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The role of social capital and community ties in rebuilding livelihoods of displaced households in peri-urban areas of Ho Chi Minh City

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The role of social capital and community ties in rebuilding livelihoods of displaced households in peri-urban areas of Ho Chi Minh City

by

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ABSTRACT

This research explores livelihood issues that emerged from the process of urban development in Ho Chi Minh City, Vietnam. To understand the key determinants and consequences of livelihood strategies, we modified the sustainable livelihoods framework to guide analysis of data from a survey of 242 households interviewed in August 2013. Indicators related to social capital, livelihood resources and economic activities, and the community field were used to assess possible effects and associations with livelihood outcomes of resettled households. The results indicate that households with more extensive social networks have higher level of employment and income and less significant economic shocks. For government-supported households, the perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. For self-resettled households, the perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with both higher household income and asset value. Regarding the community field indicators, improved economic conditions and well-being were both associated with higher levels of community participation and higher perceived quality of neighboring among government-supported households. For self-resettled households, length of residence emerged as a significant predictor of improved economic conditions and well-being. Thus, building community social ties with family, friends, and organizations is an essential part of successful household economic and social development strategies.

Keywords: displacement, resettlement, social capital, livelihood, community field, urban, Vietnam

GENERAL INTRODUCTION

Statement of the Problem

More than three billion people now live in urban areas worldwide. Over one billion of these urban dwellers live in slums and informal spontaneous settlements – mainly in Asia and sub-Saharan Africa (Zetter and Deikun 2010). This increasing stress on urban environments derives from existing deficits in the supply of land, housing and urban infrastructure that are exacerbated by rapidly growing cities. Under these conditions, many urban infrastructure and transportation development projects - including slum eradication and upgrading, the establishment of industrial and commercial estates, and the building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented. One of the major social and environmental problems triggered by these processes is the frequent need to displace and relocate urban inhabitants against their will (Cernea 1993).

Large-scale forced displacement is a global problem and presents one of the greatest challenges to humanity in the twenty-first century. Cernea (2004:1) has calculated that during the last two decades of the previous century "the magnitude of forced population displacements caused by development programs was on the order of 10 million people each year or some 200 million people globally during that period." Within this number, the construction of dams displaced an average of 4 million people annually, while urban and transportation infrastructure projects displaced 6 million more each year (Robinson 2003). This estimate, however, is outdated by now and recent estimates put the number of the displaced even higher. According to Cernea and Mathur (2008), during the following two decades, the estimate of displacements rises to about 280-300 million, or 15 million people a year due to development projects conducted by both the public and private sectors. This number is high but still fails to account for large

numbers of displaced people who are living in urban and peri-urban areas. In fact, displacement tallies almost always refer only to persons physically ousted from legally acquired land in order to make way for the planned project, ignoring those living in the vicinity of projects whose livelihoods and socio-cultural milieu might be adversely affected by the project (Stanley 2004). Therefore, a count that considers this wider conception of development-induced displacement would be much higher than Cernea's estimate.

The ultimate goal of most development projects is to reduce poverty and improve social well-being. Infrastructure development projects of various types – such as roads, hospitals, and schools; large dams to supply water for drinking as well as agriculture; energy for growing industries - have provided improvements and benefits for many people's lives and both national and local economies (Cernea 1997a). Through processes of displacement and relocation, they also contribute to modifications in cultural patterns, and changes in social values and traditional institutions (Parasuraman 1996). However, these same developments can also cause the forced displacement of segments of the local population and create many socioeconomic problems for displaced people including food insecurity, loss of livelihood, income insecurity and marginalization (Zetter and Deikun 2010).

Based on a critical review of the literature on migration, livelihood security, and development, this research is designed to explore livelihood issues that emerge from the process of urban development. The research further explores factors that facilitate the achievement of greater degrees of success in addressing problems of urban displacement and resettlement, particularly regarding livelihood outcomes. For this purpose, the sustainable livelihoods approach is modified and used to investigate how effectively households that resettle through different methods in the same region and around the same time (2005) progress, and thereby

achieve better livelihood outcomes. Theoretically, the research focuses upon social capital and community field which may play important roles in the livelihood decision making and outcomes of resettled people. In order to identify potential issues for the study, the strengths and limitations of the existing literature are assessed in the next section. A research design that can serve as the basis for assessing the appropriateness of those issues is outlined.

The Nature and Extent of Urban Displacement and Resettlement in the Global South

Urban development projects already are the principal cause of development-induced displacement worldwide and the trend is likely to accelerate, especially in the Global South. From 1980 to 1986, for example, World Bank-assisted projects in transportation, water and urban development accounted for 33 percent of all projects involving involuntary resettlement in Africa; from 1987 to 1995, the proportion grew to 57 percent (Cernea 1997b). A similar trend has occurred in Latin America. According to Mejia (1999:148-149), "in the 1970s and 1980s World Bank-financed projects involving resettlement in the region were mostly located in rural locales, but by the middle of the current decade the majority of such resettlement-related projects were in urban areas." In Asian countries, however, governments are responsible for a large portion of such displacement. In Asia, there has been a dramatic increase in urban forced displacement in recent years. Motivated by sociopolitical concerns, many Asian countries have explicitly made efforts to redistribute their population as well as to reorganize city spaces. Between 1950 and 2005, an estimated 70 million people were displaced in China for development reasons (Cernea 2007). Particularly, in Shanghai in the 1990s alone, over one million people were displaced by urban redevelopment projects. Similar displacements have occurred in Beijing, Guangzhou, Nanjing and Tianjin (Campanella 2008).

In India, there have been a large number of major projects with millions of people facing displacement. Fernandes (2007:203) estimates more than 60 million displaced people in India for the 1947-2000 period. He also found that only one-third of the project-affected population have been resettled in a planned manner. For the other two-thirds, there is no evidence of any organized resettlement, many of them from urban development projects. Like India, the government in the Philippines has been most concerned with the problem of over-urbanization and infrastructure in the Manila metropolis. The Philippines government has taken up several projects in order to solve the problems. One such case is the North Rail - South Rail Linkage Project in Metro Manila, which led to the forced eviction of 35,000 families who used to live in informal settlements along the railway. Through a relocation program, the majority of them were relocated in 11 different sites predominantly outside Metro Manila (Choi 2011).

The Jabotabek urban development project in Indonesia is another case. This project was designed to upgrade primary and secondary arterial roads, construct development roads on the city's periphery, and improve traffic management (Cernea 1993). Concerning acquisition for road widening and new roads, the Indonesian government agencies estimated about 10,000 households and businesses (approximately 40,000 – 50,000 persons) were affected by the project. Like other Asian countries, Vietnam has also experienced many urban displacements. A report from Asian Development Bank (ADB) shows that, until 2000, there were nearly 100,000 people being affected by ADB-funded urban development projects in Vietnam (Cernea 2007). Recently, from 1996 to 2009, the project of Environmental Improvement of Nhieu Loc-Thi Nghe Basin in Ho Chi Minh City displaced about 44,000 people (Roberts and Kanaley 2006).

The absolute numbers of people displaced by development projects in Africa and Latin America seem small in comparison to Asian examples. However, as Cernea (1997b:7) points out

in relation to development-induced displacement, the relative size of displacement has historically been far more significant than absolute numbers. The development projects in African countries often affect a much higher proportion of the country's total population than the displacements caused in Asia. Cernea (1997b) further points out that, while displacement from individual urban development projects may be low, the frequency of such projects is higher than in some other sectors (i.e., dam construction, energy plants and other environmental projects), resulting in a high overall number of displaced people. Furthermore, while the amount of land appropriated for individual urban projects is often minimal compared to that acquired for individual large dam or irrigation projects, the ratio of people displaced per unit of expropriated land is usually higher as a result of high densities of urban populations.

The involuntary displacement of communities and families is the most disruptive and traumatic consequence of planned development. The impacts are often economic, social, and environmental (Tankha et al. 1999). Economic impacts include the dismantling of production systems, loss of productive assets, loss of income sources, and relocation of people to areas where their skills are less applicable and/or there is greater competition for resources. Labor markets and patterns are disrupted and links between producers and customers are often severed. Social problems arising from involuntary displacement include weakening of community structures and social networks, dispersal of family groups, loss of cultural identity, diminution of traditional authority and the potential for mutual help. Environmental impacts include inundation of flora and fauna, loss of habitat, and eco-system degradation (Tankha et al. 1999). Displacement results, therefore, not just in asset and job losses but also in the breakdown and loss of food security, social capital and kinship ties, and cultural identity and heritage. The overall result is that some people enjoy the gains (i.e., new roads, parks, shopping centers), while

others receive primarily negative impacts of development (Cernea 1997a, 2004; Scoones 1998; Francis 1999).

Evidence from development studies (Cernea 1993; Stanley 2004; Yntiso 2008; Oliver-Smith 2009) shows that increased urban impoverishment is not only due to rapid urbanization accompanied by unemployment and underemployment, but also caused by the large number of urban development projects. As a result, many urban dwellers (a majority of whom are poor) who have been displaced are engaged in an unremitting struggle to secure a livelihood in the face of adverse social and economic circumstances. In this context, sustainable livelihoods for displaced people in urban areas as well as peri-urban areas have received more and more attention in development studies. The concept of livelihood, therefore, warrants examination.

Overview of the Livelihood Concept

The livelihood definition provided by Chambers and Conway (1992:7) has been widely used in the development studies (Scoones 1998; Ellis 1998; Carney 1998; Chimhowu and Hulme 2006).

> A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers and Conway 1992:7)

According to these authors, understanding how livelihoods are constructed and maintained can provide insight into ways that members of households make a living within their broader environmental context. Although access to resources is an integral part of building livelihoods, livelihoods should not be viewed solely as access to material assets such as financial capital, but also involve access to a diverse set of assets including natural, physical, human, and

social capital, as well as the dynamic and complex strategies required to integrate these to make a living (Chambers and Conway 1992).

Several components of this definition have been developed. Ellis looked at a livelihood as more than just income:

> Income refers to the cash earnings of the households plus payment in kind that can be valued at the market prices. The cash earning component of income include items like agricultural products sales, wages, rents, and remittances. The in-kind component of income refers to consumption of own farm produce, payment in kind, and transfers or exchanges of consumption items that occur between households in rural communities (Ellis 1998:4).

For Ellis, the livelihood perspective encompasses income, both cash and in kind, as well as the social institutions (kin, family, compound, village and so on), gender relations, and poverty rights required to support and to sustain a given standard of living. Livelihoods also include the accessibility of, and benefits derived from, public services such as education, health, roads, water, and related infrastructure (Ellis 1998; see also Chimhowu and Hulme 2006).

Ellis (2000) further built on Chambers and Conway's definition by bringing in a more explicit consideration of the claims and access issues, and in particular the impact of social relations and institutions that mediate an individual or family's capacity to secure a means of living. He stated that "A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household" (Ellis 2000:10). For the purpose of this study, Ellis's definition of a livelihood is adopted. It suggests that people's assets, activities and mediating processes provide the means for them to meet their basic needs and to support their wellbeing.

