Transformative Adaptation and Social Justice in Ho Chi Minh City, Viet Nam

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Prepared for the UNRISD project
Transformative Adaptation to Climate Change in Coastal Cities

The research for this report was funded by Rosa-Luxemburg-Stiftung with support from the German Ministry for Economic Cooperation and Development. The content of the publication is the sole responsibility of the contributors and does not necessarily reflect a position of RLS or UNRISD.

December 2019
Summary
This case study is part of the UNRISD project “Transformative Adaptation to Climate Change in Coastal Cities” which explores adaptation decision-making processes and barriers to transformative solutions in order to inform more progressive policy making in the context of Southeast Asian coastal cities.

This paper introduces governance and decision-making processes for urban development in Ho Chi Minh City and gives an overview of adaptation planning and strategies to deal with increasing levels of urban flooding. It provides a comparative case study of two urban upgrading projects that affected low-income dwellers in informal settlements. Through this analysis, the authors point out social justice implications of adaptation policies and hope to identify how Ho Chi Minh City can move towards more transformative adaptation.
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1. Introduction

Around the world, climate change and its impacts are at the centre of attention. As mitigation efforts are far from being able to reduce the impacts of past emissions, many governments are looking to incremental adaptation to reduce the vulnerability of social-physical and ecological systems to climate change. Climate change, however, is only one of numerous problems facing modern urban systems with dense urban conditions often making the system more sensitive to changes and intensifying climate impacts (Storch 2008; Revi et al. 2014; Pelling et al. 2015; Eriksen et al. 2014). To integrate adaptation into ‘development-as-usual’ paradigms thus risks reproducing the system that creates vulnerability in the first place (Eriksen et al. 2014). In addition, in the growing urban economy, vulnerability is complex and, in many cases, multiplied by other social stressors, such as inequality, marginalization, lack of access to resources, and poverty. Each inhabitant experiences risk and vulnerability differently (O’Brien et al. 2007). As climate change adaptation is nested within social and political structures (Eriksen et al. 2014), transformative adaptation is critical to address root causes of vulnerability.

Ho Chi Minh City (HCMC) is the economic hub with the highest rate of urbanization in Viet Nam. Located on the coastline, it is seriously threatened by climate change impacts. According to a 2010 Asian Development Bank report, HCMC is one of the world’s top 10 cities with the most population likely to be severely impacted by climate change by 2050. New research suggests that even with ambitious climate change mitigation, the impacts of sea level rise will be much bigger than previously anticipated and could leave 23 to 31 percent of the population in Viet Nam below high tide lines (Kulp and Strauss 2019). Millions of citizens will be at risk due to floods, droughts and tropical storms. Flooding, soil erosion, salinization and urban heat islands are already happening in the HCMC metropolitan region.

The current state of adaptation in HCMC is one of basic prevention and protection. The city’s master plan for flood responses relies mostly on hard infrastructural measures such as dykes and sluice gates to protect the city from fluvial flood (Phi and Quan 2018). While there has been progress in promoting integrated planning, sustainability and “no-regret” measures that bring positive benefits regardless of how the climate changes, disparities remain among different interest groups, and between policies and implementation. Inefficiency in public participation and stakeholder engagement is another obstacle. Moreover, climate policies and urban planning strategies rarely address inequality, or the needs and perspectives of poor and marginalized populations. This paper explores options for more transformative adaptation, which is understood as change that tackles the root causes of poverty, inequality and environmental destruction, and which can be driven by innovative policies that are grounded in normative values of social justice and environmental sustainability (see UNRISD 2016; 2019). As such, adaptation needs to go beyond technical solutions and address structures and processes that currently lead to highly uneven development outcomes and exacerbate vulnerabilities. This paper seeks to investigate HCMC’s institutions, decision-making processes, as well as the potential for transformative adaptation and barriers that could prevent it.

2. Urban planning and development in Ho Chi Minh City

HCMC is located in the south eastern region of Viet Nam, on the west bank of the Saigon river. As a key economic zone of the country, the city contributes 20 percent of national GDP. The city consists of 12 “urban” districts (Districts One to Twelve), four rapidly urbanizing “semi urban” districts (Binh Thanh, Go
Vap, Tan Binh and Phu Nhuan) and six largely rural “outer” districts (Cu Chi, Hoc Mon, Thu Duc, Binh Chanh, Nha Be, and Can Gio). The current official population of the city is 8,859,688 people.¹

Figure 1. Map of Ho Chi Minh City

Urban and Rural District Map in Ho Chi Minh City

Source: VCAPS 2013

HCMC is home to rapid growth of both the elite and middle class living in gated, luxury housing on one hand, and low-income communities living in alleys and slum settlements on the other. While average annual income in 2017 was approximately USD 2,500, it varies largely between different sectors and positions and falls below a living wage which was estimated at approximately USD 3,500 in March 2016 (ERC 2017). In 2017, 1.1 percent of city population (that is of those registered and counted) were poor, according to the city’s poverty standard. As HCMC continues to grow, poor communities face the challenge of increasing prices for health services, food and fuel, among others.

¹ This is the official estimate from January 2019, not counting military and police forces. The number was estimated at 13 million in 2017 when counting all people who live, work and/or study in the city while remaining registered in their home provinces outside of the city.
2.1. A historical review

Table 1. Overview of main urbanization periods and city plans

<table>
<thead>
<tr>
<th>Period</th>
<th>City plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>French colonization period</td>
<td>1862 – The first master plan by Coffyn (for 25 km² accommodating 500,000 people) 1890 – second plan by Betruax 1943 – spatial plan by Pugnaire (designed for 1 million people by 2000) 1951 – first Vietnamese attempt at urban planning by Bao Dai’s government (not implemented)</td>
</tr>
<tr>
<td>Ngo Dinh Diem regime</td>
<td>1958 – Ministry of Reconstruction and Urban Planning issues new land use plan (extension and revision of the 1943 Pugnaire plan) for 675 km² and 3 million people 1960 – Ngo Viet Thu develops “La Conurbation De Saigon Cholon”, a plan for an administration center between the agglomerations of Saigon and Cholon 1962 – Doxiadis plan, focusing on methods that could relocate urban population previously in poor housing conditions 1965 – Plan of Saigon Metropolitan Area (for the city’s 1.7 million population and 2.5 million in the metropolitan area) 1968 – revised plan for 1.7 million in the city only 1972 – “Dialectics of Urban Proposal for the Saigon Metropolitan Area” proposed 30-year plan by USAID</td>
</tr>
<tr>
<td>Vietnamese government 1975-1980s</td>
<td>Five-year plans (deurbanization period after 1975)</td>
</tr>
<tr>
<td>After 1986</td>
<td>1998 – Urban master plan for the year 2020 funded by the World Bank (partially implemented) 2010 – Master plan for 2025 by the Prime Minister 2011 – Amended plan for approval by the People’s Committee 2017 – Amended plan for regional construction of HCMC until 2030, vision to 2050 by the Prime Minister 2019 – Approval of the Prime Minister for HCMC to prepare an adjusted urban master plan until 2045</td>
</tr>
</tbody>
</table>

Source: compilation by authors based on Nguyen et al. 2016

During its history, HCMC has been through numerous concepts of planning, growth and land management shaped by various socio-political conditions. Under the Nguyen dynasty, Viet Nam’s last imperial government, the city developed mainly around the port on the Sai Gon river. Anyone was more or less free to use and develop land. French colonization during 1858-1945 significantly changed the landscape. The colonial government aimed to develop HCMC, named Sai Gon then, into an administrative and commercial hub for south Viet Nam, and later for Cochinchina. French architects developed master plans inspired by European modern cities with tree-lined avenues and parks. Between 1954 and 1975, under an American-backed regime, French plans underwent revisions and expansion. The French-established land system continued with three modes of ownership: state, private and collective. From reunification of North and South Viet Nam in 1975 until the 1980s, under communist rule, land came under the people’s ownership and state management. Development efforts were concentrated in the inner city, within a radius of 5km from the center (Nguyen et al. 2016). The year 1986, marked by Doi Moi reform, opened a new era of governance in the country with a market-oriented economy. HCMC, which got its name after 1975, became the leader of the national economy. The period that followed witnessed the growth of private enterprises
and privatization of state-owned enterprises (Gomez-Ibanez and Thanh 2008). Since the reform in the 1980s, planning in HCMC has continued to evolve and the city has remained the biggest economy in the country.

