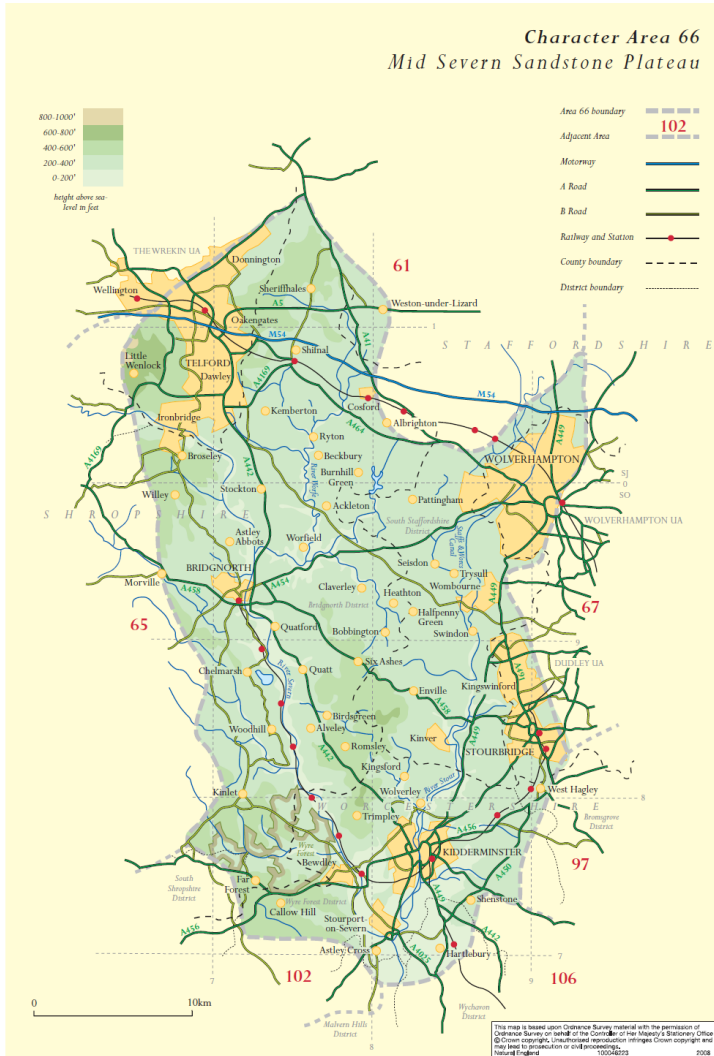


# NCA 66 Mid-Severn Sandstone Plateau Key Facts & Data

This document provides a summary of environmental data collected for the NCA. It is intended to help guide anyone making decisions that may affect the local environment. The information contained here is collated from the best available national datasets. It is recognised local information may provide additional detail and that this will not always

correspond to national data. If you have any questions about the Key Facts and Data, please contact: [ncaprofiles@naturalengland.org.uk](mailto:ncaprofiles@naturalengland.org.uk). Your feedback will help shape the content of the full NCA profiles, which will be published from September 2012 onwards.

# Map of Mid-Severn Sandstone Plateau **Total Area: 88,803 ha**



The above map is provided from the Countryside Character Area description pending completion of NCA maps. It is recognised that the content of this map may now be out of date in some cases and is included for general reference only. New maps will include updated content and be provided within the full NCA profiles, due to be completed by 2013.

## 1. Landscape and Nature Conservation Designations

13ha of Shropshire Hills Area of Outstanding Natural Beauty (AONB) falls within this NCA.

Management Plans for the Protected Landscape(s) can be found at:

- <http://www.shropshirehillsaonb.co.uk/>

Source: Natural England (2011)

### 1.1 Designated nature conservation sites

The NCA includes the following statutory nature conservation designations:

Tier	Designation	Designated Site(s)	Area in NCA	Proportion of NCA
International	n/a	n/a	0 ha	0%
European	Special Protection Area (SPA)	n/a	0 ha	0%
	Special Area of Conservation (SAC)	n/a	0 ha	0%
National	National Nature Reserve (NNR)	Wye Forest NNR	573 ha	1%

National	Site of Special Scientific Interest (SSSI)	A total of 32 sites wholly or partly within the NCA	2,543 ha	3%
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Source: Natural England (2011)

Please Note: (i) Designated areas may overlap (ii) all figures are cut to Mean High Water Line, designations that span coastal areas/views below this line will not be included.

