

Other principles and tools guide the study of human geography, including geographic data, concepts of place, and different scales of analysis. Geographers need a variety of skillsets and resources to capture the “why of where.” Gaining as complete a perspective as possible, human geographers determine what is happening in a place, why and how it is happening, and how it influences the places around it.

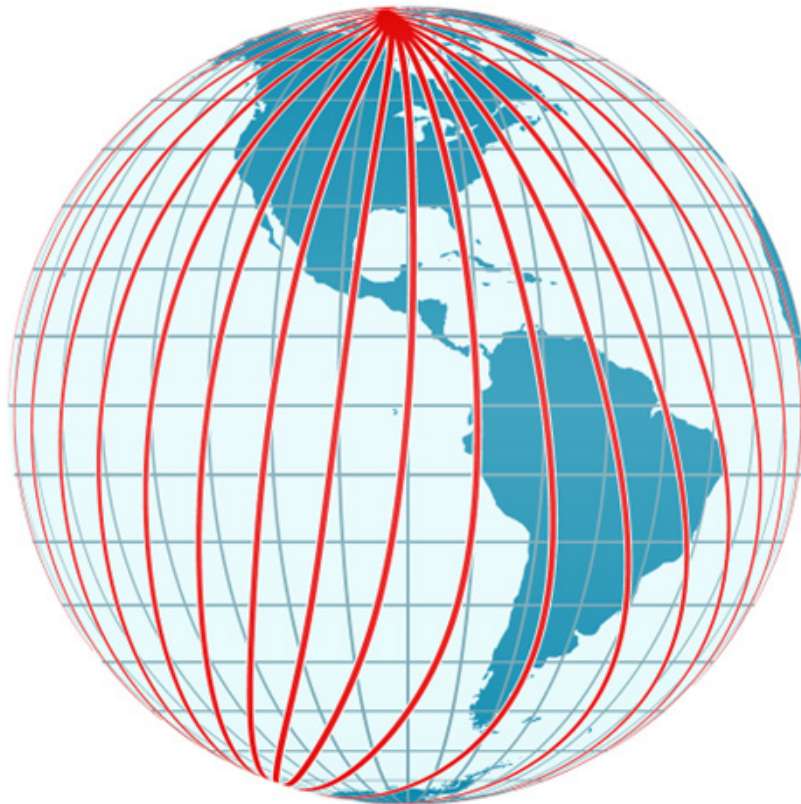
MAPS

The essence of geographical thinking is to understand complex processes at different geographical scales. To garner this understanding, geographers practice using, altering, interpreting, and understanding the limitations of geographic information. As a result, they better understand processes at local, regional, and global levels. Processes that geographers study include environmental, cultural, and population patterns.

Imagine pointing somewhere randomly on a globe. Ideally, a geographer could describe the processes in that location across time scales. For example, an expert could explain the different populations that have moved to or from the pointed-to area. They could explain how such migration affects that place alone, then the areas around it, and finally how population processes link globally.

The area indicated by the pointer on the map is referred to as an **absolute location**, denoting the precise position of an object or place as determined by spatial coordinates within a grid system.⁸ This grid, made up of **latitude** and **longitude** lines, forms a **coordinate system**, which geographers use to pinpoint the exact location of objects, places, or features on Earth’s surface.⁹ Latitude lines are parallel lines that demonstrate relative distance north and south of the equator.¹⁰ Longitude lines (also called **meridians**) measure relative distance east and west of the **prime meridian** (Figure 2).¹¹ The prime meridian is an imaginary line that runs through the Royal Observatory in Greenwich, England, and represents the 0° longitude mark.¹² The meridians meet at the North and South Poles.¹³ An easy mnemonic is to think of latitude lines as the horizontal lines of ladder rungs, thinking “latitude is like a ladder.”

