

CITY BRIEF

DA NANG EXPLORING THE CHALLENGES OF AN URBANIZING CITY

City Brief
Written in 2019 by
Vo Ho Bao Hanh &
Phan Tran Kieu Trang



CELC DAU
TRUNG TÂM HỌC TẬP GẮN KẾT CỘNG ĐỒNG



**UK Research
and Innovation**



**Asian
Coalition
for Housing
Rights**

UCL
THE BARTLETT

Overview

Da Nang is a dynamically evolving city and a driving force for economic growth in Central Vietnam. Supportive policies and programmes have helped reduce the city's poverty levels. The residents' living standards have improved thanks to the development of infrastructure and the expansion of the tertiary sector. However, against the background of rapid transformations, new challenges emerge. First, swift urbanization and an increasing population add significant pressure on the city's infrastructures and exacerbate vulnerability to climate change. Next to that, the orientation of Da Nang towards industry development and the expansion of the construction sector has seen the large-scale conversion of agricultural lands into urban functions. This has impacted dwellers in numerous ways, including resettling thousands of families to remote city areas, disrupting their livelihoods and their social networks. Not least, these transformations have a significant environmental impact on local ecosystems. Much like in other cities, low-income communities are the ones that bear the brunt of these changes. Therefore, the equitable development of the city cannot happen without the recognition and integration of these groups in planning the future of Da Nang.

Suggested citation: Vo Ho Bao Hanh & Phan Tran Kieu Trang (2019). Da Nang: Exploring the challenges of an urbanizing city. Da Nang: Da Nang Architecture University

Cover image: An aerial view of the city of Da Nang (Photo by Van Huong)

Tables and figures are by the authors unless stated otherwise.

Design and layout by Marina Kolovou Kouri



**UK Research
and Innovation**



Table of Contents

List of figures	3
List of tables	3
1. An overview of Da Nang City	5
1.1 Introducing Da Nang	5
1.2 A brief history of Da Nang	6
1.3 Administration and demographic characteristics	6
1.4 The orientation of Da Nang's socio-economic development	9
2. Economic growth, poverty and inequality	13
2.1 Da Nang's economic growth	13
2.2 Understanding poverty and inequality	13
2.3 Responses to inequality in Da Nang	16
3. Urbanization challenges facing Da Nang	19
3.1 Increasing pressure on infrastructures	19
3.2 Vulnerability to climate change	20
3.3 Land conversion and resettlement	20
References	23



Photo by Van Huong

List of Figures

Figure 1. Da Nang is a gateway to four World Heritage Sites in Central Vietnam

Figure 2. Administrative units of Da Nang

Figure 3. Administrative divisions in Vietnam (*Source: Author's own, adapted from the Vietnam Law on Organization of Local Government, 2015*)

Figure 4. Local administration structure of Da Nang (*Author's own, adapted from the Vietnam Law on Organization of Local Administration, 2015*)

Figure 5. Population growth rate of the five centrally governed cities and the whole country between 2007 and 2017 (*Source: General Statistics Office of Vietnam*)

Figure 6. Migration rate of Da Nang city in 2005–2017 (*Source: General Statistics Office of Vietnam*)

Figure 7. Da Nang's orientation for socio-economic development towards 2025-2030, and the vision for 2050 (*Source: Da Nang Urban Planning Institute*)

Figure 8. Per capita income gap between the highest and the lowest income groups in Da Nang

Figure 9. Actual and projected loss of agricultural land by 2030

List of Tables

Table 1. Administrative units of Da Nang (*Source: Da Nang Government*)

Table 2. Poverty rate in Da Nang (*Source: General Statistics Office of Vietnam*)

Table 3. Poverty lines and population of poor households in Da Nang (*Source: Da Nang Department of Labor, Veterans and Social Affairs*)

Table 4. Da Nang land use in 2011 (*Source: Da Nang Statistical Yearbook 2011*)



Photo by Huy Hoàng

CHAPTER 1

An overview of Da Nang City



Photo by Huy Hoàng

An overview of Da Nang City

1.1 Introducing Da Nang

Situated in coastal Central Vietnam with an area of 1,285 km² and a population of more than one million (2017), Da Nang is one of the four largest cities in Vietnam. It is also the driving force of the Central Region's and Western Highlands' economic growth. The city borders the Thua Thien – Hue Province in the North, Quang Nam Province in the South and West, and the Eastern Sea in the East. Da Nang is known as the gateway to four famous World Heritage sites, including the Phong Nha-Ke Bang National Park, the Hue Citadel, the Hoi An Ancient Town, and the My Son Holy Land (Figure 1). Regionally and internationally, Da Nang is one of the critical entry points to the sea of the Central Highlands and the neighbouring countries of Laos, Cambodia, Thailand, and Myanmar. Moreover, it is connected to countries in Northeast Asia through the East-West Economic Corridor, which ends at the

Tien Sa seaport. This strategic location plays a critical role in the city's socio-economic development (Da Nang Government, 2019).

Since being separated from Quang Nam – Da Nang Province in 1997 to become a centrally governed city (along with Ho Chi Minh, Ha Noi, Hai Phong, and Can Tho), Da Nang has undergone significant changes. Along with economic growth, the city developed its infrastructure, the living standards of its residents increased, and its vast potential has attracted investors, tourists, and new residents. Da Nang is envisioned to become a 'second Singapore' and a major hub for services, domestic and international transportation, culture, sports, technology, and education in Central Vietnam. Expectedly, these aspirations are accompanied by tremendous transformations in its urban landscape, including real-estate development, large-scale infrastructure projects, and the expansion of the services sector, especially along the coast. It is estimated that by 2030, the population of Da Nang

