



Economic Development and Health Care Status in Silk Road Countries

3

Yiming Wu and Liwen Xiao

Abstract

The Belt and Road (B&R) Initiative, proposed by China in 2013, has grown into one of the most promising platforms for international cooperation, forging a new pathway toward inclusive globalization that delivers shared benefits. In addition to cooperate in infrastructure construction and economy and trade, the B&R construction is still expanding its cooperation fields. It is also a core component of the B&R initiative in ecological environment protection, health governance, security cooperation and other aspects. In order to carry out international cooperation in disease prevention and control, it is important to know the epidemic situation of diseases, medical and health resources in countries along the B&R. This chapter introduces the economic development and health care status of some B&R countries and regions, such as ASEAN, Japan and South Korea, South Asia, Middle East countries and Northeast Africa, to provide a reference for medical cooperation.

Keywords

Silk Road Countries · Economic development · Health care status

3.1 Introduction

In 2013, when President Xi Jinping visited Kazakhstan and Indonesia, respectively, he proposed the construction of the “Silk Road Economic Belt” and the “Twenty-First Century Maritime Silk Road” initiative, which is now referred to as the Belt and

Y. Wu (✉) · L. Xiao

School of English for International Business, Guangdong University of Foreign Studies, Guangzhou, Guangdong, China

e-mail: wuyiming@gdufs.edu.cn

Road initiative (i.e., BRI). Geographically, the BRI runs through Eurasia, connects the Asia-Pacific economic circle in the east and the European economic circle in the west, and radiates the North American economic circle. It reflects the good wishes of inheriting the spirit of the Silk Road, jointly building an open cooperation platform, and providing new impetus for the cooperation and development of various countries.

The core feature of the BRI lies in the “five links,” among which, financial integration, as the fulcrum for leveraging the grand blueprint of the BRI, is the starting point and necessary condition for enterprises to make transnational investments in the host countries along the route. Since 2014, China has signed cooperation agreements with countries along the BRI in batches, and strengthened the support of multinational enterprises for investment in countries along the route. With the support of various funds, China’s top 100 enterprises have gradually invested in more than ten fields such as energy, infrastructure, communications, and the Internet in the countries along the route.

In addition to cooperation in trade and investment, the BRI is also an important guarantee for deepening the coordinated development of regional health industries. In terms of cooperation mechanism construction, talent training, and infectious disease prevention and control, China is policy-oriented and has better introduced the health industry into the strategic layout of the BRI to form development momentum. On the one hand, the cooperation and development of the BRI have been continuously promoted, and the support policies introduced and implemented at the national level have provided policy guarantees for the great development of the health industry. On the other hand, the medical and health services in the countries along the BRI are unevenly developed, and the overall development is in a state of underdevelopment. In 2015, the National Health and Family Planning Commission formulated and implemented the *Three-Year Implementation Plan for Promoting the “Belt and Road” Health Exchange and Cooperation (2015–2017)* to promote the development of the health industry under the BRI from a national strategic perspective.

The reference to the “Healthy Silk Road” first appeared in a speech delivered by President Xi Jinping during his state visit to Uzbekistan on June 22, 2016. He called for joint efforts to build a “Healthy Silk Road,” deepen cooperation in medical and health care, and strengthen cooperation in the fields of infectious disease epidemic notification, disease prevention and control, medical rescue, and traditional medicine. The “Healthy Silk Road” has thus become a new concept in the construction of the BRI. On March 21, 2020, in a message of condolences to French President Emmanuel Macron, President Xi Jinping proposed for the first time the concept of building a “human health community” to improve global public health governance. On June 17 of the same year, Xi Jinping proposed the new concept of a China-Africa health community at the China-Africa Solidarity Anti-epidemic Summit. This has provided new impetus and injected new connotations to the joint construction of the “Healthy Silk Road” between China and Africa.

The spread of COVID-19 continues to pose serious threats to the lives and health of people in various countries. The deficiencies in the medical and health systems of

some countries and regions have not been repaired, and the global public health prevention and control mechanism still needs to be improved. In the new stage of development, the high-quality joint construction of the “Belt and Road” will further broaden the healthy road to safeguard people’s health and safety, and the global public health governance cooperation mechanism will continue to be improved.

The following section shows the economic development and health care status of some Silk Road regions such as ASEAN, Japan and South Korea, South Asia, the Middle East, and Northeast Africa.

3.2 ASEAN Countries

ASEAN countries are located in the southeastern part of Asia, bordering China to the north, Australia to the south, the Pacific Ocean to the east, the Indian Ocean to the west, and Bangladesh and India to the west. It is located at the “crossroads” between Asia and Oceania, the Pacific Ocean and the Indian Ocean, with a total area of 4.4356 million square kilometers. There are 10 ASEAN member countries in total. Laos is a landlocked country, Vietnam, Malaysia, Cambodia, Thailand, Myanmar and Brunei are coastal countries, and Singapore, the Philippines, and Indonesia are island countries (Fig. 3.1).