FIGURE 2

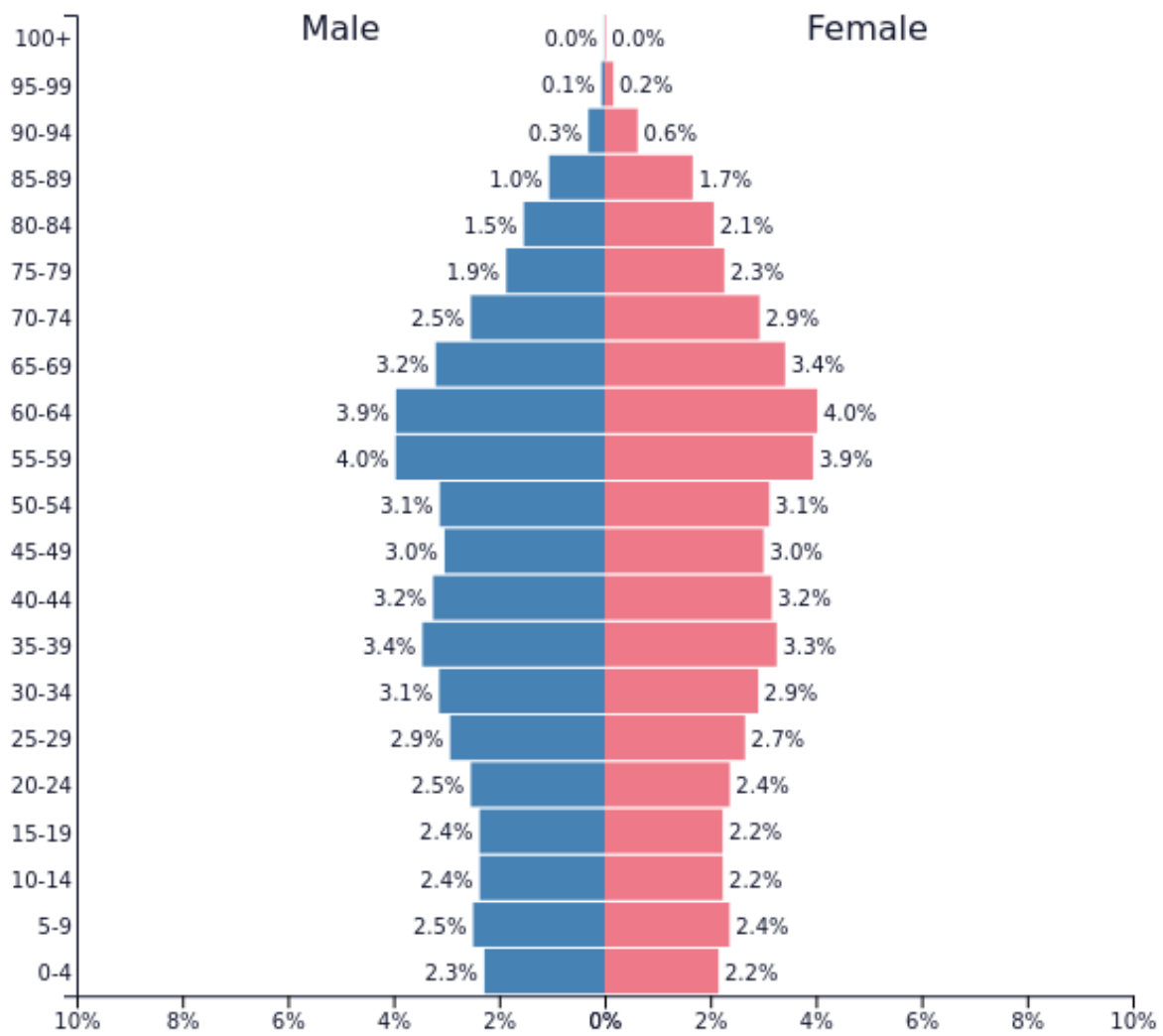


Meridians connect at the North and South Poles.¹⁴

families. Improved healthcare and economic security mean more people survive infancy, childhood, adolescence, and early adulthood, reducing the impetus for a high CBR.⁴²¹ With a relatively static native population, migration begins to play a major role in shaping the population sizes of countries in stage four, such as Singapore, the United States, Canada, and most of Europe.⁴²²

The fifth stage of the DTM is the **declining** stage, which describes developments in countries such as Germany, Japan, and Russia that lead to an extremely low CBR and an increasing CDR (Figure 44).⁴²³ In these countries, the NIR dips into negative numbers, and the non-migrant population starts to decline.⁴²⁴ This leads to a positive feedback loop: smaller younger generations mean fewer potential young adult parents, and even lower childbirth rates in successive years. To avoid the potential consequences of a declining population—such as economic stagnation and emigration—countries will often introduce **pronatalist policies**, which encourage people to have children by offering them incentives such as maternal leave, subsidized childcare, and tax rebates.⁴²⁵ The population pyramids of countries approaching stage five have narrow bases and broader tops, forming an inverted triangle shape.⁴²⁶