There are 285 Local sites in the Mid-Severn Sandstone Plateau covering 4,759 ha which is 5 % of the NCA.

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at:  
<http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>
- Details of Local Nature Reserves (LNR) can be searched at:  
[http://www.lnr.naturalengland.org.uk/Special/lnr/lnr\\_search.asp](http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp)
- Maps showing locations of Statutory sites can be found at:  
<http://magic.defra.gov.uk/website/magic/> -select 'Rural Designations Statutory'

### 1.1.1 Condition of designated sites

SSSI Condition Category	Area in NCA	Percentage of NCA SSSI Resource
Unfavourable declining	50 ha	2%
Favourable	708 ha	28%
Unfavourable no change	28 ha	1%

Unfavourable recovering	1,476 ha	70%
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Source: *Natural England (March 2011)*

- Details of SSSI condition can be searched at:  
<http://www.sssi.naturalengland.org.uk/Special/sssi/reportIndex.cfm>

## 2. Landform, Geology & Soils

### 2.1 Elevation

The lowest elevation in this NCA is 15m; the highest point is 233m. The mean elevation across the NCA is 97m.

Source: *Natural England (2010)*

### 2.2 Landform & Process

A landscape substantially influenced by Ice-age processes and deposits. The overall character is one of gently undulating country with tree-lined ridges that follow the variations occasioned by geological boundaries. To the west, around the Severn Valley, the light sandy soils and rolling landform give way to heavier soils and more irregular topography. To the south, the valley sides steepen and become heavily wooded with steep sided tributary dingles. In the north, the Severn Valley narrows to a spectacular gorge. North of the Ironbridge gorge is a landscape of gentle valleys and escarpments forming the east Shropshire Coalfield.

Source: *Mid Severn Sandstone Plateau Countryside Character Description*

### 2.3 Bedrock Geology

The bedrock is generally sandstone of one sort or another with relief provided by slightly harder or softer beds within the sequence. The Mid Severn Sandstone Plateau has two distinct terrains. The western area

equates with the Severn Valley and encompasses Carboniferous age and older rocks of the Wyre Forest and Coalbrookdale coalfields. The more extensive eastern area drained by the rivers Worfe and Stour, features late Permian and Triassic age rocks in the form of a downfaulted block which separates the Wyre Forest and Coalbrookdale coalfields in the west from the South Staffordshire (Black Country) coalfield which forms part of the eastern boundary. The Lower and Middle productive coal measures were worked for coal and ironstone from an early date. Silurian limestones available from the southern end of the coalfield supported the early iron industry. Dolerite intrusions are encountered in the productive measures giving rise to surface features, for example at Kinlet and as a thin dyke from Witnells End to Arley Wood. The Stour Valley, and much of the northern watershed between the two valleys, is underlain by Permo-Triassic sandstones. The Permo-Triassic sandstones and pebble beds are important underground aquifers for water supply to the major centres of population and industry. The sandstones of the Kidderminster and Bromsgrove formations have been extensively used as local building stone and their characteristic red colouration brings local distinctiveness to many towns and villages.

*Source: Mid-Severn Plateau Countryside Character Area description. Geology narrative; West Midlands Geodiversity Partnership.*

## **2.4 Superficial Deposits**

The whole area has been substantially modified by ice and meltwater especially during the the last phase of the Ice-age. At its height about 20,000 years ago the ice sheets reached the Wolverhampton area. When the ice retreated, great swathes of Till (Boulder Clay) were left behind, especially in the northern part of the area, blanketing the bedrock formations. Large glacial boulders, known as erratics, of the lake district, Scottish and Welsh origin are dispersed over most of the area north of the latitude of Wolverhampton. Economically important deposits of Glacio-fluvial sands and gravels indicating former meltwater

channels predominate in the central part of the area. Only the Wyre Forest area is relatively free of drift deposits. An unusual deposit of blown sand at Hartlebury Common is worthy of mention. Periglacial (sub-arctic) conditions south of the ice sheet led to cold, dry, steppe-like lands in places.

