Federal Institute for Research on Building, Urban Affairs and Spatial Development

within the Federal Office for Building and Regional Planning

BBSR-Analysen KOMPAKT 05/2022

India, Germany and Europe

A Spatial Perspective at SDG 8 on Decent Work and Economic Growth

Responding to crucial challenges in spatial and urban development, the United Nations agreed upon the 2030 Agenda and the Sustainable Development Goals (SDGs) as well as the New Urban Agenda. This publication checks the progress made in implementing the SDGs against the New Urban Agenda and vice versa. In order to understand the spatial patterns, a national and supranational spatial perspective is taken on some of the SDGs. Given the relevance of decent work and economic growth for balanced urban and rural societies, SDG 8 covers, amongst others:

- Gross Domestic Product
- Micro, small and medium-sized enterprises
- Employment and (youth) unemployment

by

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NIUA wishes to acknowledge the contributions of Aksheyta Gupta, Nelson Mandela S and Pragya Sharma.

Photo: Schafgans DGPh

Joint foreword

Photo: NIUA

Dear Reader,

The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) and the National Institute of Urban Affairs (NIUA) signed in 2018 a Joint Declaration of Intent to cooperate on different aspects of evidence-based research and expert positioning as well as policy advice. Expert workshops and presentations at the United Nations World Urban Forums 2018 and 2020 have led to a better understanding of our common challenges and an in-depth knowledge of possible solutions. Further presentations are foreseen to be held at the World Urban Forum 2022.

A first joint publication of BBSR and NIUA (BBSR-Analysen KOMPAKT 06/2019) was dedicated to spatial structures and trends in India, Germany and Europe and focused on population development and migration, urbanization and suburbanization. Further publications (BBSR-Analysen KOMPAKT 11/2020, 13/2020, 15/2020) took spatial perspectives at various Sustainable Development Goals of the United Nations (SDGs): SDG 3 on Good Health and Well-Being, SDG 4 on Quality Education and SDG 11 on Sustainable Cities and Communities. The positive resonance by readers encouraged us to continue our joint analytical work.

The United Nations remind us with their World Urbanization Prospects of 2018 and subsequent ad hoc revisions of the urbanization changes and their various facets affecting all countries worldwide. In that respect, our joint work and expert exchange are a part of the bilateral urbanization partnership between the responsible ministries in India and Germany. Both countries are seen as strategic partners.

In the framework of our cooperation, we develop and deepen a comparable picture of the spatial structures and trends in our countries and continents. In doing so, we try to find and further strengthen a common data-oriented language that is based on national and supranational data sources and may contribute to making global data sets compatible in the same way as it may serve practitioners in their daily work.

Our joint efforts are guided by the thematic priorities defined in the SDGs and their references to the New Urban Agenda of the United Nations. This publication focuses on SDG 8 on Decent Work and Economic Growth.

We wish you a stimulating reading.

Dr. Markus Eltges
Director of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR)

Hitesh Vaidya
Director of the National Institute of Urban Affairs

Introduction

BBSR and NIUA continue with this publication on SDG 8 in India, Germany and Europe as well as the accompanying publication on SDG 5 their efforts in identifying and applying a comparable approach to reporting on urban and rural development. The publication describes the findings in texts and maps in the same way as it discusses similarities and dissimilarities from national and supranational perspectives – all within the limits of available and comparable data sources.

The United Nations set a global policy framework for urban and rural development with the 2030 Agenda and the Sustainable Development Goals (SDGs) in 2015 and the New Urban Agenda in 2016. Their revised World Urbanization Prospect (UN DESA 2018) and subsequent ad hoc revisions provide updated estimates and projections for all countries of the world as well as their major agglomerations.

In addition to the global level, also states, cities and communities, India and Germany amongst them, consider the 2030 Agenda and the SDGs as guiding political framework. India has initiated a respective national dialogue. Germany entered in late 2021 a new government term. The SDGs and their relevance as guiding principle are explicitly mentioned in the coalition agreement of the governing parties.

Reporting on the implementation of the SDGs is carried out every year with presentations at the High-Level Political Forum. Reporting on the implementation of the New Urban Agenda starts in 2022. UN HABITAT, the housing and settlement programme of the United Nations, is expected to provide evidence-based and data-oriented reports – so called Quadrennial Reports – every four years. Member States of the United Nations are invited to report on the national, sub-national and particularly local implementation. Some countries, amongst them Germany in close cooperation with a group of representative cities and communities, have already handed over their National Reports (BBSR 2021).

As cross-references between the 2030 Agenda and the New Urban Agenda are evident, the SDGs and their underlying indicators constitute the analytical pattern of the publication. Considering the availability of data sources at national and supranational level, it covers with regard to SDG 8 the following selected sub-goals (the figures in brackets refer to the numbering of the Global Indicator Framework adopted by the General Assembly of the United Nations):

- Gross Domestic Product per capita (SDG 8.1.1.1)
- Annual growth rate of the Gross Domestic Product per capita (SDG 8.1.1.1)
- Annual growth rate of the Gross Domestic Product per employed person (SDG 8.2.1.1)
- Annual growth rate of the manufacturing sector (SDG 8.2.1.3)
- Annual growth rate of the agricultural sector (SDG 8.2.1.4)
- Spatial distribution of micro, small and medium-sized enterprises (SDG 8.3.1.3)
- Average hourly wages (SDG 8.5.1.1)
- Employment rate (SDG 8.5.1.3)
- Unemployment rate (SDG 8.5.1.2)
- Youth unemployment rate (SDG 8.5.1.1)
- Tourist visits (SDG 8.9.1.1)

While data availability determines the analysis, national or even supranational programmes support respective development paths and changes. Given the cross-cutting nature of most of the SDGs as well as the different constitutional settings of India and Germany, this part of the introduction mentions crucial aspects in that respect. European aspects are referenced in the respective chapters.

Economic growth as a SDG standing alone is a critical issue for both, SDG 8 as such (Frey 2017) and its independencies with sustainability as an overarching principle as well as the limits of natural resources (Kreinin and Aigner 2021). The general opinion still assumes that economic growth is necessary for creating job opportunities and that it improves the well-being of everybody. These assumptions and relations have been disproved by the Stiglitz-Sen-Fitoussi Commission (Stiglitz et al. 2018). Nevertheless, economic growth had been included in SDG 8 and an annual growth rate of at least 2 % in developing countries had specifically been formulated as target. Continuously applying the Gross Domestic Product (GDP) – and the State Domestic Product (SDP) in India – as indicator of growth and prosperity looks also back at a long tradition, a familiarity with its measurement and an ease in obtaining respective data. GDP per capita is included in this spatial analysis in addition to the two growth indicators applied – the one on GDP per inhabitant for measuring the development of prosperity and the other one per employed person for calculating the development of productivity. Relative growth rates are, on the one side, level-dependent and, on the other side, facilitate the assessment of regions against their convergence or divergence.

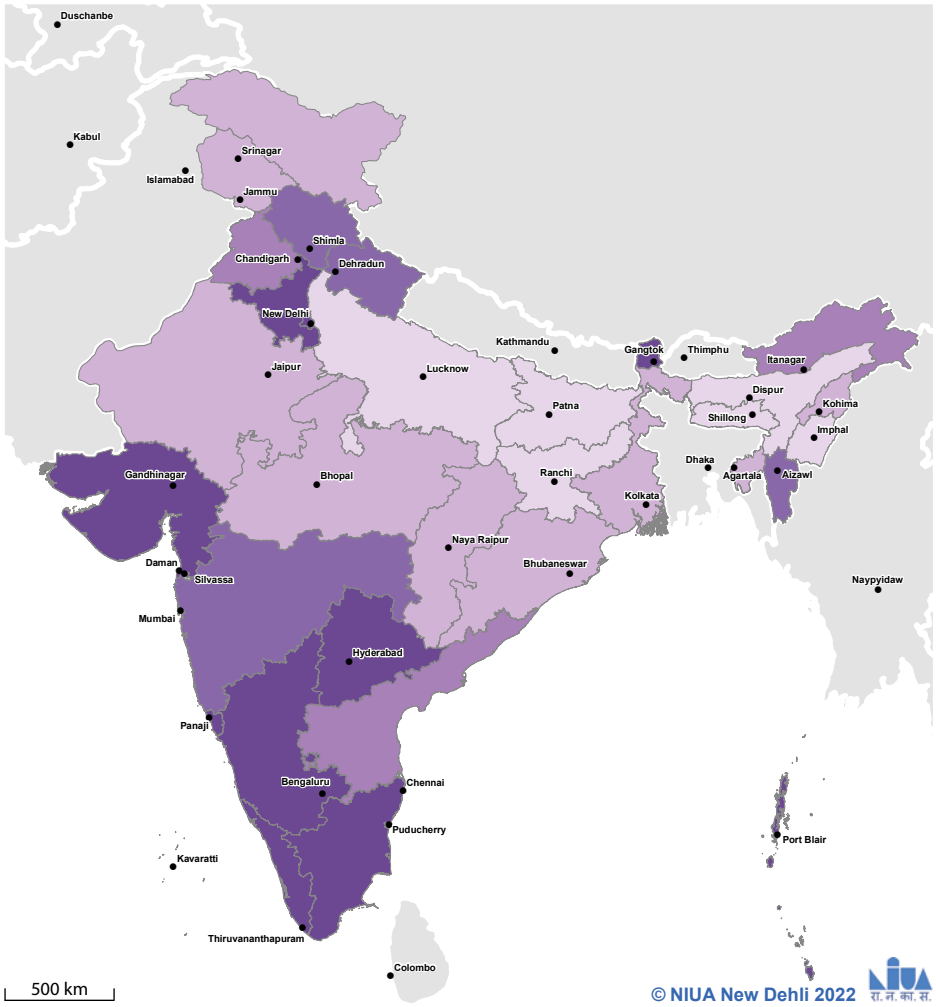
Gross Domestic Product per capita

Many countries, including Germany, use the Gross Domestic Product (GDP) also on subnational level for measuring economic growth and wealth. Measured is in a given time as the economic output of a national economy the value of all goods and services produced in the respective country as long as they do not constitute intermediate products.

India, on the contrary, provides the State Domestic Product (SDP) related to the total value of goods and services produced within the geographical boundaries of a state. Furthermore, India refers here to the Net State Domestic Product (gross minus depreciation). Although this measure is a weak one (cf. text on the respective situation in Germany), it helps to detect regional disparities within a country.

Figure 1.A

State Domestic Product per capita in India



SDP per capita in EURO at current prices, 2019/2020

- up to below 1,200
- 1,200 up to below 1,700
- 1,700 up to below 2,200
- 2,200 up to below 2,700
- 2,700 and more

Data source: Handbook of Statistics on Indian Economy - 2021, Reserve Bank of India
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative

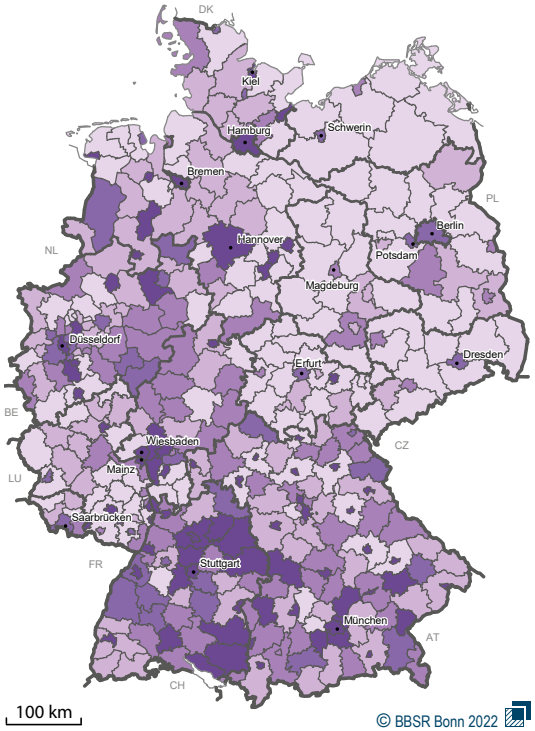
Taking into account that the Gross Domestic Product (GDP) of a country might be a weak indicator for measuring the prosperity of a country, it nevertheless allows to reveal regional pictures of generating GDP per capita and thus benefiting people in a region via taxes and (in parts) income. Large differences in GDP per capita exist between the eastern and western parts of Germany – even 30 years after reunification. This is due to a lack of large industrial companies and company headquarters, a smaller proportion of industrial companies and an even lower average salary (because of mostly business-oriented services) in many industries (which are less bound by collective bargaining agreements).

Urban areas usually generate a higher GDP per capita than rural areas. GDP in industrialised and innovative rural areas may nevertheless be above average. The regionalised minimum is below 20,000 EURO per inhabitant, its maximum over 100,000 EURO and the average around 35,000 EURO.

The regional GDP per capita ranges in Europe, from 5,200 EURO in Bulgaria to 202,200 EURO in London. The EU27 average value is 31,200 EURO.

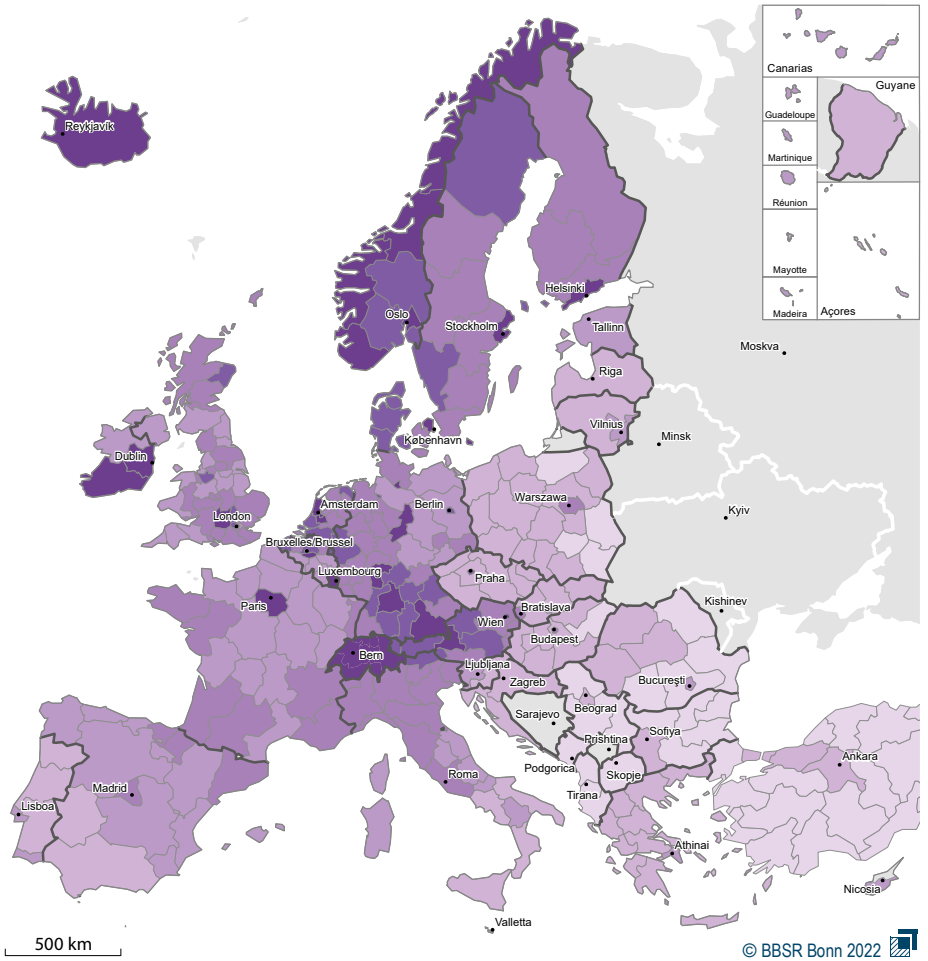
Almost 20 years after the EU Accession of the 10 eastern countries, the East-West divide still exists – at least outside the capital and metropolitan regions. Urban regions all over Europe show the highest values. Only a few countries like Germany have broader regional differences.

Figure 1.B **Gross Domestic Product per capita in Germany**



Data source: Spatial Monitoring System of the BBSR
Data origin: Working Group on National Accounts
Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 1.C **Gross Domestic Product per capita in Europe**



Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot
*Data: NO 2018

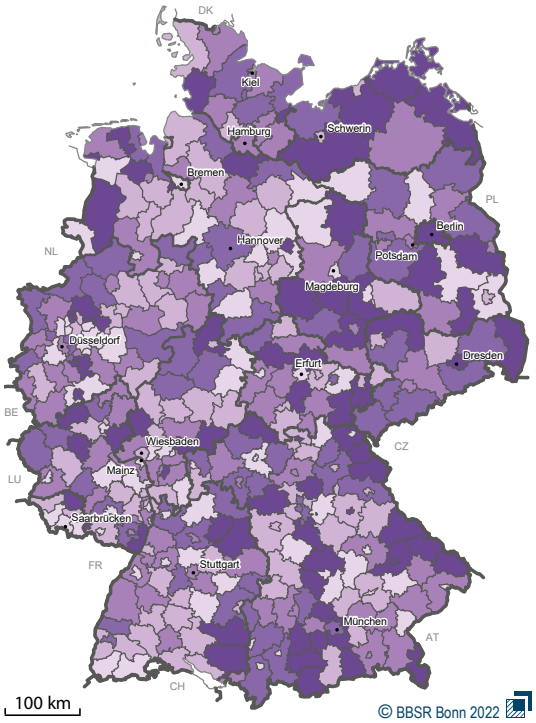
Annual growth rate of the Gross Domestic Product per capita

Striving for an annual growth of the economy is still a priority of economic policy in Germany. Considering a regional differentiation, the Working Group on National Accounts however provides only figures related to the nominal growth, i.e. including price increases. The median of the last 5 years is thus taken into account in order to mitigate annual fluctuation.