**Figure 2. Institutional changes in HCMC urban development**

![Institutional changes in HCMC urban development](source: Nguyen et al. 2016)

2.2. Current development programmes and achievements

Today, expansion into the hinterland has been the main driver of city planning. The 2020–2025 land use plans seek to boost population growth in numerous hinterland areas, such as Binh Tan, Tan Phu and Binh Chanh districts (in the west), Go Vap, Thu Duc and District Twelve (north of the airport), Hoc Mon and Cu Chi districts (in the north), District Nine (in the east), and District Seven, District Eight and Nha Be district (in the south) (Storch and Downes 2011). The city’s master plans envision five major development corridors channelizing spatial growth of the urban area into its hinterland, making HCMC the centre of a well-connected region including seven neighbouring provinces. A reduction in open land, due to both formal planning and informal land conversion, is foreseeable (ADB 2010, cited in Katzschner et al. 2016).

With the aim of creating a modern and livable city, in 2015 the government of Ho Chi Minh City approved and implemented Seven Breakthrough Programmes, including (i) Quality of human resources; (ii) Improvement of administrative reform; (iii) Economic growth and competitiveness; (iv) Transportation and traffic jams; (v) Flood reduction; (vi) Water pollution; and (vii) Urban improvement. In addition to the Seven Breakthrough Programmes, the city government has been working on three supporting programmes: (i) Implementation of Resolution 54 of the National Assembly on piloting institutions and policies for the development of Ho Chi Minh City, (ii) smart city development; and (iii) development of innovative urban areas in the eastern part of the city (Districts Two, Nine, and Thu Duc). Central programmes include urban upgrading, reducing environmental pollution, and flooding reduction.

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2 Amended plan for regional construction for HCMC till 2030, vision to 2050.
3 The resolution gave Ho Chi Minh city government more rights on (i) land management; (ii) investment, finance and public investment; (iii) authorized management and incomes of local officers.
4 The current plan is for the period of 2018-2020, reflected in Decision 5560/2018/QD-UBND.
5 The current plan is reflected in Decision 1161/2019/QD-UBND.
Current policies embody an inclination towards an integrated approach with intersectoral and interregional collaboration, and a balance between economic growth and environment, ecosystem and climate change concerns. HCMC planners have considered and integrated ideas such as green growth, smart city and sustainable development. The success of such plans and initiatives, though, depends not only on the novelty and suitability of ideas and policies, but also on their implementation and on institutional norms.

2.3. Current governance structure and decision-making process

The city government is responsible for promoting growth and implementing national plans and associated targets, including those related to national climate change strategies approved in 2008. The city translates overall socio-economic plans to urban management plans at city and district levels. It also guides the development of sectoral plans, such as land use, energy, transportation, industry, water management, waste management, construction, health, agriculture and tourism plans. Besides socio-economic planning, the local government also plays a role in policy implementation.

**Figure 3. City planning structure**

<table>
<thead>
<tr>
<th>Provincial level</th>
<th>Central level guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provincial Party</strong></td>
<td>Resolution</td>
</tr>
<tr>
<td>Socio-Economic Plan (SEP)</td>
<td>Implementation plan of SEP</td>
</tr>
<tr>
<td>Master Plan/Urban Plan</td>
<td>Energy</td>
</tr>
<tr>
<td></td>
<td>Industry</td>
</tr>
<tr>
<td><strong>People Committee</strong></td>
<td>Sectoral Plans</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
</tr>
<tr>
<td></td>
<td>Agriculture</td>
</tr>
<tr>
<td></td>
<td>Tourism</td>
</tr>
<tr>
<td></td>
<td>Landuse</td>
</tr>
<tr>
<td><strong>People Council</strong></td>
<td>Strategy (Urban Dev, Climate change, etc.)</td>
</tr>
<tr>
<td></td>
<td>Target program</td>
</tr>
<tr>
<td></td>
<td>Action Plan/Program</td>
</tr>
<tr>
<td><strong>Central GOV</strong></td>
<td>Resolution/Decision</td>
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<tr>
<td>National Strategy/Target Program</td>
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</tbody>
</table>

**Decision making**

The challenges in decision making in HCMC range from a rigid top-down structure to technical inadequacy. As a major city, HCMC’s government has more say in its communication with central government than other provincial authorities. However, there is little decentralization beyond that boundary, leaving district
and commune authorities as mere implementers of pre-designed tasks. Under such a hierarchical structure, current adaptation efforts in HCMC are almost entirely the result of initiatives from central government and the city’s People’s Committee; local planners have neither the confidence nor permission to make decisions (Gravert and Wiechmann 2016). The system reflects the dependence of local governments on guidance from higher authorities and the lack of an effective mechanism to utilize and empower local authorities. Yet local government officers tend to have better understanding of the local conditions, such as the capacities of the inhabitants and the challenges they face. Other obstacles in city-level adaptation are sectoral competition linked to a silo mentality, fragmented decision making, a lack of reliable data and financial capacity, administrative overload, and the overwhelming influence of the private sector making policy implementation fragmented (Gravert and Wiechmann 2016).

The urban planning process in HCMC comprises two main steps: (i) deciding an overall strategic orientation, and (ii) designing specific action plans. This applies to all public matters and often involves a complicated process of negotiation and compromise between the municipal and central governments (Huynh 2015). Overall, the planning system is detached from its supposed beneficiaries.

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<table>
<thead>
<tr>
<th>Example of the decision-making process for a construction project by the Construction Project Management Unit under HCMC People’s Committee (PC), including canal upgrading projects (Interview, 9 August 2019)6</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The project management unit discusses with District authority to propose a project</td>
</tr>
<tr>
<td>• The District authority calls for investment</td>
</tr>
<tr>
<td>• Type-B project (under 1,000 billion Vietnamese Dong (VND)7) to be executed by a project management unit under city PC</td>
</tr>
<tr>
<td>• The responsible/authorized Department (e.g. Department of Construction (DOC), Department of Transportation (DOT)) synthesizes project and submits to the People’s Council</td>
</tr>
<tr>
<td>• City People’s Council approves the project and assigns a mid-term budget</td>
</tr>
<tr>
<td>• HCMC PC allocates budget to project owner</td>
</tr>
<tr>
<td>• The project owner prepares investment projects</td>
</tr>
<tr>
<td>• The project owner submits investment projects to authorized departments (DOC, DOT) for assessment and approval</td>
</tr>
<tr>
<td>• The project owner prepares detailed plans for project implementation</td>
</tr>
<tr>
<td>• The authorized department selects monitoring contractors (for design, construction and auditing)</td>
</tr>
<tr>
<td>• The project owner registers with the Department of Investment and Planning according to the mid-term budget</td>
</tr>
<tr>
<td>• The annual budget is proposed early in the fiscal year and can be adjusted by July or December</td>
</tr>
<tr>
<td>• The project owner selects contractors for survey and construction</td>
</tr>
<tr>
<td>• Department of Natural Resources and Environment (DONRE) approves an Environmental Impact Assessment</td>
</tr>
<tr>
<td>• The project owner prepares design construction plans</td>
</tr>
<tr>
<td>• The project owner submits the plans to authorized department for approval</td>
</tr>
<tr>
<td>• Depending on the complexity of the projects, there will be monitoring or supervising consultants (on technology and budget)</td>
</tr>
<tr>
<td>• The authorized department approves the plan</td>
</tr>
<tr>
<td>• The project owner approves the standardized bidding</td>
</tr>
<tr>
<td>• The project owner selects consultants for design, construction and supervision and prepares monitoring program for approval</td>
</tr>
<tr>
<td>• The District Compensation Board (DCB) manages land acquisition, land clearance and resettlement</td>
</tr>
</tbody>
</table>

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6 Also in reference to Decision 18/2018/QD-UBND by the People’s Committee dated 25 May 2018 on public investment project management.

7 USD1 = VND 23,200 approx. (Oct 2019).
Another major challenge facing adaptation planning in HCMC is the lack of public participation. The existing governance system restricts participation to certain actors, leaving decisions in the hands of a few. Decision making is limited to the Central Committee, People’s Committee, People’s Council, Fatherland Front and other administrative councils (Nguyen and Tung 2007). Mottos such as: “People know, people discuss, people do and people supervise,” and “Government and people collaborate together” guide people’s participation in the planning and implementation of educational, housing and environmental projects. However, with a few exceptions, participation is mostly cosmetic, formalizing a decision predetermined by the decision makers (Nguyen and Tung 2007).