Social Capital

Social capital is a sociological concept which refers to connections within and between social networks. It refers to the social networks, linkages and trust that are utilized by individuals or groups in order to survive or get ahead (Portes 1998). Bourdieu was one of the first scholars to propose the term social capital. Bourdieu (1985:248) defined social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition." Coleman (1990) argued that social capital was defined by its function. For Coleman, social capital is not a single entity, but a variety of different entities with two elements in common. First, they all consist of some aspects of social structure. Second, they facilitate certain action of individuals who are within the structure (Coleman 1990:302). The concept has been modified and widely used across a variety of disciplines (Portes 1998; Woolcock 1998; Putnam 2000; Schuller et al. 2000). Social capital is built among individuals, at community and at societal levels through formal and informal institutions to create stable linkages, networks and trust (Portes 1998; Woolcock 1998).

This study hypothesizes that displaced people's social capital will greatly influence the integration process and, thus, their livelihoods. In the context of urban displacement and resettlement, social networks are important as an asset that displaced people and their households can utilize to advance themselves or use for seeking jobs or income earning opportunities. Various strategies to deal with the loss of livelihood as well as to achieve positive livelihood outcomes differ significantly depending on the nature and extent of social networks and the form of social capital available to displaced people.

The first level application of this network analysis is that close-knit networks, such as kinship and membership organizations, will reinforce social assets among urban poor dwellers,

especially displaced people. Beall (2004) found that endowments of such forms of social capital constitute important resources for urban poor. They can "provide safety-nets when deprivation is exacerbated by shocks, stress and other sources of vulnerability" (Beall 2004:65). The characteristics of these relationships are enduring and deeply rooted among the members so that displaced households often rely on these to adapt within the new living conditions during the first stage of resettlement and rehabilitation.

At the less homogeneous level, relocated people and their households have connections with others through informal support networks and associational forms. They often involve many different relationships such as friendship, neighbors, or voluntary associations. Beall (2004) argues that informal networks and associational forms can lead to more sustained and organized forms of collective action, at least when livelihoods are threatened. In the process of urban displacement and resettlement, a household that is forcibly relocated to a new place often gravitates toward relatives and persons of the same ethnic and geographic origin, and the same voluntary associations (e.g., women's associations, youth associations, and other self-help groups). These social networks play an important role in facilitating exchange of assistance and support for displaced people, even when they have limited access to other resources (e.g., financial, natural, physical), in order to address social and economic problems, specifically livelihood insecurity derived from displacement and resettlement.

It is worthwhile to consider the importance of personal relations and social networks with both governmental agencies and private business sector actors. Luttrell (2005), in her work on social networks in Vietnam, found that personal relations with government officials and private resource owners play a significant role in providing people access to natural resources. In the urban relocation context, such forms of social networks can create social capital through

increased access to information and resource (financial and natural), and social support. For example, this type of social capital could include people with higher social status who are able to link newly relocated people to formal institutions such as banks.

Thus far, it is acknowledged that the utilization of social capital and social networks is useful and significantly affects livelihood outcomes of displaced people in the context of urban displacement and resettlement. At the macro level, however, government and other institutions, through laws, policies and programs, appear as determinant factors in either enhancing or restricting household livelihood outcomes. External support is also important for displaced people. Non-governmental organizations (NGOs) or involved multilateral organizations (World Bank, ADB) can assist in creating linkages between affected people and developers who control and manage the whole process of displacement and resettlement.

Despite having many positive influences on livelihood outcomes for relocated people, social capital can indeed have costs, with social ties sometimes being more of a liability than an asset. As Portes (1998) identified, social ties may result in exclusion of outsiders, excessive claims on group members, restrictions on individual freedoms, and downward leveling norms (see also Portes and Mooney 2002). On the one hand, a homogeneous community with closed-tie relationships may exclude newcomers or isolate non-members. On the other hand, individuals or households within this community may be restricted to other outside resources or information. Therefore, understanding this dynamic and identifying appropriate networks are crucially important in maintaining and developing urban livelihoods, particularly for affected households in the context of urban displacement and resettlement. Before proposing a model of factors responsible for successful resettlement of households, several livelihood frameworks of the existing literature are analyzed.

Community Field Approach

Interest regarding community social ties emerged during the late nineteenth and early twentieth centuries as sociologists studied the effects of rapid industrialization, modernization, and urbanization on the quality of social relationships (Sundblad and Sapp 2011). Wilkinson's 'community field' (1991) is one of the most significant approaches that provides understanding of the key dimensions of community interaction in conjunction with the sustainable livelihoods model. This approach suggests that social interaction serves as the foundation for collective action, community development, and enhanced community well-being. Wilkinson (1991) defines the community field as a locality-oriented social field through which actions expressing a broad range of local interests are coordinated. He notes that it is through the community field that comprehensive community improvement efforts are conducted.

According to Wilkinson's theoretical approach (1991), the community serves as the space that fosters multiple interactions and gives meaning to the individual and others. Through the most basic processes of social interaction, community arises, and the potential for collective and cooperative actions exist. The social conditions and organization that arise influence the quality of individual well-being, contributing to community social well-being and the emotional bonds that individuals sense toward the places in which they live. Theodori (2001), for example, found both community satisfaction and community attachment were positively and significantly associated with perceptions of individual well-being.

In this study, we argue that the variations in place attachment of resettled people in a new location will greatly influence the integration process and, thus, their livelihoods. In the context of urban displacement and resettlement, community social ties are important as an asset that displaced people and their household can utilize to achieve their basic needs and advance

themselves. Various strategies to deal with the loss of livelihood as well as to realize positive livelihood outcomes differ significantly, depending on variations in community attachment available to displaced people. In particular, the study investigates the effects of the four dimensions of attachment (length of residence, community safety, community participation, and quality of neighboring) on the perceptions of livelihood outcomes of resettled households in peri-urban communities.

Overall Analysis Framework

A number of scholars and agencies have adopted livelihoods approaches and proposed several livelihoods frameworks, such as the Sustainable Livelihoods Frameworks (DFID[1], Chambers and Conway 1992), the Risk and Reconstruction Model (Cernea 1997a, 2004, 2007), the Sustainable Rural Livelihoods (Scoones 1998), the Sustainable Livelihoods Diamond (UNDP[2]), and Household Livelihood Security (CARE). These frameworks tend to consider poor and vulnerable people's livelihood in relation to their assets, constraints, and capabilities, while visualizing the main factors of influence. For instances, the Sustainable Livelihoods Framework (DFID; see also Chambers and Conway 1992) serves as an instrument for the investigation of the poor's livelihoods by using five types of assets: human capital, natural capital, financial capital, social capital, and physical capital. This framework provides a checklist of important issues and sketches out the way they link to each other, while drawing special attention to core influences and processes and their multiple interactions in association to livelihoods. Scoones' framework, Sustainable Rural Livelihoods (SRL), focuses on understanding the nature of a sustainable livelihood in a given setting and explains why some households achieve adequate livelihoods when others fail. This framework links inputs (capitals or assets) and outputs (livelihood

[1] UK Department for International Development
[2] United Nations Development Programme

strategies) connected in turn to outcomes (livelihood and sustainability). Doing so, it helps to identify the key conditions for improvement in sustainable livelihoods and explore the institutions, including exogenous, endogenous, formal and informal, that mediates people's access to and control over the resources necessary to pursue those strategies in the reconstruction phase (Scoones 1998).

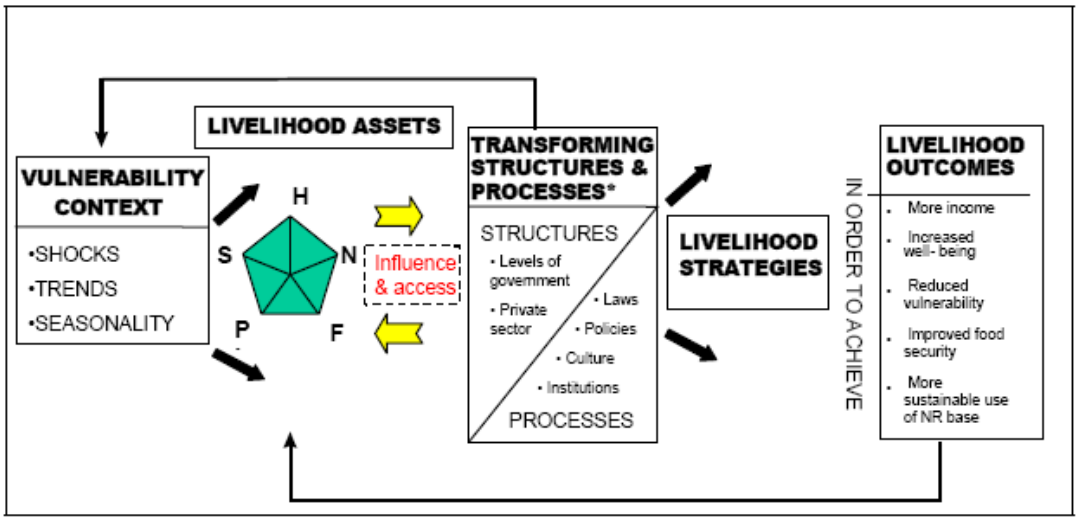

Figure 1 DFID's Sustainable Livelihood Framework (Carney 1998)

The DFID's Sustainable Livelihood approach can be usefully to apply to situations of involuntary resettlement following the construction of urban development projects. In particular, it can be synthesized in a conceptual framework that helps to investigate how households that resettled through different methods can recover from displacement and explore strategies that achieve greater degrees of success in actually addressing the problems of urban displacement and resettlement in general and their livelihoods in particular. The framework (see Figure 1) depicts people as operating in a context of vulnerability, within which they have access to certain resources (different types of capital). The combination of these livelihood resources results in a subsequent combination of livelihood strategies that are open to people in pursuit of beneficial livelihood outcomes and sustainability. In this framework, the institutional process (government,

private sector, laws and policies) will play a role in mediating the ability to carry out such strategies and achieve or not achieve such outcomes.

Displacement and Resettlement in the Context of Vietnam

Geography and population

Vietnam is located on the eastern edge of the Indochinese peninsula and occupies 331,688 km^2, of which 76% is agricultural land (GSO 2009). It borders the Gulf of Thailand, Gulf of Tonkin, and South China Sea, alongside China, Laos, and Cambodia. The S-shaped country has a north-to-south distance of 1,650 kilometers and is about 50 kilometers wide at the narrowest point. Vietnam is divided into six geographical regions. They are Red River Delta, Northern Midlands and Mountain Areas, North Central Area and Central Coastal Area, Central Highlands, South East, and Mekong River Delta.

The population of Vietnam, which was about 60 million at the end of 1985, reached 89 million in 2012, about 268 people per square kilometer (km^2). However, the population density in the two largest cities is 2,059 and 3,666 persons per km^2 in Ha Noi and Ho Chi Minh City, respectively (GSO 2012).