Fig. 3.1 Chinese version of the map of Southeast Asia, <http://ditu.ps123.net/world/11340.html>. Economic development

3.2.1 Economic Development

In 2019, the total economic volume of the ten ASEAN countries reached US\$3.17 trillion, making it the fifth largest economy in the world. There are two high-income countries in ASEAN, Singapore, and Brunei. However, as an economic community, it belongs to emerging economies as a whole. Indonesia is the country with the largest GDP. In 2019, the total economic volume reached 1.12 trillion US dollars, accounting for 35.26% of the entire ASEAN. It is also the only country in ASEAN with a GDP exceeding 1 trillion US dollars. In recent years, the economic growth rates of Cambodia, Myanmar, the Philippines, Vietnam, Indonesia, and Malaysia have all maintained a rapid growth rate of more than 5%. ASEAN is one of the most dynamic regions in the world economy today.

The development of countries in the region shows the characteristics of “rich in the south and poor in the north,” and the level of development is inconsistent. At the first level, Singapore is a developed country in the region, and Brunei is an oil-rich country. At the second level, Malaysia, Thailand, the Philippines, and Indonesia are newly industrialized countries. At the third level, Vietnam is developing rapidly. At the fourth level, Cambodia, Laos, and Myanmar have lower levels of development. Most of the ten ASEAN countries are not large in territory, and each has its own characteristics in resource endowment.

3.2.2 Current Status of Medical and Health Care

As a high-risk area for emerging infectious diseases, Southeast Asia has a wide variety of diseases, which brings a heavy health and economic burden to low-income countries. The public health risks facing the region have two dimensions. First, in the context of globalization, public health events in other regions, especially the influx of transnational infectious diseases, have an impact on ASEAN countries. The second is the unique health challenges posed by the specificities of the region.

ASEAN countries have close economic and cultural exchanges with other regions, especially neighboring regions. ASEAN has signed free trade agreements with China, Japan, South Korea, India, Australia, and New Zealand, and the volume of trade with countries outside the region is much higher than within ASEAN (ASEAN Secretariat 2015). The close economic exchanges have also increased the frequency of people’s movements, and the increasingly developed international traffic has made Southeast Asia extremely vulnerable to transnational infectious diseases. For example, the fatality rate of SARS in Singapore, the Philippines, Thailand, and Malaysia is higher than the world average. Although Singapore is small, the number of confirmed cases is second only to China and Canada (World Health Organization [WHO] 2003). Influenza A (H5N1) spread further after entering Southeast Asia, and the impact far exceeded the area where the epidemic first broke out, and it has not yet completely subsided. In the COVID-19 outbreak, about 60% of the confirmed cases in Singapore are foreign workers, and the virus infection rate

in foreign worker dormitories is about 0.83%, which is nearly 40 times higher than the infection rate in the general community in Singapore (Clement 2020).

The natural environment and level of regional development in Southeast Asia also pose some particular public health challenges. One is the frequent occurrence of infectious diseases closely related to the tropical climate. For example, the intensity of El Niño is one of the predictors of dengue outbreaks in Thailand (Mathuros 2009). When the rainy season comes, mosquitoes will multiply rapidly and in large numbers in places with a lot of standing water. Hot and rainy weather conditions such as in southern Vietnam and the local residents' habits of storing rainwater provide breeding grounds for mosquitoes. Moreover, the outbreak cycle of this disease in Southeast Asia has been shortened from an average of 10 years to 3–5 years, with an average annual number of cases reaching 2.9 million, and the economic loss caused by it in 2010 alone was as high as 950 million US dollars (Caballero-Anthony 2015). Another mosquito-borne disease, malaria, is also prevalent in large strips around the equator in tropical and subtropical regions. The natural environment in Southeast Asia is very suitable for the breeding of *Anopheles* mosquitoes, and the number of confirmed cases and deaths is second only to Africa.

In terms of natural disasters, earthquakes and tsunamis are also common in Southeast Asia, leaving survivors vulnerable to infectious diseases or deteriorating health conditions. Floods and stagnant water are prone to mosquito breeding, and in conditions of overcrowding and lack of public health products can increase the risk of individual and group disease. Second, Southeast Asia is dominated by developing countries. Unbalanced development has caused rural areas to face greater public health threats than urban areas. For example, the urban areas of the Mekong region are almost free of malaria epidemics, but the disease is quite prevalent in rural areas, including borders and forest fringes (Cui 2012). At the same time, the threat posed by diarrheal diseases cannot be underestimated due to the high proportion of people using unimproved sanitation and drinking water systems in the region. Only 25.8% and 16.1% of Cambodian and Laotian populations have access to safely treated drinking water, and the rural population is only one-third of the urban population (Sustainable Development Goals, n.d.). The latest global outbreak of cholera is beginning in Southeast Asia. Visitors to Southeast Asia are also often plagued by dysentery and diarrhea. In addition, the problem of zoonotic infectious diseases in the region is also very prominent. In recent years, the intensive poultry production system has gradually developed in Vietnam, Laos, Thailand, and other countries, but it has also led to breeding bases becoming potential outbreak sites. Moreover, there are widespread cases of mixing animals in the market to reduce costs, which objectively leads to an increase in the possibility of cross-species transmission of the virus (Weiss and McMichael 2004).

Finally, the absence of an effective surveillance system further magnifies public health risks in Southeast Asia. Surveillance systems are the foundation of disease control. An effective surveillance system can detect outbreaks in a timely manner, respond to disease spread, and facilitate the evaluation of disease control methods. Many infectious diseases in Southeast Asia have zoonotic origins, but as in other resource-poor regions, the capacity of countries to monitor animal health is

underdeveloped (Butler 2006). Coupled with the existence of a large number of private hospitals in countries such as Vietnam, they often fail to report malaria and other infectious diseases in a timely manner, resulting in the spread of the epidemic in the country is often seriously underestimated (Delacollette 2009). The failure of disease surveillance systems not only makes disease prevention and control more difficult, but also makes it extremely challenging to develop policies and strategies that balance public health and socioeconomic realities.