The complex procedure and tight control of the state system, on the one hand, help ensure the quality of policy implementation. On the other hand, it makes project planning and implementation lengthy and difficult for the public to understand, follow and participate in. The enactment in 2019 of the 2017 New Planning Law has the potential to improve city planning and guides integrated planning, public consultation and planning transparency. However, the new law will only be effective if HCMC equips its officials with adequate training, ensures financial and human resources, and transforms the traditional top-down approach to public participation.

2.4. Barriers to city planning and implementation

**Finance**

Finance is one of the biggest concerns in implementing the Seven Breakthrough Programmes, which are supposed to be achieved by 2020. By July 2018, the city had only secured 60 percent of its total budget, with the source of the remaining 40 percent still uncertain. HCMC has been calling for investment through various mechanisms, including public-private partnership (PPP)\(^8\) via the build-operate-transfer (BOT)

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\(^8\) The use of public-private partnerships in development projects is widely debated and often opposed by a range of actors, including civil society representatives for a number of reasons, including inequitable distribution of benefits and costs. See Leigland (2018) for an in-depth evidence-based critique.
model, or the build-and-transfer (BT) model. The success of these mechanisms is rather limited, as past experiences show that investors are more interested in fast-return projects such as toll road construction.

**Land acquisition and resettlement**

Land acquisition has been a struggle in various development projects. Local citizens express discontentment with land acquisition and resettlement policies and many affected households refuse to hand over their land. HCMC has taken numerous efforts to address the challenge. For example, to strengthen governance and legal aspects, the city set up a new division on land compensation under DONRE. In August 2018, the city government passed Decision 28/QD-UBND on resettlement compensation and support for land acquisition in HCMC. In April 2019, the city sent a letter of request to the central government asking for authority to speed up land acquisition and resettlement processes. Yet, despite these efforts, project delays due to difficulties acquiring land persist.

**Weak governance**

Limited capacity is another major issue. A lack of capacity to execute large-scale projects has led to problematic land acquisition and resettlement processes as mentioned above (Phi et al. 2015). As a result, despite a budget shortage for the Seven Breakthrough Programmes, the DOT had only spent 58 percent of its assigned budget by October 2018; the Flood Mitigation Steering Committee just 53 percent of its yearly assigned budget.

**2.5. City planning versus realities**

Expansion of the city has been criticized due to inundation risks caused by blocked natural drainage, and high-rise development in historic districts in contravention of the 2008 land use plan (Huynh 2015). The city is still not able to address its flooding and traffic issues despite investments in infrastructure and flood prevention, most notably the VND 10,000 billion project for urban flooding in 2016. In addition to unresolved problems such as pollution and traffic, urban heat has recently emerged as a new urban challenge. Within this context, the main drivers of development dynamics in the city are: booming population, real estate development, and urban upgrading.

**Immigration and population growth**

Current estimates put the city’s population at 13 million when including non-registered migrants. The population has been increasing due to immigration, with about 200,000 to 400,000 people migrating from rural areas to HCMC every year. The attractiveness of HCMC has been a constant for decades. Migration to the city started when people fled during the American war (or the Viet Nam War, depending on your perspective) and continues today as people seek better economic opportunities and services (Nguyen et al. 2016). Immigrant population is growing at a rate of 8 percent per year, putting great pressure on existing infrastructure, such as roads, housing, schools, and hospitals. At the same time, immigrants are an important driver of urban growth (Seo and Kwon 2017).

The conditions in HCMC informal settlements are in general better than in other cities. Most households, with variations depending on when they settled, are able to legalize their houses (Tri et al. 2016). Illegal settlements, especially along and on rivers and canals, are one of the issues resulting from increased

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9 BOT (build-operate-transfer) is a type of investment contract signed between the government and an investor allowing the investor to develop an infrastructure project in a defined period of time. After the agreed period of time has elapsed, the investor transfers the construction works to the government without payment.

BT (build and transfer) is a type of investment contract signed between the government and an investor for infrastructure development. After finishing construction, the investor transfers the work to the government. In return the government makes favorable conditions for the investor to do other projects to gain back the invested money, or the government pays the investor.
immigration. Since the 1990s, the city government has invested in numerous programmes to clear informal housing along canals and improve the urban landscape.

Real estate development
Real estate development is central to urbanization in HCMC. According to Kontgis et al. (2014), urban growth and expansion in HCMC has led to 660.2 km² of cropland being converted into built-up areas in the period from 1990 to 2012—an almost five-fold increase in the amount of urban land. In 2016, HCMC’s real estate market was in the top five in the Asia-Pacific region,10 catering not only to the local population but also to foreigners. The open land ownership policy of the 2018 Land Law has given opportunities for foreigners to buy houses and apartments in the city. There has been an increase in the number of luxury apartments in the city centre, most of which are owned and developed by a few major developers including Vingroup, Novaland, CapitaLand and Phu My Hung Corp. HCMC is also among the top cities in Viet Nam where land prices have grown the fastest, driven also by speculation surrounding upcoming projects.

Urban upgrading programme
Urban upgrading is part of the Seven Breakthrough Programmes and involves reorganizing communities along rivers and canals and revitalizing degraded apartments. The goal is to not only improve quality of life but also enhance water quality, flood reduction and green spaces, and facilitate new land development. The city has implemented a number of projects funded by both foreign and local agencies, such as Nhieu Loc–Thi Nghe Canal Upgrading (World Bank: 200 million USD), Tan Hoa–Lo Gom Canal Upgrading (Belgium: 200 million EUR), and a flood prevention program (Vietnamese government via a BT contract with Trung Nam Company: 400 million USD). These projects have upgraded thousands of alleys, roads and drainage channels, involving in the resettlement of approximately 36,000 households (Department of Construction 2018). Despite positive changes in the face of the city, 20,000 households still live in precarious conditions near canals and in degraded apartments. Reconstruction and relocation, however, face the challenge of limited capital resources, legal arrangements and are problematic from a social justice perspective.

2.6. The city’s challenges
Ho Chi Minh City is at a crossroads: It is witnessing rapid growth in urban infrastructure while facing multiple problems such as overcrowding, population explosion, inundation, pollution and heat, affecting overall quality of life. The city centre recently saw a shift in its urban landscape from dense, informal low-income housing to low density high-end developments (A. Katzschner et al. 2016). Social differentiation in the area is following suit in terms of income, education attainment, family size and consumption patterns (Waibel 2009). Urban development, especially in flood-prone areas, human-induced environmental degradation, and increasing loss of green and open spaces are the major causes of urban environmental problems (Storch et al. 2016).11 Many parts of the city have suffered from regular flooding during rainy seasons leading to delayed traffic, life disturbance and health issues. The city also suffers from water and air pollution, and growing heat. The model of economic growth observed in HCMC has increasingly been putting people and assets in the path of encroaching climate change (McElwee 2017).

According to Wust et al. (2002), the expansion of the informal economy, coupled with the abolition of free education, health care and other public services, has polarized urban society. While the absolute number of poor households is falling, their living conditions are deteriorating (Nghi et al. 2003). Life in the city has

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11 According to Storch et al. 2016, the exposed built-up area of HCMC is expected to increase threefold by 2100, reaching 480 km, of which only one third is caused by climate change, leaving the majority to the impact of socio-economic changes.
been becoming more and more difficult for the poor, due to not only low income but also high living costs, unstable jobs, poor health conditions, low educational levels, unsafe and unhygienic housing, and limited social capital. Poverty assessments can therefore give an incomplete or misleading picture depending on the methodology and threshold used. An assessment in 2009 found a poverty rate of 0.31 percent in Ho Chi Minh City when using the national poverty line (adjusted to 4.77 million VND/person/year), but pointed out that the figure would rise to 13.9 percent when applying the new poverty line set at city level (12 million VND/person/year). The proportion of people in poverty rises even further when measuring multidimensional poverty that looks at deprivations in eight different dimensions including social security, housing, education and health. In that case, 28 percent of people face deprivations in three or more dimensions (UPS-09 Report). Both income poverty and multidimensional poverty rates are higher for temporary residents (KT3 residential status holders) than for permanent residents (KT1 and KT2 residential status holders). As acknowledged by the report, temporary and unregistered residents were underrepresented in the survey, leading to an overall underestimation of poverty. Most recently, for the period of 2016-2018, the poverty line in Ho Chi Minh City was set at VND 21 million/person/year, recording 3,767 poor households, constituting 0.19% of the population. The rate is expected to increase when applying the new 2019 poverty line of VND 28 million/person/year.