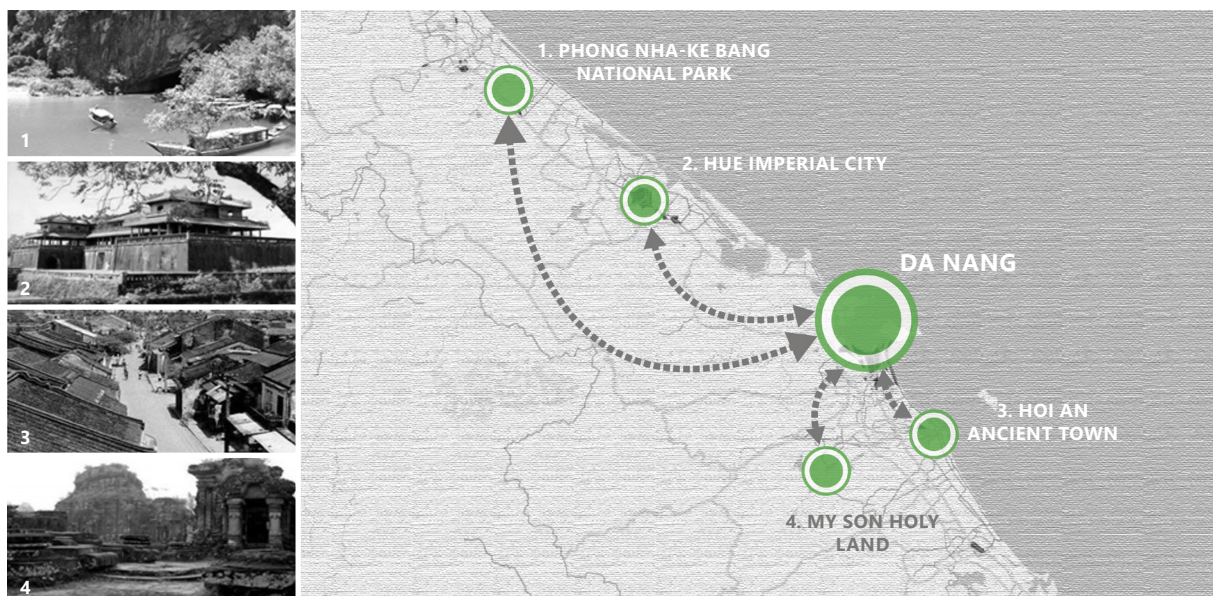


Figure 1. Da Nang is a gateway to four World Heritage Sites in Central Vietnam

will be about 2.5 million—more than double what it is today.

1.2 A brief history of Da Nang

The name “Da Nang” is a distortion of the word “Danak” in the ancient Champa language, which means a vast water area or “big river / river mouth”. In the middle of the 16th century, while Hoi An was a busy trading centre, Da Nang was only a small port for the shipment of goods and ship repair. However, by the early 18th century, Da Nang had gained significance and became an increasingly important trading centre that would eventually take over the role of Hoi An. This shift started happening especially once the shipbuilding industry in Europe developed and large deep draught vessels could easily go in and out of the Da Nang Bay (Da Nang Government, 2017a). After 1835 and the proclamation of King Minh Mang, Da Nang—then called Cua Han—became the largest commercial port in Central Vietnam. As a result, local small-scale industries such as shipbuilding, forestry, fishery, agriculture, and trade started developing accordingly.

When the French invaded Vietnam in 1889, they separated Da Nang from Quang Nam and renamed it Tourane. Under colonial rule, the city focused on developing manufacturing technology

and infrastructure. Indeed, Tourane became one of the busiest ports in Vietnam (Quoc, Dinh & Nhat, 2001). In 1950, Da Nang was handed over by the French to the Bao Dai government, and by 1967, it became a municipality under the Central Government of the Republic of Vietnam. After the country gained complete independence in 1975, Da Nang (temporarily as the joint province Quang Nam – Da Nang) started overcoming the war’s severe consequences. Despite countless difficulties, the city’s rehabilitation and development efforts brought positive results, especially after the renovation policies were launched in 1986. On 6th July 1996, at the 9th National Assembly of the Socialist Republic of Vietnam, Da Nang was separated from the Quang Nam – Da Nang province and became a centrally controlled municipality.

1.3 Administration and demographic characteristics

At present, Da Nang is subdivided into eight administrative units, including six urban districts (Cam Le, Hai Chau, Lien Chieu, Ngu Hanh Son, Son Tra, and Thanh Khe) and two suburban districts (Hoa Vang and the Paracel Islands of the Hoang Sa archipelago) (Da Nang Government, 2017b). These districts are further subdivided into 45 wards, 14 communes, and one township (Table 1, Figure 2).

		SUBDIVISIONS	AREA (km²)
DA NANG DISTRICTS	Cam Le	6 wards	33.3
	Hai Chau	13 wards	24.1
	Hoa Vang	14 communes, 1 township	737.5
	Lien Chieu	5 wards	83.1
	Ngu Hanh Son	4 wards	36.5
	Son Tra	7 wards	60.8
	Thanh Khe	10 wards	9.3
	Hoang Sa	—	305
	TOTAL	45 wards, 14 communes, 1 township	1,479.1

Table 1. Administrative units of Da Nang (Source: Da Nang Government)

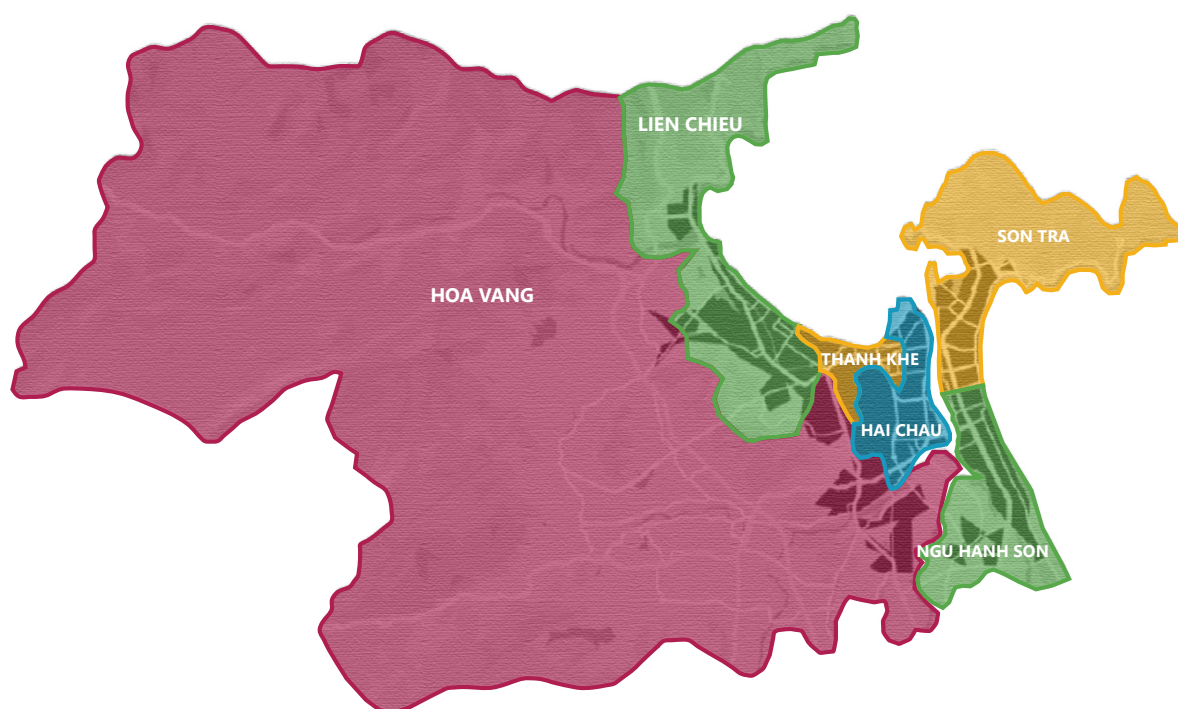


Figure 2. Administrative units of Da Nang

Being a centrally governed municipality, Da Nang's local administration consists of the People's Council and the People's Committee, established at the city, district, and ward levels. The council and committee are in charge of all aspects of the city's management and administration (Figures 3 and 4). The administration at each level is organized according to the unit's characteristics (e.g., population, size, the number of attached administrative units, and socio-economic development status) and is defined under the Vietnam Law on Organization of Local Administration dated 19th June 2015.