*Source: Mid-Severn Sandstone Plateau Countryside Character Area Description. Geology narrative- West Midlands Geodiversity Partnership*

## 2.5 Designated Geological Sites

Designation	Number of Sites
Geological Site of Special Scientific Interest (SSSI)	8
Mixed Interest SSSIs	1

There are 72 Local Geological Sites within the NCA.

*Source: Natural England (2011)*

- Details of individual Sites of Special Scientific Interest can be searched at <http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>

## 2.6 Soils and Agricultural Land Classification

To the west, around the Severn Valley, the light sandy soils and rolling landform give way to heavier soils and more irregular topography. Here the land is of mixed arable and pasture use. To the east of the Severn, soils are dry and sandy. To the south, the soils are sandier around

Kidderminster and Stourbridge and more gravel based to the north east of Bromsgrove.

*Source: Mid-Severn Sandstone Plateau Countryside Character Description*

The main grades of agricultural land in the NCA are broken down as follows (as a proportion of total land area):

Agricultural Land Classification	Area in NCA	Proportion of NCA
Grade 1	1,032 ha	1%
Grade 2	22,105 ha	25%
Grade 3	42,865 ha	48%
Grade 4	6,028 ha	7%
Grade 5	0 ha	0%
Non-agricultural	5,125 ha	6%
Urban	11,649 ha	13%

*Source: Natural England (2010)*

### 3. Key Water Bodies & Catchments

#### 3.1 Major Rivers/Canals

The following major rivers/canals (by length) have been identified in this NCA.

River Name	Length in NCA
River Severn	48 km



River Stour	27 km
River Worfe	16 km

*Source: Natural England (2010)*

*Please Note: other significant rivers (by volume) may also occur. These are not listed where the length within the NCA is short.*

The main river is the Severn which enters the area through the Ironbridge Gorge, flowing in a south-westerly direction, and is served by often fast flowing tributaries. To the south west, the Stour flows from the Clent Hills to join the Severn at Stourport. To the north of the plateau are many small streams and rivers, notably the Worfe, a tributary of the Severn. Large open water bodies are generally confined to reservoirs such as Chelmarsh. The largest man-made waterways on the plateau is the extensive canal system, including the Staffordshire and Worcestershire Canal (37km) and the Shropshire Union Canal (7km) which in places links with the river system.

### **3.2 Water Quality**

The total area of Nitrate Vulnerable Zone is 742,40 ha, 84% of the NCA.

*Source: Natural England (2010)*

### **3.3 Protected Areas**

- to be completed in consultation with the Environment Agency (full document only).

### **3.4 Water Framework Directive**

- to be completed in consultation with the Environment Agency (full document only).

## 4. Trees and Woodlands

### 4.1 Total Woodland Cover

The NCA contains 10,572 ha of woodland (2% of the total area), of which 4,164 ha is ancient woodland. Forest of Mercia Community Forest, one of twelve Community Forests established to demonstrate the contribution of environmental improvement to economic and social regeneration, covers 1,209 ha of this NCA, which is 1%.

*Source: Natural England (2010)*

### 4.2 Distribution and size of woodland and trees in the landscape

Extensive clearance of woodlands on the sandstone plateau in prehistory, also evident by the late 11th century. Extensive ancient and secondary woodland survives mostly along the steep slopes of the valleys; ancient woodland intermixed with conifers in Wyre Forest. Estate parkland which includes conifer plantations date from the 19th century is a significant element in land cover. This includes Dudmaston Hall to the west and many to the sandstone plateau. Many of the woodlands are conifer plantations which combine with parklands. Along the valley bottoms there is greater tree cover, especially to the western Severn area where there are abundant hedgerow trees.

*Source: Midlands Plateau Natural Area Profile*

### 4.3 Woodland Types

A statistical breakdown of the area and type of woodland found across the NCA is detailed below.