To sum up, Southeast Asia faces high regional public health risks due to the characteristics of the geographical environment and the level of socioeconomic development. This not only makes the region a key node for maintaining global health security, but also the frequent occurrence of diseases has become an unfavorable factor for regional economic development. It can be said that Southeast Asia has a strong impetus to carry out coordination and cooperation in the field of public health.

3.3 Japan and South Korea

Japan and South Korea are both located in East Asia and are important economies in Asia. The two countries and China face each other across the sea and have a long history of cultural exchanges. In the past 30 years, the scale of trade and investment between China, Japan, and South Korea has been expanding, and financial and industrial cooperation has become increasingly close. It is an important partner country on the Twenty-First Century Maritime Silk Road (Fig. 3.2).

3.3.1 Economic Development Status

The total economic volume of Japan and South Korea in 2019 reached 6.8 trillion US dollars. Japan reached \$5.15 trillion, and South Korea reached \$1.65 trillion. Among them, Japan is the first Asian country to enter the ranks of developed countries, and it is the third largest economy in the world, with a per capita GDP of more than 41,000 US dollars. After the “Han River Miracle,” South Korea’s economy has developed rapidly, with a per capita GDP of more than 32,000 US dollars. It has been officially recognized as a developed country in 2021. The real GDP growth of Japan and South Korea has been slow in recent years, especially in Japan, which has been below 2% since 2011, but the unemployment rate has remained low. South Korea’s economic growth rate remained at around 3%, and the unemployment rate was slightly higher than that of Japan.

3.3.2 Current Status of Medical and Health Care

After World War II ended in 1947, Japan’s population health was poor (Japan SBOJ 2016). The health status of Japan’s population has improved since 1950, and the

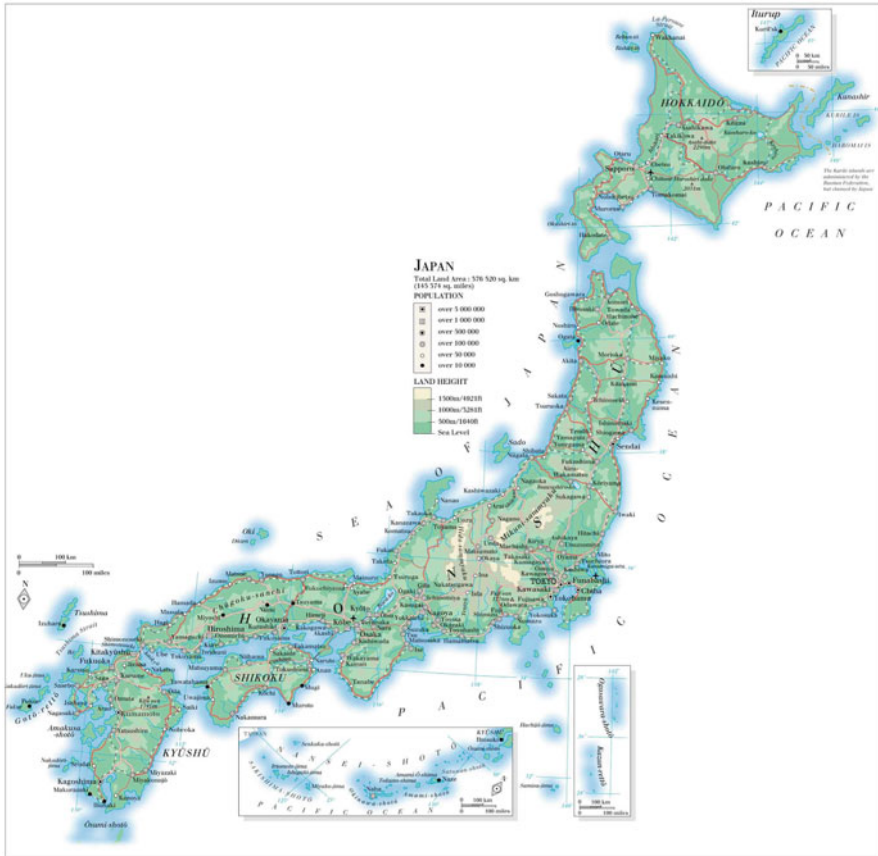


Fig. 3.2 English version of the map of Japan, <http://ditu.ps123.net/world/10999.html>

decline in mortality was mainly due to Japan's investment in public health in the early post-war period. In the post-war 10 years, 32 health-related laws and regulations were successively promulgated. Japan conducts community-based public health interventions on key factors affecting maternal and child health and the provision of clean water. The Japanese government has taken different measures to deal with the main domestic health problems in different periods. For example, in the 1950s, the main problem was infectious diseases. In 1952, the Japanese government implemented free treatment for tuberculosis patients. With socioeconomic development, noncommunicable diseases have become a major health problem in Japan. In 1969, the Japanese government implemented the strategy of intervening stroke and controlling hypertension, which was extended to the whole country in 1982. In addition, Japan has taken a series of measures to increase the quantity and quality of its health workforce, laying the foundation for Japan to realize UHC (Universal Health Coverage) (Akashi et al. 2015). Japan achieved UHC in 1961, giving its citizens equal opportunities for health promotion. Japan has one of the longest life