In 2017, Da Nang's official population reached 1,064,070 people. The city's population growth rate was between 2.66% and 3.15% during 2005-2010 (Figure 5)—much higher than the national average rate that was between 1.07% and 1.17% during the same period. The growth rate hit a peak in 2010, reaching 3.15%, and making Da Nang the third fastest-growing province nationwide, right behind the two southern industrial provinces, Binh Duong

(4.41%) and Dong Nai (3.5%). In 2011, the growth rate returned to 2.53%, followed by a slight annual decrease since then. The peak around 2010 was caused by an influx in migration intake (Figure 6), which can be attributed to two factors (General Statistics Office of Vietnam, 2018). First, it was at that time that Da Nang started to get back on its path of strong economic development supported by the recovery of the global and national economy (ibid.). This revival came with plenty of remarkable achievements in terms of economic growth, tourism, and infrastructure development. Accordingly, Da Nang's average GDP growth rate of 11% during 2006–2010 peaked at 12.6% in 2010. Second, due to an increase in the number of unofficial immigrants in the years before 2010, the city planned to introduce immigration control policies, which would temporarily stop the registration of newly arrived migrants as residents of Da Nang without fulfilling specific criteria. This measure caused a surge in the number of immigrants in 2010, right before the policy would come into effect.

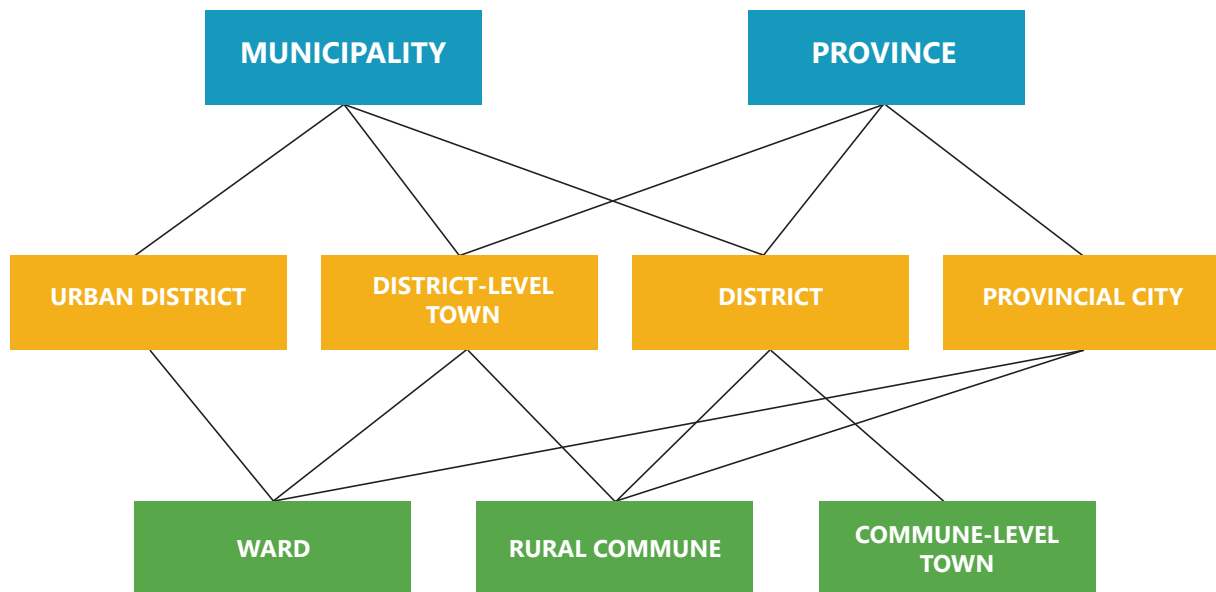


Figure 3. Administrative divisions in Vietnam (Source: Author's own, adapted from the Vietnam Law on Organization of Local Government, 2015)