Area and proportion of different woodland types in the NCA (over 2 ha)

Woodland Type	Area in NCA	Proportion of NCA
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Broadleaved	5,921 ha	7%
Coniferous	3,243 ha	4%
Mixed	853 ha	1%
Shrub / young trees	422 ha	1%
Felled/land for prepared planting	122 ha	<1%

*Source: Natural England (2010)*

## Area and proportion of Ancient Woodland and Planted Ancient Woodland within the NCA

Woodland Type	Area in NCA	Proportion of NCA
Ancient semi-natural woodland	2,046 ha	2%
Ancient re-planted woodland (PAWS)	2,096 ha	2%

*Source: Natural England (2004)*

## 5. Boundary Features & Patterns

### 5.1 Boundary Features

Large-scale and regular boundaries of planned enclosure, mostly dating from the late 18th century, with pockets of assorted fields and piecemeal enclosure retaining profiles of strip fields from common arable.

*Source: Mid-Severn Sandstone Plateau Countryside Character Area description; Countryside Quality Counts (2003)*

### 5.2 Field Patterns

Field patterns are predominantly piecemeal enclosures to the east and west with some blocks of very larger later 20th century fields. To the west, around the Severn Valley, the land is in mixed arable and pasture use with irregular, smaller fields with a stronger hedgerow framework. In the northern areas at the edges of the towns, arable land is still present on the flatter land, and on the steeper ground, mixed or predominantly pasture land is present within small hedged fields. In the east on the more level ground, it is arable use with low hedges with few hedgerow trees.

*Source: Mid-Severn Sandstone Plateau Countryside Character Area description; Countryside Quality Counts (2003)*

## **6. Agriculture**

The following data has been taken from the Agricultural Census linked to this NCA.

### **6.1 Farm Type**

The area's farm holdings are relatively evenly distributed between livestock and arable farms. Of the 730 holdings, 166 (23%) are mainly grazing livestock, 129 (18%) cereals, 113 (15%) general cropping, 50 (7%) mixed and 42 (6%) horticulture.

*Source: Agricultural Census, DEFRA (2010)*

### **6.2 Farm Size**

27% of farms are between 5 and 20 ha, although these cover only 4% of the agricultural area. Almost 70% of the agricultural area is in farms greater than 100 hectares.

*Source: Agricultural Census, DEFRA (2010)*

### **6.3 Farm Ownership**

2009: Total farm area = 50,321 ha; owned land = 31,403 ha

2000: Total farm area = 52,107 ha; owned land = 33,058 ha

*Source: Agricultural Census, DEFRA (2010)*

## **6.4 Land Use**

The two main land uses are for cereals (35%) and grass and uncropped land (39%). Land for oilseeds has almost trebled since 2000 from 2% to 7% of the agricultural area.

*Source: Agricultural Census, DEFRA (2010)*

## **6.5 Livestock Numbers**

In 2009 there were 68,100 sheep (95,300 in 2000), 21,300 cattle (25,700 in 2000) and 14,100 pigs (24,900 in 2000).

*Source: Agricultural Census, DEFRA (2010)*

## **6.6 Farm Labour**

In 2009 the agricultural workforce was 2,082, a decrease of almost 20% since 2000. Almost half of workers are principal farmers (996, 48%), followed by 400 (19%) casual / gang workers, 353 (17%) full time workers, 206 (10%) part time workers and 127 (6%) salaried managers.

*Source: Agricultural Census, DEFRA (2010)*

*Please Note: (i) Some of the Census data is estimated by Defra so will not be accurate for every holding (ii) Data refers to Commercial Holdings only (iii) Data includes land outside of the NCA belonging to holdings whose centre point is within the NCA listed.*

# **7. Key Habitats and Species**

## **7.1 Habitat distribution / coverage**

The section of the River Severn, between Bridgnorth and Kidderminster is particularly fine, with steep banks and rich tall herb communities on and above the banks providing splendid insect habitats. Associated with the lowland rivers, characteristic riparian features are evident, with marshland well represented. The extensive canal system contains ecology intermediates between ponds, lowland rivers and urban areas, with possibly the most notable plant species being found here is the floating water plantain, which is internationally rare. Key sites of woodland include the Wyre Forest, which forms an assemblage with the Severn Valley, Chaddesley-Randon Woods and the Ironbridge Gorge Woodlands. Remaining ecologically valuable grassland occurs in the Wyre Forest, and many are small grazed meadows found along the River Severn.