FIGURE 44

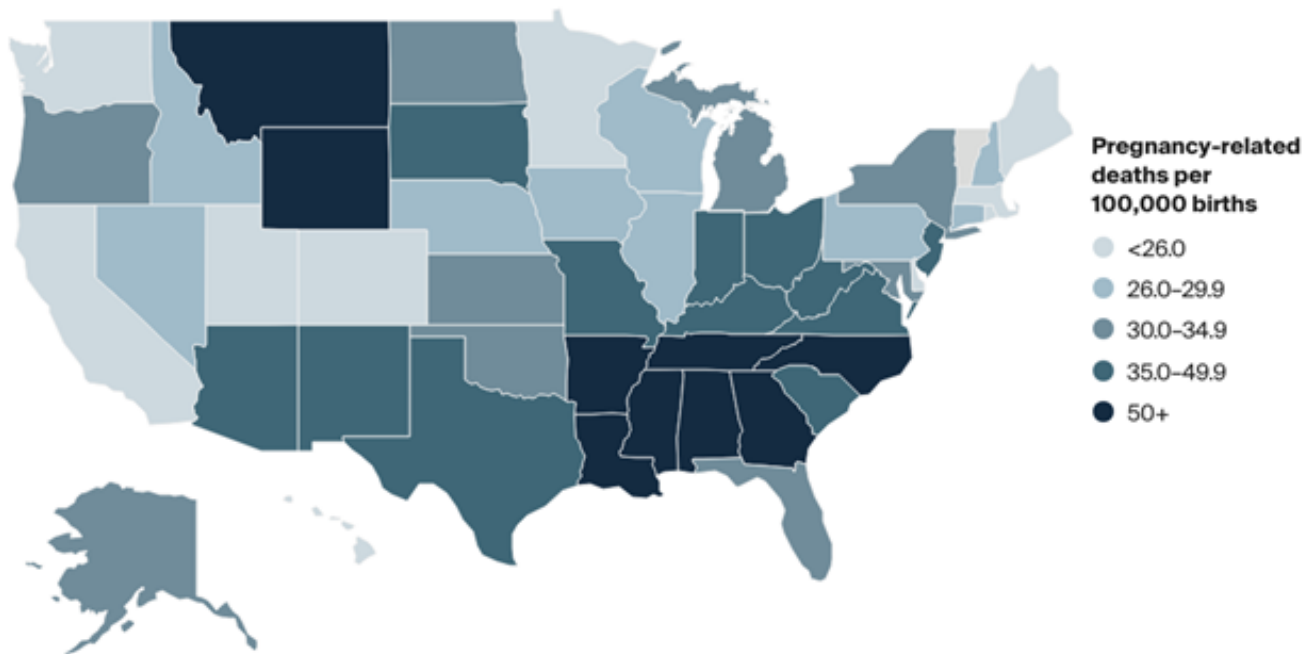


Germany - 2025
Population: 84,075,074

The population pyramid for Germany for 2025. Its narrow base and broader top are typical of countries approaching stage five of the DTM and reflects its aging population.⁴²⁷

FIGURE 52

There were wide interstate differences in pregnancy-related mortality ratios between 2019 and 2023.