Since the 1980s, the arrival of people from all parts of Viet Nam has flooded the city with different types of settlement. Many, especially migrants in the later decades, come from the elite class from north, central and south Viet Nam who often achieve high socio-economic status in the city (Waibel 2009). Others are less fortunate and end up in precarious informal settlements. By end of the 1990s, HCMC had 67,000 households living in slums (nha o chuot), the majority of which are along the canals (Wust et al. 2002). Such settlements have been the target of the ongoing urban upgrading projects.

Urban upgrading has been forcing slum dwellers to move to the outskirts of the city. Low-income migrants are the most vulnerable due to their lack of access to administrative resources and information. They have reported unstable livelihoods as a result of urban upgrading projects as well as a lack of transparency in project planning and implementation and local governance. This stems from the lack of proper recognition of the migrants (Nghi et al. 2003). In most cases, the authority sees them as the “downside” of the urbanization, limiting the “miracle” of economic growth (Wust et al. 2002).

Another characteristic of the city is the ineffective use of spatial plans to control urban expansion. Out-of-plan and stalled developments dominate the current urban space in HCMC (Bao 2017). For example, the 2025 Master Plan envisions high-income lifestyles, developing away from low-lying wetland, protecting the historic core of the city in Districts One and Three, and expanding satellite centres, among other things. However, expansion towards the lowland (for example, District 7, Thu Thiem), high-rise development in historic area as well as high density in the centre have continued, leading to urban flooding (Gomez-Ibanez and Thanh 2008). Small-scale individual projects and large-scale real estate developments have taken off since the market economy began operating independently of official spatial planning (ibid, Downes and Storch, 2014). Consequently, some may say private investors are now HCMC’s urban planners. This results from a governance system that lacks transparency and fails to facilitate effective collaboration between local authorities and private actors.

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12 Ha Noi People’s Committee and HCMC People’s Committee (2010) Urban poverty survey UPS-09. Project: Supporting indepth assessment in Hanoi and Ho Chi Minh city. Funded by UNDP.
As existing planning and governance structures are reaching their limits, inhibiting the capacity of the city to adapt to climate change, HCMC needs transformation. It is a vivid example that business-as-usual is not appropriate any more. As McElwee (2017) states, “tinkering around the edges with adaptation projects will not be enough; explicit considerations of climate change risk and hard decisions about economic growth and development strategies are necessary.”

3. Climate change measures and integrating them into city planning

3.1. Climate change institutions and activities

In Viet Nam, climate change adaptation and mitigation efforts are the responsibility of the Ministry of Natural Resources and Environment (MONRE) and its subordinated departments (DONRE) in cities and provinces (NTPRCC 2008). DONRE is also responsible for land use planning and has a supervisory role in environmental sustainability initiatives. In HCMC, DONRE has established the Climate Change Steering Board, which reports directly to the People’s Committee. In flood and storm matters, the Ministry of Agriculture and Rural Development (MARD) oversees dyke management and flood management via the the Flood Control and Storm Prevention Steering Committee.

Central government introduces guidelines on flooding and storm prevention14, vulnerable population resettlement and disaster alleviation. The city has the authority to raise funds to carry out flooding and storm prevention activities. Decision No 43/2006/QĐ-UBND by the city government guides the collection of fees from city dwellers for flood and storm prevention activities; poor households, students and disabled people are exempt from this fee.

The Ministry of Construction (MOC) and its provincial branches oversee urban and regional planning efforts. Provincial master plans, guidelines and regulations, development strategies, and national programmes and projects introduced by MOC have great influences on climate change adaptation. Urban planning is highly centralized in Viet Nam, as the Institute of Urban and Rural Planning under MOC is in charge of spatial planning at the scale of 1:5,000 or 1:2,000. The Department of Planning and Architecture is responsible for planning, and must apply MOC regulations. Any technical revision to the design or construction of projects is subject to approval by MOC (Nguyen and Tung 2007).15

The first legal framework pertaining to climate change issues was The National Target Programme to Respond to Climate Change (NTPRCC), approved in December 2008. The general objective of NTPRCC is “to assess climate change impacts on sectors and regions in specific periods and to develop feasible action plans to effectively respond to climate change in the short term and long term”. The programme requires all relevant sectors to mainstream adaptation into sectoral strategies, programmes, plans and decision-making processes, and all administrative bodies to set up action plans and mobilize resources. The NTPRCC gives special emphasis to enhancing the effectiveness and efficiency of state administration and decentralization (L. Katzschner et al. 2016). The NTPRCC outlines tasks and responsibilities. MONRE and DONRE are in charge of the implementation, coordination and supervision of NTPRCC.

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14 Guideline No 18/2006/CT-UBND and Guideline 37/2006/CT-UBND
15 The authors summarize the tasks of the department as follows: “The department consults the City People’s Committee leaders on city planning, assesses planning for group B and C projects, is a link between foreign investors and the Committee, guides investors on architectural criteria and regulations, receives planning documents and solves problems and requests from citizens on architectural and planning issues, and consults districts on architecture and planning. The Department assists architects and companies in the detailed design of housing projects and public works.” (ibid)
Other important frameworks and policies include the Irrigation Plan for Flood Control for the HCMC Area to 2025, approved in 2009, as well as the initiative of the Department of Transport to increase the quality and quantity of greenery and natural drainage capacity along streets in the city centre (A. Katzschner et al. 2016). In 2014, to realize resolution 24-NQ/TW of the Central Party, HCMC People’s Committee passed Decision 2838/QD-UBND, approving an action plan on climate change adaptation, natural resource management and environmental protection. Activities include raising awareness, emission reduction, climate change development scenarios, impact assessment on different sectors. Some projects have been realized in relation to urban flooding reduction (for example, the construction of sluice gates). The challenge that the city faces is how to mainstream climate change adaptation into different sectors.

Table 2. Summary of climate change and adaptation activities planned and implemented by the government plus related legal documents from central to provincial level of Ho Chi Minh City (including Socio-economic plan—SEP), regional and general city plans, climate change (CC) strategies

<table>
<thead>
<tr>
<th>Policy documents</th>
<th>Category</th>
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<tbody>
<tr>
<td><strong>Central Party</strong></td>
<td></td>
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<tr>
<td>2012 – Resolution 16-NQ/TW DEV HCM till 2020</td>
<td>City Dev. And SEP</td>
</tr>
<tr>
<td>2013 – Resolution 24/2013/NQ/TW (XI) Active Response to Climate Change, Improvement of Natural Resource Management and Environmental Protection.</td>
<td>Climate change (Party line)</td>
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<tr>
<td><strong>National Assembly</strong></td>
<td></td>
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<tr>
<td>2017 – Resolution No. 54/2017/QH14 (“Resolution 54”) setting out pilot policies for HCMC</td>
<td>City Dev. And SEP</td>
</tr>
<tr>
<td><strong>Central Government</strong></td>
<td></td>
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<tr>
<td>2010 – 24/QD-TTg 2010 General Plan for HCM to 2050 (QHC)</td>
<td>Urban Plan</td>
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<tr>
<td>2011 – 2139/2011/QD-TTg National Strategy CC</td>
<td>Climate change</td>
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<tr>
<td>2012 – 1775/2012/QD-TTg Program GHGs-Carbon trade</td>
<td>Climate change</td>
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<tr>
<td>2012 – 1182/2012/QD-TTg National Target Program CC 2012-2020</td>
<td>Climate change</td>
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<tr>
<td>2012 – 1474/2012/QD-TTg National action Plan CC</td>
<td>Climate change</td>
</tr>
<tr>
<td>2012 – 1659/2012/QD/TTTg National Urban Development Program 2012 - 2020</td>
<td>Urban Plan</td>
</tr>
<tr>
<td>2013 – 2631/2013/QD-TTg SEP HCM 2020, vision to 2025</td>
<td>City Dev. And SEP</td>
</tr>
<tr>
<td>2013 – Resolution 08/NQ-CP to implement 24/2013/ NQ TW (XI)</td>
<td>Climate change (Party line)</td>
</tr>
<tr>
<td>2013 – 2623/2013/QD-TTg Program (De An) – Urban Development under CC 2013-2020</td>
<td>Urban Plan</td>
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<tr>
<td>2018 – 950/2018/QD-TTg Smart city Program 2018-2025 (2030)</td>
<td>Smart City</td>
</tr>
<tr>
<td><strong>Ho Chi Minh City (Party)</strong></td>
<td></td>
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<tr>
<td>2013 – 36-CTrHD/TU Action Program to implement 16-NQ/TW</td>
<td>City Dev. And SEP</td>
</tr>
<tr>
<td>2013 – 34 CTrHD/TU to implement 24NQ/TW CC</td>
<td>Climate change (Party line)</td>
</tr>
<tr>
<td>2015 – 2015/NQ-TU (X) 7 Breakthrough Program</td>
<td>City Dev. And SEP</td>
</tr>
<tr>
<td><strong>Ho Chi Minh City People’s Committee</strong></td>
<td></td>
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<tr>
<td>2013 – 5392/2013/QD-UBND List of Programs (Projects)</td>
<td>Climate change</td>
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<tr>
<td>2013 – 2484/2013/QD-UBND Action Plan CC till 2015</td>
<td>Climate change</td>
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<tr>
<td>2014 – 2838/2014/QD-UBND Implementation plan for 34 CTrHD/TU, 24NQ/TW CC</td>
<td>Climate change (Party line)</td>
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<tr>
<td>2014 – 3896 /2014/QD-UBND List of Programs (Projects)</td>
<td>Climate change</td>
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</table>
2014 – 4765/2014/VP-DTMT Action Plan (Implement QD 2838) Climate change
2017 – 1159/2017/QD-UBND Action Plan CC Climate change
2017 – 6179/2017/QB-UBND Program Smart city building 2017-2020 (2025) Smart City
2018 – project towards Low-carbon city (CC Bureau)