In almost all counties in Germany the GDP on average annually grows by 2.7 %, in some districts of the counties by up to below 7 %. There are counties of stronger and weaker growth in all parts of the country. In regions losing population, the percentage of per capita development is higher than the nominal GDP growth. It is however to be questioned whether the increase in prosperity might actually have a positive effect on everybody. Despite the fact that there is a positive correlation between the level of GDP and average wages, in some of the fastest growing regions the average wage level stagnated or its increase is below average.

The relative growth rate of the GDP per capita in Europe suggests an ongoing catching-up process of regions in the eastern part of Europe. Annual average growth rates up to 10 % are common in eastern regions. The financial and economic crisis of 2008/2009 interupted the process of catching up, specifically high-competitive regions and urban regions grew faster and contributed to broaden the national but also urban-rural divides.

Figure 2.A **Annual growth rate of the Gross Domestic Product per capita in Germany**

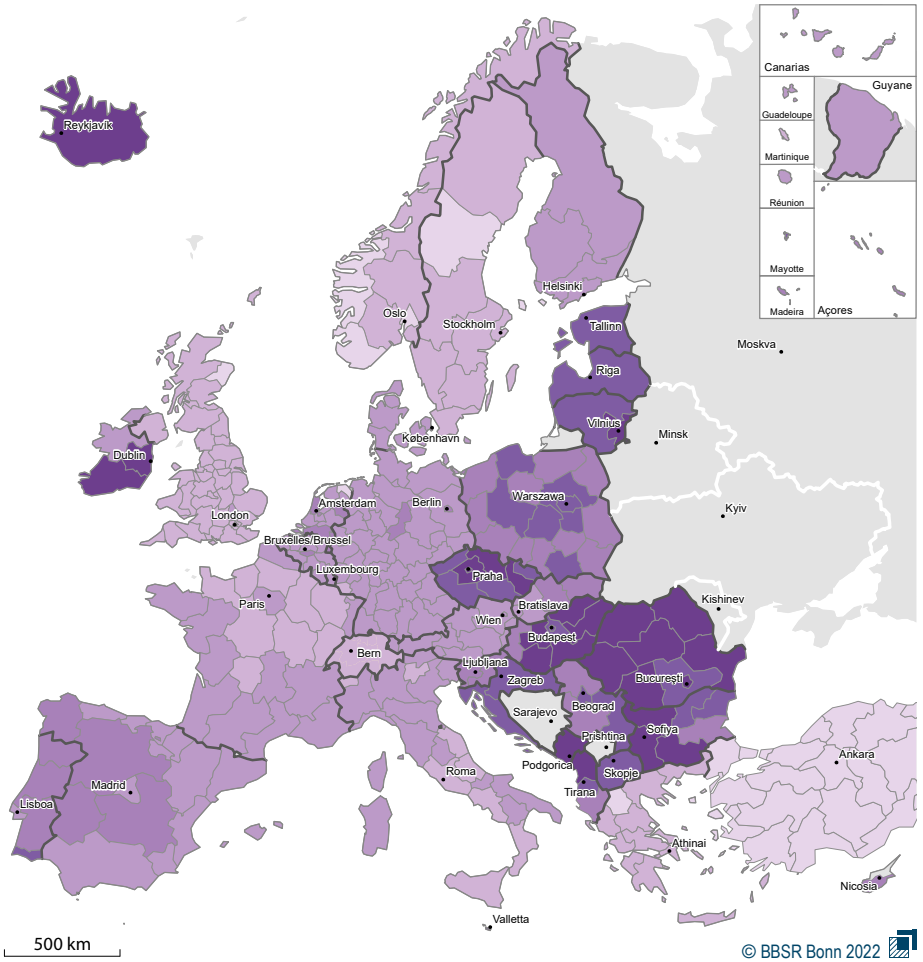


Annual growth rate of the GDP per capita at market prices in %, average of 2014–2019

- up to below 2.0
- 2.0 up to below 2.5
- 2.5 up to below 3.0
- 3.0 up to below 3.5
- 3.5 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Working Group on National Accounts, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 2.B **Annual growth rate of the Gross Domestic Product per capita in Europe**



Annual growth rate of the GDP per capita at market prices in %, average of 2014–2019*

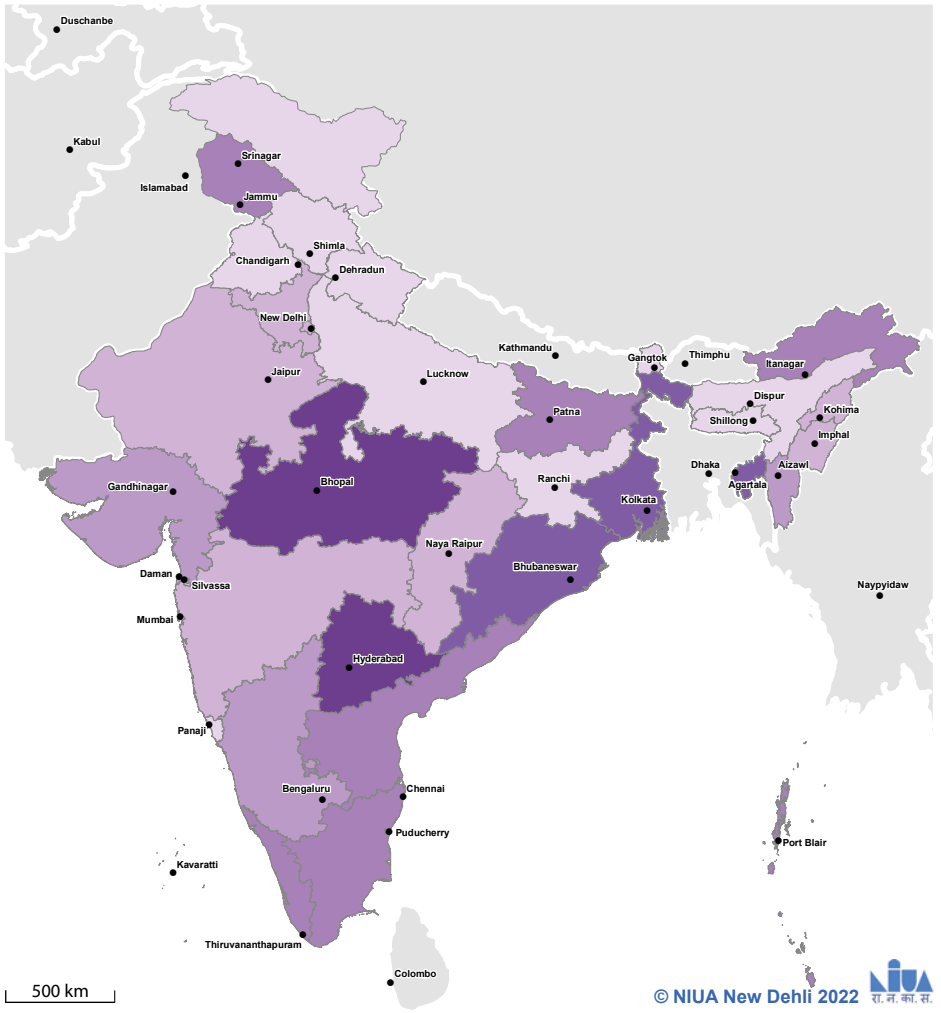
- up to below 0
- 0 up to below 2
- 2 up to below 4
- 4 up to below 6
- 6 up to below 8
- 8 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot
*Data: FR 2015–2019; NO 2014–2018

The annual average growth rate of the SDP per capita in India is about 7.9 % related to the period from 2017 to 2020. 10 states record growth rates below the national average. The per capita growth rate is the highest in Telangana (14.1 %) and the lowest in Goa (2.9 %). Tourism is an important sector in Goa and it is heavily affected by the COVID-19 Pandemic. The growth rates increased in Puducherry, Assam, Uttarakhand, Uttar Pradesh, Sikkim, Punjab, Himachal Pradesh, Meghalaya and Jharkhand at less than 8 % each. Delhi, Chandigarh, Rajasthan, Chhattisgarh, Manipur, Nagaland, Maharashtra and Haryana witness growth rates from 8 % up to below 9 %. Mizoram and Karnataka register growth rates of nearly 10 %. Andhra Pradesh, Arunachal Pradesh, Andaman & Nicobar Islands, Bihar, Tamil Nadu, Kerala, Gujarat and Jammu & Kashmir record growth rates from 10 % up to below 11 %. West Bengal, Tripura and Odisha experience growth rates from 11 % up to below 12 %. Finally, Madhya Pradesh shows a growth rate of 12.3 %. The states in the northern part of India are witnesses of lower growth rates compared to their western counterparts. The southern part of the country is far better off than the rest of the country. The eastern part experiences relatively higher growth rates.

Though significant improvement has been achieved, regional disparities still exist in India. One of the major objectives of the national five-year plans is to achieve a regional balance with regard to economic development. Higher growth rates in regions lagging behind are critical for meeting this target. Since implementing economic reforms, developed states have grown faster than regions lagging behind and could attract investments. The development of the infrastructure is strongly associated with the SDP (Bhattacharya and Sakthivel 2004). Enhancing the infrastructure in regions lagging behind in India seems indispensable for stimulating economic growth and thus reducing regional disparities. This measure would also lead to a more sustainable and inclusive economic growth providing decent work conditions for all.

Figure 2.C **Annual growth rate of the State Domestic Product per capita in India**



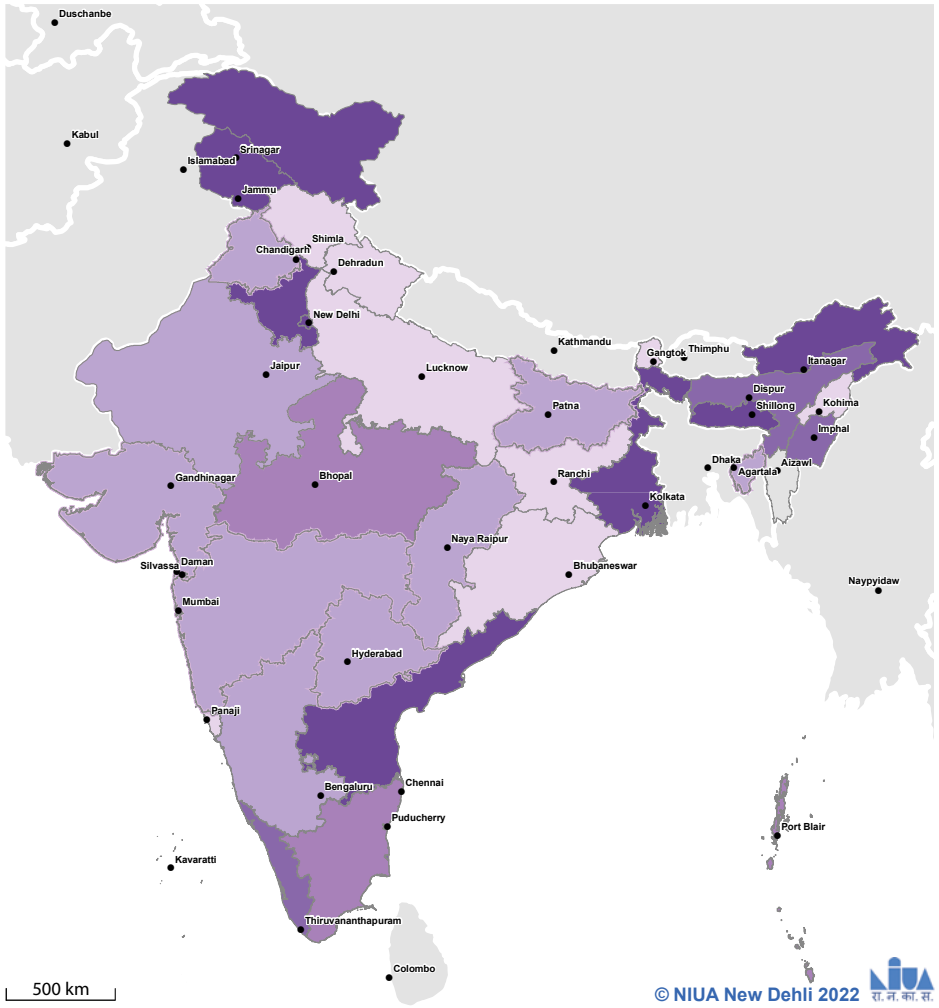
Annual growth rate of the Gross Domestic Product per employed person

Only through creating quality jobs would the benefits of economic growth be of added value for the wider population. Increasing labour productivity would also be essential for improving measures of social protection and reducing poverty. As indicators and data covering the entire situation of India as geographically vast and culturally diverse country often flatten regional variations, here again the State Domestic Product – related to employed persons – is considered.

The growth rate per employed person grew in India on average at –3.6 % per year during the period from 2018 to 2020. 16 states register growth rates below this national average. The highest growth rate per employed person can be found in Meghalaya (15.1 %). Jharkhand registers with a growth rate per employed person of –18.1 % the lowest one. Uttarakhand, Uttar Pradesh, Sikkim, Odisha, Nagaland, Himachal Pradesh and Goa experience growth rates per employed person of less than –6 %. Tripura, Telanganga, Rajasthan, Bihar, Punjab, Chhattisgarh, Maharashtra, Karnataka and Gujarat witness growth rates per employed person from –6 % up to below –3 %. Andaman & Nicobar Islands, Tamil Nadu and Madhya Pradesh register growth rates per employed person from –3 % up to below 0 %. Puducherry, Manipur, Kerala and Assam show growth rates from 0 % up to below 3 %. West Bengal, Andhra Pradesh, Arunachal Pradesh, Jammu & Kashmir, Chandigarh, Haryana and Delhi record growth rates of 3 % and above. No respective data is available for Mizoram. The respective regional pattern is discernible. The western part of India suffers negative growth rates while the northeastern part of the country is doing well in terms of labour productivity. The eastern part of the country, with the exception of West Bengal, also witnesses a negative growth, whereas the southern part of India, with the exception of Karnataka, records a growth in positive terms.

The growth of the SDP happened in India from 2018 to 2020 at a much slower rate than the increase in the size of the labour force – resulting in a general growth rate per employed person in negative terms. A large share of the labour force in India is engaged in the agricultural sector. This sector and its share in the overall State Domestic Product has been declining in the same way as it shows a low labour productivity compared to the manufacturing or service sector. Negative growth usually affects the labour force's standard of living and its quality of life. The pandemic-related lockdown imposed in early 2020 might have had a respectively adverse effect on the labour productivity of India.

Figure 3.A **Annual growth rate of the State Domestic Product per employed person in India**



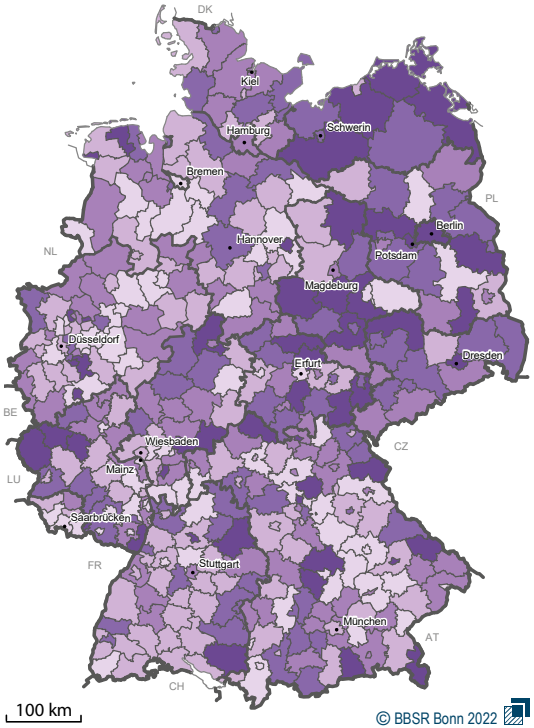
Data source: Handbook of Statistics on Indian Economy - 2021, Reserve Bank of India, Periodic Labour Force Survey - 2018/2019 & 2019/2020
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative.