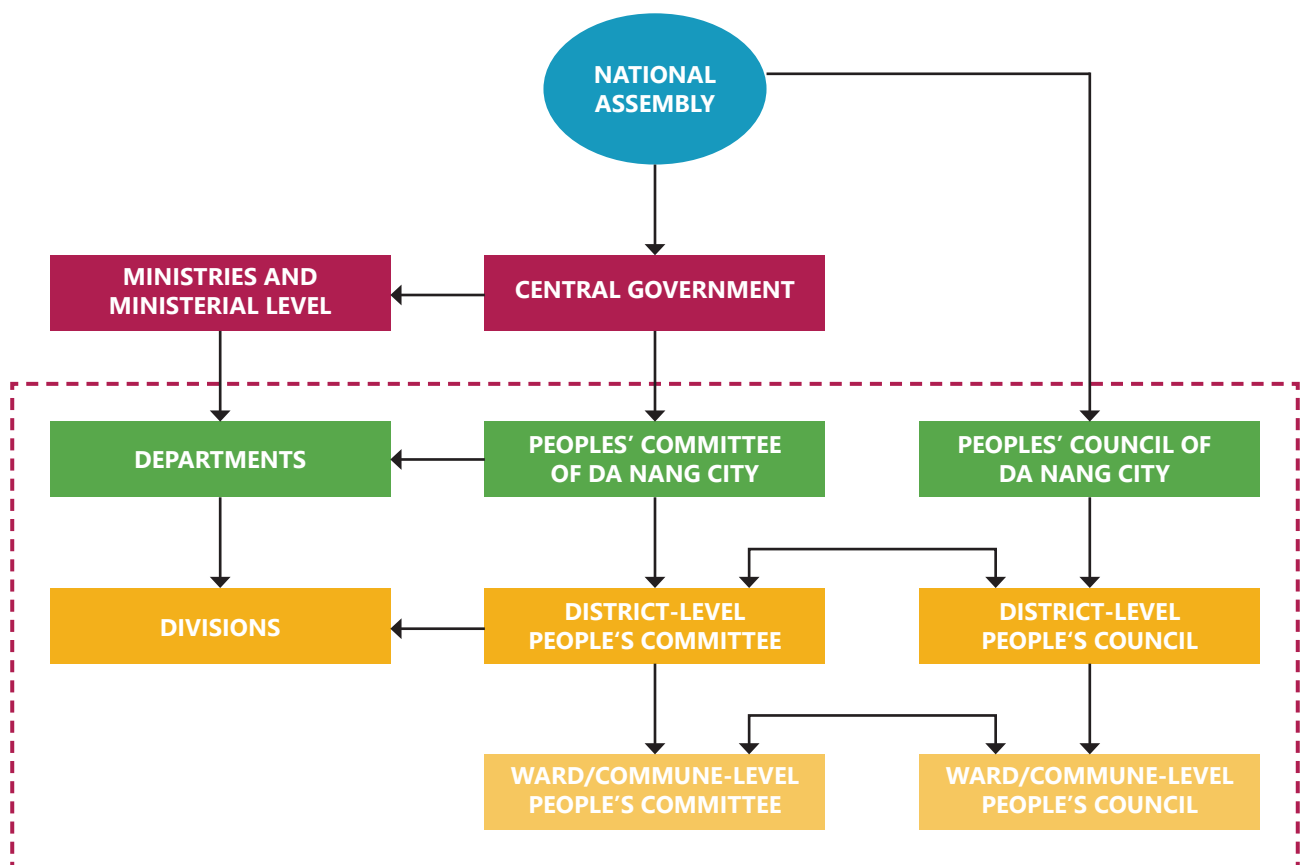


Figure 4. Local administration structure of Da Nang (Author's own, adapted from the Vietnam Law on Organization of Local Administration, 2015)

The average population density of Da Nang is approximately 883 persons/km² (2019). The districts Thanh Khe and Hai Chau have the highest density as they are at the heart of the city and have been urban areas for the longest time. On the other hand, Son Tra, Cam Le, and Ngu Hanh Son are the city's most recently added urban areas. Not including the Hoang Sa islands, the lowest population density in mainland Da Nang is in the rural district Hoa Vang (only 172 persons/km²) (Da Nang Government, 2019).

development is to be an urban area with national significance and the major socio-economic center of Central Vietnam towards 2025–2030 (Figure 7). It is projected that by 2020 the population of Da Nang will be around 1.6 million, of which the official urban population will be about 1.3 million. Only a decade later, by 2030, the population of Da Nang is estimated to reach about 2.5 million, of which the official urban population will be 2.3 million. The dominant (and ambitious) vision for Da Nang is to become a hub for the service sector, a seaport city, a critical domestic and international transportation and transit nod, and a centre for finance, education, and high technology. With such an extensive agenda, rapid transformations of the urban landscape have been taking place to fulfil this vision. Accordingly, there

1.4 The orientation of Da Nang's socio-economic development

The city's aspiration in terms of socio-economic

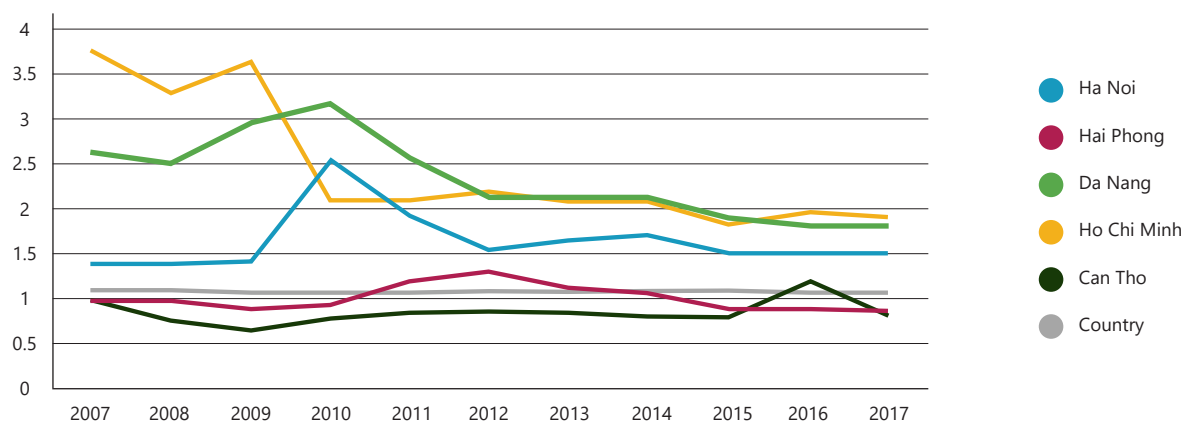


Figure 5. Population growth rate of the five centrally governed cities and the whole country between 2007 and 2017 (Source: General Statistics Office of Vietnam)

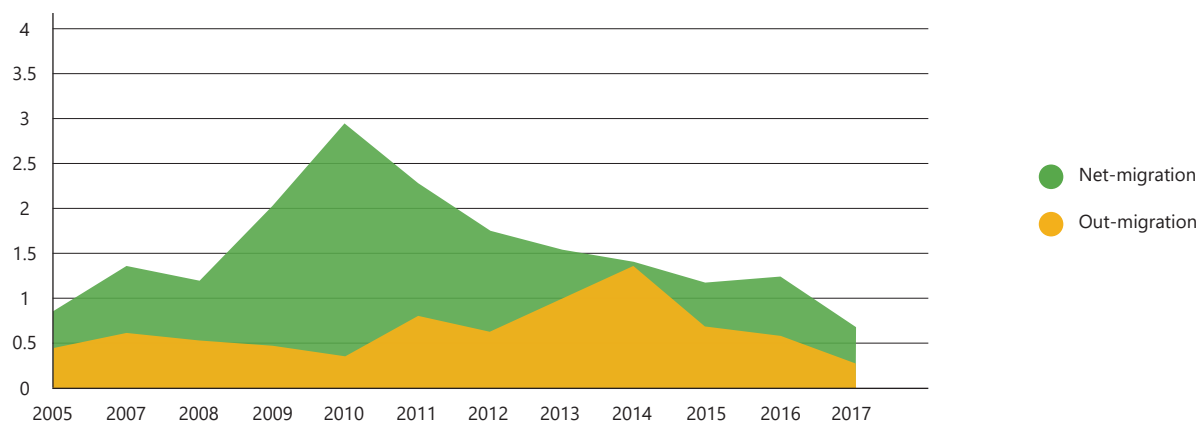


Figure 6. Migration rate of Da Nang city in 2005–2017 (Source: General Statistics Office of Vietnam)



Photos by Huy Hoàng



Figure 7. Da Nang's orientation for socio-economic development towards 2025-2030, and the vision for 2050 (Source: Da Nang Urban Planning Institute)

have been significant investments in establishing the technical and social infrastructure of Da Nang, aiming to contribute to the goals of social security, improving people's living conditions, and economic development.