<table>
<thead>
<tr>
<th>Donor-funded programs</th>
<th>Climate change</th>
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<tbody>
<tr>
<td>2010 – Analysis on Ho Chi Minh city, adaptation to climate change, funded by ADB Climate change</td>
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<tr>
<td>2013 – Climate adaptation Strategy: Ho Chi Minh city moving towards the sea with climate change adaptation, funded by Dutch government Climate change</td>
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<tr>
<td>2019 – SPI-NAMA – The project to support the planning and implementation of NAMAs in a MRV manner, administered by MONRE, funded by JICA Climate change</td>
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3.2. Integrating climate change into planning

Mainstreaming climate change adaptation in socio-economic development planning is at the centre of NTPRCC but actual implementation remains a challenge. Several regions of HCMC have seen progress in water, energy and disaster risk management, yet limitations remain in forestry, roads and transportation, and construction sectors. According to the Climate Public Expenditure and Investment Review project in 2015, the municipal government has improved its planning and fiscal management system over the past three decades, establishing a foundation for climate change mainstreaming; yet integration requires further improvement. The establishment of the National Committee on Climate Change (NCCC) in 2012 has revamped the coordination of climate change adaptation activities across sectors. In 2013, the Ministry of Planning and Investment (MPI) approved Decision 1485 (17 Oct 2013) to promote the integration of climate change initiatives and provide guidelines to planning agencies in the responsible ministries and provinces, but there has been little implementation so far (Tyler et al. 2016).

There are several reasons which explain the minimal implementation of these integration efforts. One is the top-down approach with little engagement of local stakeholders. Others range from a shortage of financial and human resources and poor consultation at the local level, to lack of location-specific policies (McKinley et al. 2015). At the same time, there is limited guidance at national level as to how to integrate adaptation planning into other sectors. As a result, despite the local planning for climate change mandated by the national government in 2010-2013, none of the plans come through, due to a lack of coordination of regular planning and budgeting mechanisms between responsible agencies, as well as a lack of funding (Nam et al. 2015).

4. Case studies: Resettlement in urban adaptation projects

River and canal management has been a big challenge for HCMC. Domestic, small business and industrial wastewater as well as solid waste heavily pollute waterbodies in the city. Recent urban upgrading projects such as Nhieu Loc–Thi Nghe and Tan Hoa–Lo Gom canal upgrading have involved the collection and treatment of domestic wastewater, yet the rate of treated wastewater is still low. In addition, although by law the industrial sector must treat wastewater before discharging it into waterbodies, its effectiveness is still questionable. Canals close to factories and industrial zones (such as Tan Binh and Le Minh Xuan) are extremely polluted. Located in the lower Dong Nai river basin, HCMC is also impacted by wastewater from upstream provinces (for example Tay Ninh, Long An, Binh Duong, Dong Nai via the Dong Nai, Sai Gon and Vam Co Dong rivers). Limited trans-boundary water management makes it more difficult for the city to control and protect surface water resources.
Urban flooding is also one of the city’s top concerns. HCMC has to deal with both pluvial (heavy rainfall) and fluvial floods (from the rivers). While fluvial flood management can be combined with climate change adaptation, pluvial flood is still hardly manageable. The low capacity of the existing drainage system makes it difficult to cope with extreme rainfall. Rapid urbanization reduces permeable surface as well as space for water retention. In addition, the acceleration of extreme events driven by climate change makes more difficult for the city to cope with urban flood issues.

In response to urban flooding and water pollution, current strategies in HCMC mainly focus on hard infrastructural measures. For example, the city has spent approximately VND 10,000 billion on building six tidal control sluice gates and eight kilometers of dyke. Large-scale projects appear preferable to soft measures, such as increasing green or blue structures to in response to pluvial flooding (Nguyen et al. 2019).

“Rescuing the canal” has become the slogan of HCMC development. Official statistics show that in 2002 there were 150,000 low-cost houses in HCMC, of which 93,000 were in poor condition and the targeted in upgrading plans, 25,000 of which encroached on the canals. Urban upgrading by clearing the canals and eliminating slums has been on the agenda since the 1990s (Coit 1998).

Figure 4. Settlements along Doi canal, District 8, 2019

Population growth coupled with a lack of affordable housing in HCMC has resulted in precarious settlements on the outskirts of the city and especially on undeveloped land in the city centre, mostly alongside canals and in flood-prone areas (Wust et al. 2002). By 2017, the city had compensated and relocated around 36,000 households on and around the city’s canals. This section will examine resettlement processes within two major urban upgrading projects, Tan Hoa–Lo Gom and Nhieu Loc–Thi Nghe, in order to identify the challenges and entry points for transformative adaptation in HCMC.

4.1. The two Tan Hoa–Lo Gom canal upgrading projects

Tan Hoa–Lo Gom was a major navigation canal connecting southern Ho Chi Minh City to the Mekong River Delta in the early 20th century. Due to its link to the river, the canal initially attracted migrants from the Mekong Delta who came to trade on the waterway and later moved away from the water due to the
general shift towards land-based livelihoods. Today, it is still mostly migrants and local poor families who end up settling along and on the canals. Canal dwellings have access to neither formal water and sanitation infrastructure nor electricity. Industrial and domestic waste has polluted the canal and the surrounding area. Many of the households only have temporary residence permits or are not registered at all (BTC 2014). In addition, many people bought land in the area without an official land title.

Figure 5. Tan Hoa—Lo Gom Canal, District 6, August 2019

The Tan Hoa—Lo Gom canal has been the target of two canal upgrading projects. The first one ran between 1998 and 2006 with extended support until the 2010s. The Belgian Development Agency (BTC) provided EUR 20 million funding. Between 2013 and 2015, the government led a second urban upgrading project using its own budget. In this paper, we will examine urban upgrading from the perspective of those directly affected and analyse the resettlement process comparatively. Each project, similar to many canal upgrading projects in the city, includes two components: land clearance and construction. While the funder takes control of the construction component, land clearance is under the responsibility of the district authority, in particular the district DOC.

In the first phase, affected households had three resettlement options: 72 households opted for an apartment in Lo Gom apartment building close to the original settlement in District Six; 55 households chose a land plot in Binh Hung Hoa B, Binh Tan district, ten kilometers from the original settlement; and 51 households agreed to receive monetary compensation and find a new home themselves. The project personnel did not encourage self-resettlement. The compensation rate was VND 2.8 million per square metre regardless of land title status, which made it a unique project in HCMC. For those living in a stilt house on the canal, each household received VND 25 million in support from the project.