The GDP per employed person describes the productivity of its economy. In Germany, both indicators, GDP per capita and GDP per employed person are interrelated with a correlation of 0.833. Increasing the productivity is an effect of technical progress. The productivity increase in Germany accumulated to 2.1 % per year from 2014 to 2019. The eastern part of Germany as well as rural regions have been able to catch up in terms of productivity. Analysts (e.g. Kunze/Mai 2020) however emphasize that the recent productivity increase has been lower than the long-term average. According to their opinion, in the wave of the financial and economic crisis of 2008/2009, enterprises, particularly larger industrial ones, hired more employed persons than it would be equivalent to the economic growth. Demographic change however influences also the productivity of Germany's economy, and many regions thus face a lack of well-educated labour force.

East-West and North-South divides characterise the regional picture of Europe with regard to productivity. Apart from Germany and Italy, showing distinct disparities in the respective country, all other countries look quite homogenous. Considering the development of productivity, these regional differences more or less dissolve. The GDP per employed person obviously increases the fastest in regions in the eastern part of Europe, mainly yet not exclusively in the capital regions. The overall European increase in productivity reached 2.2 % per year between 2014 and 2019, with the Czech Republic at almost 7 % for instance. Growth rates in France and Germany are around 2 %, the highest rate in Europe has Ireland with 11 %.

Figure 3.B **Annual growth rate of the Gross Domestic Product per employed person in Germany**

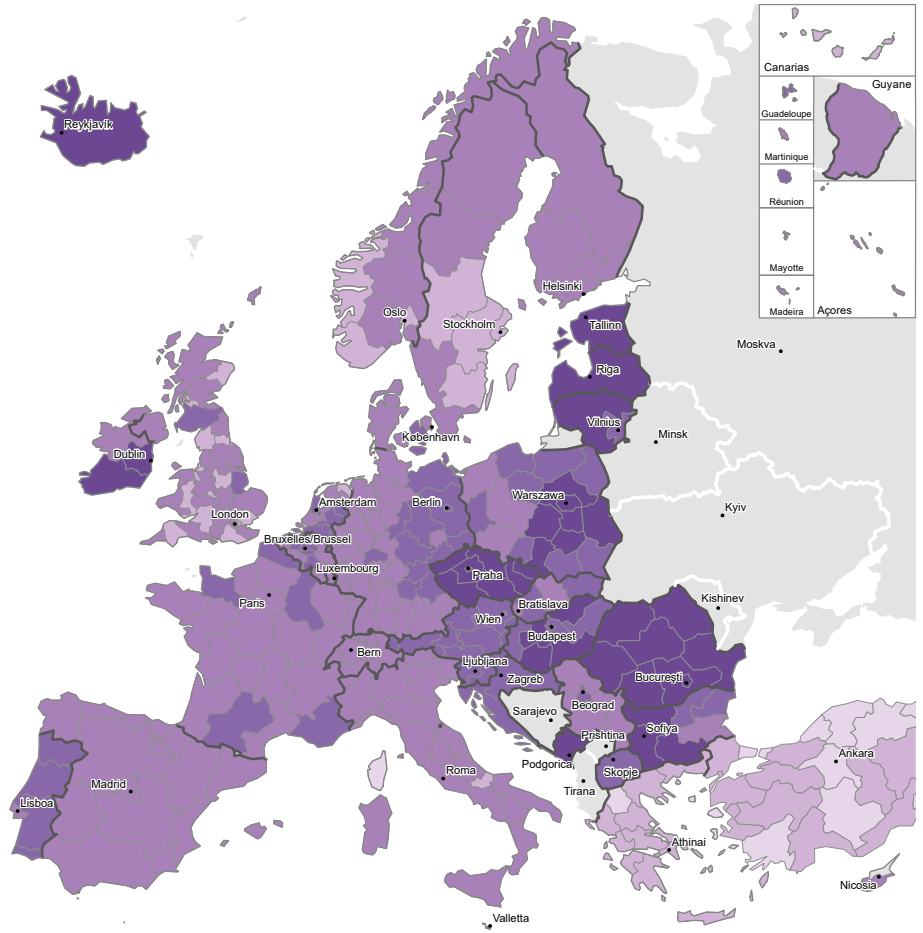


Annual growth rate of the GDP per employed person at market prices in %, average of 2014–2019

- up to below 1.5
- 1.5 up to below 2.0
- 2.0 up to below 2.5
- 2.5 up to below 3.0
- 3.0 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Working Group on National Accounts, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG. Author: A. Milbert

Figure 3.C **Annual growth rate of the Gross Domestic Product per employed person in Europe**



Annual growth rate of the GDP per employed person at market prices in %, average of 2014–2019*

- up to below –2.5
- –2.5 up to below 0.0
- 0.0 up to below 2.5
- 2.5 up to below 5.0
- 5.0 and more
- no data

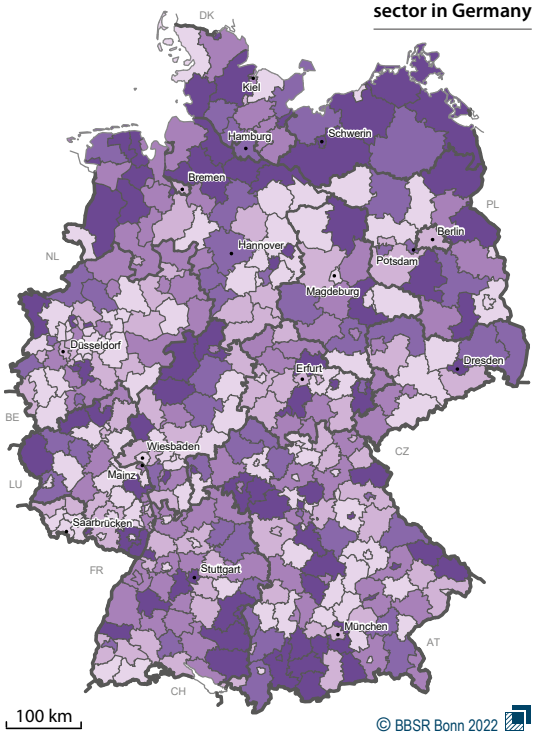
Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot
*Data FR: 2015–2019; NO: 2014–2018; CH: 2014–2019

Annual growth rate of the manufacturing sector

The industrial sector constitutes a strong pillar of Germany's economy. The Gross Value Added (GVA) in the manufacturing sector increased by 2.3 % annually between 2014 and 2019 and attained as much as 10 % to 15 % in some counties. Some of the highly industrialised regions of the country have been able to expand further and strengthen their positions as high-performing industry locations, e.g. Böblingen, Esslingen and Kaufbeuren but also Emsland at the border between Germany and the Netherlands. Other regions, where the industrial occupancy is lower, have also seen a significant economic growth, e.g. Rostock, Uckermark and Western Pomerania. In 56 of the 401 districts of Germany, including some regions and cities not having completely mastered the structural change, e.g. Bochum, Pirmasens and Saarbrücken, the manufacturing sector developed in a (slightly) negative direction.

The industrial sector increased in almost all regions in Europe between 2012 and 2016. The industrial centre of Europe is in fact characterised by a rectangle stretching from the western part of Germany to Silesia in the East and the western part of Hungary, including the Czech Republic and the western part of the Slovak Republic, to the southern part of Germany. It is joined by some regions in Romania, Bulgaria, Portugal, Spain and Sweden. Most of these regions show a significant increase in their industrial production between 2012 and 2016 constituting a small renaissance of this sector in a long and ongoing phase of losing significance. The industrial production in the European Union grew by 3.1 % per year in this period, compared to 2.5 % of the entire economy.

Figure 4.A **Annual growth rate of the manufacturing sector in Germany**

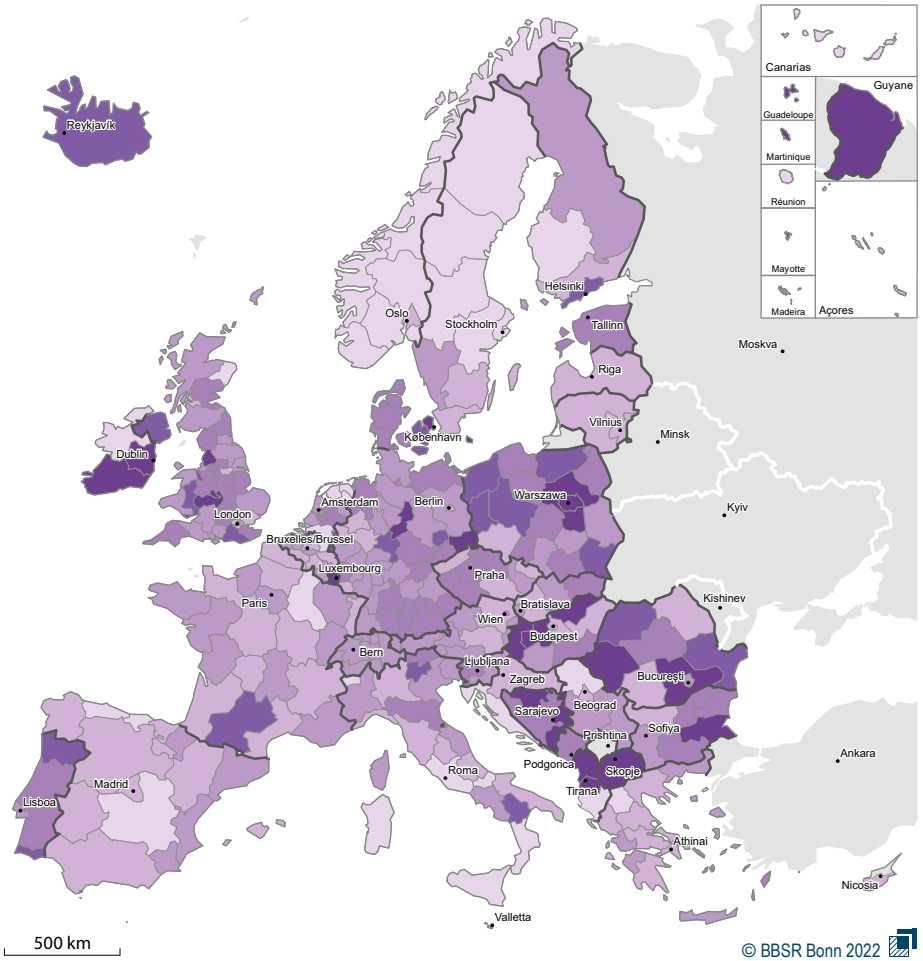


Annual growth rate of the Gross Value Added at market prices in the manufacturing sector in %, average of 2014–2019

- up to below 1
- 1 up to below 2
- 2 up to below 3
- 3 up to below 4
- 4 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Working Group on National Accounts, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG. Author: A. Milbert

Figure 4.B **Annual growth rate of the manufacturing sector in Europe**



Annual growth rate of the Gross Value Added at market prices in the manufacturing sector in %, average of 2012–2016

- up to below 0
- 0 up to below 2
- 2 up to below 4
- 4 up to below 6
- 6 up to below 8
- 8 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: ESPON SUPER Project
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot

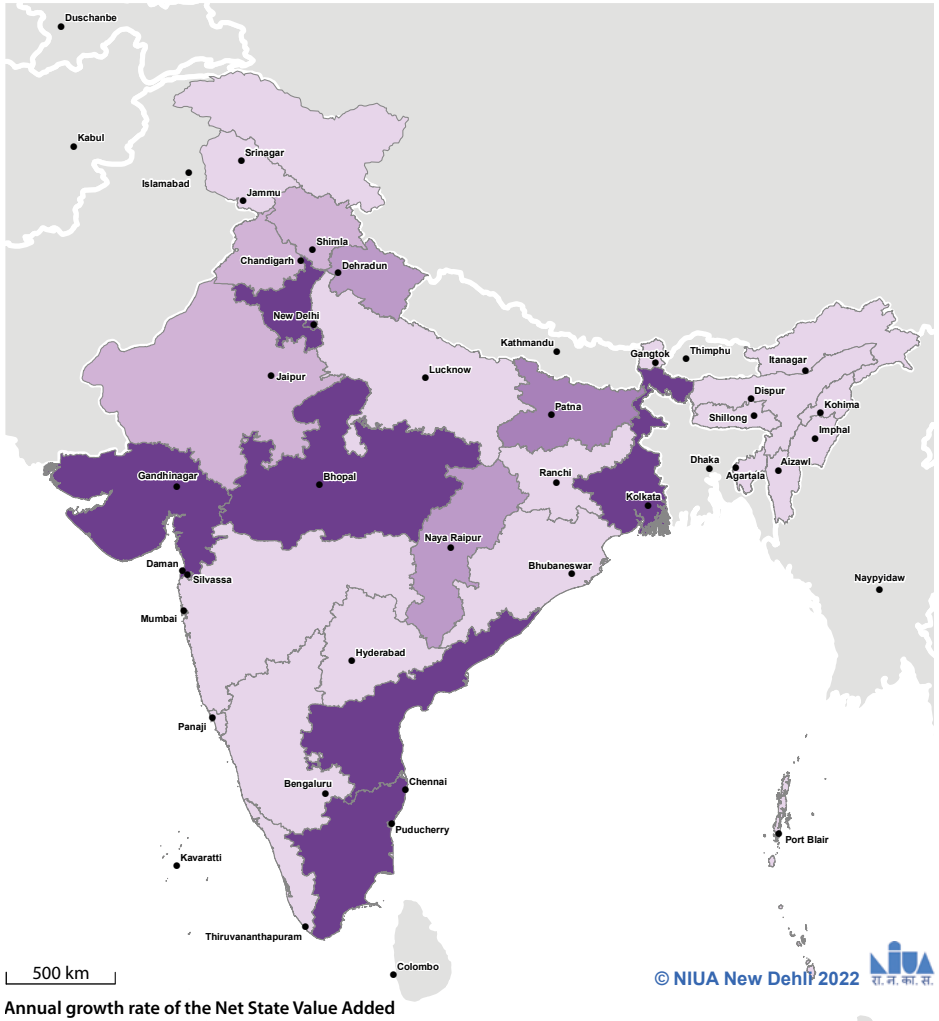
Following the method of substracting the value of intermediate consumption from the value of output, the situation of the manufacturing sector in India is analysed against the Net State Value Added (NSVA) for the period from 2018 to 2020 at constant prices of 2011/2012.

Andhra Pradesh shows the highest growth rate in the manufacturing sector (9.2 %) followed by Tamil Nadu (7.5 %) and Gujarat (7.2 %). The contribution of these states to the total NSVA are 10 % in Andhra Pradesh, 24 % in Tamil Nadu and 34 % in Gujarat. The lowest growth rate is registered in Arunachal Pradesh with –45 % and a negligible contribution to the total NSVA. Among the larger states, Odisha reports the lowest growth rate with –6.5 %, where the contribution to the total NSVA is about 22 %. 20 states and union territories are affected by negative growth rates in the manufacturing sector, amongst them Maharashtra (–1.4 %), Karnataka (–2.1 %), Telangana (–5.3 %), Uttar Pradesh (–3.5 %) and Kerala (–0.7 %). Their contributions to the total NSVA are 23 % (Maharashtra), 19 % (Karnataka), 14 % (Telangana), 16 % (Uttar Pradesh) and 13 % (Kerala). Punjab, Rajasthan and Himachal Pradesh experience growth rates between 0 % and 1 %. Chhattisgarh and Utarakhand witness a growth rate of nearly 2 %. The manufacturing sector in Bihar grows by 2.6 %. The central part of India reports a positive growth while 8 states in its northeastern part face a negative one. Only Haryana in the northern part of the country experiences a high growth rate.

Experiences made in history suggest that growth in the manufacturing sector is paramount to creating decent employment conditions. This is not only a characteristic of a developed country. In a country like China, the rapid expansion of the manufacturing sector led to a sustainable increase in the average living standard of its people (Zhu 2012). In a country like India, facing surplus labour force and underemployment, expanding the labour intensive manufacturing sector may create job opportunities and improve standards of living. Nevertheless, climate-change-related issues have to be taken into account more than ever. A higher growth rate and value added by the manufacturing sector via technological upgrading and innovative practices, particularly in the labour intensive manufacturing sector, seems to be vital for achieving the goals of sustainable development.