Economy

Since 1986, Vietnam's economy has grown considerably as a result of the economic reforms, called Doi Moi (renovation). The government of Vietnam launched a set of controlled reform measures towards market liberalization and emphasized the diversification of production. These reforms produced a positive impact on the overall socioeconomic development of Vietnam. For example, in 2000 the GDP per capita was $375 (US dollars). The GDP annual growth rate increased from 5.8% in 1998 to 7.1% in 2000 (GSO 2000). It increased

continuously until 2008 in which it reached 7.6% in 2007 and 8.5% in 2008. Annual economic growth of urban centers was relatively high at 12-15% during 1989 and 2009, it was estimated at 8-10% annually in the years of 2007-2009 (Ngo 2010). This growth paralleled a significant rise in foreign direct investment (FDI) in Vietnam. In agriculture, since 1989, Vietnam has emerged as one of the leading rice-export countries in the world, while previously rice had to be imported.

Urban development context

Statistics in Table 1 show that despite recent initiatives to control the population growth rate (two-child policy, immigrant limitation, and development of satellite cities) in Vietnam as a whole, particularly in Ha Noi and Ho Chi Minh City, the urban population still increased significantly from 23.7 % in 1999 to 31.9 % in 2012 (CPHC 2010; GSO 2012). The urban population increased from 18.1 million (1999) to over 28 million people (2012). During the period 1999-2012, the average annual population growth in urban areas was 3.3%.

Table 1 Vietnam population growth rates and urban population 2005 - 2012, in %

		2005	2006	2008	2009	2010	2012
Ha Noi	*% of urban population*	65.30	65.20	40.70	41.00	41.30	42.83
	Population growth rate	2.02	1.37	1.40	1.41	1.39	1.76
	Population growth rate due to in-migration	0.81	0.21	0.17	0.10	0.12	0.77
Ho Chi Minh City	*% of urban population*	82.60	83.40	83.70	83.70	83.30	83.11
	Population growth rate	3.71	3.75	3.27	3.61	2.53	2.18
	Population growth rate due to in-migration	2.52	2.62	2.18	2.64	1.63	1.22
Vietnam as a whole	*Urban population*	27.10	27.70	29.00	29.70	30.20	31.94
	Population growth rate	1.17	1.09	1.07	1.06	1.05	1.06
	Population growth rate due to in-migration	-0.16	-0.07	-0.07	-0.02	0.02	0.07

Source: Compiled from Vietnam GSO website from 2005 to 2012

Urban displacement and resettlement

Rapid population growth has increased stress on existing deficits in the supply of land, housing and infrastructure in large cities such as Ha Noi and Ho Chi Minh City. In order to solve those urban issues, many urban infrastructure and transportation development projects - including slum eradication and upgrading, establishment of industrial and commercial estates, and building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented during the period 2000-2010.

This urban expansion is made possible through compulsory land acquisition by government. Through the government authorities, developers can utilize the right to take land from private owners for development projects and provide options for them to resettle. Displaced households participate in identifying and selecting among several options: relocate to a new apartment/house; return to their existing plot after upgrading; move to plots provided by the district; or receive cash compensation and make their own arrangements for relocation. Displaced people who choose to relocate to an assigned apartment/house or a plot of land will also receive substantial assistance from government during the resettlement process.

Resettlement types

There are two principal types of resettlement based on how displaced people qualify for a specific resettlement option: government-supported resettlement and household self-resettlement. The first type is often selected within planned development projects which are operated by government, international organizations (i.e., the Asian Development Bank and World Bank) or large domestic real estate companies. These projects are usually planned one to three years in advance and are considered as part of the broader development program. These planned projects often involve infrastructure, slum upgrading and urban development. They typically require

moving residents to another area where the basic infrastructure is built, such as roads, schools, markets, apartment buildings, etc. People who were affected by the projects often receive support from government during their resettlement process. Only households that have a legal land use right certificate or whose land use right can be legalized qualify for this type of resettlement.

Self-resettlement, considered as the second type of resettlement, is often the choice of people who are ineligible for compensation rights (i.e., households that do not have a legal land use right certificate or whose land use right is illegal) from government-funded development projects. It is also the choice of households that are displaced by development projects of smaller private real estate companies or even by local residents who own several plots of land. This type of resettlement, mainly residential in nature, often occurs as a consequence of broader planned projects, such as commercial centers, condominiums, and other infrastructure projects (i.e., roads, airports, hospitals, schools, etc.) These developers only pay compensation for land purchased after negotiating with local residents. They do not assume any responsibility for how people relocate after being displaced. Thus, people within the affected communities have to find ways to resettle themselves. Some may buy farming land and move farther from the city (these people are excluded in this research). Many relocate to a different community or city not directly affected by development-related displacement. There are also cases of people who sold their own house/land for money because of rising market prices, then relocate themselves to a different area.

Resettlement polices and assistance

The Vietnamese Government has recognized that effective support policies and institutions play an important role in processes of displacement and resettlement. They can assist resettled people in their livelihood pursuits and, thereby, support their efforts to achieve well-

being. A significant reform was introduced through the new Law of Urban Planning (June 2009), which focuses on the preparation, appraisal, approval, and adjustment of urban planning. Under this law, the government agencies - in coordination with relevant organizations - are responsible for ensuring that development-induced displacement risk reduction and resettlement adaptation are mainstreamed into urban plans as an essential step toward enhancing Vietnam's sustainable development.

Along with introducing many reforms that have affected urban development, the government and other organizations (i.e., domestic developers, international agencies, or NGOs) have provided several programs that assist resettled people. They include job seeking assistance, formation of self-help groups, bank loans, microcredit, health care, and educational access. They also assist in issuing official documents, such as identification cards, birth certificates, house owner certificates, and so on. However, not everybody qualifies for the assistance. Some are qualified for a specific type of support, while others are not. Type and level of assistance often depend on people's resident status. Specifically, people holding a KT1 or KT2 type of residence registration[3] are usually advantaged to receive support associated with financial resources and official documents, while KT3 and KT4 households may receive support related to employment and other types of social assistance.

[3] There is a residence registration system called Ho Khau in Vietnam, often translated as permanent residence. A book containing the information of household members and the household's residence is issued to each household. Ho Khau is registered at district level, and people are supposed to live in the district of the Ho Khau registration. KT1 type is only for local residents; KT2 is for residents from a different district within the same city; KT3 and KT4 are for people who come from different cities or rural areas.

Research Questions and Operationalization

Research questions

Assessment of the impacts of displacement and resettlement processes is important for Vietnam not only because they play significant roles in the nation sustainable development strategy, but also because these processes significantly influence the livelihoods of displaced people and the transformation of the occupational structure, which mainly relied on agriculture. In this study, therefore, we focus on understanding the livelihood issues (economic and non-economic issues) which derive from urban displacement and resettlement. The sustainable livelihoods framework and community field approach are used to investigate how households that resettle by different means recover from displacement, and thereby achieve better livelihood outcomes.

The sustainable livelihoods concept informs this research by allowing me to identify the ways in which people may have different degrees of diversity in their livelihood activities over time and whether these reflect increased or decreased livelihood opportunities. More specifically, we focus on individual social capital, one of the seven assets considered central to livelihoods, as we wish to gain a greater understanding of the role of this factor in the livelihood decision making of resettled people after their resettlement in a new place. Further, by treating different dimensions of the community field as independent variables, we explore the causal relationships connecting community field's diverse aspects to perceived livelihood outcomes of resettled households. With these objectives in mind, three specific research questions are raised, each of which can be empirically examined:

1. How do different forms of social capital affect access to employment and income for households after resettlement?

2. How do economic shocks and response strategies affect economic achievement and livelihood outcomes of resettled households?
3. What are the effects of community field on perceived livelihood outcomes after relocation?

Operationalization of key concepts

The analyses in this study are based on data collected by the author, including several indicators representing different dimensions of social capital and different aspects of the issues of displacement and resettlement. Variables considered in the analysis are as follows:

- *Human capital*, as measured by:
  - Number of adult household members (ages 18-65) who are currently working, studying, or looking for work (including migrants)
  - Educational level: the average number of years of schooling of adult household members ages 18+
- *Social capital*: includes the following indices
  - Indicators of trust and adherence to norms: key questions relate to the extent to which households received or would receive assistance from members of their community or network in case of various emergencies (loss of income, illness). For example, 'Most people in my close family can be trusted' (scale from 1 = Strongly disagree to 5 = Strongly agree)
  - Social cohesion indicators: This index combines measures of the household's social cohesion. For example, 'What do you think about the neighborhood that you live in?

How much do you agree with the following statements?' (e.g., My neighbors make it a difficult place to live, I am good friends with people in this neighborhood, I like living where I live) (scale from 1 = Strongly disagree to 5 = Strongly agree)

- Social networks and support

  How many times have you met socially with the following people in the last month [1.Relatives; 2.Neighbors; 3.Friend; 4.Work colleagues]?

- Diversity of friendship indicators: This index measures the extent to which a household has a diverse network of personal friends and relationships. For example, '*Do you have a personal friend who is*' (e.g., a government officer, business owner, an expert in a specific field, etc.) and whether he/she is willing to help you in need? (1=Most likely; 2=Likely; 3=Unlikely)

- Memberships in associations and networks: this index measures the degree of associational and group involvement of households. For example, 'Do you and/or any other adult in this household belong to any group or club?'; "What type of group?"; "How often does this group meet?"; "Have you ever received any support from this group?"

- *Physical capital*: as measured by:

  - Land (m^2): housing and agricultural lands [before and after displacement]

  - Household assets (housing, consumer durables and non-durables) [before and after displacement]

  - Housing / property as basis for producing goods for sale [before and after displacement]

- Owned livestock: livestock units owned by the household, calculated as tropical livestock units (TLU) a measure used in the tropics equivalent to an animal of 250 kilograms [before and after displacement]

- *Policies and Assistance:*
  - Resettlement policy: types of policy (compensation for any land loss, land use rights and land tenure, and environmental protection)
  - Assistance programs (from government, developers, international agencies, non-governmental organizations-NGOs): credit, self-help groups, skill training, and other the actual benefits (goods, services) that displaced households obtained.
  - Economic environment that permits/encourages initiation of income earning activities (by informal sector or formal sector)
    - Easy to open a business (business title issuing, helping to find a location, high demand and supply…)
    - Economic policies (whether or not households received grant subsidies, low tax rate, loan, low interest rate, output support from government)

- *Employment and Income*: as measured by
  - Labor force of household (number of adult family members ages 18-65 currently earning income, and percentage of household members who are employed)
  - Sector of employment: categorized the employment sectors as agriculture, forestry, and fishing; industry and manufacturing; education and scientific; health; government administration and civil society; commerce; transport and storage; technology and communication; services; others

- Job classification: Government official/ Civil servant, factory worker/ laborer, service-based employee, informal/casual laborer, hourly wage worker, home-based artisan/ craftsman, small business owner, medium business owner.
- Compensation received for land lost or sold
- Income amount
- Diversity of income sources (wages, business earning, farming, allowances, subsidy, remittances, interest, pension, etc.)
- Consistency of income throughout the year

- *Livelihood outcomes*: as measured by
  - Food insecurity: this indicator combines information from responses to nine questions developed by the Food and Nutrition Technical Assistance (FANTA) Project 19 (Coates, Swindale and Bilinsky 2007).
    - Did you worry that your household would not have enough food?
    - Were you or any household member not able to eat the kinds of foods you preferred?
    - Did you or any household member have to eat a limited variety of foods?
    - Did you or any household member have to eat some foods that you really did not want to eat?
    - Did you or any household member have to eat a smaller meal than you felt you needed?
    - Did you or any other household member have to eat fewer meals in a day?
    - Was there ever no food to eat of any kind in your household?
    - Did you or any household member go to sleep at night hungry because there was not enough food?