Among the service sectors, tourism plays a significant role in the city's economic development and has a vast influence on the trajectories pursued by authorities and investors. In 2017, Da Nang welcomed 6.6 million tourists—an increase of 19% compared to 2016—among which 1.33 million were international tourists (Colliers International Research, 2017). Currently, there are 23 direct international flight routes to Da Nang in operation, with more than 328 flights per week. Air travellers to Da Nang in 2018 reached about 2.35 million. In the same year, tourism contributed more than VND 24 trillion—an impressive figure for the smokeless industry in a young city like Da Nang. According to the Department of Tourism, the goal set for 2019 is VND 27,400 billion from tourism (even higher than 2018, by 13.9%). To date, the city has 785 accommodation establishments with 35,615 rooms, roughly half of which (43%) are concentrated in just 79 4/5-star hotels, with the rest belonging to smaller establishments (Khuê, 2018). With these impressive numbers, Da Nang has the second-highest number of accommodation establishments nationwide, only after Ho Chi Minh City.

Besides its benefits and opportunities, tourism development has also created enormous pressure on dwellers. For example, the coastal area in Da Nang, which used to be a quiet cluster of fishing villages, has been increasingly populated by luxury hotels, restaurants, and commercial buildings serving tourism activities. This has either caused the outright removal of fishing settlements by investors and real estate corporations or has limited their direct access to the sea. In addition, because the city's infrastructure has not caught up to the vast flocks of tourists arriving each year, Da Nang experiences environmental challenges (e.g., waste, wastewater, air pollution) and more frequent shortages of electricity and water in residential areas (Tien, 2017).

According to the Ministry of Natural Resources and Environment, the leading cause of marine pollution is rapid tourism development, with tourism activities affecting 20–30% of the marine ecosystem and coastal landscape. For example, coastal seawater pollution due to recreation activities, water sports, boats transporting tourists, and coral exploitation for souvenir production have contributed to the degradation of the tropical ecosystem. All this concludes that the benefits from tourism are captured primarily by investors and corporations, while the fishing communities have been disadvantaged.





Photo by Huy Hoàng

CHAPTER 2

Economic growth, poverty and inequality



Photo by Huy Hoàng

Economic growth, poverty and inequality

2.1 Da Nang's economic growth

As mentioned, Da Nang has witnessed remarkable changes in economic development since it became a Grade-1 municipality in 1997. Its GRDP growth rate has always been higher than the national average. The biggest gap was recorded during the period 1997–2011 when the average growth rate of Da Nang's GRDP was at 11% per year compared to the national average rate of 7% per year. The GRDP of Da Nang in 2011 amounted to VND 13,114 billion, while the average GRDP per capita in 2011 reached VND 41 million. In 2016, the city's GRDP was 8.75%, while Vietnam's GRDP grew at 6.20%. The gap continued closing in 2017 with growth rates of 7.2% and 6.8%, respectively.

The city's economic development has also seen a restructuring of its leading economic branches. Historically, Da Nang's economy had been dominated by the industry and construction sectors, but this has been changing. The tertiary sector gradually became the city's most significant economic pillar as measured by GDP contribution. Industry and construction have moved to the second position, followed by agriculture, forestry, and aquaculture. The contribution of the agriculture–forestry–aquaculture sector to the GDP gradually decreased to 1.68% from 9.74% during 1997–2017. Conversely, the industry and construction sectors climbed from 30.40% to 56.20% of the GDP during the same period. This has been a necessary transition to keep up with the local policy targets towards industrialization, modernization, and enhancing the quality of economic growth and development (World Bank, 2011).

The structure of labour has also been changing in accordance with the economic restructuring. As a result, the average proportion of people working in

the services sector increased to 57.25% in 2010 from 35.28% in 2003. Correspondingly, the percentage of labourers working in factories and construction decreased from 38.19% to 33.93%, while the agriculture–forestry–aquaculture sector experienced the sharpest fall, down to 8.82% from 25.82%, during the same period.

2.2 Understanding poverty and inequality

Following the overall tendency of Vietnam, Da Nang witnessed impressive poverty reduction over the last two decades, from 9% in 1997 down to 0.5% in 2016, compared to the national poverty rates of 40% and 5.8%, respectively (Table 2). However, many challenges persist as the poverty line keeps increasing. In 2013, it was reported that more than 22,000 households in Da Nang lived under the poverty line of 600,000 VND/person/month (approx. 26 USD) for rural areas and 800,000 VND/person/month (approx. 34 USD) for urban areas (Table 3). According to the then poverty lines, Da Nang fulfilled the objective of poverty elimination already by the end of 2015, i.e., two years ahead of its 2013–2017 plan. During that time, the city government supported preferential loans for 34,000 low-income households and delivered free health insurance cards to about 237,000 people in need. In addition, 1,250 families received housing subsidies, and 5,900 people were offered free vocational training. Moreover, 9,700 people from low-income households got jobs, and many of these families' children received tuition fee reductions and scholarships from the government (General Statistics Office of Vietnam, 2018).

On 1st January 2016, the poverty threshold for Da Nang was officially raised for the period 2016–

POVERTY RATE		1997	2006	2008	2010	2012	2013	2014	2015	2016
POVERTY	Da Nang	9.0	4.0	3.5	5.1	2.5	1.6	1.2	0.8	0.5
	Vietnam	40.0	15.5	13.4	14.2	11.1	9.8	8.4	7.0	5.8

Table 2. Poverty rate in Da Nang (Source: General Statistics Office of Vietnam)

POVERTY LINES	YEAR	POVERTY THRESHOLD IN URBAN AREAS	POVERTY THRESHOLD IN URBAN AREAS	POOR HOUSEHOLDS
	2013	600,000 VND/person/month (approx. 26 USD)	800,000 VND/person/month (approx. 34 USD)	22,000
	2016	1,100,000 VND/person/month (approx. 47 USD)	1,300,000 VND/person/month (approx. 56 USD)	23,354
	2017	1,100,000 VND/person/month (approx. 47 USD)	1,300,000 VND/person/month (approx. 56 USD)	4,990
	2018	1,100,000 VND/person/month (approx. 47 USD)	1,300,000 VND/person/month (approx. 56 USD)	2,300
	2019	1,300,000 VND/person/month (approx. 56 USD)	1,500,000 VND/person/month (approx. 65 USD)	not available

Table 3. Poverty lines and population of poor households in Da Nang (Source: Da Nang Department of Labor, Veterans and Social Affairs)

2020 to an average monthly income of below 1,100,000 VND (47 USD) per person in rural areas and 1,300,000 VND (56 USD) per person in urban areas. Accordingly, 23,354 poor households were re-identified, accounting for 9.18% of the city's total population during that year.