Figure 4.C

Annual growth rate of the manufacturing sector in India



Annual growth rate of the Net State Value Added (constant prices at 2011/2012 base) in the manufacturing sector in %, 2019/2020

- up to below 0
- 0 up to below 1
- 1 up to below 2
- 2 up to below 3
- 3 up to below 4
- 4 and more

Data source: RBI Handbook of Statistics on Indian Economy, 2020/2021, Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

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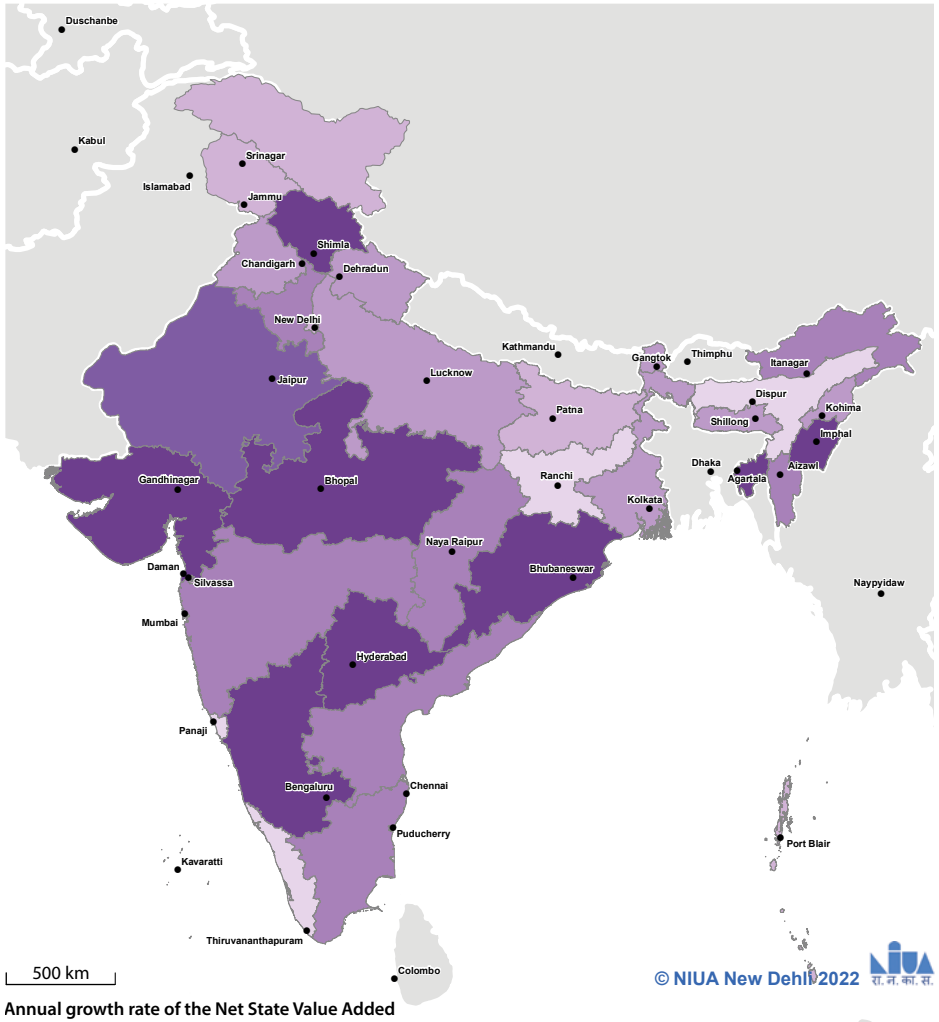
Annual growth rate of the agricultural sector

Following again the subtracting method, also the situation of the agricultural sector in India, including forestry and fishing, is analysed against the Net State Value Added (NSVA) for the period from 2018 to 2020 at constant prices of 2011/2012.

The highest growth rate among all states in India may be found in Telangana (31.3 %), whereas Jharkhand reports the lowest growth rate (–10.85 %). In both states contributes the agricultural sector with a share of about 12 % each to the total NSVA. Assam, Goa, Jharkhand, Kerala and Puducherry experience growth rates of less than –6 %. Bihar, Andaman & Nicobar Islands and Delhi witness growth rates from –6 % up to below 0 %. These spans should also be seen when considering that Bihar's contribution to the total NSVA is nearly 20 % and that of Delhi is less than 0.5 %. 8 states and union territories report negative growth rates. The contribution of Jammu & Kashmir to the total NSVA is about 16 %, although the agricultural sector does not show there any growth, neither in a positive or negative direction. Meghalaya, Nagaland, Punjab, Sikkim, Uttar Pradesh, Uttarakhand, West Bengal and Chandigarh record growth rates of 0 % up to below 4 %. With the exception of Chandigarh, Sikkim and Uttarakhand, these states contribute of more than 15 % each to the total NSVA. In Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, Haryana, Maharashtra, Mizoram and Tamil Nadu range the growth rates from 4 % up to below 8 %. Their contributions to the total NSVA are situated between 11 % in Maharashtra and 35 % in Arunachal Pradesh. Rajasthan records as single state of the category of 8 % up to below 10 % a growth rate of 9.4 %. 8 states show an impressive growth rate of 10 % and above, i.e. Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Manipur, Odisha, Telangana and Tripura. Their contributions to the total NSVA, particularly of those states with growth rates above 10 %, range from 10 % in Karnataka and the rate mentioned at the beginning.

The agricultural sector continues to play a vital role in the economy of India. The sector contributes to almost 20 % of its SDP and employs around 66 % of the country's labour force. Growth in a positive as well as a negative direction would thus affect directly or indirectly the life of millions of people in India.

Figure 5.A **Annual growth rate of the agricultural sector in India**



Annual growth rate of the Net State Value Added (constant prices at 2011/2012 base) in the agricultural sector in %, 2019/2020

- up to below –6
- –6 up to below 0
- 0 up to below 4
- 4 up to below 8
- 8 up to below 10
- 10 and more

Data source: RBI Handbook of Statistics on Indian Economy, 2020/2021, Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

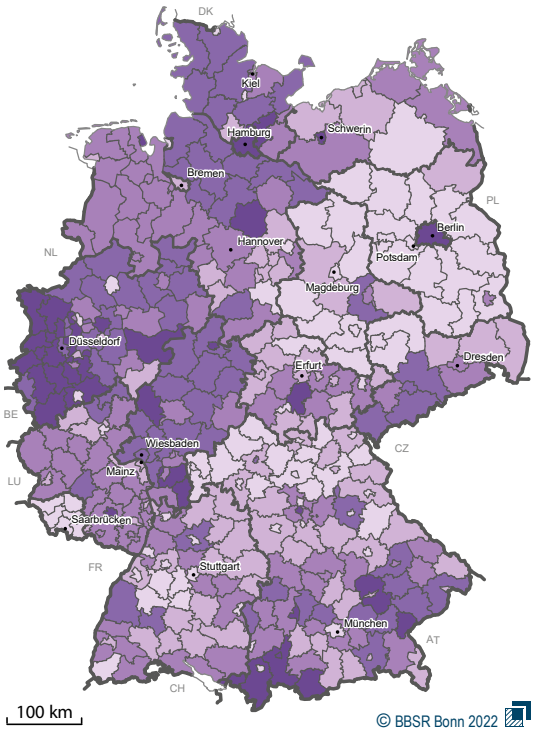
Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative

Only 1.4 % of the labour force in Germany works in the agricultural sector generating less than 1 % of the GVA. Considering its role as a food producer and land user, agriculture is still dominant in Germany. In terms of economic development, the agricultural sector however declines. Annual development rates of +/– 10 % and more mainly affect cities in which agriculture takes a marginal function. Rural counties, however, have lost parts of their economic power also in the agricultural sector still playing an important role, e.g. in the northeastern part of Germany or in the northern part of Bavaria. Regions with a significant agricultural production have been able to enlarge their economic output, particularly in regions with intensive breeding farms in the northwestern part of Germany. Structural change in agriculture is an ongoing phenomenon, because farms without successors usually dispose their production capacities and land, leading to an intensification and further industrialisation of agriculture.

About 10 million people in Europe work in the agricultural sector, i.e. 5 % of all persons employed. The share ranges from around 1 % in Luxembourg to 23 % in Romania. Agriculturally countries, like Italy and Spain, have a share of 4 %. The share of agriculture in their total GVA is at 3 %, in Greece, Romania, Hungary and Bulgaria at 4 % to 5 %.

Those regions with the highest GVA and an intensive agricultural production show the largest increase in their economic output. It reaches up to 12 % between 2012 and 2016 in the southern part of Spain and 10 % in the Holland Region of the Netherlands. Regions in the eastern part of Europe also benefit from an increase in production.

Figure 5.B **Annual growth rate of the agricultural sector in Germany**

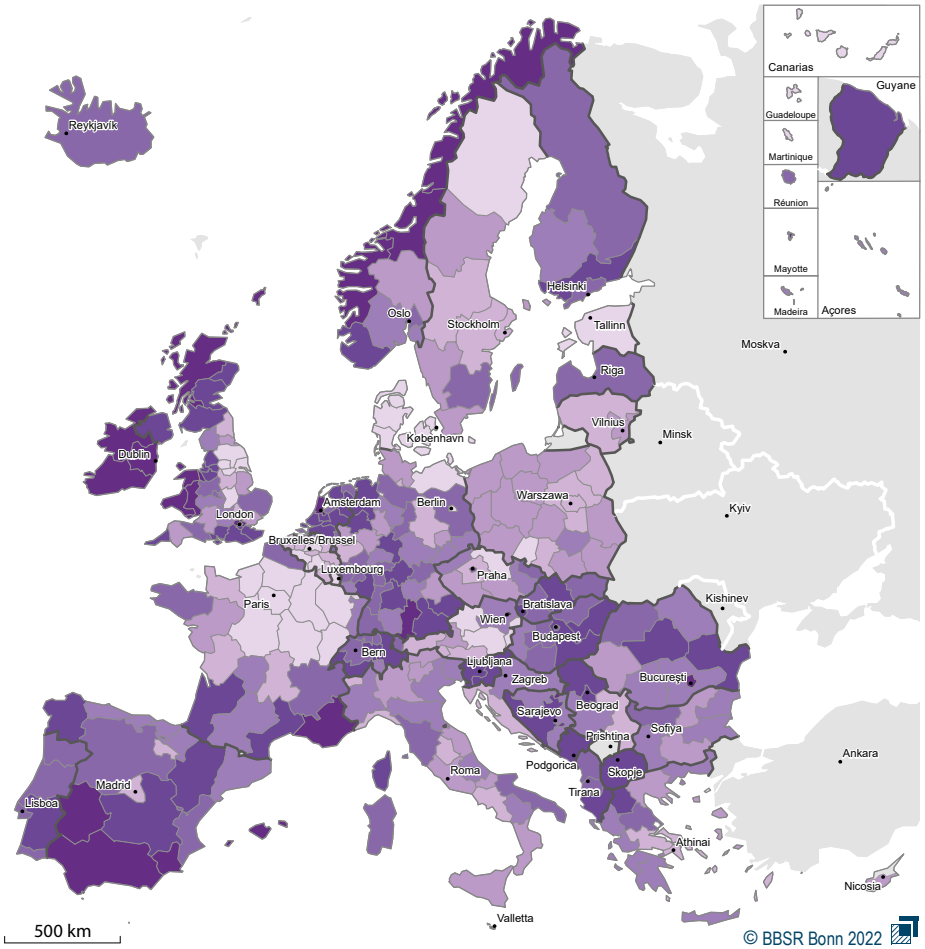


Annual growth rate of the Gross Value Added at market prices in the agricultural sector in %, average of 2014–2019

- up to below –4
- –4 up to below –2
- –2 up to below 0
- 0 up to below 2
- 2 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Working Group on National Accounts, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 5.C **Annual growth rate of the agricultural sector in Europe**



Annual growth rate of the Gross Value Added at market prices in the agriculture sector in %, average of 2012–2016

- up to below –4
- –4 up to below –2
- –2 up to below 0
- 0 up to below 2
- 2 up to below 4
- 4 up to below 10
- 10 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: ESPON SUPER Project
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot

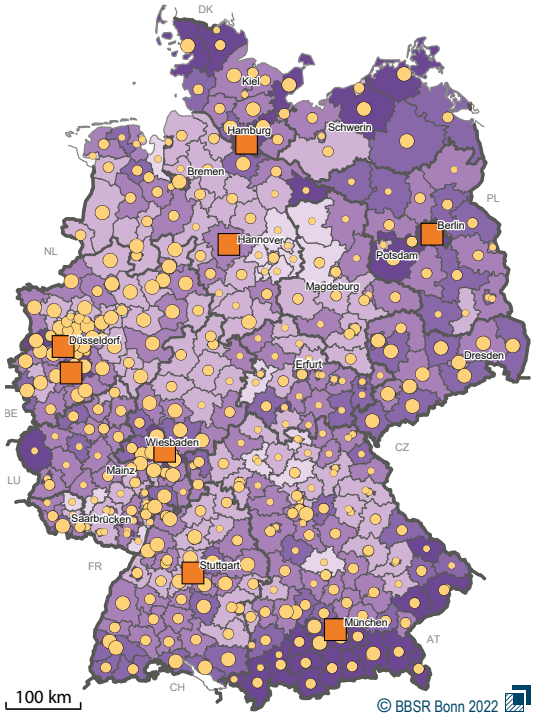
Spatial distribution of micro, small and medium-sized enterprises

Analysing the spatial distribution of micro, small and medium-sized enterprises requires a common understanding of such an enterprise. Map and text analysing the situation in Germany follow a respective recommendation of the European Commission (2003/361/EG). Crucial figures relate to the number of employed persons and the annual turnover.

The majority of enterprises (90 %) in Germany is micro (1 to 9 employed persons; up to 2 million EURO of annual turnover), 7.9 % are small (10 to 49 employed persons; up to 10 million EURO of annual turnover) and 1.9 % of all enterprises are medium-sized (51 to 249 employed persons; 50 million EURO annual turnover). Only 0.2 % of all enterprises in Germany are part of larger business conglomerates.

The regional differences are based on the average number of enterprises per 100 employed persons of the labour force in counties in Germany. The higher the indicator value is, the smaller the enterprises are on average. The absolute number of micro, small and medium-sized enterprises increases with the population size of the respective county. It is worth noting that the enterprises are the smallest in the scenic regions of the Baltic Sea and the North Sea as well as the Alpine foothills. Rural and sparsely populated as well as structurally weaker counties also show a smaller enterprise size structure on average. This spatial picture often relates to the sector structure of the respective region. In the trade, gastronomy, private and business-related sector, the enterprises are generally smaller than in the industry sector. Considering large cities, differences also exist in the respective branch structure. Whereas the number of micro, small and medium-sized enterprises is only 7 to 8 per 100 employed persons in industrial cities, like Hamm, Ingolstadt, Leverkusen and Ludwigshafen, it covers a share of around 13 enterprises per 100 employed persons in metropolises, such as Berlin, Düsseldorf, Hamburg and München.

Figure 6.A **Spatial distribution of micro, small and medium-sized enterprises in Germany**



Data source: Spatial Monitoring System of the BBSR, Data origin: Working Group on National Accounts, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Micro, small and medium-sized enterprises contribute by about 30 % to India's SDP, provide 11.10 crore working places (corresponds to 111 million; 1 crore is the equivalent of 10 million units) and thus play an important role for the socio-economic development of the country (Ministry of Micro, Small and Medium Enterprises 2021).

Micro, small and medium-sized enterprises are categorised by their investment in fixed capital (e.g. plant, machinery) and turnover (excluding export). Micro enterprises are those with less than 10 million Rupees in investment in plants, machinery or equipment and with a turnover of less than 50 million Rupees, small enterprises move between 100 million Rupees of investment and 500 million Rupees in turnover and medium-sized enterprises cover 500 million Rupees in investment and 2.5 billion Rupees of turnover (1 EURO is equivalent to around 85 Rupees as of 10.01.2022).

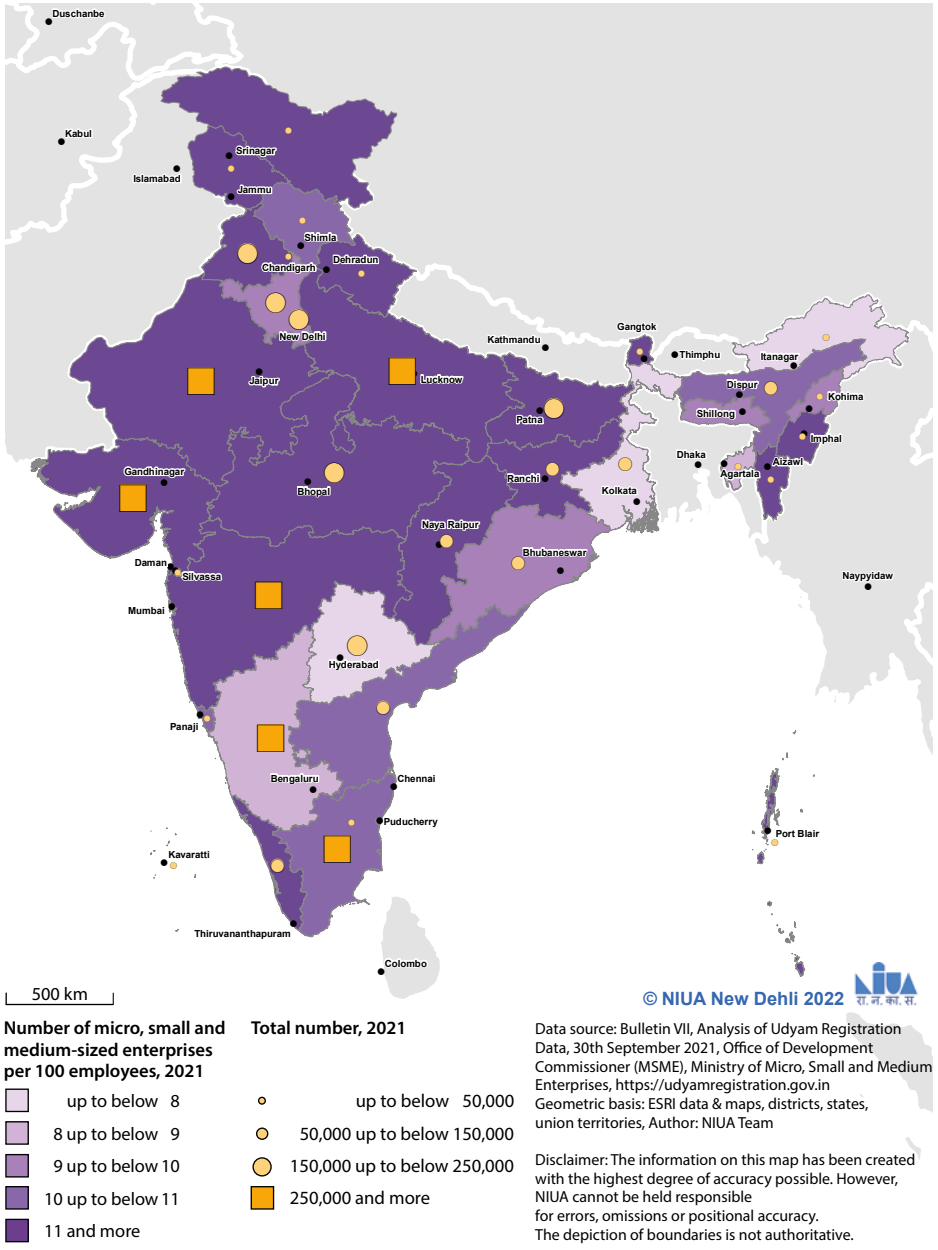
The Udyam Register at the Ministry of Micro, Small and Medium Enterprises delivers information on the number of these enterprises and employed persons working in this sector. The Bulletin VII (2021) of the Udyam Register counts altogether 5,079,017 micro, small and medium enterprises in India, of which 4,773,266 enterprises are micro (94 %), 274,009 enterprises small (5.4 %) and 31,742 enterprises are medium-sized (0.6 %).