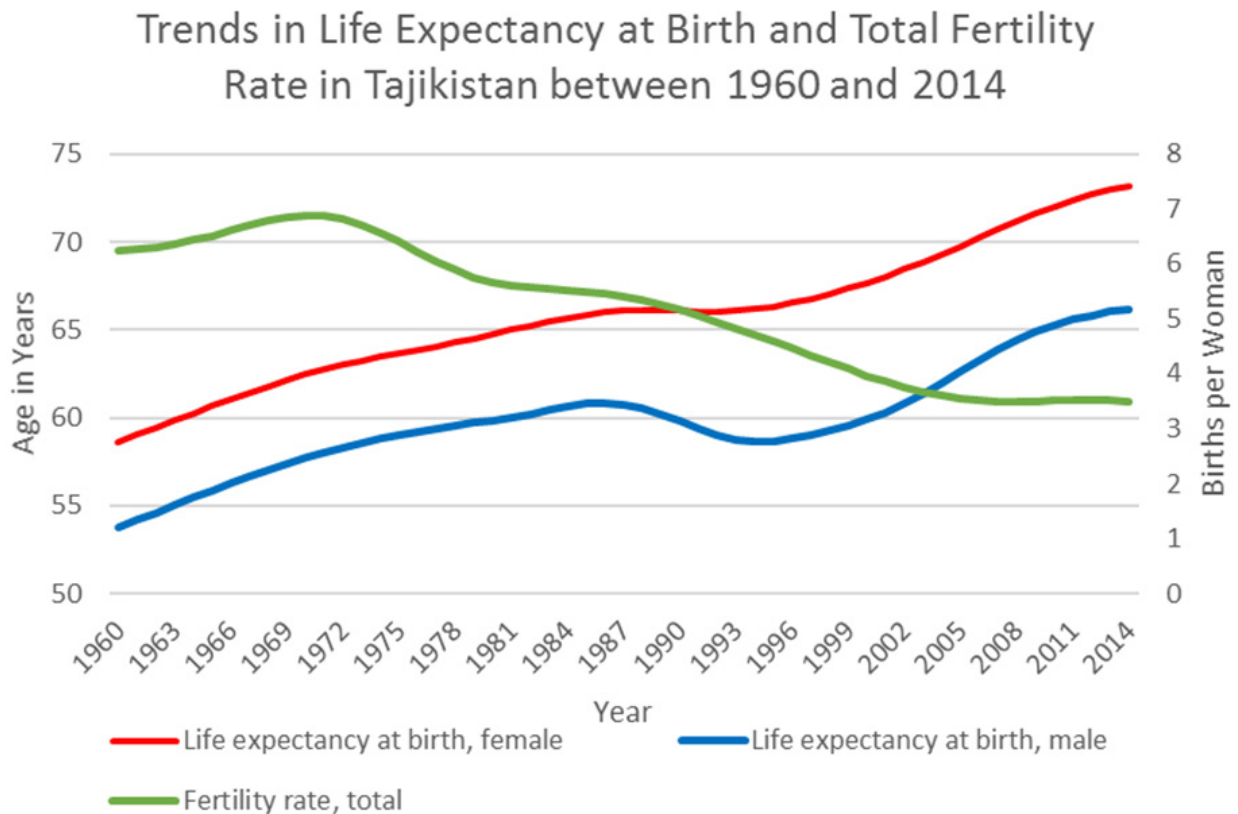
*Pregnancy-related deaths per 100,000 births in the U.S. by state, 2019–2023.*⁵⁰³

The ability of women to work outside of the home is a crucial indicator of a population's development, as well. Developed economies provide women the opportunity to pursue a career in addition to raising families.⁵⁰⁴ Urban cores provide functional regions that facilitate economic opportunities, leading to rural-urban migration.⁵⁰⁵ Higher costs of living and smaller living spaces in cities encourage smaller families, while improved quality of life causes parents to want more resources per child, for instance, to provide for their higher education opportunities.⁵⁰⁶

Developing nations often use children as a labor pool for agricultural and domestic tasks, encouraging large families.⁵⁰⁷ For example, if a family in Brazil, a stage four country, moves from a rural area outside São Paulo into the city for economic advancement, then higher apartment rent rates could change their family planning, and access to better birth control methods could help the parents decide to set a limit at two children.

Women's political activity is also dynamic depending on a population's level of development. In developed nations, women have enhanced political autonomy and have the opportunity to vote, run for political office, and lead campaigns for new or different policies.⁵⁰⁸ Education and employment opportunities play a major role in garnering women the social status to advance such progress in their societies.⁵⁰⁹ For example, in 2015, the Association of Female Indigenous Warriors from Rondônia (AGIR) coalesced to advocate on behalf of the political agency of women in Brazil and against the destruction of Indigenous lands for mining.⁵¹⁰

The demographic role of women is in a constant state of flux today. For instance, while younger men used to dominate migrant labor populations, increasing numbers of women are moving to the city to gain better employment opportunities.⁵¹¹ Jobs in fields such as caretaking, nursing, and the service and hospitality industries encourage international, intranational, interregional, and intraregional migration by women.⁵¹² The gap between the numbers of male and female labor migrants has increasingly narrowed—since 2024, women have comprised just over 48 percent of international migrant laborers.⁵¹³