*Source: Midlands Plateau Natural Area Profile*

## 7.2 Biodiversity Action Plan (BAP) Priority habitats

The NCA contains the following areas of mapped priority habitats (as mapped by National Inventories). Footnotes denote local/expert interpretation. This will be used to inform future national inventory updates.

UK BAP Priority Habitat	Area in NCA	Proportion of NCA
Broadleaved mixed & yew woodland (Broad Habitat)	5,963 ha	7%
Lowland heathland	266 ha	<1%
Lowland meadow	149 ha	<1%
Lowland dry acid grassland	75 ha	<1%
Coastal & floodplain grazing marsh	53 ha	<1%

Fens	28 ha	<1%
Purple moor grass & rush pasture	26 ha	<1%
Reedbeds	13 ha	<1%

Source: Natural England (2011)

Maps showing locations of UK BAP Priority Habitats are available at

- <http://magic.defra.gov.uk/website/magic/> select 'Habitat Inventories'

### 7.3 Key species and assemblages of species

- These are listed in Annex 1 (full document only)
- Maps showing locations of S41 species are available at <http://data.nbn.org.uk/>

## 8. Settlement and Development Patterns

### 8.1 Settlement pattern

Along the Stour valley, large villages like Kinver and Wolverley lie between the towns of Wombourne, Kidderminster and Stourport. The last two being substantial settlements, spreading either side of the river and onto adjacent higher ground. The larger towns and villages are found in and around the Severn Valley. In the north, Bridgnorth is an attractive market town, its ancient core is on a prominent hilltop and its medieval street plan is still readily apparent. In contrast, at Telford it is essentially a loosely-grouped cluster of large new villages found within a typical new town structure that is crossed by the M54 and other major roads. The Severn Valley towns are linked together by the Severn Valley Railway which runs from Kidderminster to Bridgnorth and is now a steam railway tourist attraction. Settlement patterns away from the river valleys are of a more rural one, of small hamlets and isolated

farms. Around both coalfields there is a scatter of small groups of cottages.

*Source:Mid Severn Sandstone Plateau Countryside Character Area description; Countryside Quality Counts (2003)*

## **8.2 Main Settlements**

The main settlements within the NCA are: Wolverhampton; Telford; Kidderminster; Stourbridge; Bridgnorth and Albrighton. The total estimated population for this NCA (derived from ONS 2001 census data) is: 527,426.

*Source:Mid-Severn Sandstone Plateau Countryside Character Area description; Countryside Quality Counts (2003)*

## **8.3 Local vernacular & building materials**

Predominant material of older vernacular buildings is brick with a range of colours from the mellow red-brown brick of settlements like Bewdley to a mixture of colours, including Victorian polychromy, in Kidderminster. Timber framing is also found on the Arden borders. Red-brown plain tiles and grey slate tend to predominate as traditional roofing materials whilst thatch may have once been more common. Local sandstone has been used in the churches and grander buildings as well as the walls or lower courses of some farm houses and other rural buildings.

*Source:Mid-Severn Sandstone Plateau Countryside Character Area description; Countryside Quality Counts (2003)*

# **9. Key Historic Sites & Features**

## **9.1 Origin of historic features**

There is extensive evidence for settlement during the Neolithic period with the formation of heathland through clearance on the thin soiled higher land between the rivers Stour and Severn. There is also



extensive evidence for Roman settlement, including a major occupation centre at Greensforge. Predominant settlement patterns in the river valleys clearly evident by late 11th century. Industrial development from 16th century closely linked to the navigation of the River Severn and development of the canal system. These developed from the 1760's and include Telford's Birmingham Main Line and other canals of the mid 19th century, mostly built as extensions for the Birmingham Canal Navigation Company. Ironbridge Gorge area exploited for coal and clay from mid 16th century with the ironworks (Abraham Darby first furnace at Coalbrookdale in 1708) which built the world's first famous Ironbridge, completed in 1779, Country houses and estates developed throughout the area, especially on the sandstone plateau and some villages. Post war period saw major opencast exploitation of the northern coalfield and the development of the town of Telford.