India is on average home to 11 micro, small and medium-sized enterprises of all sizes per 100 employed persons. 19 states and union territories fall below this average. Daman & Diu shows the lowest number (4 per 100), followed by Dadar & Nagar Haveli and West Bengal (each 6 per 100). In addition, Delhi, Telangana, Chandigarh and Arunachal Pradesh record less than 8 per 100. The archipelago Lakshadweep registers the largest number (21 per 100) of all enterprise types, exclusively micro ones. Industrialised states, such as Gujarat and Maharashtra, show 12 and 16 micro, small and medium-sized enterprises per 100 employed persons. Considering absolute figures, the majority of micro, small and medium-sized enterprises is located in industrialised states. Maharashtra attracts with 21.1 % the highest share, Tamil Nadu 10.8 % and Gujarat 8.6 %. The northeastern parts of India register a meagre presence of these enterprises.

Micro, small and medium-sized enterprises significantly contribute to economic output, employment and taxes and are thus integral to economic development. Facilitating the set-up of these enterprises, particularly in the central and northeastern parts of India, seems to be indispensable.

Figure 6.B

Spatial distribution of micro, small and medium-sized enterprises in India



Data source: Bulletin VII, Analysis of Udyam Registration Data, 30th September 2021, Office of Development Commissioner (MSME), Ministry of Micro, Small and Medium Enterprises, https://udyamregistration.gov.in
Geometric basis: ESRI data & maps, districts, states, union territories, Author: NIUA Team

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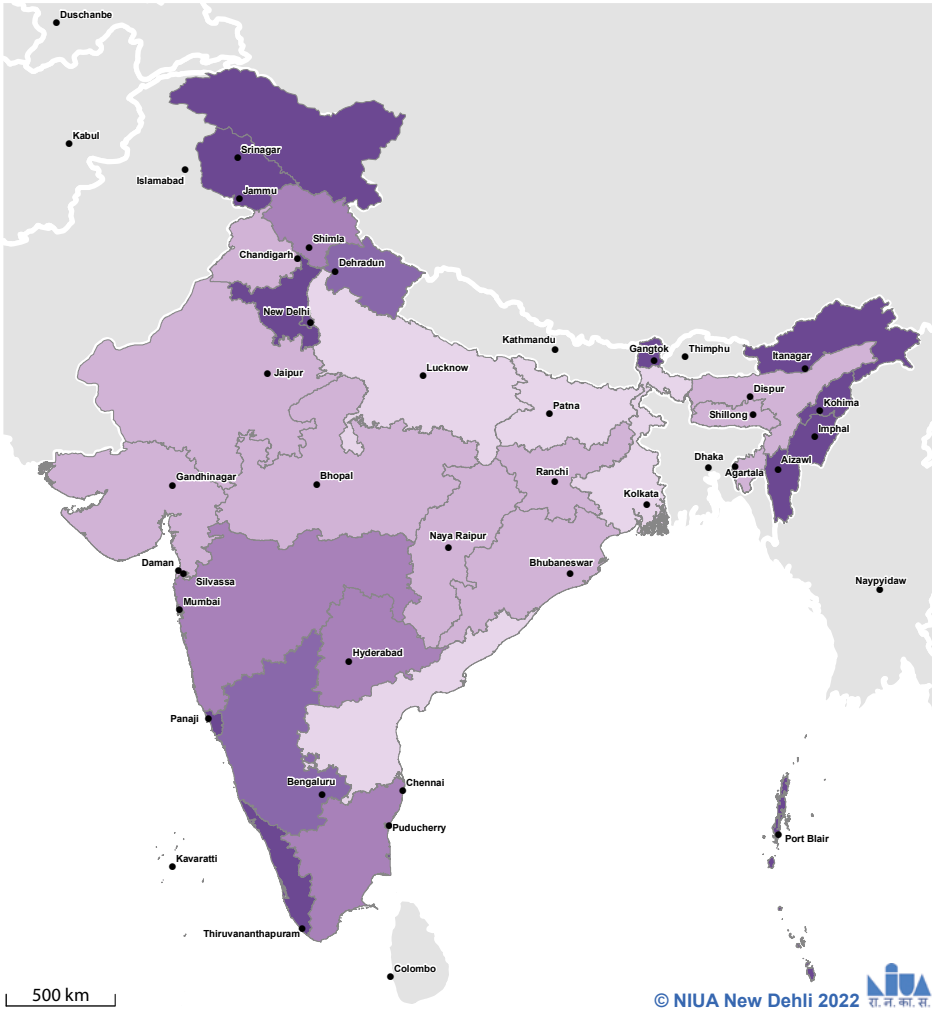
Average hourly wages

The Periodic Labour Force Survey (2020) offers data on wages of regular and casual workers in India as well as their working hours. This survey serves as basis for calculating the average hourly wages in the country. The results were converted in EURO (taking 15.11.2019 as reference date).

The hourly wages for regular and casual workers in India is 0.88 EURO on average. 17 states and union territories lie below and 19 above this national average. The highest average hourly wages are paid in Nagaland (1.79 EURO). The states and union territories with similarly high average hourly wages are Delhi (1.38 EURO), Goa (1.33 EURO), Jammu & Kashmir (1.29 EURO) and Kerala (1.26 EURO). The lowest average hourly wages are paid in Diu (0.64 EURO), followed by Bihar (0.66 EURO) and West Bengal (0.68 EURO). The largest state in India, Uttar Pradesh, experiences average hourly wages of 0.72 EURO. Highly industrialised states show average hourly wages of 0.95 EURO in Maharashtra, 0.86 EURO in Tamil Nadu and 0.77 EURO in Gujarat. Wealthier states in the northern part of India, like Punjab and Haryana, report average hourly wages of 0.81 EURO and 1.08 EURO respectively. Predominantly agrarian states experience average hourly wages of 0.75 EURO in Andhra Pradesh, 0.77 EURO in Madhya Pradesh and 0.85 EURO in Rajasthan. Overall, 5 states and union territories witness average hourly wages below 0.75 EURO, 10 states from 0.75 EURO up to below 0.85 EURO and 6 states from 0.85 EURO up to below 0.95 EURO. In 3 states, including Karnataka and Himachal Pradesh, average hourly wages from 0.95 EURO up to below 1.05 EURO are paid. 14 states and union territories register average hourly wages of 1.05 EURO and above.

In India exist both, regional disparities in wages and gaps in wages based on caste and gender identities. By applying conventional index number techniques, two researchers at the World Bank Group, Das and Dutta (2007), detected significant gaps in wages between scheduled caste and general category workers engaged in regular employment contracts. Menon and Van der Meulen Rodgers (2009) found increasing gaps in wages between women and men in those parts of the manufacturing sector in India experiencing a wider trade openness. Reducing gaps in wages originating from social and gender identities seems to be an appropriate, also political, approach to achieve a sustainable and inclusive development and thus decent working conditions.

Figure 7.A **Average hourly wages in India**



Average hourly wages per employed person in EURO, 2019/2020

- up to below 0.75
- 0.75 up to below 0.85
- 0.85 up to below 0.95
- 0.95 up to below 1.05
- 1.05 and more

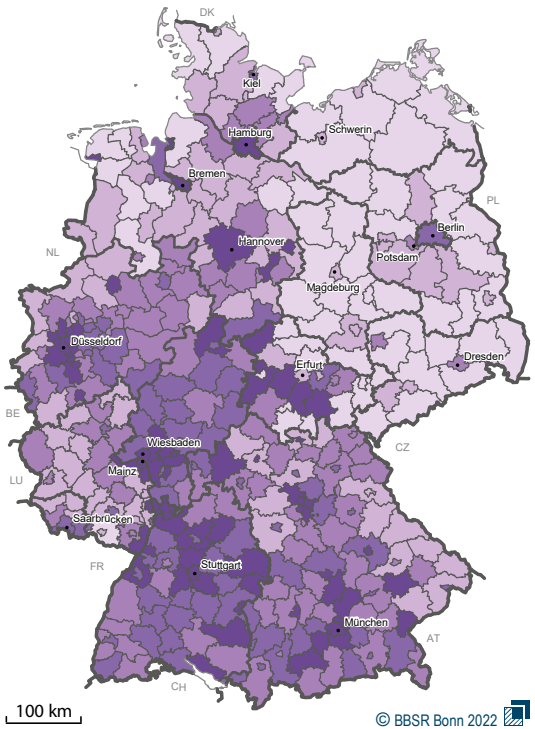
Data source: Periodic Labour Force Survey, 2019/2020
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative.

Wages correlate to a large extent with the economic strength of the counties in Germany. Hourly wages are well above average in the location centres of the secondary and tertiary sector as well as in regions with large proportions of academics. This is not only the case for large cities but also for surrounding or bordering districts where many of the labour force live and commute. These are also places of important industrial enterprises. The concentration of high-performing enterprises in the southern part of Germany is also mirrored by respectively above-average wages. Hourly wages in the eastern part of Germany are still 15 % below the level of the western part of the country – a few regions in Thuringia are the exception. This is mainly due to the fact that a lower collective bargaining coverage exists in enterprises in the eastern part, a lower proportion of well-paying large enterprises of the manufacturing sector is located there.

The European gap in average hourly wages is obvious. The average hourly wages of 5 EURO in the southeastern part of Europe are about half of the minimum average hourly wages in France. In a country like Bulgaria, average hourly wages of 3 EURO are paid, in the Czech Republic 8 EURO and in Slovenia 10 EURO. In Europe as such, Norway and Switzerland offer with 30 EURO and 35 EURO respectively the highest average hourly wages, the first one corresponding to the highest average hourly wages in the European Union, being paid in Denmark.

Figure 7.B **Average hourly wages in Germany**



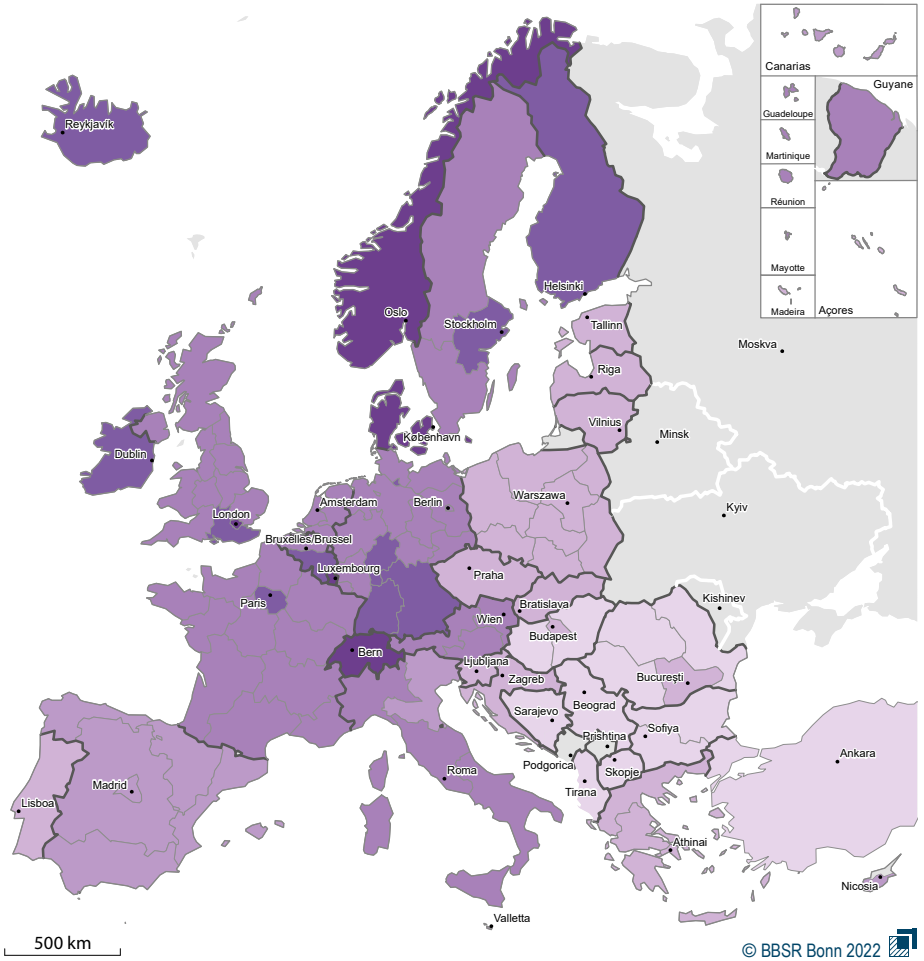
Average hourly wages per employed person in EURO, 2019

- up to below 27.50
- 27.50 up to below 30.00
- 30.00 up to below 32.50
- 32.50 up to below 35.00
- 35.00 and more

Data source: Spatial Monitoring System of the BBSR
Data origin: Working Group on National Accounts
Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Regional differences mainly exist in some European countries in respect of their capital regions.

Figure 7.C **Average hourly wages in Europe**



Average hourly wages per employed persons in EURO, 2018

- up to below 5
- 5 up to below 10
- 10 up to below 15
- 15 up to below 20
- 20 up to below 25
- 25 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: Eurostat, ILOSTAT
Geometric basis: GfK GeoMarketing, NUTS 1, NUTS 0 regions
Author: R. Binot

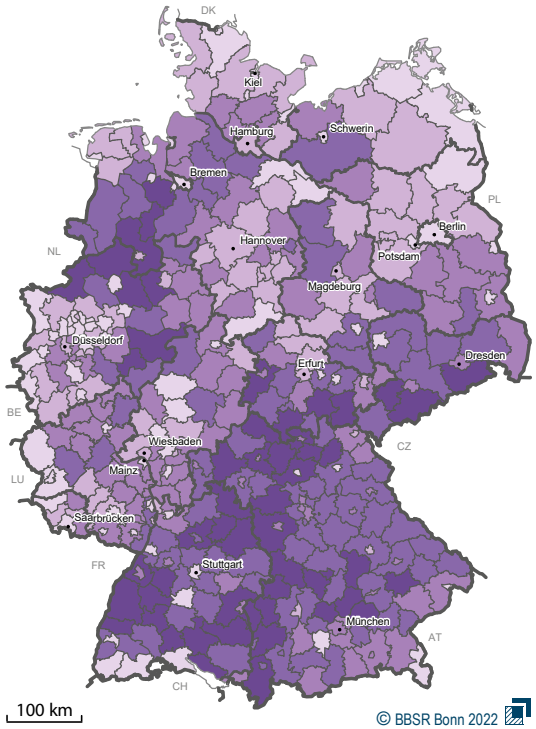
Employment rate

The degree of participation in the labour market becomes increasingly important in view of the economic development in the recent past as well as the demographic change with regard to social systems. Around 70 % of all persons in Germany at the age between 15 and 64 years are employed. The percentage of employed persons rose by 18 % between 2000 and 2020. The employment rate in some regions is below the national average. The reasons are in large cities a higher proportion of students and unemployed persons, in regions of North Rhine-Westphalia, Rhineland Palatine, Hesse and the northern part of Schleswig-Holstein employment opportunities for women incompatible with their traditional societal role and in parts of the northeastern part of Germany an above-average proportion of unemployed persons as well as a larger share of employable persons who are not (or no longer) employed.