expectancies in the world. However, Japan's investment in hygiene is not the highest. In 2008, Japan's health expenditure accounted for only 8.5% of GDP, ranking 20th among OECD (Organization for Economic Co-operation and Development) countries (Ikeda et al. 2011). Entering the twenty-first century, health problems caused by population aging, changing disease spectrum, and bad living habits have become increasingly prominent. Therefore, the Ministry of Health, Labour and Welfare of Japan promulgated the "Healthy Japan 21" campaign (Liu et al. 2002). The Japanese government began to implement Long-term Care Insurance (LTCI) in 2000 to deal with increasingly serious aging (Tamiya et al. 2011). In 2016, the elderly population aged 65 and over accounted for 27.28% of the total population (American CIA 2017).

Due to the development of medical technology, the overall quality of life of South Koreans has been improved. The average life expectancy of South Koreans in 1970 was only 61.9 years old, ranking last among the four countries compared with the United States, Japan, and China. The average life expectancy of South Koreans surpassed that of China in 1986, rising to 69.1 years, and surpassed that of the United States in 2002, rising to 77.0 years. The average life expectancy rose further to 81.9 years in 2013. Infant mortality and fertility rates have also fallen sharply, along with a growing elderly population, which has changed South Korea's family structure. The proportion of the population aged 65 and above in the total population in South Korea has increased year by year, while the proportion of the population aged 0 to 14 in the total population has decreased in recent years. It is estimated that in 2050, the proportion of the population over the age of 65 in South Korea will reach 35.9%, making it the second largest population aging country in the world after Japan (40.1%). At the same time, South Korea will also usher in a sharp decline in its population. In 2050, South Korea's population will decrease by 5.7 million, making it the seventh-largest population decline country in the world (Fig. 3.3).

It is worth noting that the average life expectancy of Koreans has increased significantly, but the healthy lifespan is not so long. Healthy lifespan refers to the time free from disease and accidents. In order to improve the national health level, the Korean government is committed to the establishment and improvement of the medical security system. The scale of government medical expenditure has grown rapidly. After the implementation of universal medical insurance in 1989, the growth rate of medical and health expenditure reached the highest level in history, which also stimulated the total medical expenditure in South Korea. In 1977, the Korean medical insurance system was established, and initially only employees of large companies were required to participate in compulsory insurance. In 1980, health insurance spending accounted for only 20% of total health care spending, the lowest level among OECD countries. In 1988, medical insurance achieved universal coverage, allowing any citizen to enjoy medical and health services at any time and at any institution on the premise of sharing a part of the cost. Incorporating a wider population into the medical security system will help improve the overall health of the nation, and it will also contribute to a significant increase in medical investment. In 1960, South Korea's per capita life expectancy ranked second to last among OECD countries. After only 28 years, it reached the average level of OECD

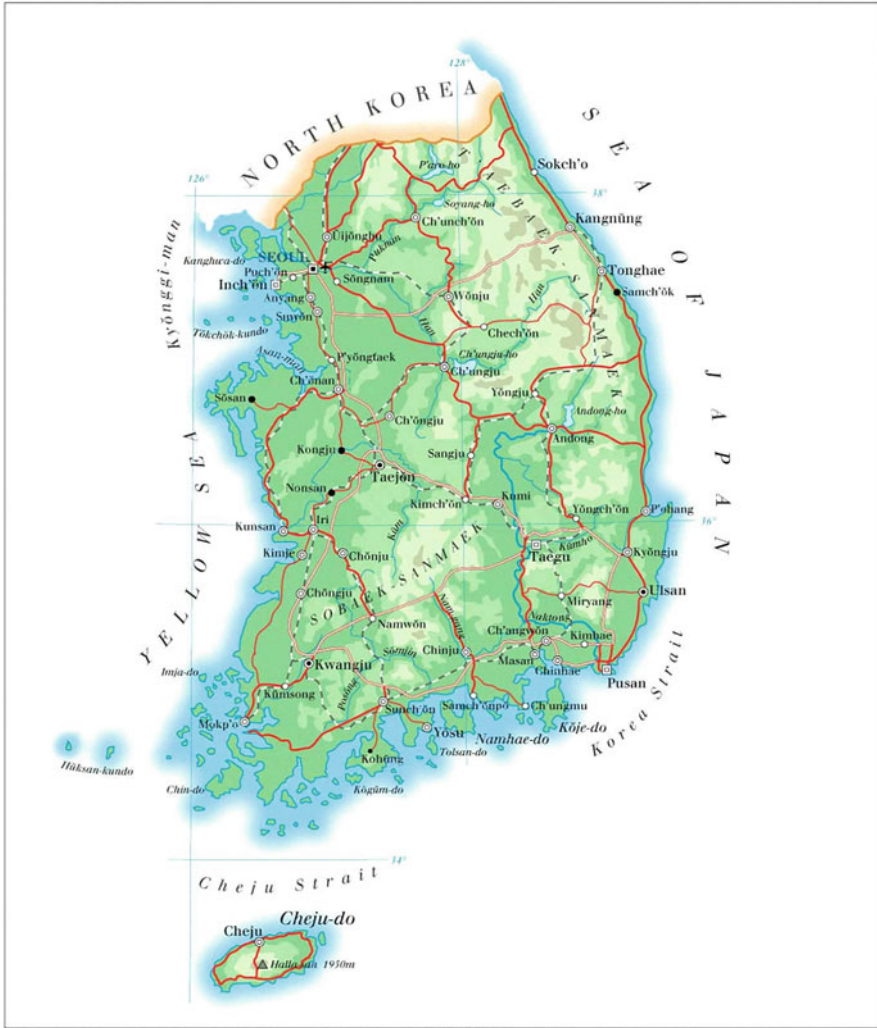


Fig. 3.3 English version of the map of Korea, <http://ditu.ps123.net/world/10654.html>