Thanks to significant efforts and policies to address poverty, at the end of 2017, the number of poor households in Da Nang dropped to 4,990, or 1.96% of the total population. Out of these, 3,004 households have a working capacity (1.18%), while 1,986 families are unable to work because of disability, age, or other vulnerability factors. According to the Da Nang Department of Labor, Veterans and Social Affairs, the number of poor households decreased further to 2,300 households in 2018. At the 9th session of the People's Council of Da Nang City Course IX, in December 2018, the city passed a resolution to raise

the poverty line further to 1,300,000 VND/person/month (56 USD) in rural areas and 1,500,000 VND/person/month (65 USD) in urban areas (Da Nang People's Committee, 2018).

Generally, cities in Vietnam are allowed to set their own poverty lines based on their living costs and the availability of budgets to support poor people, as long as their thresholds are not lower than those set by the Central Government. Nevertheless, it is suggested that these lines do not reflect the rising cost of living in urban areas, and Da Nang is no exception. This means that the determination of poverty lines can produce inaccurate and arbitrary results, identifying very different numbers of poor households from one year to the next solely based on the threshold.

At the same time, the question of who benefits from



(top; bottom left) Photos by Van Huong

(bottom right) Photo by Huy Hoàng



Photos by Huy Hoàng

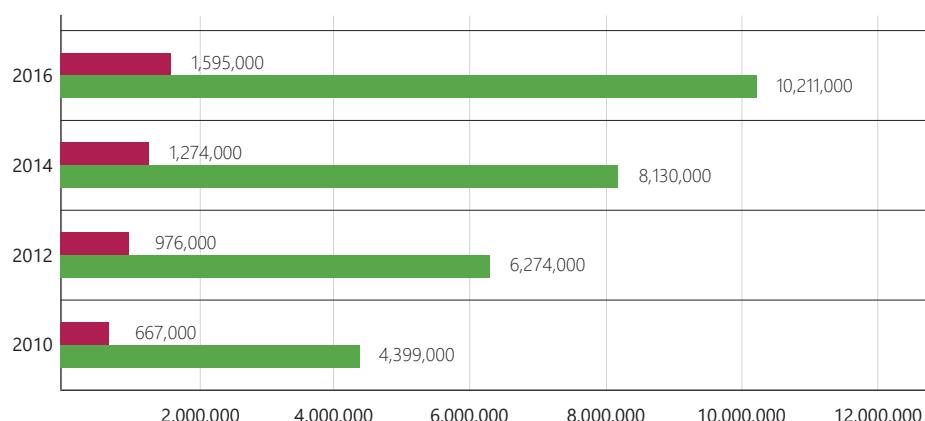


Figure 8. Per capita income gap between the highest (●) and the lowest (●) income groups in Da Nang

this rapid economic growth persists. With regards to the status of income inequality in Da Nang, it can be seen that the gap has been increasing between 2010 and 2016. While there is no doubt that the income and living standards of all groups have improved, Figure 8 shows that the income of the rich grows disproportionately to that of the poor, leading to an increasing wealth gap. Economic growth, therefore, brings more benefits and opportunities to the rich than the poor in the city.

In addition to economic inequality, the poor and near-poor households of Da Nang still face unstable employment and insufficient access to health care, education, housing, and other social services despite the city government's determination and efforts to support them. Like other provinces and cities in Vietnam, access to healthcare and education services can vary significantly depending on the geographic location, ethnicity, and income level. People in urban areas find it easier to access these services, even with different quality levels, than their rural, ethnic minority, and poor counterparts.

2.3 Responses to inequality in Da Nang

To tackle urban equality, the Da Nang government has been paying attention to and directing efforts at reducing poverty. The municipality's poverty

reduction policies and programmes include loans and subsidies, vocational training, scholarships, job creation measures that have been implemented at scale. The Department of Labour, Veterans and Social Affairs is in charge of these diverse programmes at the city level. Still, it needs to collaborate with other relevant departments such as the Department of Construction, the Department of Planning and Investment, the Department of Natural Resources and Environment as well as with Civil Society Organizations such as the Women's Union and Youth Union, among others.

While there are plenty of programmes for poor households, it seems that most of them focus on providing direct financial support rather than protecting the poor from the critical impacts of urbanization and rising natural disasters. The benefits urban poor households in Da Nang have from these policies and programmes are undisputed; however, their efficiency is constrained for many reasons.

First, there is no systematic attempt to identify accurately who the poor are, where they are located, determine their needs, address them, and support them to move above the poverty line. Second, most programmes and projects are caught in highly siloed thinking that fails to integrate resources, actors, and communities. For example, if the financial resources allocated for poverty elimination/reduction programmes are inadequate, it would be

much more efficient to integrate funds to reach the expected targets. Lastly, the supporting programmes are not community-driven, and, as a result, only very few continue to be implemented by the communities after the projects reach their completion.

Therefore, it is necessary to develop programmes that help mitigate the adverse effects on the lives of the urban poor and support them to quickly recover and restore their livelihoods after experiencing disruptions from disasters or resettlement. Environmental and social impact mitigation and post-disaster recovery should be supported with community development funds or social enterprises committed to eco-community development. This would be a cost-effective mechanism to reduce poverty and promote community resilience. Next to that, efforts should be made to support existing responses of poor communities to social and environmental changes considering their assets rather than introducing measures with a top-down approach.





Photo by Van Huong

CHAPTER 3

Urbanization challenges facing Da Nang



Photo by Huy Hoàng

Urbanization challenges facing Da Nang

Cities in Vietnam have been experiencing the same problems as most developing countries, where socio-economic growth has been accompanied by rapid urbanization. The General Statistics Office of Vietnam projected an increase in the country's urbanization rate from 30% in 2009 to approximately 45% in 2030 and 60% by 2050. Meanwhile, the urbanization rate of Da Nang has been higher than 50% for the longest time. Notably, in 2009, it had the second-highest urbanization rate at 77.6% among the provinces in Vietnam. The commitment of the Vietnamese government toward industrialization and modernization has accelerated this city's urbanization during the last two decades, fuelled by consistent economic growth and the resultant steady increase in population, much through rural-urban migration. In this context, Da Nang has been facing severe challenges due to population growth and increased pressure on natural resources and urban service infrastructure.

3.1 Increasing pressure on infrastructures

First, as the city's population is estimated to reach 2.5 million by 2030, it is expected that urban infrastructures in Da Nang will become overloaded, especially in crowded areas. Critical stresses in densely populated areas have been rising, including traffic congestion, water shortage, neighbourhood insecurity, and poor healthcare for children. Many of these challenges are related to environmental and resource management.