The employment rate decreased in almost all countries in Europe in the last decade, partly showing a positive economic development in some countries until 2019. This general trend shows in some countries and regions again a slight decrease in 2020, due to a prime impact of the COVID-19 Pandemic.

In the European Union register Germany and the Netherlands the highest employment rates with 77 % and 78 % respectively of their population at a working age and being employed. The lowest rates can be found in Greece (56 %) and in Italy (58 %) and thus underline the broad range between EU Member States.

Figure 8.A **Employment rate in Germany**

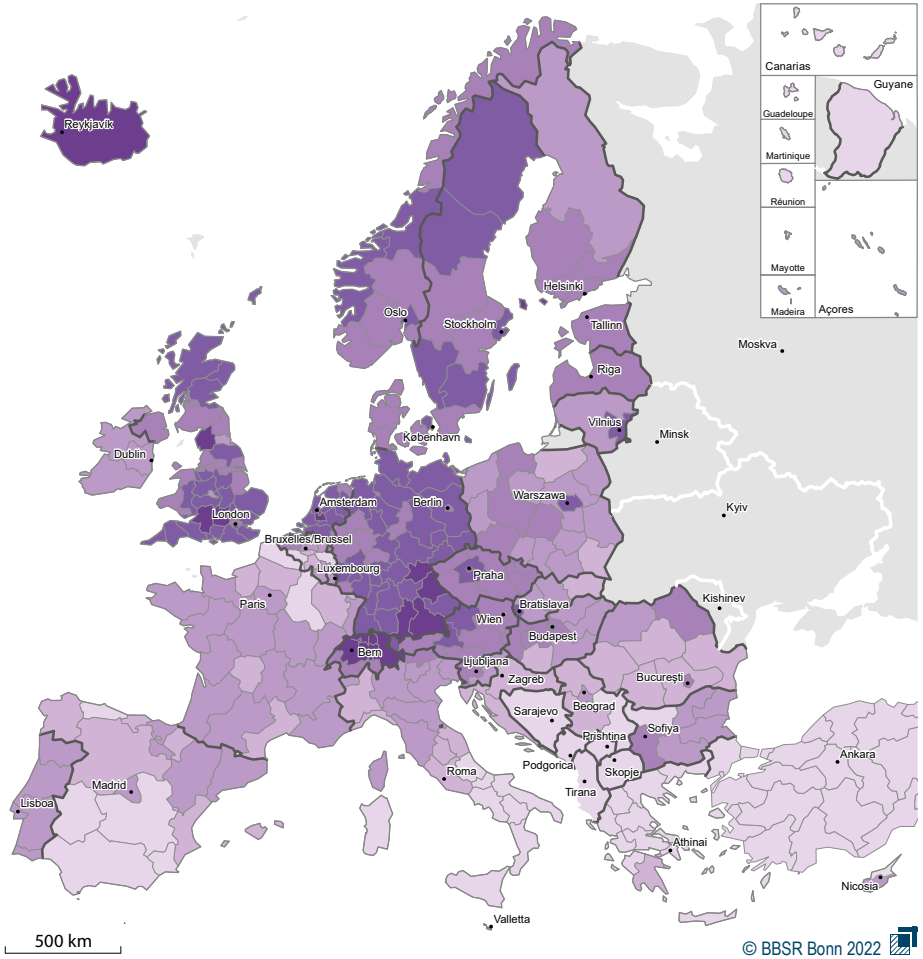


Employed persons per 100 persons (15–64 years), 2020

- up to below 67.5
- 67.5 up to below 70.0
- 70.0 up to below 72.5
- 72.5 up to below 75.0
- 75.0 and more

Data source: Spatial Monitoring System of the BBSR
Data origin: Federal Employment Agency
Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 8.B **Employment rate in Europe**



Employed persons per 100 persons (15–64 years), 2020*

- up to below 60
- 60 up to below 65
- 65 up to below 70
- 70 up to below 75
- 75 up to below 80
- 80 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot
*Data UK: 2019

India has witnessed in recent years an overall increase in the employment rate of people aged 15–64 years from 34.7 % in 2017/2018 to 38.2 % in 2019/2020. 53.4 % of its population at working age is part of the labour force. Bihar shows with 40.4 % the lowest labour force participation rate in the country, while Himachal Pradesh records the highest one with 74.1 %. 18 states register lower employment rates than the national average, i.e. Bihar, Uttar Pradesh, Delhi, West Bengal, Kerala and Assam as well as a few other states in the northeastern part of the country. In contrast to this situation, 18 states, including Himachal Pradesh, Madhya Pradesh, Maharashtra, Telangana, Gujarat, Rajasthan and Odisha, experience higher employment rates than the national average.

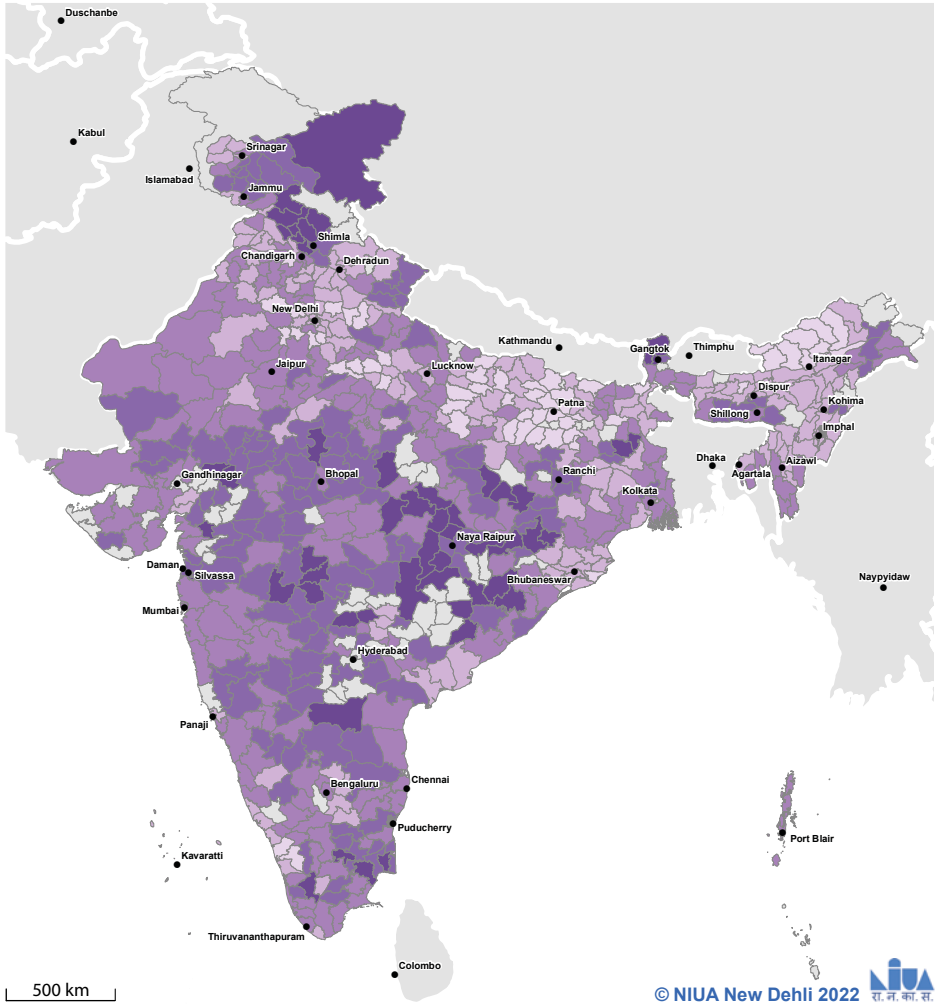
The analysis on district level reveals significant spatial variations of the employment rate. 352 districts in total perform below the national average. The employment rate ranges in general from 30 % in the District of Nawada in Bihar to 84.7 % in the District of Surguja in Chhattisgarh. Other examples with a labour force participation rate of less than 40 % are the District of Mewat in Haryana, the District of Kurung Kumey in Arunachal Pradesh, the District of Dhemji in Assam and the District of Allahabad in Uttar Pradesh. Apart from 65 districts where data is not available, 56 districts show employment rates below 40 %. A labour force participation rate of 40 % up to below 50 % can be discovered in 163 districts.

The employment rates of districts in Uttar Pradesh, in northeastern states, such as Assam, Manipur, Mizoram, Nagaland and Arunachal Pradesh, and in a few districts in northern and southern states lie in this range. The rates in 197 districts are between 50 % and up to below 60 % as well as in 139 districts between 60 % and up to below 70 %. The District of Dungarpur in Rajasthan, the District of Narmada in Gujarat and the District of Kullu in Himachal Pradesh experience respective rates of more than 70 % constituting the highest ones amongst all districts.

The low labour force participation in the economy of India is accompanied by a significant decline in the share of women, due to them pursuing a higher education. In addition, other barriers exist and might have an influence on this share, i.e. household care responsibilities, lack of skills, limited mobility, working conditions in general, discrimination with regard to wages and safety concerns (Chaudhary and Verick 2014; Sorsa et al. 2015). The recent growth in non-labour intensive sectors have had also an impact on the low employment rate in India. Given the fact that India is passing through a phase of demographic divide, it seems imperative to make use of the bulging population in the economically active age groups in order to generate the maximum benefit of this demographic window of opportunities for the sake of the entire society of the country.

Figure 8.C

Employment rate in India



Employed persons by usual employment status per 100 persons (15–64 years), 2019/2020

- up to below 40
- 40 up to below 50
- 50 up to below 60
- 60 up to below 70
- 70 and more
- no data

Data source: Periodic Labour Force Survey 2019/2020; National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

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Unemployment rate

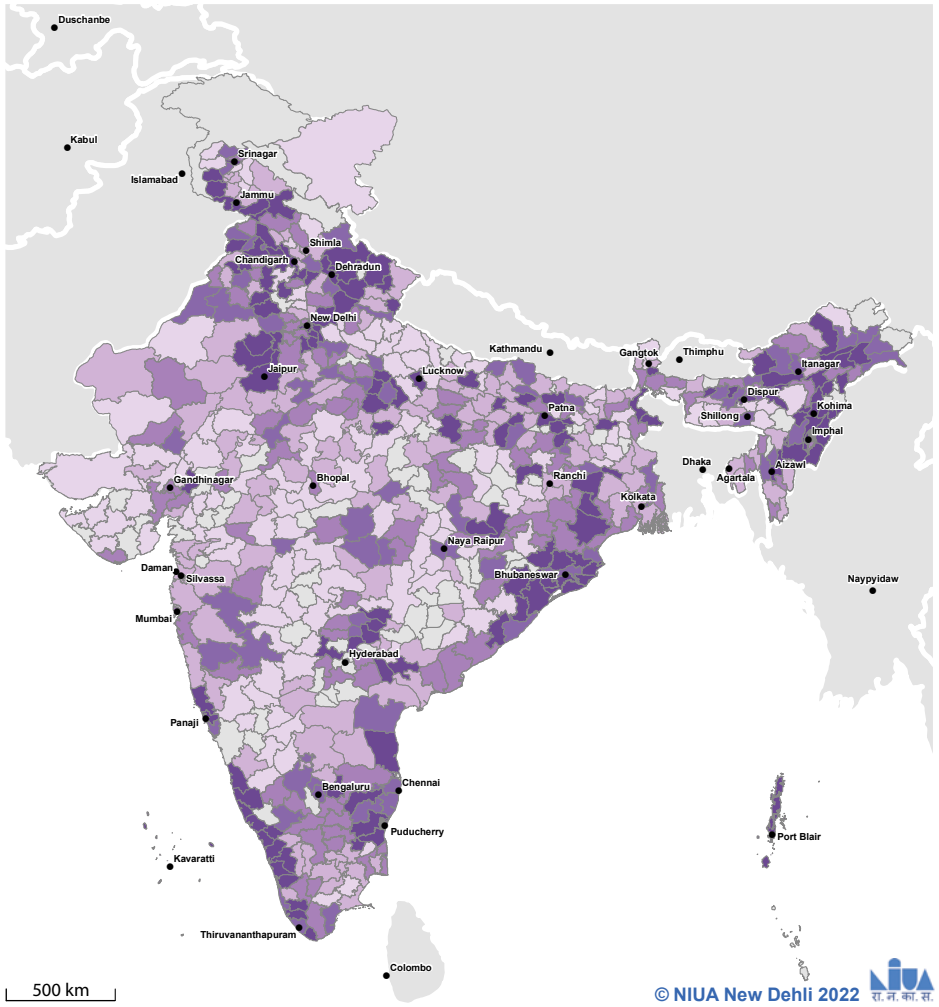
India has experienced a steadily increasing unemployment of people aged 15–64 years over the last years at rates from 2.2 % in 2011/2012 to 6.2 % in 2017/2018. Unemployment eventually decreased at rates of 5.9 % in 2018/2019 and currently 5 % in 2019/2020. Comparing the situation to 2011/2012, unemployment increased in general at a rate of 10.26 % per year.

Gujarat shows with 2.1 % the lowest unemployment rate, while Nagaland registers the highest one with 27 %. Among the Union Territories, the one of Daman & Diu experiences the lowest (2.7 %), while the one of Lakshadweep witnesses the highest rate (15.4 %). States, such as Andhra Pradesh and West Bengal (both at 4.9 %), report unemployment rates that are almost identical with the national average. In 14 states, including some large states such as Madhya Pradesh, Maharashtra, Uttar Pradesh and Rajasthan, the unemployment rates are below the national average, while in 20 states, including Kerala, Assam and Punjab, the rates are higher.

Analysing the unemployment rates at district level reveals significant variations. Apart from 74 districts where data is not available or insufficient, 328 districts show lower unemployment rates than the national average, while these rates are higher than the national average in 277 districts. An unemployment rate of 0.1 % each is the lowest in the District of Budaun in Uttar Pradesh, the District of Begusarai in Bihar, the Districts of Kabeerdham and Uttar Bastar Kanker in Chhattisgarh, the Districts of Kachchh and Jamanagar in Gujarat and the District of Davanagere in Karnataka. The highest rate of 41 % can be measured in the District of Wokha in Nagaland. In 124 districts in total, unemployment rates are of up to 2 %, while 137 districts show unemployment rates of more than 2 % but less than 4 %. In 120 districts in total, the unemployment rates range from 4 % to up to below 6 %, including the Districts of Krishnagiri and Nagapattinam in Tamil Nadu and the Districts of Muzaffarnagar and Varanesi in Uttar Pradesh. 80 districts in states, such as Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Madhya Pradesh, Maharashtra and Uttar Pradesh, experience unemployment rates from 6 % to up to below 8 %. In altogether 148 districts is the unemployment rate at more than 8 %, a rate that is significantly higher than the national average. An increasing unemployment in India reflects the structural challenge of a jobless growth in the country.

Figure 9.A

Unemployment rate in India



Unemployed persons per 100 persons of total labour force by usual employment status, 2019/2020

- up to below 2
- 2 up to below 4
- 4 up to below 6
- 6 up to below 8
- 8 and more
- no data

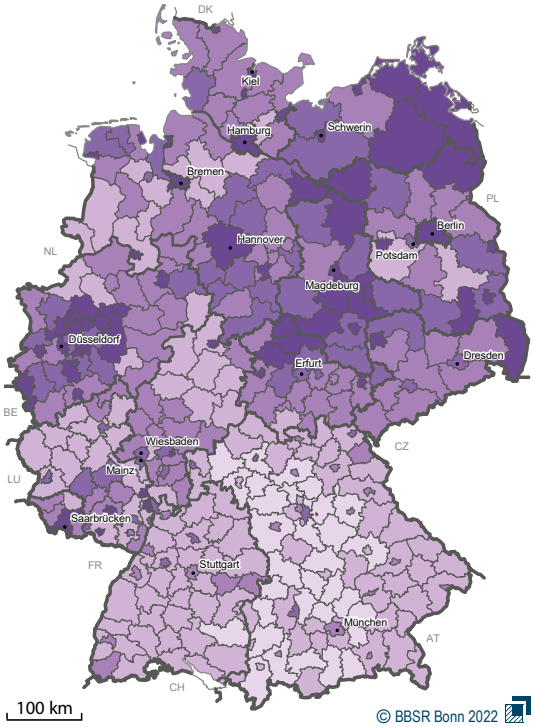
Data source: Periodic Labour Force Survey 2019/2020; National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative.

The unemployment rate shows the relatively underutilised labour force. It is a crucial character of an imbalanced regional labour market. The development of the unemployment rate over time does not prove structural challenges of the regional labour market though. Further information would be required. Merging unemployment and social assistance benefits as part of the labour market reforms undertaken in Germany in 2005 contributed initially to the rise of the unemployment rate. The subsequent decline may be attributed more likely to a slower productivity development, an increase in atypical employment relations, a distribution of the work volume among more persons and failing labour force reserves. The relief in the labour market situation to be observed in the eastern part of Germany today has mainly been caused by demographic change and less by labour market policies and interventions. A north-south divide is a distinctive feature of the regional distribution of unemployment in Germany.