countries, while South Korea’s per capita income ranked only 22nd among OECD countries. South Korea’s achievement is partly due to a reduction in infant mortality and a change in the causes of death. The cause of death due to disease has changed from previous infectious diseases to current chronic diseases and diseases caused by unhealthy lifestyles.

3.4 South Asian Countries

South Asia refers to the vast area between the central and western sections of the Himalayas in southern Asia and the Indian Ocean. It borders the Bay of Bengal to the east and the Arabian Sea to the west, with a total area of about 4.3 million km². There are seven countries in South Asia. Nepal and Bhutan are landlocked countries, India, Pakistan, and Bangladesh are coastal countries, and Sri Lanka and Maldives are island countries. Among them, India, Pakistan, Bangladesh, and Sri Lanka are the key countries along the Maritime Silk Road (Fig. 3.4).

3.4.1 Economic Development Status

In recent years, South Asia has been one of the regions with the fastest economic growth in the world, and regional cooperation has developed steadily. On December 7, 1985, the heads of seven South Asian countries adopted the Declaration on South Asian Regional Cooperation and the Charter of the South Asian Association for Regional Cooperation and established the South Asian Association for Regional

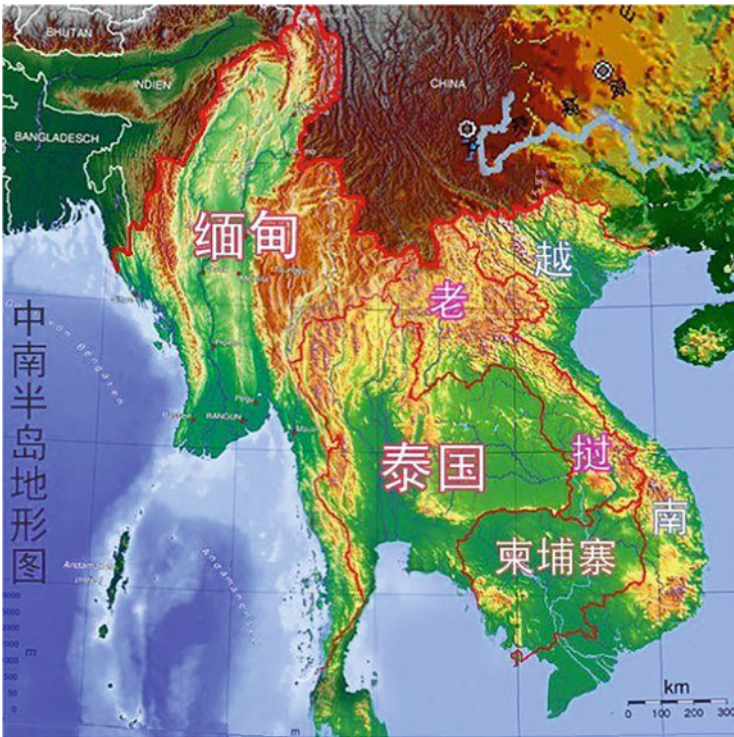


Fig. 3.4 Topographic map of Indochina Peninsula in Asia, <http://ditu.ps123.net/world/12975.html>

Cooperation (SAARC). Afghanistan joined in November 2005. In April 1997, India, Bangladesh, Nepal, and Bhutan announced the establishment of a sub-regional cooperation organization, named “South Asia Growth Corners.” The organization aims to strengthen the development and utilization of natural resources in the economic field of the four countries and promote the overall economic development of the region. At present, all SAARC member states have ratified the South Asia Free Trade Area Agreement and are preparing to establish the South Asian Customs Union and the South Asian Economic Union. With the gradual implementation of measures to simplify visa procedures and reduce tariffs, the flow of people and goods in South Asia is expanding.

There are regional differences in economic growth among countries in South Asia. Among them, India, Pakistan, and Sri Lanka are developing countries, while Bangladesh, Nepal, Bhutan, and Maldives are least developed countries. According to the economic growth rate of each country in 2017 from high to low, South Asian countries can be divided into three gradients. The first gradient has the highest economic growth rate, including Bhutan, Bangladesh, India, and Nepal, with an economic growth rate of 6%–8%. The second gradient economic growth rate is second, including Pakistan and Maldives, whose economic growth rate is between 5% and 6%. The third gradient has the worst economic growth rate, including Sri Lanka, which has an economic growth rate of 4% and below.