Electricity: The electricity demand has been growing continuously at 7–8% per year, yet the supply has not matched this upward tendency. As a result, there has been a shortage of electricity throughout the city

during the dry season.

Water supply: Next to that, since 2018, Da Nang's inhabitants have been facing clean water scarcity even during the rainy season. Typically, the issue would only occur in the months of the dry season, but reduced rainfall has led to lower water levels across the region's natural reservoirs, and has also meant that the river water has become more saline.

Waste management: Solid waste management is another significant challenge, requiring the collection of around 900 tons of waste daily. Due to the lack of recycling facilities, most of that waste is deposited in Da Nang's central 50 ha landfill. The dumpsite is planned to close down by 2022, yet for the 28 years of its existence, it has impacted around 2,000 households living nearby. The smell and leakages from the landfill have been seriously affecting people's health.

Wastewater: Furthermore, the city faces the challenge of managing its wastewater. Only 15–20% of the total population is connected to the city's overburdened wastewater treatment plants, causing river and coastal pollution, especially during the rainy season. Moreover, recent studies suggest that many peri-urban and urban areas lack collective waste and sewage treatment plants, causing the disintegration of surface- and groundwater and soil and air pollution. To cope with this urgent problem, the city government started implementing a project in 2018 to collect sewage along the coastal street of Truong Sa, with a total investment of VND 211 billion. Addressing these stresses is a pressing task for the municipality as authorities have been striving to promote Da Nang as an environmental city by 2030.

Comprehensive planning with a long-term vision

is critical in this regard, and these plans must be developed with many inputs and not just delivered in a top-down fashion. However, according to the Study on Integrated Development Strategy for Da Nang City and Its Neighboring Area in the Socialist Republic of Vietnam carried out by the Japan International Cooperation Agency (JICA), the Construction Master Plan for 2030 was prepared without direct inputs from local communities and without reflecting the conditions on the ground. In other words, the reality does not match the Master Plan land use and zoning requirements. For this reason, the Master Plan lacks relevance and does not capture the current urban development trends and conditions in Da Nang (JICA, 2010).

3.2 Vulnerability to climate change

Another major issue is the severe effects of climate change—against which Da Nang is particularly vulnerable—which could exacerbate the living conditions for 2.5 million people during the next 15 years. The city is susceptible to shocks such as typhoons, floods, heatwaves, droughts, and saline intrusion. In addition to such disastrous events, Da Nang faces long-term stresses associated with these phenomena, such as the gradual degradation of its housing stock and built environment, water shortages, unemployment, poor healthcare, and challenges in maintaining business continuity. In perspective, floods and typhoons have led to 219 deaths or missing persons, 226 injured persons, the loss of 156 ships, the destruction of 138,134 houses, and damages to infrastructure and agriculture totalling 423 million USD between 1998 and 2015. In addition to disaster-related shocks, the city's urban water supply is under stress. Droughts, saline intrusion in rivers, and river-water exploitation are increasingly impacting the ability to meet the city's water demand. This, in turn, increases the pressure on socio-economic sectors such as tourism development, environmental sanitation, and public health (100 Resilient Cities, 2019).

Da Nang's already overloaded urban infrastructure implies even greater threats to its residents when coupled with increasing disaster risks. Especially vulnerable groups such as immigrant labourers and poor households living in urbanized areas are likely to face the most severe consequences from climate change. They mainly live in the city's industrial zones, renting modest rooms that are not resistant to typhoons and floods.

3.3 Land conversion and resettlement

Moreover, the land-use changes and resettlement associated with urbanization have led to a loss of livelihood for rural residents. The rapid pace of agricultural land loss has become a central concern of the Vietnamese government, compelling authorities to issue the Decree 391/QĐ-TTĐ dated 18th April 2008 on Land Limitations. This Decree attempted to minimize the transfer of agricultural land for urban purposes. However, in the case of Da Nang, urban conversion still occurs as land is more profitable when classified as urban than it is as agricultural. It is suggested that, in Da Nang, urban areas grow faster than the population grows, yet if the density of already built-up areas increased, there would be less need for land conversion and peri-urban growth. Since Da Nang was carved out of Quang Nam province in 1997 to become a Grade-1 municipality, its once vast agricultural areas started diminishing.

The urban sprawl that came with the city's rapid growth caused a massive loss of cultivated lands and the relocation of more than 50,000 households from the newly converted lands. During only five years, from 2005 to 2010, more than 530 hectares of the city's agricultural land was lost. Still, compared to the intensity of land conversion in 2011, this was a small amount. Indeed, in 2011 alone, there was a 1,330-ha loss of agricultural land in Da Nang. Cumulatively, the loss of cultivated land from 2000-2011 amounts to 40% of Da Nang's agricultural land. If this tendency continues at a similar rate, as the Construction

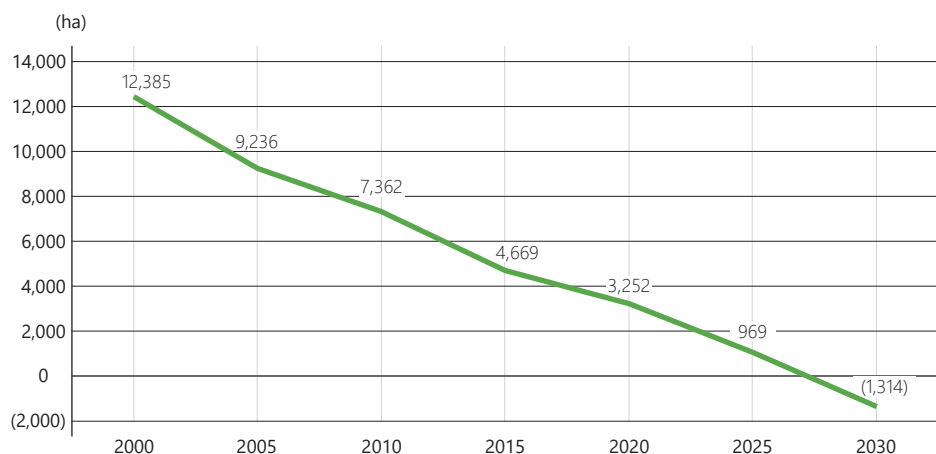


Figure 9. Actual and projected loss of agricultural land by 2030

LAND USE	LAND USES	TOTAL	Of which			Error/1
			Agriculture, Forestry	Non-agric. land	Unused land	
	TOTAL	128,543	66,093	52,076	1,943	-8,431
	Of which: Non-island	98,043	66,093	21,576	1,943	
	Of which: Urban	24,554	9,164	14,305	1,042	
	URBAN DISTRICT					
	Hai Chau District	2,328	18	2,310	0	-
	Thanh Khe District	944	21	907	16	-
	Son Tra District	5,932	3,732	2,164	37	0
	Ngu Hanh District	3,912	843	2,455	579	-34
	Lien Chieu District	7,913	4,153	3,462	279	-1
	Cam Le District	3,525	397	3,007	112	-9
	RURAL DISTRICT					
	Hoa Vang District	72,489	56,929	7,271	902	-8,387
	Hoang Sa District	30,500	-	30,500	-	-

Table 4. Da Nang land use in 2011 (Source: Da Nang Statistical Yearbook 2011)

Master Plan 2030 envisions, thousands of hectares of agricultural land would be converted into urban land for construction, leading virtually to a complete loss of agricultural land within 15-20 years (Figure 9, Table 4).