- Did you or any household member go a whole day and night without eating anything because there was not enough food?

- Significant economic change (what types of Negative economic change and Positive economic change) and responses (How did they response to the change)
- Wealth: asset accumulation, total assets (this measures the change in household assets before and after resettlement.)
- Resilience capacity:
  - Options available to households for making a living:
    - Self
    - Relatives, neighbors, organizations, …
    - Public service provision
  - Ability to manage risk (types of available income sources, money saving, diversity of social networks, mental health - using stress scale)
  - Response actions for negative shocks (e.g., increase effort in a local economic activity, initiate a new local economic activity, remittances from a family member, temporary migration for a new economic activity, use savings, etc.,)
- Need and satisfaction of that need (e.g., school enrollment, paying for visit at clinic or medicines, recreation expenditure, etc.)
- Quality of life: index of responses to questions "How much do you agree with the following statements?" (1 = Strongly Disagree to 5 = Strongly Agree)
  - We have enough food to eat
  - We live in a safety community

- We don't have to worry about our future
- All members of family have good health
- My house is quite good for me
- In general, we are able to access the financial and social resources to achieve our basic needs

- Perceived change in family economic condition before-after resettlement and in the last six months (significantly worse, worse, remained the same, improved, significantly improved).

Research Setting and Study Areas

Displacement and resettlement in Ho Chi Minh City (HCMC) has been intrinsically related to the process of industrialization and urbanization following the *Doi Moi* reforms of 1986. From 1986 to 2012, the population of HCMC approximately doubled from 3.78 million to a current level of 7.7 million (GSO 2013). This figure, however, does not include an estimated additional two million unregistered migrants in the city. From 1997 to 2005, in response to this high urbanization pressure, the HCMC government was forced to expand the urban boundary consecutively, leading to the establishment of seven new urban districts (Districts 2, 7, 9, 12, Thu Duc, Binh Tan, and Tan Phu). The resultant transformation of former rural agricultural land to built-up land increased the total urban area of HCMC from 142.15 km^2 to 494.00 km^2 in 2008. The new suburbs are the spatial manifestation of the drivers of industrialization and housing development for factory workers, migrants and new members of the emerging middle class (Du & Fukushima 2009).

The influence of urbanization on displacement and resettlement in HCMC is occurring through both planned and spontaneous urban development processes. Planned development projects are often operated by government or real estate corporations. These projects are usually

planned one to three years in advance and considered as part of the whole development program of HCMC. Spontaneous urban development projects are operated by smaller private real estate companies or even by local residents who own a large number of plots of land. This spontaneous development, mainly residential in nature, has often occurred as a consequence of the planned projects, such as commercial centers, condominiums, and other infrastructure projects (i.e., roads, airports, hospitals, schools, etc.).

Three areas, District 5 - Ward 1, District 6 - Ward 11, and Binh Tan District - Binh Hung Hoa A Ward are selected for this study due to their central location in terms of processes of urban development in HCMC. These areas have received much attention from policy makers and real estate investors regarding both spontaneous and planned developments. Although having a long period of experience in urban development, compared to other peri-urban areas in HCMC, District 5, 6, and Binh Tan District are currently facing many social and economic problems associated with rapid urbanization.

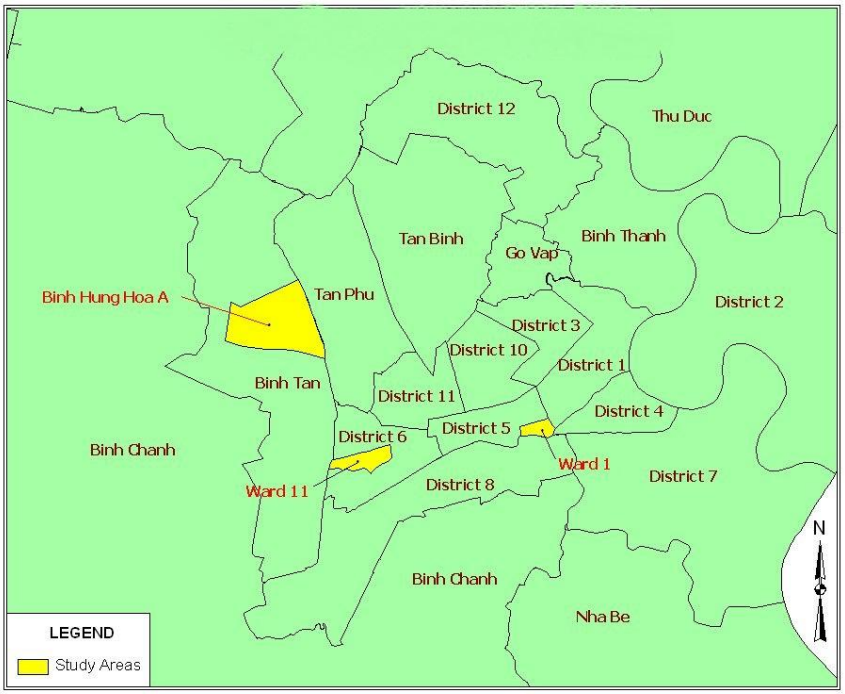

Figure 2 Map of study areas (Researcher created by using GIS)

Research Methods and Data

Household as a unit of analysis

Development studies literature shows that most livelihood models focus on the household as the most appropriate and important social group for the investigation of livelihoods (Ellis 1998; Haan and Zoomers 2005; Ludi 2008; Frankenberger and McCaston 2009; Owusu 2009). Household is defined as a social group whose members reside in the same place, shares the same meals, and make joint or coordinated decisions over resource allocation and income pooling (Owusu 2009:221).

In the analysis of urban displacement and resettlement, it is acknowledged that household is an important unit to consider when describing the resettlement outcomes resulting from urban relocation processes, and when analyzing specific strategies for achieving livelihood security. For instance, in developing countries, it is assumed that the decision making process on economic matters (e.g., investment and migration) is less an individual issue than a process whereby household members negotiate a joint strategy. Additionally, joint ownership and production are among the common characteristics of households in developing countries; hence, household members have to negotiate the economic and productive dispositions to retain rights of joint assets. Thus, in order to address issues regarding assets, networks, or livelihood diversification of displaced people, it is more useful and appropriate to look at the household as a unit of analysis rather than the individual.

At the program level, it is also important to know intra-household resource allocation patterns prior to intervention design. In other words, any evaluation of a project or policy to raise male and female labor productivity must take into account differences in rights to accompanying resources, as well as unobserved labor obligations to other household members. The obligations

of women to men are usually asymmetric, and they afford ample scope for male opportunism (Dey 1990). In practice, the household is also considered a convenient unit for the collection of empirical data. Households are, therefore, crucial and appropriate for the analysis of the process of urban displacement and resettlement.

Methodology approach

This study is based on primary research conducted in the peri-urban areas of Ho Chi Minh City. The data for analysis are obtained through interviewing households in the research settings using a structured questionnaire. This enables me to examine the use of social capital amongst resettled people, and to identify the factors that affect livelihood outcomes.

Sampling strategy

The survey was conducted in three peri-urban areas of Ho Chi Minh City: Ward 1 – District 5, Ward 11 - District 6 and Binh Hung Hoa A Ward - Binh Tan District. The unit of analysis is the household. The sample of government-supported resettlement included 142 households that live in apartment blocks (49 sampled-units) in Ward 1 - District 5; apartment blocks (59 sampled-units) in Ward 11 - District 6; and sites and services plots (34 sampled-units) in Binh Hung Hoa A Ward – Binh Tan District.

For purposes of comparative analysis, the sample of household self-resettlement involved 132 households that were located in Binh Hung Hoa A Ward – Binh Tan District. In order to derive this sample, I did the following steps:

Step 1: I first chose 3 residential clusters which have the highest percentage of the number of temporary residences (KT3 and KT4)[4]. Basing on the "2012 Population Statistics of Binh Hung Hoa A Ward," 03 residential clusters are chosen: 26 (49.2%); 22 (46%); and 20 (41.7%)

- *Step 2*: For each selected-residential cluster, I randomly picked 1 residential unit (there are about 8-10 residential units per residential cluster)
- *Step 3*: Within each unit, I relied on official documents and local authorities' records to obtain a list of households who have in-migrated since 2005 (the year in which the government-supported households received their apartment or land for resettlement). Then, I drew a random sample using a random-number table to select households from the list. Within each unit, 44 households were chosen, giving a total of 132 households for 3 units.

Choosing the interviewees:

- Within each selected household, the head of the household was chosen for questionnaire interviewing.
- In case the head of household is absent or incapable of answering the questionnaire (elderly, disability, illness, or long-distance working), a household's key informant was chosen to answer the questionnaire (the household's key informant may be a head of household's spouse or the main economic contributor).

4 There is a residence registration system called Ho Khau in Vietnam, often translated as permanent residence. A book containing the information of household members and the household's residence is issued to each household. Ho Khau is registered at district level, and people are supposed to live in the district of the Ho Khau registration. KT1 type is only for local residents; KT2 is for residents from a different district within the same city; KT3 and KT4 are for people who come from different cities or rural areas.

Data analysis method

This study relied upon SEM as the primary analytic technique. A SEM is "a stochastic model where each equation represents a causal linkage, rather than a simple empirical association" (Goldberger 1972:979). SEMs are comprised of regression equations, which are included in the model only so far as it is possible to interpret them as causal relationships, theoretically justifiable and not falsified by data. This approach allows for greater flexibility of statistical assumptions. It has the capability to model relationships between measurement errors, direct and mediated effects, and provides alternative measures of construct validity and reliability (Bollen 1989; Kaplan 2000). The technique is used to test whether a proposed causal structure is supported by the data, whereby the SEM model attempts to replicate the observed correlations between variables (DeLisi et al. 2013). A good fitting of a path model describes how well it fits into a set of observations in the data. Good fit indices summarize the discrepancy between the observed values and the values expected under a statistical model (Olivares and Forero 2010).

Additionally, we analyzed data separately for government-supported and self-resettled households to examine how types of resettlement expose differently regarding their livelihood resources, economic activities and livelihood outcomes.