3.4.2 Current Status of Medical and Health Care

India is one of the countries most affected by infectious diseases in the world. According to the statistics of the World Health Organization (WHO), the proportion of India’s basic health indicators in the world is infant mortality accounted for 23%; leprosy patients accounted for 68%; and tuberculosis patients accounted for 30%. Infectious diseases are a major cause of high infant and child morbidity and mortality, as well as high hospital admissions. Tuberculosis and malaria are currently the two deadliest diseases in India. The budget of the Ministry of Health and Family Welfare of India for the prevention and control of epidemic diseases accounts for about 55% of the total departmental budget. According to World Bank estimates, 29% of India’s population lives below the poverty line, and India’s agricultural population accounts for about 72% of the total population. Most of these poor people are located in rural areas, their education level is lower than that of other groups in society, and they have a higher prevalence rate. Compared with other groups, poor people have less access to health equipment, and there are also many problems in drinking clean water and sanitation. Not only does India have a large number of poor people, but there are also huge differences in health status between regions and states. The health status of some states is much higher than the national average and can be on par with developed countries, while others are far behind. At the same time, the health priorities considered by each state are also different.

Although there is still a gap between India’s various public health indicators and developed countries, India has made remarkable progress in reducing mortality and

eliminating other diseases since independence. Since the independence of India, the Indian constitution stipulated a national free medical care system and established a free universal immunization plan and a free treatment project in public hospitals. A government-led public health service system has been established. After more than half a century of improvement, India's medical and health system has achieved great development, which has promoted the development and stability of Indian society.

The infant mortality rate in Pakistan is extremely high, the infant mortality rate is as high as 11%, and the child mortality rate is also 8.33%, mainly related to the high incidence of infectious diseases and childhood diseases. The common and frequently-occurring diseases in Pakistan are cardiovascular disease, chronic hepatitis, and anemia, which indirectly shows that Pakistan's living standards and health and epidemic prevention conditions are poor. This may also have a certain relationship with the mortality rate of infants and young children (Zhang and Liu 2007). Currently, Pakistan's medical field is continuously improving. These medical systems include the national plan for primary medical care, the immunization plan, the state aid control plan, the malaria control plan, the tuberculosis control plan, the cancer treatment plan, and the women's health plan. The implementation of these medical plans has effectively reduced epidemics and infectious diseases, fostered public awareness of health, and promoted sound medical system reforms.

Bangladesh is one of the signatories to the Asian Health Charter and the Almaty Declaration on Primary Health Care. The national constitution stipulates that improving the living conditions of the people, including food, clothing, housing, education, and medical care, is the basic duty of the state. Bangladesh's health policy is aligned with the Health for All Strategy 2000, which has resulted in a health development strategy focusing on primary health care. The government's policy of providing health services for the entire population, 90% of whom live in rural areas, is the basis for the establishment of a national primary health care network, so the focus has accordingly shifted to rural primary health care. Although more than 50% of the health budget is allocated to primary health care and related services, due to the rising cost of health care, Bangladesh is doing everything possible to mobilize the resources of the whole society for medical services. Steps it has already taken include charging some hospital services to secure income and developing traditional and homeopathic medicine systems to make better use of local resources.

3.5 Middle East Countries

The Middle East is the region with the most complex security situation in the world today. The Middle East is the place where East and West meet, and it is also the region where Christianity and Islam clash most fiercely. Among the more than 20 countries in the Middle East, there are five major powers: Saudi Arabia, Iran, Turkey, Egypt, and Israel. The complex geopolitics and doctrinal politics, as well as the domestic turmoil of major powers in the Middle East, have brought new opportunities and challenges to the implementation of the Belt and Road Initiative in the region (Fig. 3.5).



Fig. 3.5 Map of the Middle East (geomorphic map), <http://ditu.ps123.net/world/5166.html>

3.5.1 Economic Development Status

In 2019, the population of the Middle East was about 500 million, accounting for 7.1% of the world's total, but its gross domestic product was only US\$2.81 trillion, accounting for only 3.3% of the global total. The growth rate of the Middle East economy was 1.3%, far below the global average growth rate of 3.7%. The trade volume of the Middle East accounts for only 4.7% of the global total. In the total foreign direct investment stock of the United States, the share in the Middle East only accounts for 1.5%, and the trade value only accounts for 3.7%.

At present, the world is undergoing profound changes unseen in a century, and the international structure and system are undergoing profound adjustments. The majority of developing countries have greatly improved their voice in global political life, and the diversity of world civilizations has become more prominent. The Middle East countries straddle the Asian and African continents and are the core area of the global energy supply. China and the Middle East countries are both important political forces on the international stage. As one of the important participants and founders of the Silk Road civilization in history, the Middle East countries are located at the intersection of the "Belt and Road" and are natural partners for China to jointly build the "Belt and Road." As of December 2020, China and 13 countries in the Middle East have signed cooperation documents on the joint construction of the "Belt and Road." In 2020, China's foreign direct investment reached 917 billion yuan, a year-on-year increase of 3.3%, and its foreign nonfinancial direct investment was 759.8 billion yuan, a year-on-year decrease of 0.4%. The

overall scale of foreign investment remained basically stable. Among them, China's direct investment in the Middle East in 2019 was 19.81 billion yuan, and the main investment countries were the United Arab Emirates, Iraq, Saudi Arabia, and Israel, which were 7.85 billion yuan, 5.77 billion yuan, 4.25 billion yuan, and 1.25 billion yuan, respectively. The Middle East market mainly includes Israel, Kuwait, Saudi Arabia, Iran, the United Arab Emirates, Turkey, and other Gulf countries.