The BTC applied a special procedure to the project it funded. The biggest innovation was the extensive provision of social support during land acquisition, compensation and resettlement of the 242 households.
In the project, a team of social workers worked closely with the Department of Compensation. They conducted individual meetings with every household to discuss the conditions of their house and the amount of compensation. Project personnel also consulted the households regarding their choice of resettlement. Apartment residents had a chance to observe and raise their opinions about the design of their apartments and the building, through a group of representatives. The group consisted of trusted community members and leaders to support the negotiation and communication between the people and the project personnel. The community expressed a high regard for the building’s design with spacious corridors and common areas.

Interviews with residents of Lo Gom apartment building reveal that people were impressed with the project. The project was flexibly designed to meet the desires expressed by the residents. For example, as not all affected households wanted to live in an apartment, the team scaled down from a fifteen-storey building to a three-storey building. Equally, the project avoided some complexities associated with apartment living, such as management fees or a card-based security system, to respect people’s wishes.

Figure 6. Lo Gom resettlement apartment building in 2019.
A resettlement building in the middle of high-rise luxury real estates

The BTC-guided resettlement process ensured financial security and affordability for affected households. No household moving to an apartment or to a land plot, except a few with enough capital, could pay the difference between the compensation money and the cost of the new property or land within ten years. In order to minimize the possible debt of the households, a non-negotiable rule was that families could only choose from the apartments it could afford. Ground floor apartments came with the highest costs: the closer an apartment was to the road, the more expensive it was. If a family had a lot more money than the compensation of around VND 150 million, they could get a bigger apartment by the main road. With just enough money, the family would get a ground-floor apartment without road frontage. Those with little
money would get the upper-floor apartments (interview, 2 Aug 2019). Households receiving land in Binh Hung Hoa B followed a similar rule, choosing their plot according to budget. Each family was also provided with a ten-year, low-interest micro-loan from CEP, a microfinance institution founded by the Labour Federation of HCMC, for housing construction. Indeed, in 2015, some families had just fully repaid the loan after 10 years. The social workers also assisted the self-resettling families and encouraged them to join job training. Additionally, each self-resettling household received a kiosk in the market next to Lo Gom apartment building as their new source of income.

According one social worker, the project leaders were proactive in negotiating with the authority, ensuring exceptions and flexibility for residents. The project was able to minimize livelihood disturbance by maintaining instead of relocating houses that were still in good shape, regardless of their small size, or by reducing the width of the alleys compared to plan. It was through informal negotiation that the district authority overlooked the amendments and the city authority legalized them. That “project 415\(^{16}\) had so many exceptions” was well-known in the city. It was the capacity and commitment of the project leaders that minimized the negative experience of the affected community.

The project also provided other assistance for the affected families. The Environmental Development Action in the Third World (ENDA-TM), an international non-profit organization, provided financial support to the Women’s Union and created a credit programme for poverty alleviation and various low-interest loan programmes. Besides, the project was also successful in facilitating a savings group among Lo Gom apartment residents, through which the households built a social network to support each other.

One year after relocation, most households which had resettled in Lo Gom apartment building and many in Binh Hung Hoa B were in the process of reorganizing their lives with a positive outlook, while project experts were concerned about the high risk of impoverishment and homelessness among the self-resettling group (Diệp 2006). By 2019, many self-resettlers had transferred or rented out their apartment and land and moved out of resettlement areas but it is not known whether they were able to improve their situation or not. While the full picture is not clear, only 13 percent of households in the Lo Gom apartment building had moved away by 2012 while 40 percent of households in Binh Hung Hoa B area had moved on (BTC 2014). One explanation for the moving out was a rapid increase in land price. It gave the families an incentive to sell the land, buy a bigger plot outside of the city, and still have money left to start a business.

Our interviews also revealed limitations of the resettlement project. In the first year after resettlement, incomplete infrastructure in Binh Hung Hoa B resulted in a flooding event affecting the residents. In terms of economic conditions, some households reported losing income after relocation. In Lo Gom, only those living on the ground floor of the apartment building could (re)open a business. In Binh Hung Hoa B, residents had to adjust their businesses according to the changes in the market and social network. People who received a kiosk in Lo Gom market did not fare much better. After a few years, market business became unprofitable. Many Binh Hung Hoa B residents decided to sell their kiosk because of the long commute. Today, many kiosks are empty, making kiosk transfers more challenging.

\(^{16}\) Both projects at Tan Hoa—Lo Gom were known as Project 415.
Figure 7. Lo Gom market in August 2019. The on-going market at the side (below) and the empty kiosks assigned to the resettlers from the Tan Hoa—Lo Gom project (above)
While adaptation to changes after relocation varies by household, two major factors determine the extent to which one successfully adapts: on the one hand, physical, financial, social and human assets and on the other hand, the mindset of the people, all of which are interrelated. The former includes physical capacity (as determined by age and health), financial resources, support from extended family members and friends, and information and knowledge. For instance, Mrs. X relocating to the ground floor of Lo Gom apartment building was at ease years after resettlement. When they were living by the canal, her family relied on the hair salon of her daughter for a living. By resettling in the same district, her daughter could easily rent a place and continue the business. In this case, the project option of local resettlement combined with the family’s resources to continue their business helped ease the resettlement adaptation. This implies higher risks for those with fewer physical, financial, social and human assets.

However, a positive mindset also plays an important role especially among resource-limited households. Mrs. Y’s family had settled in Tan Hoa–Lo Gom canal in the 1990s after moving from central Viet Nam. They built a stilt house on the canal and always managed to sustain their livelihoods through different jobs. During the canal upgrading project, Mrs. Y’s family received VND 25 million for their stilt house and the option to buy a plot of land in Binh Hung Hoa B. After spending all VND 25 million on the plot, they still had VND 60 million to pay in 10 years. They also received a loan of 40 million from CEP to build a simple house. Life was difficult, but Mrs. Y never gave up. She sold bread, then switched to rice porridge, then turned to cleaning work at a nearby elementary school. She said: “It was fine to sustain day by day, thus I stay.” Moreover, despite the distance between the resettlement area and her children’s school, three out of her four children remained in school, one dropped out to work. After 14 years, her family managed to upgrade their house with their combined income.

Mrs Y’s case is a demonstration of how motivation, support from the project, and physical capacity together help affected families adapt to change. Another interviewee confirmed the importance of one’s mentality. Mrs. Z said: “If you are hard-working, you will manage whatever the situation, you will find the bowl of rice [a living], if you are not hard-working, it is the same wherever you stay [being relocated or not].” The various cases demonstrate how outside support (both material and mental) could enhance one’s motivation and outlook, which facilitate adaptation and personal transition post-resettlement.

4.2. The second Tan Hoa–Lo Gom project: Back to conventional practice

The second project in Tan Hoa—Lo Gom was funded and managed by the government, with support from the World Bank. The main components of the project included canal dredging, separating flows and embankment along the 6.8 kilometers of canal running through three districts. The project ran between 2011 and 2015; land clearance, compensation and resettlement took place from 2011 to 2013. A total of 1,547 households were subject to relocation. Unlike the first project guided by BTC procedures, land clearance and resettlement in this second project followed regular Vietnamese procedure.

The project benefited some more than others. After the project, those remaining near the canal benefitted from improvements in inundation protection. Land clearance gave road frontage and higher values to many of the remaining houses. Others had the opposite experience. Businesses that were considered polluting, for example those making noodles or tofu, were not allowed to continue their operation on the main road.

Project planning and implementation involved a rigid and bureaucratic approach to public consultation. The project management team held one joint meeting with all affected households and another to handle compensation. The format of the meetings restricted any attempt by the public to express their opinions. Interviewees complained about a lack of information as well as unequal relocation compensation. For
instance, many people were not aware that large households could request more than one apartment. Rumours were the main source of information as project staff were not available to work with the community.

Figure 8. Vinh Loc B resettlement area, 2019

Affected households moved to Vinh Loc B resettlement area, which consisted of apartment buildings, schools and other infrastructure. While the living environment was better than the canal settlement, there were fewer opportunities to make a living. Some people sold the resettlement apartment to buy a new one or rent a place closer to their original homes. Others stayed in Vinh Loc B but continued doing business in the old neighbourhood about 11 kilometers away.