*Source: Countryside Quality Counts Draft Historic Profile, Countryside Character Area description*

## 9.2 Designated Historic Assets

This NCA has the following historic designations:

- 1 World Heritage Site
- 16 Registered Parks and Gardens covering 2,135 ha
- 0 Registered Battlefield/s covering 0 ha
- 67 Scheduled Monuments
- 2,609 Listed Buildings

*Source: Natural England (2010)*

- More information is available at the following address:  
<http://www.english-heritage.org.uk/caring/heritage-at-risk/>

- <http://www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/>

## 10. Recreation and Access

### 10.1 Public Access

5% of the NCA 3,951 ha is classified as being publically accessible.

The table below shows the breakdown of land which is publically accessible in perpetuity:

Access Designation	Area in NCA	Proportion of NCA
National Trust (Accessible all year)	0 ha	0%
Common Land	286 ha	<1%
Country Parks	237 ha	<1%
CROW Access Land (Section 4 and 16)	1,396 ha	2%
CROW Section 15	130 ha	<1%
Village Greens	2 ha	<1%
Doorstep Greens	12 ha	<1%
Forestry Commission Walkers Welcome Grants	1,363 ha	2%
Local Nature Reserves (LNR)	484 ha	1%
Millennium Greens	1 ha	<1%
Accessible National Nature	573 ha	1%

Reserves (NNR)		
Agri-environment Scheme Access	4 ha	<1%
Woods for People	3,422 ha	4%

Sources: Natural England (2011)

Please Note: Common Land refers to land included in the 1965 commons register; CROW = Countryside and Rights of Way Act 2000; OC and RCL = Open Country and Registered Common Land.

## 10.2 Rights of Way

There are 1,521 km of Public Rights of Way at a density of 1.7 km per km<sup>2</sup>.

There are 0 National Trails within the NCA.

Sources: Natural England (2010)

## 11. Experiential Qualities

### 11.1 Tranquillity

Based on the CPRE map of Tranquillity (2006) the highest scores for tranquillity can be found in the west of the NCA in the Wyre Forest and Severn Valley. The lowest scores are around the major population centres of Wolverhampton and Telford.

A breakdown of tranquillity values for this NCA are detailed in the table below:

Tranquillity	Tranquillity Score
Highest Value within NCA	41
Lowest Value within NCA	-100
Mean Value within NCA	-11

Sources: CPRE (2006)

- More information is available at the following address:  
<http://www.cpre.org.uk/what-we-do/countryside/tranquil-places/in-depth/item/1688-how-we-mapped-tranquillity>

## 11.2 Intrusion

The 2007 Intrusion Map (CPRE) shows the extent to which rural landscapes are 'intruded on' from urban development, noise (primarily traffic noise), and other sources of visual and auditory intrusion. This shows that major disturbance occurs around the population centres of Wolverhampton, Stourbridge, Kidderminster, Bridgnorth and Telford and along the road network that links these centres. Undisturbed areas tend to be isolated towards the west of the NCA away from the major conurbation, for example at Wyre Forest and at isolated areas along the Severn Valley. A breakdown of intrusion values for this NCA are detailed in the table below.

Intrusion Category	1960s	1990s	2007	Percentage change (1960s-2007)
Disturbed	37%	51%	53%	16%
Undisturbed	52%	38%	32%	-20%
Urban	11%	11%	15%	4%

Sources: CPRE (2007)

Notable trends from the 1960s to 2007 are an overall increase in the area of disturbed land by 16%, with a similar decrease in the areas of undisturbed land by 20%. Levels of urban areas increased by 4%.

- More information is available at the following address:  
<http://www.cpre.org.uk/resources/countryside/tranquil-places>

## 12 Data Sources

- *Midlands Plateau Natural Area Profile, Natural England (English Nature 1997)*
- *Mid-Severn Sandstone Plateau Countryside Character Description, Natural England (Countryside Commission/Countryside Agency 1998/1999)*
- *Countryside Quality Counts, Natural England (Countryside Agency 2003)*
- *Agricultural Census June Survey 2000/2009, Defra (2010)*
- *Intrusion Map, CPRE (2007)*
- *Tranquillity Map, CPRE (2006)*
- *Draft Historic Profiles, English Heritage (2004)\**
- *For further information on Natural England data sources please see the [Key facts and data interpretation note](#)*

Please note all figures contained within the report have been rounded to the nearest unit. For this reason proportion figures will not (in all) cases add up to 100%. The convention <1 has been used to denote values less than a whole unit.

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