The development of the unemployment rate in Europe shows that the continent is in general on good track. 2013 became the turning point after the economic and financial crisis of 2008/2009 and a couple of years of increasing unemployment in many countries in Europe. But there are still countries and regions in Europe where unemployment remains an issue. According to Labour Standards of the International Labour Organization (ILO), Italy (10 %) and France (8.5 %) show rates above the EU average of 6.7 % whereas Germany and Poland are at 3 % each as well as the Czech Republic at 2 %.

Figure 9.B **Unemployment rate in Germany**

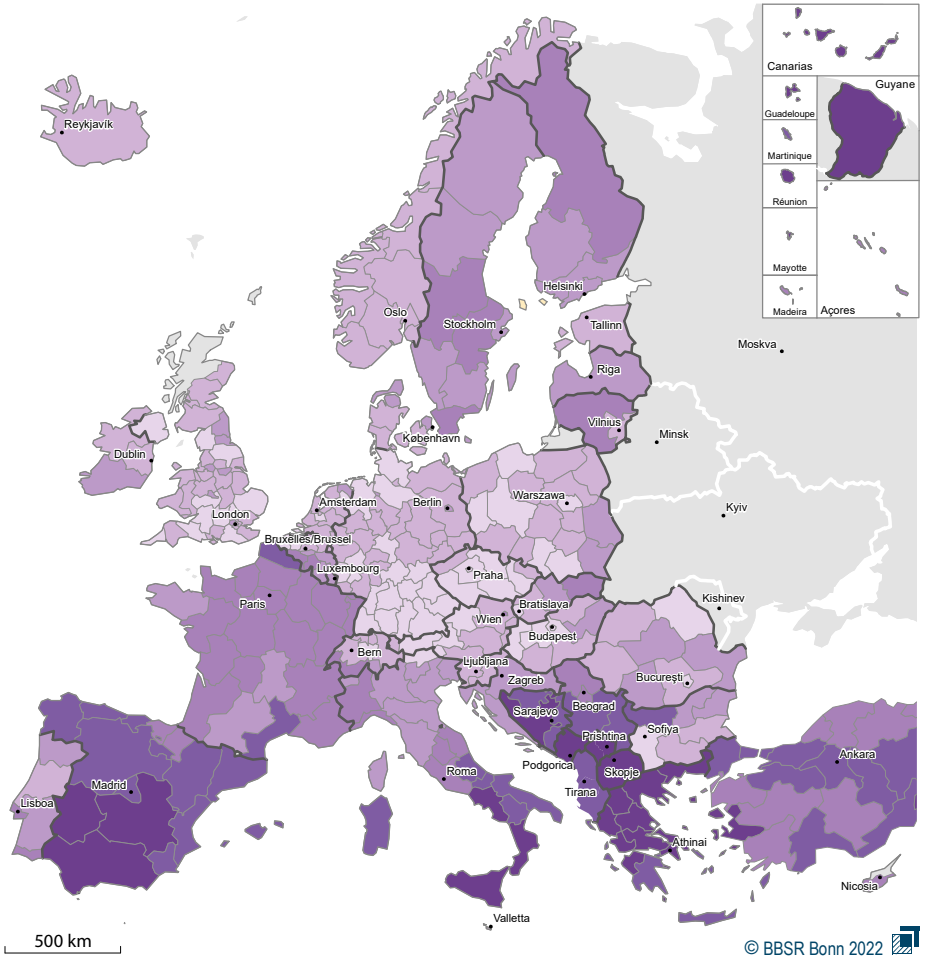


Unemployed persons per 100 persons of total labour force (15–64 years), 2020

- up to below 3.0
- 3.0 up to below 4.5
- 4.5 up to below 6.0
- 6.0 up to below 7.5
- 7.5 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Federal Employment Agency, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 9.C **Unemployment rate in Europe**



Unemployed persons per 100 persons of total labour force (15 years and older), 2019

- up to below 3
- 3 up to below 5
- 5 up to below 7
- 7 up to below 10
- 10 up to below 15
- 15 and more
- no data

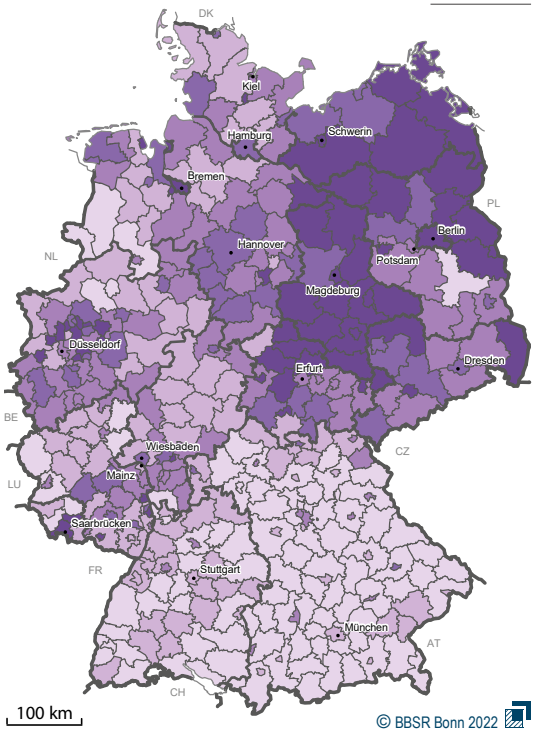
Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot

Youth unemployment rate

Where unemployment in general is high, also young professionals tend to be unemployed. The unemployment rate in Germany for those at the age between 15 and 24 years is 5.1 % on average. What is however striking is that youth unemployment still concentrates to a large extent in the eastern part of Germany and at a higher degree than unemployment in general. A high proportion of school leavers in the eastern part of Germany drops out of school without certification. This hampers a vocational training for most of them. Jobs that do not require qualifications are not in need anymore or fall in numbers. The youth unemployment rate is well below average in most southern parts of Germany. There, young skilled workers meet a large number of job opportunities. This area develops very dynamically in economic terms.

Youth unemployment adds to the general challenges of the labour market, particularly in countries with high unemployment rates. Youth unemployment rates in Greece (35 %), Italy (29 %) or Spain (32 %), but also Belgium, France and Sweden are comparably high in relation to the EU average. In regions with youth unemployment rates of up to below 51 % as in Sicily in Italy or even 53 % as in Dytiki Makedonia in Greece, it is obviously difficult for young people to get a foot into the labour market.

Figure 10.A **Youth unemployment rate in Germany**

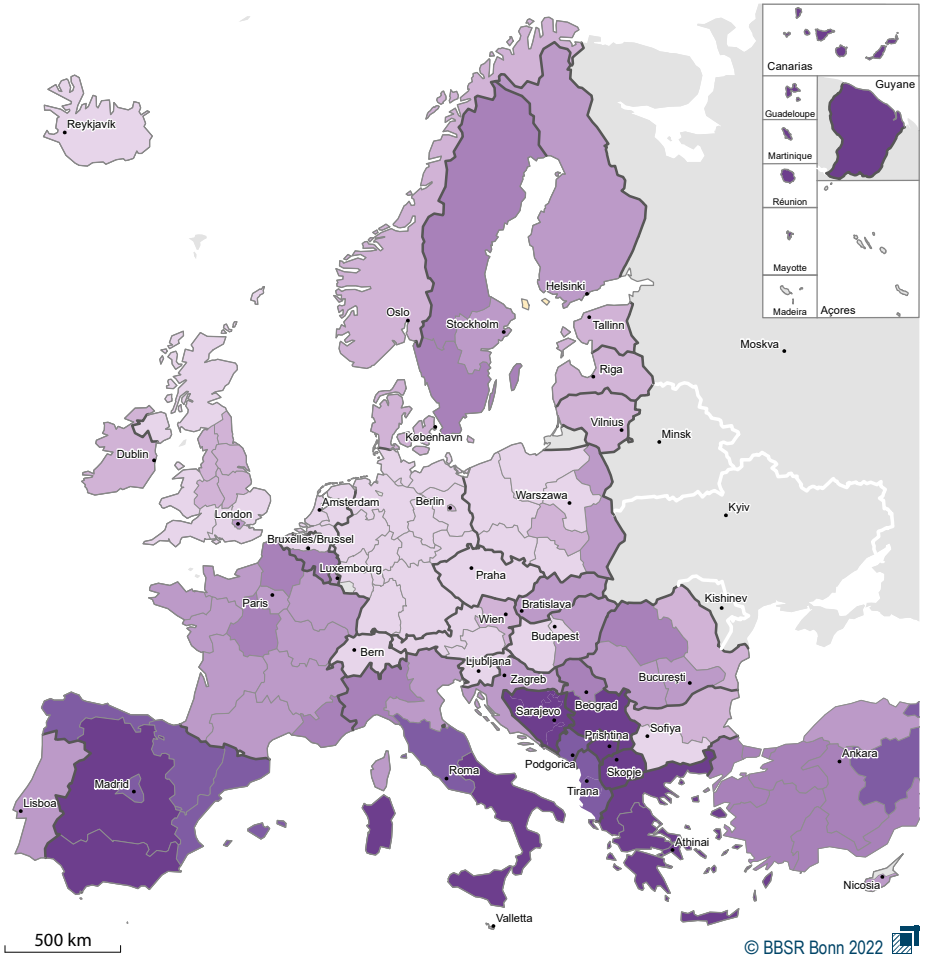


Unemployed persons per 100 persons of labour force (15–24 years), 2020

- up to below 3.5
- 3.5 up to below 5.0
- 5.0 up to below 6.5
- 6.5 up to below 8.0
- 8.0 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Federal Employment Agency, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Figure 10.B **Youth unemployment rate in Europe**



Unemployed persons per 100 persons of labour force (15–24 years), 2019

- up to below 10
- 10 up to below 15
- 15 up to below 20
- 20 up to below 25
- 25 up to below 30
- 30 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: Eurostat, national statistical offices
Geometric basis: GfK GeoMarketing, NUTS 2 , NUTS 1 regions
Author: R. Binot

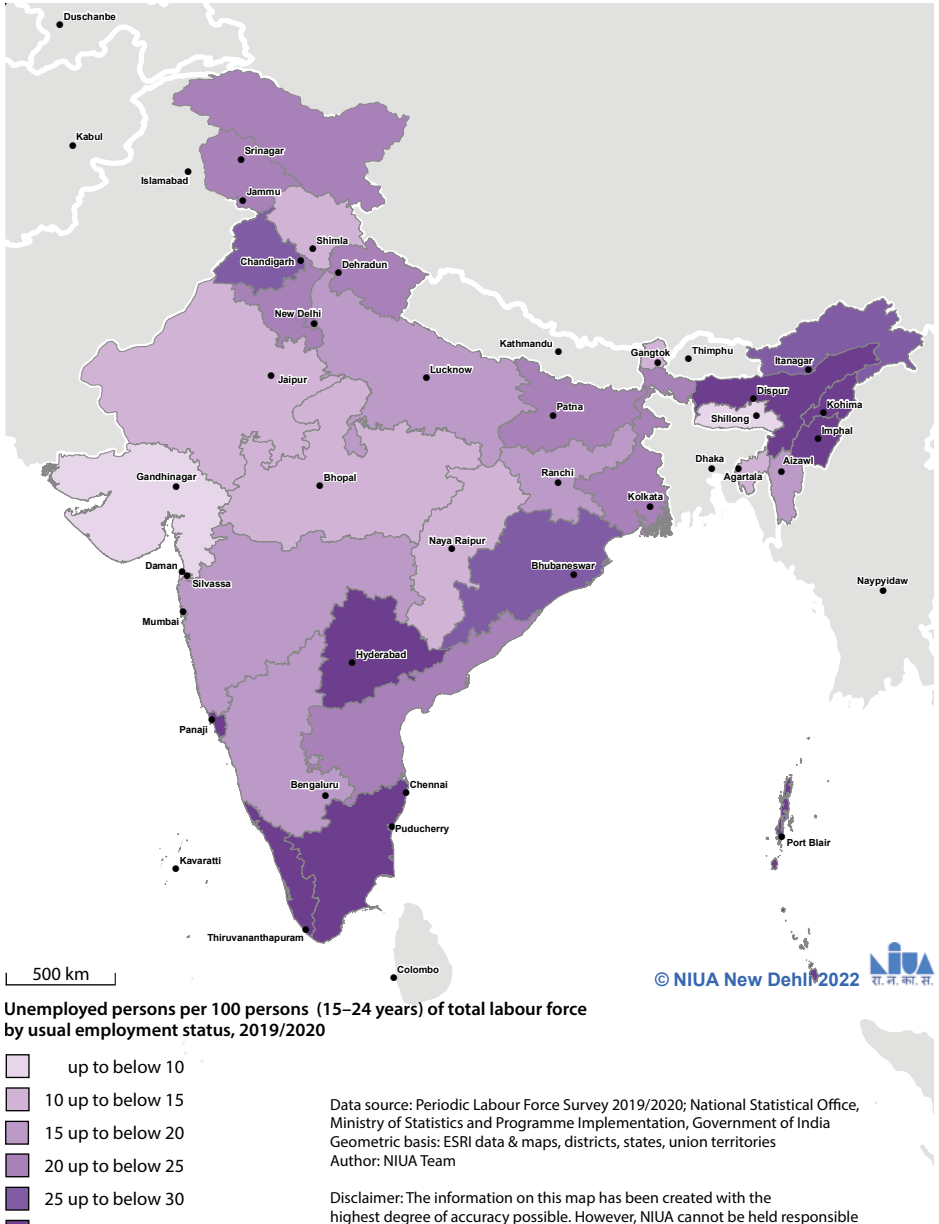
India has also witnessed a rising unemployment of the youth at the age between 15 and 24 years in recent years, increasing from 8.1 % in 2011/2012 to 19.6 % in 2019/2020. The youth unemployment rate however decreased from 23.4 % in 2017/2018 to 23.2 % in 2018/2019 as well as from there again to 19.6 % in 2019/2020.

Analysing the youth unemployment rate at state level shows that significant variations also exist there. Amongst the states, Nagaland registers with 71.8 % the highest youth unemployment rate in India, while Gujarat records with 7.9 % the lowest. Amongst the Union Territories, the one of Lakshadweep experiences with 46.7 % the highest youth unemployment rate and the one of Dadra & Nagar Haveli witnesses with 5.2 % the lowest. Considering both, states and union territories, 23 of them show higher rates of youth unemployment than the national average, whereas in 13 of them the rates are lower. Only in Meghalaya, Daman & Diu and Dadra & Nagar Haveli are the youth unemployment rates of less than 10 %. In states, such as Madhya Pradesh, Sikkim, Chhattisgarh, Tripura, Rajasthan and Himachal Pradesh, youth unemployment rates lie between 10 % and up to below 15 %. In Maharashtra, Uttar Pradesh, Jharkhand, Karnataka and Mizoram, the rates are between 15 % and up to below 20 %. 9 states, including Delhi, West Bengal, Jammu & Kashmir and Bihar, show youth unemployment rates between 20 % and up to below 25 %. In 3 states, i.e. Punjab, Odisha and Arunachal Pradesh, youth unemployment rates are at 25 % and up to below 30 %. The remaining 10 states and union territories experience youth unemployment rates of more than 30 %, rates that are the highest in India.

Most pressing issues for the youth are high rates of unemployment and underemployment, limited access to remunerative occupation, low levels of education and skills as well as a desire for self-identity and dignity (ILO 2013; Mamgain and Tiwari 2016; Mitra and Verick 2013). Reasons for high youth unemployment rates in India and thus plaguing its economy are also the facts that formal education is societally preferred over vocational training and education in the same way as non-manual work opportunities are looked for more often than manual ones (Visaria 1998).