This tendency has created long-term challenges for rural residents. In a study analysing rural-urban linkages in Da Nang, Nguyen, Mai and Tran (2015) identified one of the most severe consequences is the loss of livelihood for many households reliant on farming and fishing. Many families of farmers

and fishers have been resettled either in remote urban areas far from agricultural lands or the sea or in medium-rise apartment buildings. Due to the loss of cultivated lands, a large proportion of the rural population has shifted their employment into the industrial sector, working in local factories and enterprises. However, such shifts have not been easy, leading to many people quitting their new jobs. In addition, many rural families have been deprived of their land to free up space for various projects. Yet, these projects have not even started being implemented in many cases. This is a double blow to

the relocated families that expected at least to find jobs as construction workers in the new developments. In other words, the residents have already lost the means of production and employment and are stuck with no alternative than to wait for the very developments that displaced them to be started. As a result, the resettled communities are often faced with increased unemployment and poverty rates.

Another issue is that, although the government gives compensation for land acquisition, these payments are generally too low compared to the market value. The families losing their lands have to pay for resettlement sites, apartments, or new housing construction, which typically cost around 85–90% of the compensation. Yet, the compensation rate is often too low to deal with sharp increases in land and material prices. Many are forced into rental accommodation in this context, thereby compelling the city to catch up with its housing supply and renovation of existing buildings to meet the growing rental demand. As this situation continues, Da Nang faces challenges dealing with deficient apartments for medium and low-income people and responding to the increasing inequality in housing access. Specifically, the government aims to address the lack of affordable housing for low-income people, adapt the existing and emerging housing stock to resist natural disasters, and focus on livelihood restoration of the resettled communities.

Next to the social and cultural consequences, these land transformations threaten to put traditional and community values into oblivion. Urbanization and resettlement have led to the disruption of local networks and customary systems of care. For instance, Da Nang was formed from several coastal fishing villages that emerged hundreds of years ago. However, along with the city's rapid development, some of these fishing villages started being gradually erased and resettled, and the remaining settlements struggle for their survival. There is a lingering threat that they too will finally have to give way to urban development and mass tourism projects. On the flip side, the loss of agricultural land also affects the

potential for ecotourism development, including the emergence of eco-villages and sustainable production initiatives, which could create new jobs and bring revenue to the city. Combined with extensive construction and the concretisation of Da Nang, the loss of farming lands increases the risk of flooding and poses a threat to the livelihood of the rural population.

Against this backdrop, the focus of the research project Knowledge in Action for Urban Equality will be placed on Da Nang's fishing villages. These settlements have been an integral part of Da Nang's history; however, the knowledge about their communities, culture, heritage, and development is limited and fragmented. In a climate of rapid change and extensive transformations, the fishing communities have been already impacted in numerous ways and continue to be excluded from decisions that affect their lives. Therefore, the research will be mobilized to explore how collective and community-led initiatives can counter this growing inequality and include marginalized communities in the city's future vision. The first step to doing that is to uncover and document their stories, wisdom, practices, and traditions with a participatory approach and bring the communities' voices to the table along with every other urban stakeholder.



References

- 100 Resilient Cities, 2019. Resilience Strategy for Da Nang city. [Online] Available at: https://www.100resilientcities.org/wp-content/uploads/2017/07/Da-Nang-Resilience-Strategy_2.pdf
- Colliers International Research, 2017. Danang Quarterly Knowledge Report, Danang: s.n.
- Da Nang Government, 2019. Da Nang Portal. Population. Available at: https://danang.gov.vn/web/guest/gioi-thieu/chi-tiet?id=40958&_c=40 [Accessed 27/12/2019]
- Da Nang Government, 2017a. Da Nang Portal. Da Nang History. Available at: https://www.danang.gov.vn/web/en/detail?id=26031&_c=16407111 [Accessed 27/12/2019].
- Da Nang Government, 2017b. Da Nang Portal. Location and Natural Conditions. Available at: https://danang.gov.vn/web/en/detail?id=26029&_c=16407111 [Accessed 27/12/2019].
- Da Nang People's Committee, 2018. Nghị Quyết thông qua nâng chuẩn hộ nghèo, hộ cận nghèo tiếp cận đa chiều, giai đoạn 2016-2020, áp dụng trong 2 năm (2019-2020) trên địa bàn thành phố Đà Nẵng. Đà Nẵng, s.n.
- General Statistics Office of Vietnam, 2015. Major finding: The 1/4/2015 time-point population change and family planning survey. s.l.: The Statistical Publishing house.
- General Statistics Office of Vietnam, 2018. General Statistics Office of Vietnam. [Trực tuyến] Available at: www.gso.gov.vn [Accessed 25/03/2019].
- JICA, 2010. Study on Integrated Development Strategy for Danang City and Its Neighboring Area in the Socialist Republic of Vietnam, Danang: s.n.
- Khuê, H., 2018. Phát triển bền vững loại hình lưu trú. [Online] Available at: <https://baodanang.vn/channel/5404/201812/phat-trien-ben-vung-loai-hinh-luu-tru-3127324/index.htm> [Accessed 29/12/2019].
- Nguyen, T.T., Mai T. N and Tran M. L., 2015. Analysis of Rural-Urban Linkages in Fast Growing Cities for Enhancing Resilience to Natural Disasters -Case study: Đà Nẵng City, Vietnam. VNU Journal of Science: Earth and Environmental Sciences, Vol. 31, No. 3, pp. 46-59.
- Quoc, D.T, Dinh, T.H., Nhat, N.V., 2001. Danang qua các thế kỷ. Danang: Danang Publish house.
- Tien, L. T., 2017. Tác động của dịch chuyển dân cư đến lối sống của cư dân vùng ven biển thành phố Đà Nẵng. Đà Nẵng, s.n., p. 118.
- World Bank, 2011. Vietnam Urbanization Review Technical Assistance Report, s.l.: s.n.

Back cover:
Photo by Huy Hoàng



KNOW

Knowledge in Action
for Urban Equality