Research data

A total of 242 households were interviewed using a structured questionnaire. These households had a total of 1,082 individuals, with an average of 4.4 people per household (see Table 2). This number is slightly higher than the national and Ho Chi Minh City average size for households (3.8 people for the national average size and 3.9 for HCMC) (GSO 2012). This table

also suggests that the sample of peri-urban residents shares common characteristics with the national and regional populations (i.e., gender, marital status). The sample slightly under-represents small sized households (only one member) and person below 15 years of age. Regarding the education, the results show that there is different among the sample, HCM City, and national populations at the junior high school and higher education level. However, this is explainable since Ho Chi Minh City is known as one of the centers of socioeconomic development and education of the country. The sample consisted of 126 households that are in government-supported resettlement and 116 households that are identified as self-resettlement (see Table 3 for detailed sampling results).

Dissertation Organization

The rest of this dissertation is organized as follows: Paper 1, by means of structural equation model analysis, investigates how different forms of social capital affect access to employment and income of households after resettlement in HCMC. More specifically, we examine the linkages and connectedness - through membership in informal networks and associations – that resettled people establish and maintain to survive and make a living. Paper 2 examines how economic shocks and response strategies affect economic achievements and livelihood outcomes of resettled households in peri-urban areas of Ho Chi Minh City. This modifies and utilizes the sustainable livelihoods framework to identify the factors associated with how resettled people have diversified their livelihood activities over time. With the focus on the interactions among residents in the community and analyzed with structural equation model, Paper 3 aims to explore the causal relationships connecting two principal aspects of community field (community participation, and quality of neighboring) and an indicator of the systemic model (length of residence) to livelihood outcomes of resettled households. A general summary

of the research is the last part. This summarizes the empirical findings and discusses the limitations of the study. The policy implications as well as areas for further research are included.

Table 2 Comparison of selected socioeconomic and demographic characteristics: Vietnam, Ho Chi Minh City and sample statistics

	Vietnam[a]	HCMC[b]	Sample
Household Size (%)			
Mean household size	*3.8*	*3.9*	*4.4*
1	7.3	-	1.2
2-4	64.7	-	60.7
5-6	23.0	-	26.4
7+	5.1	-	11.6
Gender[c] (%)			
Male	49.46	47.50	49.50
Female	50.54	52.50	50.50
Gender of Household Head (%)			
Male	60.70	59.50	62.40
Female	39.30	40.50	37.60
Age in years (%)			
Mean age	-	-	*33.1*
<15	25.0	-	19.9
15-64	68.4	75.2	74.9
65+	6.6	-	5.3
Education of people ages 16+ (%)			
No school	5.5	2.0	3.9
Under elementary	14.5	9.2	13.5
Elementary	25.7	24.6	27.6
High school	28.9	24.1	23.8
Junior high school	12.1	20.6	17.9
Higher education	13.3	19.5	13.4
Marital status of people ages 16+ (%)			
Single	26.8	36.7	31.3
Married	65.3	56.4	61.6
Separated/Divorced/Widow	7.8	6.9	7.1
Work status of people ages 16+ (%)	58.2	51.6	57.5

(-) Missing information

[ab] Source GSS 2009

[c] Source GSO 2012

Table 3 Questionnaire interview results

Resettlement types	Research settings	Sampled	Interviewed	%	Description
Government-supported resettlement	Apartment blocks in ward 11-district 6	59	50	85%	- 4 households refused to interview - 1 household was unable to interview due to the only interviewee is too old - 4 households could not access due to the door locked
	Services plots in Binh Hung Hoa A ward – Binh Tan district	34	34	100 %	
	Apartment blocks in ward 1-district 5	49	42	86%	- 3 households refused to interview - 2 household was unable to interview due to the only interviewee is too old - 2 households could not access due to the door locked
Household self-resettlement	Residential clusters 20 (KP20)	44	40	91%	- 4 households could not access due to the door locked
	Residential clusters 22 (KP22)	44	43	98%	- 1 household refused to interview
	Residential clusters 26 (KP26)	44	33	75%	- 5 households refused to interview - 6 households could not access due to the door locked
Total		274	242	88%	

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PAPER 1

FORMS OF SOCIAL CAPITAL, EMPLOYMENT, INCOME, AND HOUSEHOLD RESETTLEMENT IN HO CHI MINH CITY

A paper to be submitted to

the journal *Sociological Inquiry*

ABSTRACT

Structural equation modeling (SEM) is used to analyze how different forms of social capital affect access to employment and income of 242 government-supported and self-resettled households after displacement in Ho Chi Minh City in 2013. The findings lend insight regarding different forms of social capital that have distinct effects on the income of displaced households and their ability to obtain employment and, more broadly, how social capital influences development. For both government-supported resettlement and self-resettled households, households with more extensive social networks have higher employment and income. Education had an indirect effect on employment and income via social capital. The results further show that despite both groups relying on informal social networks to seek for jobs and income sources, the ways that these networks are utilized are distinct.

Keywords: displacement, resettlement, social capital, urban, Vietnam

1. INTRODUCTION

Development projects, such as natural resource extraction, urban renewal or development programs, industrial parks, and infrastructure construction, often require large quantity of land. One common consequence of such projects is the upheaval and displacement of communities (Cernea 1993; Stanley 2004; Yntiso 2008; Oliver-Smith 2009). Displaced people become migrants and face loss of housing, employment and site-related income sources, as well as the uncertainty of finding new employment in the relocation area (Cernea 1993).

It has been familiar knowledge since the 1980s that many migrants, including resettled people, are at a disadvantage in the labor market (Chiswick 1978; Cernea 1993; Borjas 1994; Portes and Rumbaut 1996; Hamdi 2007). They have more difficulties finding a job, have longer periods of unemployment and, if they are employed, often have lower occupational status and lower earnings compared to longer term local residents (Borjas 1994; Alba and Nee 1999; Hamdi 2007).

In recent decades, social science researchers, especially sociologists, have found that the use of social capital, including close-knit networks (such as kinship and association membership) and informal networks (such as friendship and voluntary organizations), is positively related to labor force participation (Caspi, Wright, Moffitt and Silva 1998; Aguilera 2002) and job quality (Donato, Durand and Massey 1992; Aguilera 2003). Moreover, resettled people who have larger social networks are more likely to have a better-paying jobs and higher income than those with a smaller network (Beall 2004; Amirthlingam and Lakshman 2009). The reason is that a larger social network often contains not only ‘strong ties,’ defined as ties to close family members, close friends, and membership organizations which are related to higher frequency interaction, more emotional involvement, more intimacy, and wider reciprocal service, but also includes

'weak ties' which are characterized by lower frequency interaction, less emotional involvement, less intimacy, and narrower reciprocal service (Granovetter 1973, 1995). Granovetter (1995) argues that strong ties sustain bonding relations within the group or organization, while weak ties can establish bridging relations between groups or organizations and facilitate easy access to non-redundant information unavailable through interactions based on strong ties. In other words, weak ties play a bridging role in the process of information flows between different groups.

Social capital is a significant resource enabling resettled people to find economic success in the host society (Beall 2004; Chimhowu and Hulme 2006; DaCosta and Turner 2006; Amirthlingam and Lakshman 2009). Social capital is created through one's relationships with other people and it facilitates an individual's ability to make use of relationships with other people to improve economic well-being (Portes 1998; Coleman 1988; Putnam 2000). In regard to employment, social capital has been connected with labor market participation and employment, earning, as well as self-employment startup (Donato et al. 1992; Valenzuela and Gonzalez 2000; Bosma, Praag, Thurik and Wit 2004).

Research on migrant livelihoods in general, and on resettled people in particular, has found that human capital, the skills, knowledge and values which individuals acquire in formal schooling, in the workplace, and in other settings that raise their productive capacity, is also an important factor in employment and income. Empirical research on returns to human capital investment has documented relationships between human capital indicators such as education, working abilities, and job experience and either employment opportunities or labor market earnings (Pandey 1998; Chiswick and Miller 2002; Remennick 2004).

Although studies have examined relationships among human capital, social capital, and economic integration, they focused on how either social capital or human capital is directly

related to labor force participation and earnings. Few studies have examined the joint roles of social capital and human capital in economic integration of resettled people (Aguilera 2003; Chou and Chow 2009; Raza, Beaujot, and Woldemicael 2013). Aguilera (2003) found that increases in human capital are associated with shorter job tenure, while the use of social capital is associated with longer job tenure. He argued that acquiring employment is a social process, and those using personal networks find longer lasting jobs. Raza et al. (2013) found the effects of human and social capital on income of immigrants in Canada. They pointed out that education is positively related with earnings. Trust was associated with higher income, while lack of participation in community organizations was an earnings disadvantage. This paper addresses the gap in the literature by examining the joint roles of social capital and human capital.

Age and gender have been established as relevant factors of employment and income (Reskin et al. 1999; Aiba and Wharton 2001; Chou and Chow 2004; Ou and Pong 2012). Gender-based labor force segregation has been associated with differentials in employment rates and income compared to adult males. Immigrants who move at a young age often perform better economically than those who migrant at an older age. To date, there have been few empirical tests assessing the effect of these factors in the context of displacement and resettlement.

A common assumption in research on displacement and resettlement is that support/assistance programs for displaced people from government and non-governmental organizations are vital resources that enable people to advance economically in the host society (Hamid 1992; Chimhowu and Hulme 2006; Pantuliano et al. 2012). Such policies/programs can facilitate people's ability to access and take advantage of different types of social and financial resources in order to deal with the change of livelihood circumstances and activities after resettlement in a new place.

Since 1986, Vietnam's economy has grown considerably as a result of economic reform[5]. This growth paralleled a significant rise in national population. The population of Vietnam, which was about 60 million at the end of 1985, reached 89 million in 2012, about 268 people per square kilometer (km^2). However, the population density in the two largest cities is 2,059 and 3,666 persons per km^2 in Ha Noi and Ho Chi Minh City, respectively (GSO 2012).

With the growth of the national economy and population, the process of urbanization in Vietnam has been rapid. The intensification of urban development activities has entailed large-scale loss of farmland in the peri-urban boundary of major metropolitan areas, such as Ha Noi, Da Nang, and Ho Chi Minh City. For Vietnam as a whole, approximately 10,000 hectares of agricultural land has been converted to urban use annually, mostly at the peri-urban fringe (Yeung 2007). In Ho Chi Minh City, the agricultural land area decreased by 9,407 hectares from 2000 to 2009 for urban development projects, mainly infrastructural construction and housing (GSO 2009). The peri-urban areas of Ho Chi Minh City have been characterized as a complex mixture of planned and unplanned developments due to the large number of residential displacements and resettlements. Most displacements are related to slum upgrading, infrastructural improvement (i.e., construction of roads, airports, hospitals, and schools), and city renewal (i.e., building commercial centers and condominiums). This urban encroachment is made possible through the process of compulsory land acquisition by government. Through the government authorities, developers can utilize the right to take land from private owners for

[5] In 1986, Vietnamese government issued a set of new policies related to national economy, called Doi moi (renovation). The government launched a set of controlled reform measures towards market liberalization and emphasized the diversification of production. These reforms produced a positive impact on the overall socio-economic development of Vietnam. For example, in 2000 the GDP per capita was $375 (US dollars). The GDP annual growth rate increased from 5.8% in 1998 to 7.1% in 2000 (GSO 2000). It increased continuously until 2008 in which it reached 7.6% in 2007 and 8.5% in 2008. Annual economic growth of urban centers was relatively high at 12-15% during 1989 and 2009, it was estimated at 8-10% annually in the years of 2007-2009 (Ngo 2010).

development projects and provide them with compensation. These projects, therefore, uproot and forcibly displace people from their homes. Such involuntarily displaced persons are known to face the most disruptive and traumatic consequences of displacement (Cernea 1993).