FIGURE 53

This line graph, which indicates an increase in life expectancy and a decrease in TFR, offers evidence for women's rights being on the increase in Tajikistan.⁵¹⁴

AGING POPULATIONS

As civilizations around the world advance through the DTM, populations experience some dramatic changes in birthrates, life expectancies, and economies. The increase in women's economic roles along with improved access to education reduces birthrates, while accompanying improvements in medicine, such as treatments for chronic and infectious diseases, increase life expectancy. In stage five of the DTM, CDR can begin to outpace CBR, resulting in a negative NIR. The result is a rising number of inverted population pyramids in developed countries, as the retired population outgrows the number of younger workers who support them. This high dependency ratio causes economic strain for individual families supporting their elderly relatives and for governments who deploy programs such as pensions, medical funds, and disability initiatives to aid their elderly population.

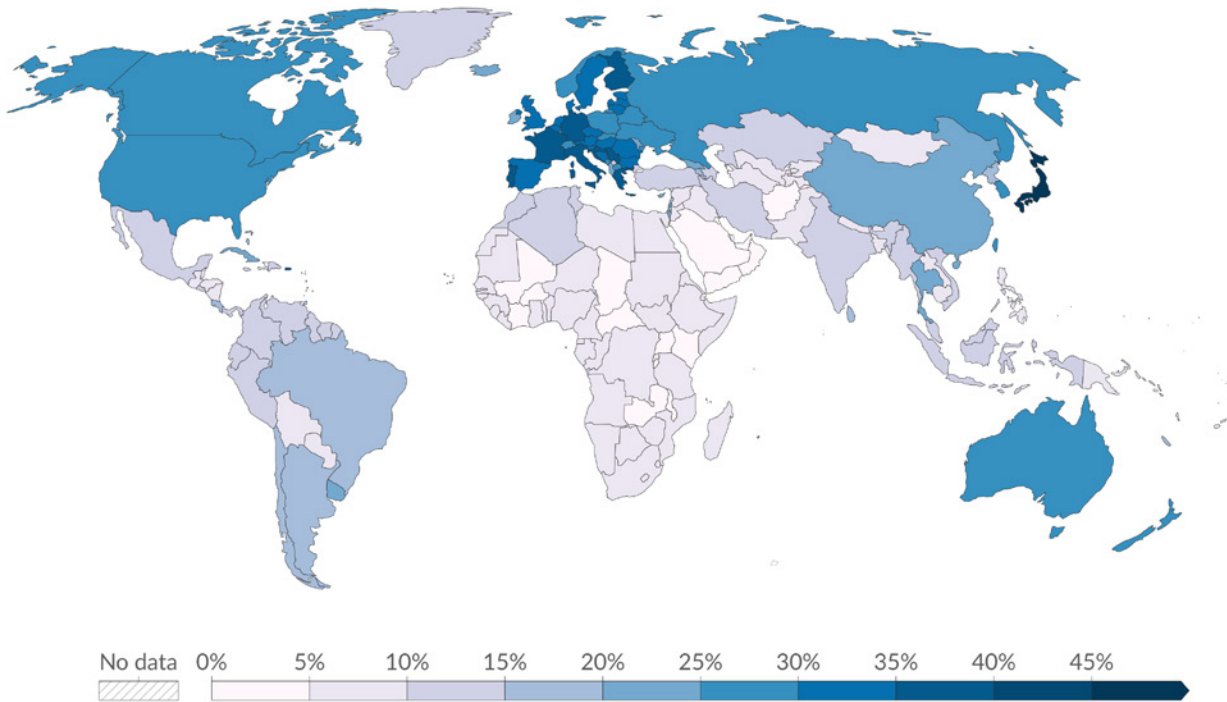
Government priorities, especially in democratic countries, are especially influenced by aging populations. Older adults use their vote and their economic power to push for changes that benefit them, including subsidized healthcare, retirement benefits, and expanded rights for people with disabilities.⁵¹⁵ While benefitting from retirement themselves, older populations may want to raise their country's age of retirement to increase the tax revenues that support them.⁵¹⁶ Lax immigration policies can also increase the available funds for older individuals by increasing the labor pool.⁵¹⁷

The world's population of aging dependents (individuals age sixty-five and older) is projected to double by the year 2050, according to a report by the World Economic Forum.⁵¹⁸ South Korea's use of pronatalist policies, China's extended maternal leave, and Japan's expansion of funding for child services reflect attempts by governments of aging populations to ensure there are resources to support them.⁵¹⁹

FIGURE 54

Old-age dependency ratio, 2023

The number of elderly people (over 64 years old) relative to the number of working-age people (15-64 years). Figures are shown as the number of dependents per 100 working-age people. A value of 20% means that there are 20 people of old age for every 100 working-age people.