3.5.2 Current Status of Medical and Health Care

The shortcomings of government governance in Middle Eastern countries are prominent, especially the long-term marginalization of the medical and health sector. In the field of health care, the Middle East has been underinvested for many years, the degree of modernization is not high, and there are great differences between rich and poor countries. In particular, the medical and health departments of developing countries in the Middle East are faced with the problems of low budget expenditure, insufficient professionals, and lack of medical supplies. Most Middle Eastern countries spend far less per capita on health care than countries of the same income, and the ratio of medical personnel per 1000 people is far below the WHO-recommended level of 4.5 medical personnel per 1000 people, a figure in Morocco 0.72, and 0.79 in Egypt. Thankfully, about 60% of the population in the Middle East is under the age of 30, and the population structure is younger (Jeremy 2020). Precautionary measures to limit the spread of disease in countries such as Syria, Yemen, Libya, and other countries whose health facilities have been devastated by war are difficult. These countries are unable to cope with the crisis of medical facilities, supplies, and personnel shortages brought about by the sudden outbreak. In Syria, the World Health Organization predicts that 70% of health workers have fled the country, and only 64% of hospitals and 52% of primary health centers are functioning properly.

As the COVID-19 outbreak spirals out of control and accelerates in the Middle East, the humanitarian disaster and political consequences will be unimaginable (Jonathan 2020). The number of refugees and homeless people in Iraq, Syria, Lebanon, and Turkey alone exceeds 12 million. The real situation of cross-infection is unimaginable. The NGO Doctors Without Borders (MSF) has warned that the virus will spread rapidly in the region, especially in refugee camps, where people are highly concentrated and lack necessary sanitation facilities. The recent outbreak of the epidemic in the Middle East has repeatedly shown that the region faces the dual dilemma of preventing and controlling the epidemic and restarting the economy.

3.6 East and North African Countries

East Africa, from Eritrea in the north, to the Rovuma River in the south, the Indian Ocean in the east, and Lake Tanganyika in the west, usually includes Ethiopia, Eritrea, Djibouti, Somalia, Kenya, Uganda, Rwanda, Burundi, Tanzania, and Seychelles.

North Africa, the northern part of the African continent, is customarily the vast area north of the Sahara Desert. It covers an area of 8.37 million square kilometers, including Egypt, Libya, Tunisia, Algeria, Morocco, Sudan, etc. China's medical and health cooperation with African countries, especially with Egypt, Tanzania, and Kenya, is still relatively close. Therefore, this part mainly introduces the economic development and medical and health status of these three countries (Fig. 3.6).

3.6.1 Economic Development Status

On July 1, 2020, Tanzania was included in the middle-income country category by the World Bank, which means that Tanzania achieved this target 5 years ahead of schedule. Tanzania is the second country in East Africa to be included in the middle-income category. According to World Bank criteria, countries with per capita income between US\$1006 and US\$3955 are middle-income countries. In 2019, Tanzania's economic growth rate reached 7%, which is one of the fastest growing economies in Africa. In the past 10 years, the average annual growth rate of Tanzania's GDP has been about 6.5%. According to data released by the Central Bank of Tanzania, in the 2018/19 fiscal year, Tanzania's total GDP was 129 trillion shillings (57.15 billion US dollars), a growth rate of 7.0%, and per capita GDP was 2.5 million shillings (1104 US dollars).

Kenya implements a "mixed economy" system dominated by the private economy, with the private economy accounting for more than 70% of the overall economy. Agriculture is the largest foreign exchange earning industry in Kenya. Kenya has a relatively developed tourism industry and is the second largest foreign exchange earning industry. Remittances are Kenya's third largest source of foreign exchange. Kenya's industry is relatively developed in East Africa, and domestic consumer goods are basically self-sufficient. According to the latest "2020 Economic Survey" released by the Kenya National Bureau of Statistics (KNBS), Kenya's economic growth rate in 2019 was 5.4%, down from 6.3% in 2018. The rapid growth of the finance and insurance industry and the real estate industry has driven the good performance of the service industry.

In March 2018, President Sisi was successfully re-elected. In April 2019, the amendment to the constitution was passed, and the term of President Sisi can theoretically be extended to 2030, which will help Egypt's long-term political stability and play a strong leading role in economic development. Egypt's infrastructure construction has achieved remarkable results, the economic structural reform has achieved initial results, the investment and business environment has been greatly improved, and the economic growth momentum has been good. Foreign

非洲地图 AFRICA



Fig. 3.6 Map of Africa, <http://bzdt.ch.mnr.gov.cn/browse.html?picId=%224028b0625501ad13015501ad2bfc0455%22>

exchange reserves, the level of foreign investment attraction, industrial production capacity, and export capacity have been continuously enhanced, and the tourism industry has recovered strongly. In addition, Egypt has also taken some positive measures to alleviate the development difficulties of small and medium-sized enterprises.

3.6.2 Current Status of Medical and Health Care

In recent years, the epidemic of infectious diseases in East Africa has been contained to a certain extent, but it still faces multiple health threats. In addition to common AIDS, malaria, tuberculosis, and other infectious diseases, East Africa and the whole of Africa also face the threat of chronic noncommunicable diseases and emerging infectious diseases. Chronic diseases account for one-third of all deaths in Tanzania each year, and by 2030, chronic disease-related deaths are projected to surpass infectious diseases (Christopher et al. 2016). In addition, East Africa and even Africa are also facing the threat of a variety of emerging infectious diseases that first appeared in developing countries such as Africa. Among the ten known emerging infectious diseases pointed out by the World Health Organization, five kinds first appeared in Africa, and six kinds have been or are raging in many places, mainly including Rift Valley fever, Lassa fever, Ebola, and so on (Nathan et al. 2020).