In this paper, I look at both social capital and human capital in studying displaced households' employment and income. This will contribute to the existing literature on economic integration of displaced households by examining the joint roles of social capital and human capital. I first investigate how different forms of social capital affect access to employment and income of households after resettlement in Ho Chi Minh City. In particular, I look at the linkages and connectedness - through membership in informal networks and associations – that they establish and maintain to survive and make a living. The social capital of displaced people includes mutual support among close family, friends, and neighbors as well as organizational membership which assist in accessing information and resources. Then, I examine the direct and indirect effects of education on employment and income. To have a broader view of the resettlement process, I also examine the effects of age, gender, and support/assistance programs on employment and income.

The article is structured as follows. Section 2 presents the conceptual background. Section 3 introduces the context of displacement and urban resettlement in Vietnam. Section 4 presents the research hypotheses. Section 5 introduces the research methods and data analyzed. Section 6 presents the results of structural equation model estimation. Section 7 is comprised of the discussion and limitations. The summary is presented in section 8.

2. CONCEPTUAL BACKGROUND

Research on the social resources theory (Lin 1999) has verified the proposition that social capital enhances an individual's attained statuses such as occupational status and placement in certain industries. Through these attained positions, social capital enhances economic earning as well (Lin 1999). In the context of urban migration, Beall (2004) points out that people migrate to urban areas in search of opportunities for themselves and their families, looking for a better life. This is because urban livelihoods are crucially linked to employment and income earning opportunities. Regarding the role of social capital, Beall found that endowments social capital constitute important resources for the urban poor, especially immigrants. It can provide safety-nets when deprivation is exacerbated by shocks, stress and other sources of vulnerability (Beall 2004).

The term "development-induced displacement and resettlement" (DIDR) was first used by Cernea (1997a, 1997b) to illustrate the loss of assets and forced uprooting of communities that find themselves in the way of public works-type development projects. In the case of urban development projects, the displacement of individuals and households deprives those affected of dwellings and/or of employment. According to Cernea (1993:28), "the single most critical problem associated with urban displacement is not the loss of housing, but the loss of employment or of site-related income sources and the uncertainly of finding new employment in the relocation area."

The distance of the relocation site from the original place and jobs often becomes an insurmountable obstacle to maintaining prior employment (Cernea 1993). For instance, due to displacement, the women in developing countries who work as servant maids often lose their jobs. With no possibilities for such employment nearby their resettlement area, they have to

travel much farther, often spending more than half of their earnings to travel to and from their place of work (Cernea 1993).

Most urban development projects in Vietnam have land acquisition principles that require prompt and adequate monetary compensation for persons who lose their land and property. However, cash compensation is often inadequate for their loss, and can even have further negative consequences, particularly for poor people. For instance, compensation that is based on market value rather than replacement value tends to ignore the current nature of housing infrastructure in communities. Moreover, the sudden cash in their hands of the displaced gives many the false impression of wealth. The compensation, therefore, may be consumed rather than invested. Partridge (1989), in his study of a development project in Indonesia, found that displaced families provided only cash compensation suffered about a 50 percent reduction in income compared to pre-project conditions, and their productive resource base was reduced by 47 percent. The above evidence shows that when compensation takes the form of cash, it transfers upon those displaced all the risks associated with market-use of cash for acquiring replacement assets.

Cernea (1999) further identified a broad cluster of losses beyond the economic. Cultural and social losses relating to access to certain services, common property resources, social capital, and so on have been measured. These non-economic losses are critical and play an important complementary role along with economic and financial losses, which can lead to impoverishment of displaced people (Cernea 1999). Although less quantifiable than economic losses, social and cultural disruptions in community ties and kinship networks are arguably the most complex part of the displacement and reconstruction process in most of urban relocation programs. They include the loss of mutual help arrangements, labor exchange relationships,

childcare reciprocity, employment-related information sharing, food or productive equipment borrowing, and other informal activities. When these support networks are broken down, displaced people face the loss of several significant resources on which they relied.

Social capital, therefore, can be considered as a potential determinant of employment and income. Social capital has been defined in many ways. Bourdieu was one of the first scholars to propose the term social capital. Bourdieu (1985:248) defined social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition." For Portes (1998), social capital refers to the social networks, linkages and trust that are utilized by individuals or groups in order to survive or get ahead. According to Woolcock (1998), social capital is a broad term that encompasses the norms and networks facilitating collective actions for mutual benefits. Coleman (1990) argued that social capital was defined by its function. For Coleman, social capital is not a single entity, but a variety of different entities with two elements in common. First, they all consist of some aspects of social structure. Second, they facilitate certain action of individuals who are within the structure (Coleman 1990:302). The concept has been modified and widely used across a variety of disciplines, especially sociology (Portes 1998, 2000; Woolcock 1998; Putnam 2000; Schuller et al. 2000). Social capital is built among individuals and at community and societal levels through formal and informal institutions to create stable linkages, networks and trust (Portes 1998; Woolcock 1998).

While social capital is readily defined as a social resource that facilitates individual access to other social and economic resources (Coleman 1990; Tendler and Freedheim 1994), how it is acquired in a specific place warrants attention. Astone et al. (1998) argue that associational life generates mutual trust, habits for cooperation and participation, and social

networks. Edwards and Folley (1997) point out that membership in itself is what produces social capital. Fox (1996) found various causal pathways for social capital accumulation, through the joint production or co-production by different actors such as state reformists, societal groups, local groups and external allies (religious, developmental, political, etc.). Putnam (1993:170) asserts that "trust is an essential component of social capital," such as personal trust and institutional trust. Associational membership, therefore, is a means to generate trust, especially for those who are newcomers. Putnam (1993) points out that participation in associations that allow horizontal interaction of relative equals would engender norms of reciprocity, help define sanctions, facilitate dissemination of information about others, and create a 'culturally-based template' for future cooperation. Moreover, participation in informal associations such as women's groups, hobby groups, and sport groups also generates trust (Pantoja 2000).

This study hypothesizes that displaced people's social capital, both pre-existing and acquired in the new resettled place[6], will greatly influence the integration process and, thus, their livelihoods. In the context of urban displacement and resettlement, social networks are important as an asset that displaced people and their households can utilize to advance themselves or use for seeking jobs or income earning opportunities. Various strategies to deal with the loss of livelihood as well as to achieve positive livelihood outcomes differ significantly depending on the nature and extent of social networks and the form of social capital available to displaced people.

[6] A separate analysis of the types of groups in which resettled people are members found that 25.5% of members belong to an economic group (such as self-help group, business group, or labor union) and 74.5% of members belong to a social group (such as youth/women/elderly group, sport group, or hobby group). Further analysis regarding the type of assistance found that 48.2% of members have received cash and/or in-kind assistance and 51.8% of members have received non-economic assistance (i.e., useful information about education, health, or welfare) from a group. A similar result was found for the question about how resettled people perceive value of assistance (43.7% for economic benefits and 56.3% for social benefits) (see Appendix A for detailed results).

Social capital is often conceptualized as consisting of two forms: homogeneous and heterogeneous (Putnam 2000; Woolcock 2001). The homogeneous form refers to close-knit networks, such as kinship and membership organizations. This form of social capital will reinforce social assets among urban poor dwellers, especially displaced people. Beall (2004) found that endowments of such forms of social capital constitute important resources for the urban poor. They can "provide safety-nets when deprivation is exacerbated by shocks, stress and other sources of vulnerability" (Beall 2004:65). The characteristics of these relationships are enduring and deeply rooted among the members so that displaced households often rely on these to adapt within the new living conditions during the first stage of resettlement and rehabilitation.

At the heterogeneous form, relocated people and their households have connections with others through informal support networks and associational forms. They often involve many different relationships such as friendship, neighbors, or voluntary associations. Beall (2004) argues that informal networks and associational forms can lead to more sustained and organized forms of collective action, at least when livelihoods are threatened. In the process of urban displacement and resettlement, a household that is forcibly relocated to a new place often gravitates toward relatives and persons of the same ethnic and geographic origin, and the same voluntary associations (e.g., women's associations, youth associations, and other self-help groups). These social networks play an important role in facilitating exchange of assistance and support for displaced people, even when they have limited access to other resources (e.g., financial, natural, physical) in order to address social and economic problems, specifically livelihood insecurity derived from displacement and resettlement.

Another potentially important predictor of employment and income is human capital Human capital refers to the skills, knowledge and values that individuals acquire in formal

schooling, in the workplace and in other settings that raise their productive capacity (Daklhi and de Clercq 2004). Virtually all the empirical research to date on returns to human capital investment has shown the relationship between human capital indicators such as education and working abilities and either employment opportunities or labor market earning. In this household-level analysis, human capital is mainly measured with the average number of years of schooling among adult household members.

Next, age and gender have been shown to contribute to employment differences and income gap. In this analysis, age is measured with the average age of adult household members. We examine the effect of gender of household head on household employment and income. We also include an indicator of respondents' evaluation of the assistance/support programs from government and non-governmental organizations to examine their role in assisting resettled people.

3. DISPLACEMENT AND URBAN RESETTLEMENT IN VIETNAM: GOVERNMENT-SUPPORTED AND SELF-RESETTLED

Vietnam is located on the eastern edge of the Indochinese peninsula and occupies 331,688 km^2, of which 76 % is agricultural land. The population of Vietnam reached 89 million in 2012, about 268 people per square kilometer (km^2). The population density in the two largest cities is 2,059 and 3,666 persons per km^2 in Ha Noi and Ho Chi Minh City, respectively (GSO 2012). The urban population of Vietnam increased from 18.3 million (1999) to over 28 million people (2012). During the period 1999-2012, the average annual population growth in urban areas was 3.3%. Rapid population growth has increased stress on urban environments that derives from existing deficits in the supply of land, housing and urban infrastructure in big cities, such as Ha Noi and Ho Chi Minh City. In order to solve those urban issues, many urban

infrastructure and transportation development projects - including slum eradication and upgrading, the establishment of industrial and commercial estates, and the building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented during the period 2000-2010.