Data source: UN, World Population Prospects (2024)

OurWorldinData.org/age-structure | CC BY

This choropleth map shows concentrated areas of old-age dependency characteristic of late-stage developed nations.⁵²⁰

SECTION III SUMMARY

- ◆ Population distribution depends on physical factors, such as soil quality and natural resource availability, and human factors, such as economic, social, and political structures.
- ◆ People tend to live in the relatively mild climates typical of the midlatitude regions, with flat, low-lying land and access to drinkable water.
- ◆ Different scales of analysis provide different insights into population dynamics.
- ◆ Three types of density—physiological, arithmetic, and agricultural—focus on specific relationships between population density and land use.
- ◆ People tend to migrate to urban centers, leading to large population clusters, especially in East Asia and South Asia.
- ◆ Population pyramids, the DTM, the ETM, different migration patterns, and figures such as NIR and life expectancy help us predict and analyze changes in population composition, while providing indicators of a nation's degree of development.
- ◆ Population distribution influences decisions made by policymakers on issues including healthcare, pensions, and education.
- ◆ Urban areas have a stronger influence on political priorities than rural areas do due to population clustering.

However, despite the assurances of their political leaders, many Indians viewed partition with deep reservations. The hurried timeline for the partition plan along with insufficient planning and communication contributed to widespread uncertainty among the population. A key area of concern was that nobody knew exactly where the boundaries of the new country of Pakistan would lie. When Mountbatten announced the plan for partition and independence in June 1947, there was no simple way to determine where the lines between India and Pakistan would be drawn. With this uncertainty looming, large numbers of Hindus who lived in what would likely become Pakistan moved eastward to India. Likewise, large numbers of Muslims who lived in what was likely to remain India moved westward to what would become Pakistan. Neither group wanted to be caught on the “wrong” side of the border when it was finally determined.⁶³¹ Although independent India and Pakistan came into being at midnight on August 14–15, 1947, the actual borders of the countries were not published until August 17.



A train overflows with refugees at Ambala Station during the Partition of India.

The announcement of the new borders was met with mass chaos as more than 15,000,000 Hindus, Muslims, and **Sikhs** fled from their homes in the months around August 1947, hoping to get to the side of the new border that they perceived as being a safer location. Some of those fleeing traveled via bus and train, but the vast majority made their journey on foot, creating columns of refugees that went on for miles. For many of these migrants, the journey was fraught with peril. The ideological violence of the vivisection of the formerly united India was matched by widespread physical violence, especially in the western state of Punjab. Law and order suffered a complete breakdown in Punjab in this period; calls from British officers in the region for reinforcements were ignored by the governments in Delhi and London; and individual and group violence resulted in retaliations on all sides.

Although documentation of the violence is limited, it is thought that as many as 2,000,000 people were killed.⁶³³ Men of all religious communities committed crimes against women of other and their own religious communities. In the Punjab, there was no family that went untouched, and there were few who could say their own family members had not also contributed to this trauma. Historians have noted that the Punjabi population was heavily

militarized because the Punjab had long provided the bulk of Indian soldiers to the Indian army. These men surely returned from World War Two traumatized by their wartime experiences and trained to fight, further contributing to the violence in that state.⁶³⁴



*A Sikh family undertakes a perilous journey to India during the partition.*⁶³²

On the eastern border, things were calmer but not placid. Migrations that exchanged populations took place, but they spanned a longer period and were less violent if not less traumatic. Between 1947 and 1955, millions of Hindu Bengalis from the new East Pakistan poured into Calcutta, India, substantially reshaping the landscape of that city. Many Bengali Muslims also left Calcutta and the new Indian state of West Bengal to cross over to the new East Pakistan, which in 1971 would declare its independence as the independent country of **Bangladesh**. While the flow of refugees in the Punjab was fast and sudden, in Bengal the