Mr. E is one of the few luckier ones, who relocated but still has a family member living in the original neighbourhood. He is a street vendor selling various items including cold drinks. In 2010, he used the compensation money from the project with an additional 40 million to buy an apartment in Vinh Loc B for his family. For the next five years, he traveled from Vinh Loc B back to Tan Hoa–Lo Hom every day to continue his vending business and take his children to school. Finally, he decided to come back to Tan Hoa–Lo Gom and stay with his mother-in-law so that he could sustain the business without the long distance travel.
Mrs. G, on the other hand, had no choice but to travel 11 kilometers to work on a daily basis. Her family had lived in Tan Hoa since the 1990s with a business selling coconuts. After the project, the family moved to Vinh Loc B but the coconut business continued in Tan Hoa. She said: “Life is almost ok, and stable.” She expressed a motivation to continue working hard to earn a living the way she and her family had been sustaining themselves for a long time.

4.3. Hang Bang upgrading: Risk of landlessness

In the 1990s, the city decided to fill up Hang Bang canal to make space for residential development. All houses in the area received a land title. After years of inundation and pollution due to the cover-up of the canal, the city once again decided to clear the area and return the canal to its original condition. Phase One of the project (2016-2018) involved digging up 390 meters of the canal at two ends, relocating 160 families. Land compensation accounted for VND 380 billion of the total 300 billion budget. Unlike in other less complicated projects, the People’s Council decided to implement land clearance and compensation as a separate project from the construction project. This would allow for more accountability and autonomy for the district government who was in charge of land clearance and compensation. This is one of city’s adjustments in order to minimize implementation delays seen in previous projects. The change was a proposal of the district authority endorsed by provincial authority.
The study found that life has not yet stabilized for the affected community after relocation.

The district Department of Compensation facilitated the compensation process with support from ward officials. Communication of information about relocation procedures was poor, resulting in confusion for many people. One community member, who was working in a market, expressed her frustration: “I was not home all the time, thus cannot know about the regulation.” Moreover, people described the public consultation process as informational events rather than discussions. The department did not take into account opinions raised by the affected people, such as the demand for increased compensation rates.

Compared to the first Tan Hoa—Lo Gom project, the implementation of Hang Bang project, which was designed and guided by the state, was less transparent. People did not take ownership of the relocation; neither the affected families nor the local authority was able to develop mutual understanding and support for each other.

The project had different options for resettlement, including an apartment building four kilometers from the canal, or receiving money compensation for self-relocation. Many families decided to resettle by themselves, as they perceived land to be more valuable and apartment living too complicated. Households with better financial assets could buy a new house near the canal in order to maintain their livelihood activities. Others decided to move further to the outskirts for cheaper land, many of whom would return every day to the area for work.

Compensation rates varied from VND 37 million per square meter for houses in the alley to VND 40 million per square meter for houses on the main road. According to DONRE, project consultants based their compensation rate calculation on current transactions in the area, yet people tend to put lower prices on their official paperwork to avoid taxes. Thus, the compensation rate was lower than market price, making
it harder for families to buy a house of the same size as their original house (interview, 9 Aug 2019). Land market speculation at the beginning of a development project was another reason for the deviation in compensation rates. Between the moment when the department approved the compensation rate and the time families purchased land, the price had risen much higher causing difficulties for affected families.

Figure 11. Hang Bang project

Left – Mrs. A and her mother used the money they received as a family to buy a new but smaller house close to their old home. She comes back to the same location along the canal to sell drinks, where an old neighbour lets her use the space in front of their house.

Right – Mr. B runs a business transporting materials around the neighbourhood. From his new home in Binh Tan district, he travels 13 kilometers back to the canal on a daily basis so that he can continue the business. After sharing the compensation money with his six brothers and sisters, what he received was not enough for a home closer to work. For him, life is not better, but it continues.

Moving was hard mentally for the people. Many people, especially the elders, were in shock due to the sudden disruptive changes to a life they had been attached to for years. Compensation officials, however, did not take this into account because of a lack of capacity and sensitivity in providing affected households with mental and material support.

After the implementation of Hang Bang project, many individuals became poorer. Despite having land ownership prior to the project, some had to rent a home afterwards, a few even became homeless. Household finance was not well-considered in the project design and was handled differently by the affected families. For large households of extended families, the resettlement often meant that they had to split up and move into several units. Family members had to divide the compensation money among themselves or decide
who got to use it for a new house as the amount was not high enough to buy several new homes. This increased the risk of instability and poverty among the affected people. Better-designed support on how to use the money could have limited the risk.

4.4. Social injustice in resettlement

The case studies reflect different approaches to resettlement and how affected households reorganize their livelihood after resettlement. To the city, canal upgrading initiatives did not only address inundation issues but also improved public space and opened up a new landscape for the city. Even the affected households in Tan Hoa–Lo Gom, some of whom had difficulties adjusting to life after relocation, acknowledged the strengths of the BTC-led project. They often pointed to the social workers’ trust, support, and understanding of the community. By extending the support even years after the relocation, the project personnel made sure to accommodate as much as possible the needs of the people. The first phase of the Tan Hoa–Lo Gom project shows that a people-centered approach to resettlement can help reduce disruption and improve the experience of the most vulnerable populations.

However, social justice in urban canal upgrading remains a challenge for adaptation to climate change in HCMC. Although the BTC project was unique for its social support, it was only after more than 10 years that some affected households finally found themselves in a stable life. Most relocated families suffered from a drop in income, an increase in housing expenditure, and a disruption to their social network. In all projects, many became urban “nomads” after relocation in search of a home in the city, a term defined by Wust, Bolay, and Du (2002). As livelihood activities of the urban poor are often place-based and heavily dependent on their social network, housing location plays an important role. While some people living in informal settlements along canals may be used to moving throughout their lives, the location of resettlement housing and access to their social network are of great importance to their livelihoods.

Experts have recommended several ways to minimize disruption and address social injustice resulting from relocation. They include improvement in housing conditions and infrastructure post-resettlement to allow for better child care, for example, alongside well-designed resettlement monitoring (Luan 2009). Moreover, physical, material, social and mental support must be available during and after resettlement (Diệp 2006). Collaboration and trust between the state and the people are also crucial to prevent tension among stakeholders (see, for example, Harms 2013).

One explanation for the absence of transformation is to the city’s tendency to prefer policies and development activities that benefit certain populations at the expense of others, often low-income and minority communities. Comparing the BTC-led project with other canal upgrading projects, it becomes clear that the lack of support services by professional social workers also constrained the possibility for transformative adaptation. Finally, as poverty alleviation does not fall under the responsibility of those handling resettlement projects, a lack of coordination among sectors is another challenge faced by the current system in HCMC.

5. Entry point for transformative adaptation in HCMC

Transformative adaptation is difficult to implement “…because of uncertainties about climate change risks and adaptation benefits, the high costs of transformational actions, and institutional and behavioral actions that tend to maintain existing resource systems and policies” (Kates et al. 2012). Some entry points are easier than the others, depending on the specific structure of the system and its potential. Beliefs,
assumptions, worldviews and paradigms that influence adaptation processes and practices are the most difficult, yet most critical, aspects of transformation (O’Brien et al. 2014).

Using urban upgrading as case studies, we concluded in the previous section that there was much injustice of adaptation strategies in HCMC. Urban upgrading is an audacious attempt to change the “face” of the city, and to improve lives of thousands of people in precarious settlements along the canals. The decision of the city to restore the canals is an innovation in adaptation. While gradually improving canal conditions, the projects disturbed the lives of many households. Resettlement has never been fully satisfactory; discontent has regularly been at the centre of media coverage. While resettlement projects may address urban inundation and pollution, the concomitant processes of land acquisition and resettlement risk disturbing livelihoods and pushing people into nomadic lifestyles and poverty. The case studies suggest a vicious circle of inequality for the affected communities. Socio-economic inequalities interact with political inequalities in voice, representation and influence, so that the socio-economically marginalized often have the least power to respond to and change their situation (Leach et al. 2016). Such problems challenge sustainable growth of the city and the country’s commitment to the Sustainable Development Goals and “leaving no one behind”.

Within the system, we notice dynamics that could potentially be conducive to transformative adaptation and/or incentives for transformation. In the case of HCMC and its current political and social structure, potential for transformative adaptation may arise by learning from local experience, finding incentive for changes at the local level and scaling up to higher levels.

Hereafter, we propose several avenues for enhancing social justice in the city which in turn supports the city’s adaptation and development.