This urban expansion is made possible through the process of compulsory land acquisition by government. Through the government authorities, developers can utilize the right to take land from private owners for development projects and provide them options to resettle. The displaced households participate in identifying and selecting options to either relocate to a new apartment/house; return to their existing plot after upgrading; move to plots provided by the district; or receive cash compensation and make their own arrangements for relocation. Displaced people who choose to relocate to an assigned apartment/house or a plot of land will also receive substantial assistance from government during the resettlement process. However, not everybody is qualified for the assistance. Only legalized residents can receive support.

Resettlement Typology

There are two principal types of resettlement based on how displaced people qualify for a specific resettlement option: government-supported resettlement and household self-resettlement. The first type is often selected within planned development projects which are operated by government, international organizations (i.e., the Asian Development Bank and World Bank) or large domestic real estate companies. These projects are usually planned one to three years in advance and are considered as part of the broader development program. These planned projects often involve infrastructure, slum upgrading and urban development. They typically require moving residents to another area where the basic infrastructure is built, such as roads, schools, markets, apartment buildings, etc. People who were affected by the projects often receive support

from government during their resettlement process. Only households that have a legal land use right certificate or whose land use right can be legalized qualify for this type of resettlement.

Self-resettlement, considered as the second type of resettlement, is often the choice of people who are ineligible for compensation rights (i.e., households that do not have a legal land use right certificate or whose land use right is illegal) from government-funded development projects. It is also the choice of households that are displaced by development projects of smaller private real estate companies or even by local residents who own several plots of land. This type of resettlement, mainly residential in nature, often occurs as a consequence of broader planned projects, such as commercial centers, condominiums, and other infrastructure projects (i.e., roads, airports, hospitals, schools, etc.) These developers only pay compensation for land purchased after negotiating with local residents. They do not assume any responsibility for how people relocate after being displaced. Thus, people within the affected communities have to find ways to resettle themselves. Some may buy farming land and move farther from the city (these people are excluded in this research). Many relocate to a different community or city not directly affected by development-related displacement. There are also cases of people who sold their own house/land for money because of rising market prices, then relocate themselves to a different area.

Evidence suggests that displaced households, in the context of displacement and resettlement, use their existing endowments and capabilities to survive, to secure livelihood stability, and to increase their security. They secure themselves against shocks and stress by working, saving, and investing, including in social networks and relationships. In the next section, an analytical model that shows the relationship between social capital, human capital, and employment and income will be presented.

4. HYPOTHESIS

As noted above, social capital is viewed as a key determinant of household employment and income. People often use their social networks, especially involving informal relationships, to find jobs and income opportunities. The level of human capital is also expected to positively influence employment and income. As a supply side factor, households with greater levels of human capital may be more skilled in searching for jobs as well as meeting the job requirements and consequently may have greater job opportunities and better wage rates. Other demographic indicators, such as the average age of adult household members ages 18^{+} and gender of household head, are also included in the analysis as we would like to examine how these variables affect employment and income. We include an indicator of respondents' evaluation of the assistance/ support programs from government and organizations.

We expect that each of the above indicators will contribute to the prediction of employment and income. It seems reasonable that employment and income may be related to level of social capital. Specifically, households with higher levels of social capital are expected to be associated with higher rates of employment and higher levels of income. Additionally, this hypothesis also presumes that there is a distal relationship between human capital (educational level), age, gender, and support degree and employment and income, and that this is largely indirect and mediated through the proximal impact of these indicators on social capital. The effects of social capital on household employment and income are tested separately for government-supported and self-resettled households because each group is expected to utilize different resources of social networks for seeking jobs and earning income. Social capital, therefore, is hypothesized to operate differently for government-supported and self-resettled households.

5. RESEARCH METHODS AND DATA ANALYZED

Data

The data employed in this study were collected in August 2013. The data were obtained through interviewing households in three areas of Ho Chi Minh City (HCMC), Ward 1 - District 5, Ward 11 - District 6 and Binh Hung Hoa A Ward - Binh Tan District. These areas were selected for this study due to their central location in terms of processes of urban development in HCMC. They have received much attention from policy makers and real estate investors regarding both spontaneous and planned developments. Despite having a long experience in urban development, compared to other peri-urban areas in HCMC, District 5, 6 and Binh Tan District are currently facing many social and economic problems associated with rapid urbanization.

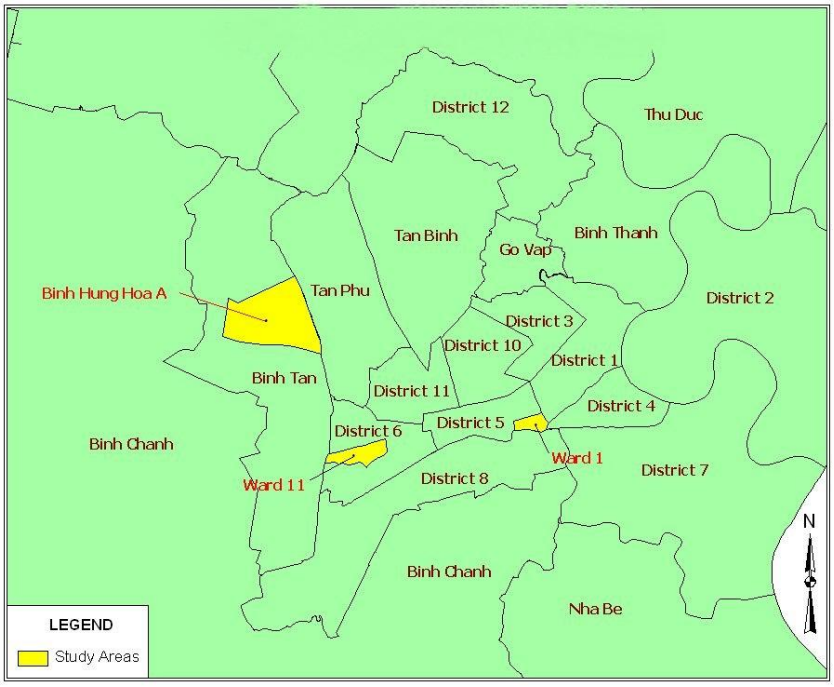

Figure 1.1 Map of study areas (Researcher created by using GIS)

The sample of government-supported resettlement included 142 households that live in apartment blocks (49 sampled-units) in Ward 1 - District 5; apartment blocks (59 sampled-units) in Ward 11 - District 6; and sites and services plots (34 sampled-units) in Binh Hung Hoa A Ward – Binh Tan District. For purposes of comparative analysis, a sample of households that were identified as self-resettlement was chosen in Binh Hung Hoa A Ward, Binh Tan District. Cluster sampling, a multi-stage random sample method, was used to select self-resettled households. In stage 1, based on the "2012 Population Statistics of Binh Hung Hoa A Ward," we chose 3 residential clusters which have the highest percentage of the number of temporary residences (KT3 and KT4)[7]. In stage 2, for each selected-residential cluster, we randomly picked 1 residential unit (there are about 8-10 residential units per residential cluster). In stage 3, within each unit, we relied on official documents and local authorities' records to obtain a list of households that have in-migrated since 2005 (the year in which the government-supported households received their apartment or land for resettlement). Then, we drew a random sample using a random-number table to select households from the list. Within each unit, 44 households were chosen, giving a total of 132 households for 3 units.

A total of 242 households were interviewed by using a structured questionnaire. These households had a total of 1,082 individuals, with an average of 4.4 people per household. This number is slightly higher than the national and Ho Chi Minh City average size for households (3.8 people for the national average size and 3.9 for HCMC) (GSO 2012). The sample consisted

7 There is a residence registration system called Ho Khau in Vietnam, often translated as permanent residence. A book containing the information of household members and the household's residence is issued to each household. Ho Khau is registered at district level, and people are supposed to live in the district of the Ho Khau registration. KT1 type is only for local residents; KT2 is for residents from a different district within the same city; KT3 and KT4 are for people who come from different cities or rural areas.

of 126 households that are in government-supported resettlement and 116 households that are identified as self-resettlement (see Appendix B for detailed sampling results).

The questionnaire includes 43 questions which capture the social and economic elements of displaced households. In the following section, the variables included in the analysis are briefly introduced. The exact descriptions of the indicators are presented in Table 1.1.

Variables in the Model and Measures

The primary response variable, employment and income, was measured by three indicators:

- Percentage of adult household members who are working. This is the number of adult family member ages 18^{+} currently working divided by the total number of adult ages 18^{+} in household.
- Number of sources of household's income last 3 months. This indicator was created by counting the sources of income within household, such as wages, business earning, farming, interest, etc.
- Total of household income from working per month converted to US dollars. This is the sum of household income from different sources.

The independent variable, household social capital, was also measured by three indicators. In these, larger values reflect a larger stock of social capital.

- Average number of times household head met socially with friends or colleagues in the last month. This indicator was created by calculating the mean of the number of times met socially with neighbors, friends, and colleagues in the last month.

- The reported total number of household members who belong to groups or organizations.
- Personal friends with 'high social status' score. This number was calculated by counting the different types of personal friends that household members have. For example, '*Do you/family members have a personal friend who is*' (a government officer, business owner, an expert in a specific field, etc.) These indicators are assumed that friends who are government officer, community leader, business owner, manager, expert, etc., in a specific field possess more valuable information for employment and income than those who are not (values range from 0 to 7).

The control variables include the average number of years of schooling of adult household members ages 18^{+}(education), the average age of adult household members ages 18^{+}(age), gender of the household head (gender [0=male, 1=female]), and the perceived significance of external support received since resettlement (support). We constructed the 'support' index as the sum of responses to nine items, each measured using a four-point response scale of the question: "How significant is [support/program] in affecting your household's livelihood?" The types of support/program include job seeking, monetary assistance, the formation of self-help groups, issuing official documentation, working skill/training, production materials/equipment assistance, access to financial resources, access to other helpful resources, and obtaining useful information. The 'support' (M= 2.97, *SD*= 1.25, range = 0-27) showed adequate reliability with the current data (Cronbach's alpha = 0.69). The scale is scored as 0 = *did not receive at all*, 1 = *very little*, 2 = *significant*, and 3= *very significant*. Higher values reflect greater perceived significance of support received.

Relationships connecting all the variables are then investigated by means of a structural equations model (SEM). A SEM is "a stochastic model where each equation represents a causal linkage, rather than a simple empirical association" (Goldberger 1972:979). SEMs are comprised of regression equations, which are included in the model only so far as it is possible to interpret them as causal relationships, theoretically justifiable and not falsified by data. This approach allows for greater flexibility of statistical assumptions. It has the capability to model relationships between measurement errors, direct and mediated effects, and provides alternative measures of construct validity and reliability (Bollen 1989; Kaplan 2000). Another advantage of this method is the capability of modeling unobserved constructs with multiple measures and is routinely used for between-group comparisons, one of the foci in this study. In this type of model, the Fs are factors and the arrows (F1 → F2 → F3) represent hypothesized causal effects. In this analysis, a structural equation model is used to analyze how different indicators influence employment and income.

In the initial model, all control variables were included in the analysis. However, the results from model fit indicated a relatively poor fit of the data. Additionally, the results indicated that the average age of adult household members ages 18^{+}(age) only contributed minimally to predicting household employment and income. Thus, we decided to not include variable 'age' in the final model which is presented in the next section.