Figure 10.B

Youth unemployment rate in India



Data source: Periodic Labour Force Survey 2019/2020; National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India
Geometric basis: ESRI data & maps, districts, states, union territories
Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. The depiction of boundaries is not authoritative

Tourist visits

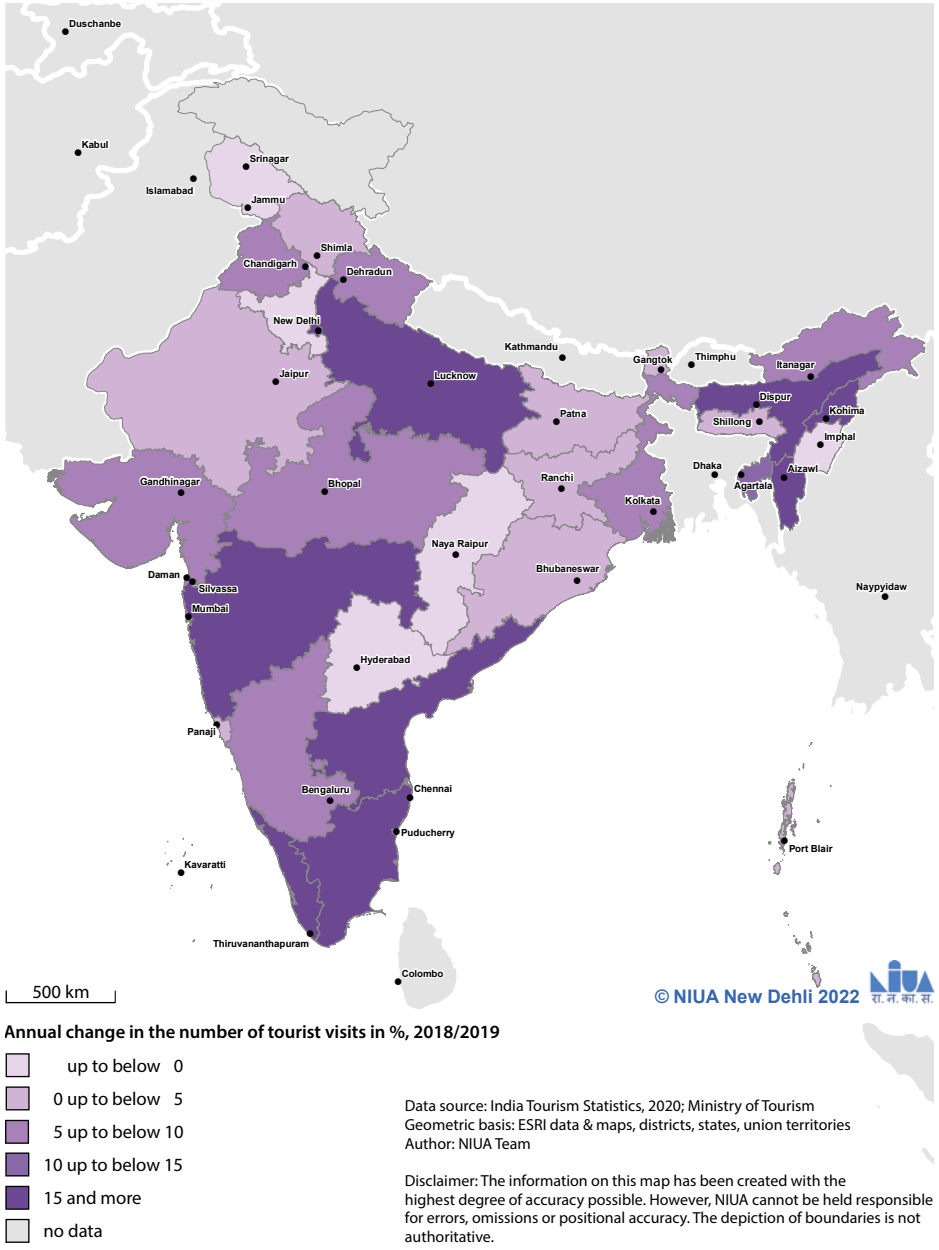
In the period from 2018 to 2019, India witnessed in general as well as considering seasonal and local variations an increase in the number of domestic and foreign tourist visits of 25 %. Only 3 states record growth rates above this national average: Mizoram (114 %), Uttar Pradesh (87 %) and Tamil Nadu (28 %). 7 states in total experienced a decline in the number of tourists in 2019 compared to 2018: Lakshadweep (–34 %), Telangana and Chhattisgarh (–1 % each) as well as Haryana, Manipur, Jammu & Kashmir and Daman & Diu. 11 states show growth rates from 0 % up to below 5 % and 8 states growth rates in the range from 5 % up to below 10 %. The growth rate in Tripura lies at 14 %. In addition to the top 3 states in terms of tourist visit gains, Andhra Pradesh, Assam, Delhi, Kerala, Maharashtra and Nagaland show growth rates of 15 % and above. The northeastern part of India, with the exception of Manipur, attracted more tourists in 2019 than in 2018. The southern and western parts of the country achieved more growth in tourist visit numbers than the northern and eastern parts of India.

Pre-COVID-19 circumstances taken into account, data provided by the tourism statistics 2020 report that foreign tourist arrivals in India have grown more than 8 times in the last 40 years – from 1.28 million visits in 1981 to 10.93 million in 2019. Growth in the last 20 years had been particularly impressive, including annual growth rates of 8.45 % between 2001 and 2019. The top 5 countries of travellers' origin arriving in India are Bangladesh (23.6 %), USA (13.8 %), United Kingdom (9.2 %), Australia (3.4 %) and Canada (3.2 %). Earnings in India originating from tourism-related activities witnessed a growth rate of 8.6 % in 2019 compared to 2018.

India experienced an increase of 25.3 % also in domestic tourist visits in 2019 compared to 2018. The annual growth of domestic tourist visits was on average at 13.52 % in the period from 1991 to 2019. With reference to 2019, the highest shares of domestic tourist visits are attributed to Uttar Pradesh (23.1 %), Tamil Nadu (21.3 %) and Andhra Pradesh (1.2 %). Promoting responsible tourism might help to drive sustainable economic growth in accordance with the SDGs.

Figure 11.A

Tourist visits (domestic and foreign) in India

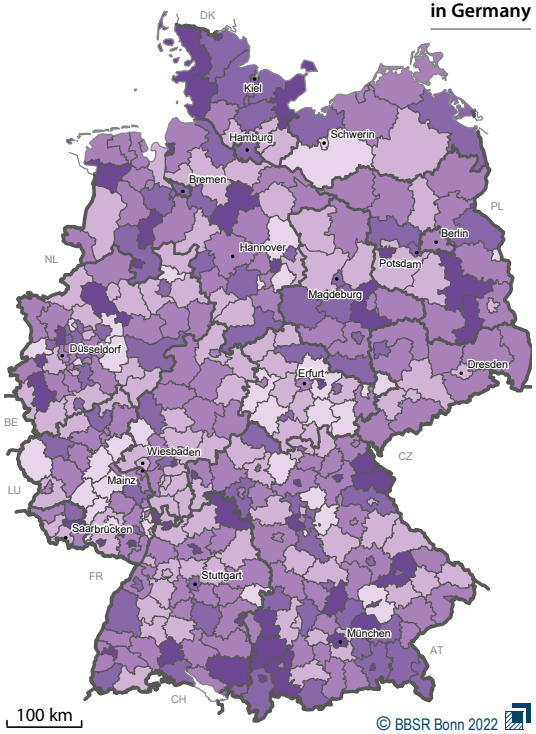


The tourism sector is gaining importance in Germany. It accounted for around 4 % of the GDP of Germany and almost 7 % of all employed persons of the country and is thus comparable to the one of the health or retail and trade sector. Almost all counties of Germany gained an increase in visits between 2014 and 2019, at an average annual rate of 3 %. These gains were above average also in smaller cities and regions, such as Emden, Landau and Ostholstein.

Tourism in Germany is mainly shaped by small and medium-sized enterprises. 80 % of all guests are domestic tourists and 30 % of the German population spend their holidays in the country. These structures may set the framework conditions for a more sustainable tourism. The National Tourism Strategy of Germany (BMWi 2021) thus detects potentials in improving the quality of life of the local population by strengthening sustainable mobility infrastructure and enhancing digitalised tourism activities.

The regions in Europe predominantly characterised by tourism in relation to their residential population line up along the coastline of the Mediterranean Sea in Spain, France and Italy, the littoral countries of the Adriatic Sea, Greece and Cyprus. In addition, the coastal regions of the Atlantic, North Sea, Baltic Sea and Black Sea as well as mountainous regions, such as those in the Alps, attract most tourism. Most foreign tourists travel to the Mediterranean regions of Spain, including its islands, Portugal, Italy, Croatia, Malta, Greece and Cyprus.

Figure 11.B **Tourist visits (domestic and foreign) in Germany**



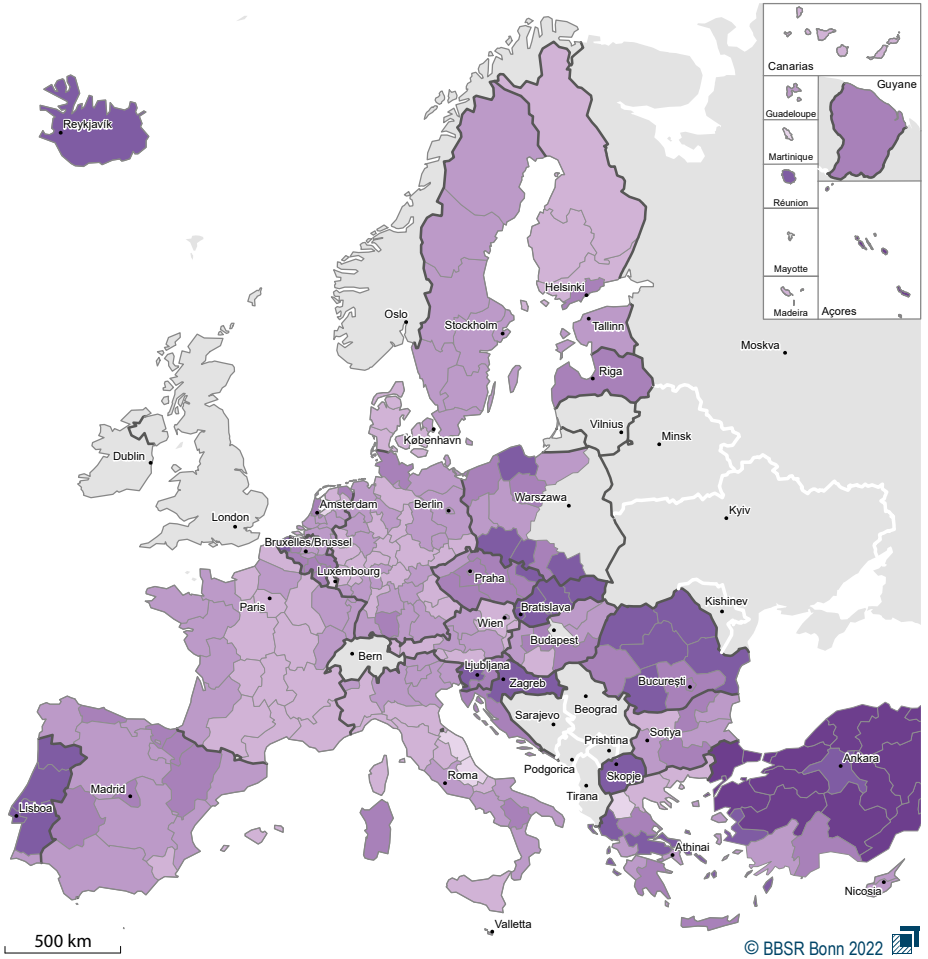
Annual change in the number of tourist visits (arrivals) in %, average of 2014–2019

- up to below 0
- 0 up to below 2
- 2 up to below 4
- 4 up to below 6
- 6 and more

Data source: Spatial Monitoring System of the BBSR, Data origin: Federal Statistical Offices, Geometric basis: counties (generalised borders), 31.12.2019 © GeoBasis–DE/BKG, Author: A. Milbert

Apart from Portugal, the regions showing the largest increase in tourist visits are mostly not situated in the aforementioned main touristic areas. In addition to coastal regions of the Baltic Sea, mountainous areas in countries of the eastern part of Europe, the Carpathians and the Dinaric Alps in Slovenia and Croatia register the largest increase in numbers of tourist visits.

Figure 11.C **Tourist visits (domestic and foreign) in Europe**



Annual change in the number of tourist visits (overnight stays) 2014–2019*, average per year in %

- up to below 0
- 0 up to below 3
- 3 up to below 6
- 6 up to below 9
- 9 up to below 20
- 20 and more
- no data

Data source: Spatial Monitoring for Europe
Data origin: Eurostat
Geometric basis: GfK GeoMarketing, NUTS 2 regions
Author: R. Binot
*Data EL: 2014–2018

Conclusion

The joint publication is another milestone of the cooperation between BBSR and NIUA. Its underlying common understanding of analysing spatial structures as well as the collaboratively transcultural cooperation of both institutions show that the envisaged blueprint of joint spatial research in the area of urban and spatial development might be of added value for both, methodological approach and policy advice.

The joint analysis illustrates the spatial structures as defined by selected indicators of SDG 8 on Decent Work and Economic Growth. It uses, in the large number of cases, the lowest common data level possible in India, Germany and Europe and develops also here a common visual language, partly with variations.

The spatial analysis of GDP, SDP and GVA in India, Germany and Europe is based on varying statistical approaches, due to given circumstances; the accompanying maps, nevertheless, illustrate clearly the regional differences in the economic structure, growth and welfare in both geographical contexts. Directly comparing these contexts, it becomes obvious that time periods are crucial: India looks at the development path ending in 2019/2020 and thus includes impacts on economic activities due to contact restrictions at the beginning of the COVID-19 Pandemic. In Germany, as in other countries of Europe, the average of 5 years is taken ending in 2019, thus statistically excluding the pandemic situation and referring to a development path under normal conditions. In that respect, it would be necessary in the future that a respective target description of SDG 8 and particularly SDG 8.1 on the economic growth rate per capita sets not only an annual development rate. It should also specify the exact time window of measurement in order to avoid drawing any false conclusions that might derive from short-term and irregular development paths, possibly caused by shocks. In addition, it seems necessary to discuss SDG 8 and particularly SDG 8.1 in more general terms, because the effects of a growing economy on the limits of natural resources are known (Kreinin and Aigner 2021).

Micro, small and medium-sized enterprises generate on average 50 % to 60 % of the gross value added in OECD Countries and about a third in developing countries. These types of enterprises have a large potential for promoting decent work and entrepreneurship. Micro, small and medium-sized enterprises also influence many other SDGs (UN DESA no date). The analytical findings of the spatial distribution and development of micro, small and medium-sized enterprises is similar in both geographical contexts, although differences exist in a detailed perspective. These types of enterprises, beyond doubt, assume a crucial role in economic development. It is noteworthy that in India the share of micro, small and medium-sized enterprises per 100 employed persons lies above the average in predominantly industrialised regions of the country, whereas in Germany this value shows below average figures in its more industrialised regions. Considering the achievement of decent work conditions, as postulated by SDG 8, further analysis would be required to substantially prove or disprove aspirations set in these types of enterprises. The example of Germany shows that the majority of micro, small and medium-sized enterprises in the eastern part of Germany can be found at values above average, yet wages there are paid below average – this might be partly linked to the fact that employed persons in the eastern part of Germany do not work in enterprises with agreements related to co-determination (BMWi 2020).

164 nations adopted in 1966 and subsequently ratified the International Covenant on Economic, Social and Cultural Rights. Targeting full employment and implementing decent work conditions does not require any specific economic system or economic growth as a prerequisite (Frey 2017: 1167). The Labour Standards of the International Labour Organization (ILO) constitute the reference for SDG 8 (Frey 2017: 1168). The total number of employed persons provides a good spatial picture on regional differences. The underlying indicators, however, do not entirely mirror full employment and decent work according to ILO Standards. More data would be needed to analytically detect remaining discrimination and exclusion from decent work environments, categorised e.g. by age, gender, skills and social status. India, Germany and Europe additionally face different stages of demographic development. The spatial picture referring to the equivalent figures thus incorporates varying conclusions and would need respectively placed-sensitive actions.

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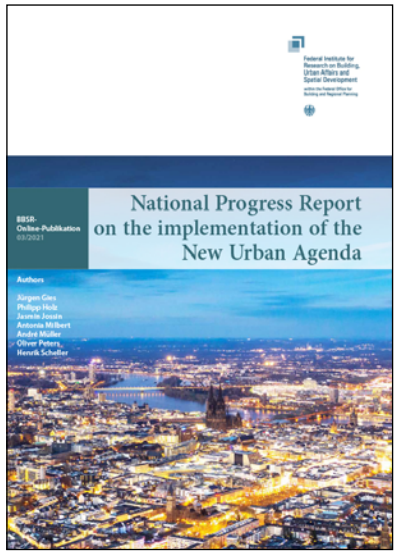
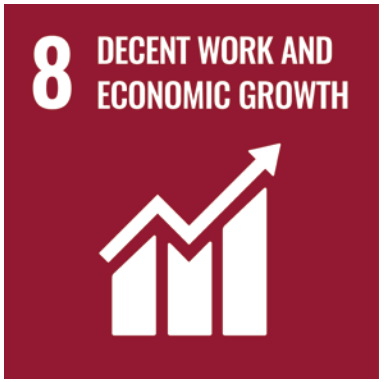


National Progress Report on the implementation of the New Urban Agenda
BBSR-Online-Publikation 03/2021
Free download at: www.bbsr.bund.de > EN > Publications

The report highlights in an analytically multi-level way, based on the SDGs, Germany's national progress in implementing the New Urban Agenda and the road taken towards the sustainable transformation of cities and communities – independently from their size and geographical situation.



Source: UNO 2019

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Information
This publication is accompanied by another publication on SDG 5 (03/2022). The chapters visualise the spatial analysis of SDG 8. Alternating maps illustrate the spatial perspectives on SDG 8 in India, Germany and Europe by taking national as well as supranational views wherever feasible. The colour code used follows the choice of the United Nations, which assigned a purplish-bluish colour to SDG 8.

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