5.1. In the governance arena

*Creating and maintaining channels for state officers to convey innovative and transformative ideas*

Innovation and radical change often start with ideas from within an existing system. However, the transition from acknowledgment of the need for change to actions often requires motivation and the right environment. In an established governance system, especially given the rigid bureaucratic structure in Viet Nam, there are few incentives for experimental ideas, especially without instructions from above. Countries with rather static government and management paradigms are likely to have difficulties in developing, testing, and implementing innovative approaches and paradigms for urban climate change adaptation (Garschagen and Kraas 2011). Reasons why officials may hesitate and not experiment or transform may include: an absence of permission or lack of directives from the higher authority, shortage of financial resources, avoidance of responsibility and fear of failure. This is both the consequence and the sustaining factor of the top-down system with a low level of decentralization (despite some ongoing deconcentration efforts).

However, pressured by failure and discontent at the local level, some officials have started to think about change, and it is essential to have a channel for those opinions to be heard and discussed seriously. One of them is Mr. K from DONRE. He gained 10 years of experience working as a compensation officer at the district level, before receiving promotion to his current position. Mr. K has both experience and understanding of local conditions and the power to advise and raise issues with city leaders. This is a channel to provide recommendations to the central government, a potential pathway towards transformative change. Mr. K and the city have proposed an important recommendation to the Prime Minister for several adjustments and for the city’s autonomy in certain matters. The requests include:
• Streamlining the procedure of land acquisition, compensation and resettlement in order to facilitate effective resettlement and time-effective projects.
• Giving HCMC the autonomy to issue city legal documents to amend compensation pricing, and regulate resettlement and resettlement support services. In that way, the city can be flexible and make appropriate policies, especially by adjusting land prices for compensation to better reflect the true market price.
• Giving HCMC autonomy over compensation and resettlement in projects funded by international donors.

According to Mr. K: “Law and guiding documents always come after the reality; based on the reality we amend the law.” By giving HCMC government autonomy in decision making, faster processes and adjustments can better match the fast-changing conditions on the ground.

One important potential for HCMC is the recently passed Resolution 54 piloting HCMC’s autonomy in decision making in investment, budget, and land use adjustment. Resolution 54 will likely provide the conditions for fast and localized responses to local problems and thus an entry point for transformative adaptation. In response, in September 2019, the city’s chairman started a discussion on urban upgrading in the city. The city is looking for different solutions and financial sources beyond the state budget, especially from international and private investors via PPP mechanisms, to speed up the upgrading process. The city leadership is looking for collaboration with various stakeholders to conduct research on the effectiveness of urban upgrading projects and provide recommendations to the provincial government.

*Improving transparency and communication among all stakeholders*

The lack of a clear and transparent communication system between the people and resettlement officers resulted in much confusion among the households. On the one hand, it limited the resources and opportunities that families received to reorganize their livelihoods after resettlement. On the other hand, social discontent and conflict worsened between the people and the authority. In addition to the implementation of transparency, it is essential for each local official themself to understand the need for transparency, which will be explained later in the discussion of entry points at the personal level.

*Encouraging trials on the ground*

The success of the first phase of the Tan Hoa–Lo Gom project in reducing disturbance and providing adequate support for the resettled households was partly due to the way the project leadership circumvented bureaucratic structures. Understanding the importance of social support for the affected households, the project leader was able to circumvent the bureaucratic procedures with formal and informal tactics and to negotiate policy adjustments in support of the relocated families. As Mr. K implied, policies and regulations in Vietnamese cities often come “after the fact”, formalizing practices already on the ground. As such, there are opportunities for the codification of practices that were unique to Tan Hoa–Lo Gom. Thus, in order to achieve transformative adaptation and changes, it is important that the system encourages changes and trials on the ground with an adequate mechanism for monitoring and evaluation.

*Building capacity for social support services*

A comparison of the case studies highlights the role of social support throughout compensation and resettlement processes. Except in the first phase of the Tan Hoa–Lo Gom project where social workers were available, local officials responsible for compensation and resettlement often were not trained in social analysis, communication and support services. Any resettlement project should provide effective and individualized support stemming from a deep understanding of the assets of each household in dealing with
change and disturbance. Mental and physical presence of support service staff and post-resettlement services such as job training and financial management training are essential to improve the conditions of those affected. Support service capacity development among local officers will ensure better support for the people affected by development and adaptation projects.

**Engaging mediators in state matters**

In many Vietnamese localities in general and HCMC in particular, the local government is restricted to the implementation of policies made higher up in the hierarchy, and officers simply undertake routine tasks. The consequence is often a confrontational atmosphere between the state and the people: “more often than not, two ‘single-minded logics’ confront one another: the ‘do-it-yourself’ approach of the poor against the official, authoritarian and sectoral approach to urban development in which the overall ‘project’ disappears behind a plethora of monumental and onerous undertakings” (Wust et al. 2002:224). More support and sharing of experiences that is facilitated by a third party can contribute to greater understanding. As in the case of Tan Hoa–Lo Gom, BTC played an instrumental role in facilitating co-learning among themselves, public officers and the inhabitants. Another entry point for transformative adaptation thus may lay in the active engagement of mediators, which could be non-profit organizations or international organizations.

5.2. At the community level

**Acknowledging social injustice and creating a constructive environment for collaboration between the state and the people**

Innovation and radical changes start with ideas, and ideas come from real life experiences and willingness to understand them. Transformation relies on the recognition that poor and vulnerable populations need more support than just replacement housing planned by the state. The voices of people directly impacted by adaptation measures need to be heard and and they should be able to participate in project planning and implementation. Awareness of social justice in this sense is essential to transformative adaptation. In HCMC, there have been significant changes in the attitudes of high-level leaders in acknowledging the limits of current approaches as well as the willingness to address the right of migrants to the city and migrants’ role in city development (Nghi et al. 2003). This indicates an opportunity for change.

In addition, the first phase of Tan Hoa–Lo Gom, in comparison with the other two projects, shows that when people have a stake in the process, the collaboration between residents and project personnel improves. Mutual understanding of the capacity of, and the challenges facing, each stakeholder informs how successful the project is likely to be. It is important that the people understand that their initiatives will be sustainable only if they are integrated into a larger formalized plan (Wust et al. 2002). This suggests a process of co-production built on social relations, albeit within a context of transparency and practical collaboration between state and citizens (Mitlin 2008). In this process, people are the infrastructure that underpin a shift to more equitable development (Mitlin and Bartlett 2018).

All in all, in facing the challenges caused by city dynamics and which are potentially accelerated by climate change, finding incentives for transformative adaptation that addresses the root causes of vulnerability instead of simply responding to symptoms is essential. A shock or extreme event is often a trigger for change. As Adger et al. (2005) conclude, “… extreme events that raise the consciousness of climate change within policy-making and hence giving legitimacy to governmental action.” However, waiting for an extreme event means risking the failure of the whole system or great suffering of the most vulnerable groups. The case of HCMC suggests an opportunity for positive changes given its socio-political dynamics and innovative human resources. It is important to build an accommodating environment and develop
shared understanding among diverse actors in future adaptation endeavours.

The different resettlement processes in the case studies presented here reflect both a centralized and a “do-it-yourself” approach to planning in HCMC. While the latter allows for context-specific measures, it also creates inconsistencies in government planning. In the case of the Tan Hoa–Lo Gom project in 1998-2006, the project’s unique leadership provided households with better support, at a time when centralized policies had yet to accommodate local conditions. Such a “do-it-yourself” approach relies greatly on the capacity and perspective of the personnel involved. The social support in the Tan Hoa–Lo Gom first phase originated from the personal understanding of the project manager of the local conditions. However, since this approach differed from any other resettlement project in HCMC, it also bore the risks of malfunctioning and adding further deviation and complexity to formal planning processes. Spatial inequalities among regions that are under different leadership styles also emerge as a result of such a do-it-yourself approach. Thus, a balance between top-down guidance and room for flexibility is essential to upcoming adaptation efforts in the city.

In order to achieve socially just urban upgrading there must be constant and effective communication as well as coproduction, in order to facilitate sustainable urban development. Sustainable development does not only involve upgrading the urban landscape but also improving the livelihood of all inhabitants. Social injustice during urban upgrading, as shown in the case studies, will increase the risk of social instability and create further burdens for the city in the future. Communication among state and local governments, the inhabitants and mediating agencies is key. While HCMC provincial leaders are looking for innovative ideas for urban transformation, public participation has not been adequate, given its persistent top-down structure. Thus, it is essential to research and facilitate participation processes that suit specific local contexts. Local authorities with their local knowledge have the most potential to facilitate effective participation. In order to do so, decentralization and technical capacity development will prepare the ground for transformative adaptation to take place.
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