Currently, Tanzania and Kenya do not have a systematic public health system; they are all integrated into the health care system under the overall national framework, which can be roughly divided into the following four categories according to different implementation entities: first, the government-led public health system; second, international organizations and social organizations that focus on the prevention and control of certain infectious diseases; third, disease and health research institutions that focus on scientific research; and fourth, a small number of private public health agencies and faith-based organizations (FBOs). On the whole, the development of medical and health services in Tanzania and Kenya is constrained by huge financial funding gaps, and receiving external aid has become the main channel to fill the gap. The two countries have a high degree of similarity in receiving external aid funds and aid content. African countries such as Tanzania and Kenya already face multiple health threats, especially chronic diseases, but external aid has not systematically addressed the wider prevalence of chronic diseases. Existing public health systems and governance practices in Tanzania and Kenya take into account the fact that infectious diseases are a major health threat and have achieved remarkable results. At the same time, the East African public health system, which relies heavily on external aid, is rife with the over-commercialization of the medical and health sector spawned by neoliberalism, further increasing the disease burden on the local people.

According to statistics from the World Health Organization, in 2015, Egypt's national recurrent health care expenditure accounted for 4.2% of GDP. According to purchasing power parity, Egypt's per capita recurrent health care expenditure is 495.2 US dollars. In 2016, the average life expectancy in Egypt was 61.1 years.

According to data released by the Egyptian Central Public Mobilization and Statistics Agency (CAPMAS), the average life expectancy of Egyptian women in 2017 was 73.6 years, and the average life expectancy of men was 70.8 years. By comparison, in 2006, the average life expectancy for women in Egypt was 69.1 years and for men was 66.5 years.

In 2017, the Egyptian Parliament passed the “Comprehensive Medical Insurance Law,” taking the lead in establishing a comprehensive medical insurance system in Port Said Province, which will be gradually expanded to Suez and Ismailia (the first phase of implementation). Egypt plans to fully establish a medical insurance system within 15 years (in 6 stages). In 2017, 46.9% of women participated in health insurance, and the participation rate of men was 54.6%.

References

- Akashi H, Osanai Y, Akashi R (2015) Human resources for health development: toward realizing universal health Cov-erage in Japan. *Biosci Trends* 9(5):275–279
- American CIA (2017) The World Factbook [EB/OL] (2017-01-12) [2017-03-19]. <https://www.cia.gov/library/publications/resources/the-world-factbook/geos/ja.html>
- ASEAN Secretariat (2015) Top Ten ASEAN Trade Partner Countries/Regions, 2015. https://asean.org/wp-content/uploads/2016/11/Table20_as-of-6-dec-2016.pdf
- Butler D (2006) Disease surveillance needs a revolution. *Nature* 440:6–7
- Caballero-Anthony M (2015) Health governance and dengue in Southeast Asia. S.Rajaratnam School of International Studies, Singapore, pp 1–8
- Christopher J, Counts J, Skordis-Worrall (2016) Recognizing the importance of chronic disease in driving healthcare expenditure in Tanzania: analysis of panel data from 1991 to 2010. *Health Policy Plan* 31:2016
- Clement Y (2020) 90% of new cases in dorms as testing is stepped up. *The Strait Times*, 17 April. <https://www.straitstimes.com/singapore/90-of-new-cases-in-dorms-as-testing-is-stepped-up>
- Cui L (2012) Malaria in the greater Mekong subregion heterogeneity and complexity. *Acta Trop* 121(3):227–239
- Delacollette C (2009) Malaria trends and challenges in the greater Mekong subregion. *Southeast Asian J Trop Med Public Health* 40(4):674–691
- Ikeda N, Saito E, & Kondo N (2011) Japan: universal health care at 50 years. *Lancet*, 378(9796),1094
- Japan SBOJ (2016) Japan statistical yearbook [EB/OL]. (2016-11-01) [2017-03-19]. <http://www.stat.go.jp/english/data/nenkan/66nenkan/1431-03.htm>
- Jeremy B (2020) Coronavirus Stokes Middle East Boiling Points. <https://www.bbc.com/news/world-middle-east-52493608>
- Jonathan M (2020) Coronavirus: a ticking time-bomb for the Middle East. <https://www.bbc.com/news/world-middle-east-52103958>
- Liu Y, Xu Z, Sun W (2002) The background and significance of “healthy Japan 21”. *Chin Public Health* 18(4):134–135
- Mathuros T (2009) Effects of the El Nino-southern oscillation on dengue epidemics in Thailand, 1996-2005. *BMC Public Health* 9:422
- Nathan K, Chikwe I, Francine N (2020) Is Africa prepared for tackling the COVID-19 (SARS-CoV-2) epidemic. Lessons from past outbreaks, ongoing pan-African public health efforts, and implications for the future. *Int J Infect Dis* 2(93):233–236

-
- Tamiya N, Noguchi H, Nishi A (2011) Population ageing and wellbeing: lessons from Japan's long-term care insurance policy. *Lancet* 378(9797):1183–1192
- Weiss R, McMichael A (2004) Social and environmental risk factors in the emergence of infectious diseases. *Nat Med* 10:S70–S76
- Zhang X, Liu X (2007) The development status and prospect of traditional medicine in Pakistan. *Asia Pac Traditional Med* 3(9):18–20