6. RESULTS

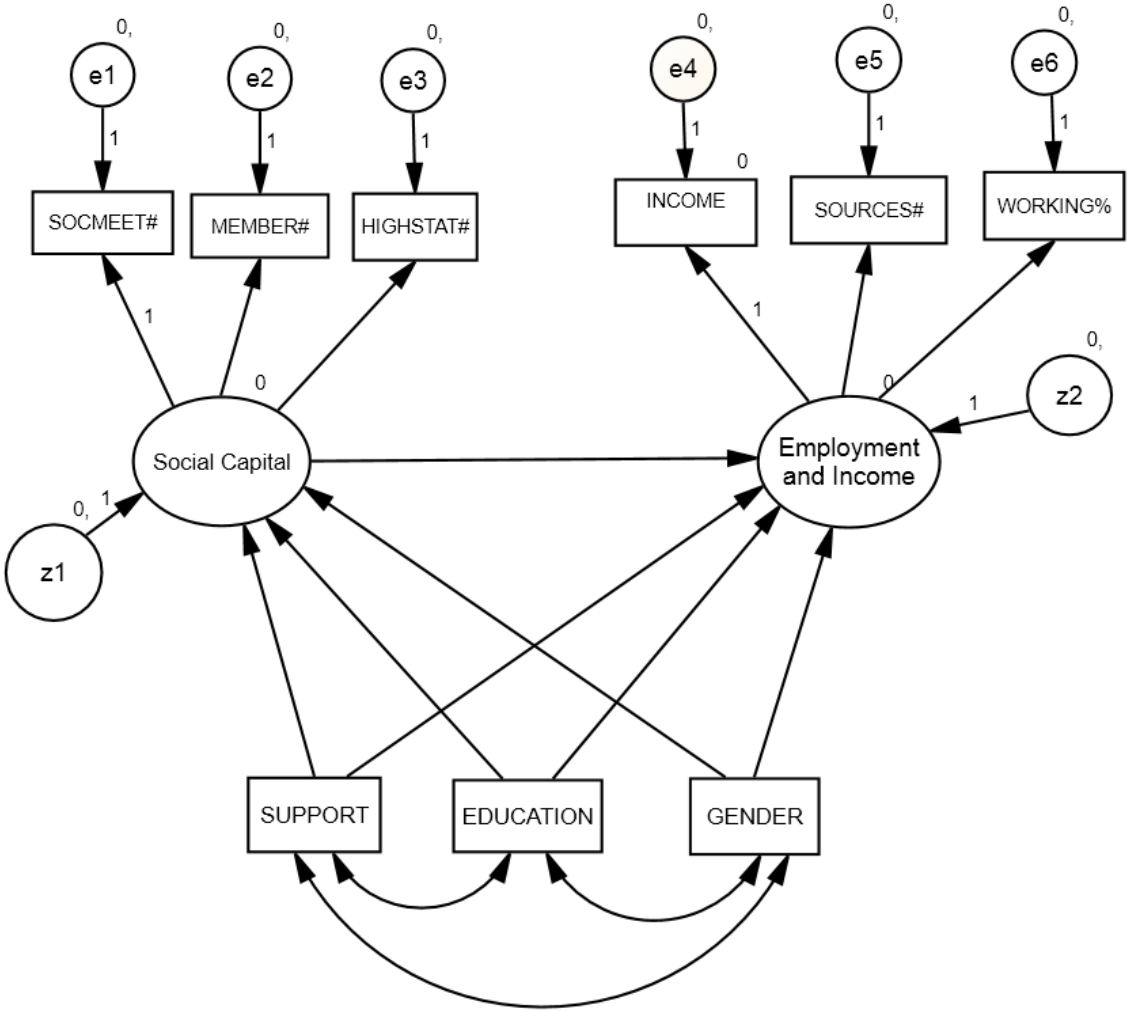

Figure 1.2 Structural equation model for predicting employment and income

Figure 1.2 provides a graphic representation of the model which follows the path analysis symbology. It depicts the variables, their errors and the linkages connecting variables. Such connections are represented both graphically by arrows, and numerically by regression coefficients. In the LISREL (LInear Structural RELationships) praxis, the graphic representation is based on the following criteria:[8] latent variables are inscribed in ellipses, and observed

[8] The term LISREL is the acronym of LInear Structural RELationships, a software for factor analyses developed by Karl Jöreskog, a statistician and psychometrician, at the beginning of the 1970s (Jöreskog and Van Thillo 1973).

variables are inscribed in rectangles. The causal nexus between two variables is represented by a straight arrow moving from the independent variable to the dependent variable. The association (covariation or correlation) between two variables is represented by a bidirectional curved arrow connecting them. The absence of arrows means the absence of linkages between variables. In the estimated model, the squared multiple correlations (R^2) show how well predictor (independent) variables predict the dependent variables and the strength of the hypothesized relationships between the independent and dependent variables. The model's factor loadings show how an independent variable affects a dependent variable or, in other words, how much change occurs in the dependent variable when an independent variable changes by one standard deviation.

Prior to analyzing data, the assumption that all variables were normally distributed was tested. We constructed the bar-charts for both dependent and independent variables by using their standardized values, none of the values exceeded +/- 4. Thus, all endogenous and exogenous variables have normal distributions and no outliers.

Table 1.1 also presents the means, standard deviations, and values of skewness and kurtosis for all variables included in the SEM model. To test the assumption of a multivariate normal distribution, the kurtosis and skewness coefficient for each measured variable was divided by its standard error and the resulting quotient was below an absolute value of 2.0 (suggesting a distribution with a normal shape) for all but two of the variables. The two variables, household income (INCOME$) and the number of family members who belong to groups or organizations (MEMBER#), had skewness coefficients above the threshold. To address this slight violation of the normality assumption, the SEM model was tested using robust maximum likelihood estimation, which provides standard errors that are correct even when distributional assumptions are violated.

Table 1.1 Descriptive statistics for variables used in the structural equation model

Indicators	Variable	Mean	SD	Skewness	Kurtosis
Members working (%)	WORKING%	72.21	23.39	-0.34	-0.59
Income sources (#)	SOURCES#	1.67	0.80	1.09	0.69
Household income ($)	INCOME$	473.50	339.80	2.09	6.49
Social meeting (#)	SOCMEET#	36.41	29.91	1.41	2.34
Group membership (#)	MEMBER#	0.77	1.02	1.84	4.27
Friends with high status (#)	HIGHSTAT#	1.50	1.49	0.80	-0.29
Degree of support (index)	SUPPORT	2.97	1.25	1.25	1.76
Education of adults (mean)	EDUCATION	8.70	3.34	0.08	-0.19
Gender of household head	GENDER			0.51	-1.74
0=Male	62.4%				
1=Female	37.6%				
Resettlement type	RESETTLE			0.08	-2.01
1=Government-supported (n=126)	52.1 %				
2=Self-resettlement (n=116)	47.9 %				

The model was also identified basing on the t-rule (since the number of unknown parameters is smaller than the number of known parameters), 3-indicators rule (the model has at least three indicator variables), and fully recursive rule (since its β - beta is lower triangular and its ψ-psi is diagonal).

Table 1.2 summarizes the results from fit statistics of the structural equation model (SEM) for measuring social capital and household employment and income. Measures of the model's goodness of fit are a function of the residual, i.e., the difference between the empirical variance-covariance matrix and the model created variance-covariance matrix. It is possible to show that, if the model is correct, the fitting statistic follows Chi-square (χ^2) with *df* degrees of freedom, where $df = \frac{1}{2}(p + q)(p + q + 1) - t$, p is the number of endogenous variables, q is the number of exogenous variables, and t is the number of estimated parameters (Bonnet and Bentler 1983).

The result from the baseline model Chi-square test shows a good fit of the model compared to the empty model. Specifically, it reports a very high value of Chi-square (χ^2 = 447.713) and significant value (p=0.00). Since the value for this model is significantly lower than the critical value for a χ^2 with one degree of freedom (χ^2 = 140.578 < 447.713), we can state that the difference between the two variance-covariance matrixes is stochastic in nature, and is not due to the inappropriateness of the theoretical model.

In terms of the baseline comparison criteria, the values of Increment Fit Index (IFI) and Tucker-Lewis Index (TLI) are over 0.9. This indicates good model fit (IFI = 0.924 and TLI = 0.923). Moreover, the results of root mean square error of approximation (RMSEA) also indicate good model fit. Specifically, RMSEA equals 0.035 which is less than 0.05 and its 90 percent confidence interval, which ranges from 0.022 to 0.048, falls into the good fit range.

Table 1.2 Fit statistics of measuring employment and income model

Model	CMIN (*p*)	IFI	TLI	RMSEA	Lo90	Hi90
Default model	100.545 (.002)	.924	.923	.035	.022	.048
Saturated model		1.000				
Independence model	381.711 (.000)	.000	.000	.073	.065	.081

Besides Chi-square tests, covariance residuals, difference between observed covariance and predicted covariance, can be also used to measure of model fit. Inspection of the standardized residual covariances in the model shows no extreme values; all residual covariances have small values and do not exceed 2.0. These results indicate a good fit of the model.

Table 1.3 Results of SEM predicting employment and income for resettled households

			Full *N=242*	***Government-supported*** *n=126*	***Self-resettled*** *n=116*
Path Analysis					
Social capital	←	Support	0.479***	0.459***	0.420**
	←	Education	0.448***	0.455***	0.361**
	←	Gender	-0.100	-0.084	-0.097
Employment and income	←	Support	-0.004	0.063	-0.015
		Indirect via SC	0.226	0.287	0.192
		Total effect	0.222	0.350	0.177
	←	Education	0.124	-0.028	0.320***
		Indirect via SC	0.211	0.284	0.165
		Total effect	0.335	0.256	0.484
	←	Gender	0.224***	0.348***	0.068
		Indirect via SC	-0.047	-0.053	-0.044
		Total effect	0.177	0.295	0.024
	←	Social Capital	0.471**	0.626**	0.456**
Support	↔	Education	0.055	0.078	0.014
Support	↔	Gender	-0.119	-0.239	-0.057
Education	↔	Gender	-0.064	-0.089	-0.041
		pR^2 ... Social capital	*0.482*	*0.482*	*0.328*
		pR^2 ... Employment and income	*0.299*	*0.429*	*0.407*
		Means			
		Degree of support	2.97	3.61***	2.28***
		Educational level	8.70	8.77	8.62
		Gender of household head	0.38	0.45***	0.29***
Factor Analysis					
Social meeting	←	Social Capital	0.442***	0.464***	0.393**
Group membership	←	Social Capital	0.300***	0.504***	0.031
Friends with high status	←	Social Capital	0.596***	0.571***	0.791**
		pR^2 ...Social meeting	*0.296*	*0.216*	0.254
		pR^2 ...Group membership	*0.250*	*0.254*	0.010
		pR^2 ...Friends with high status	*0.355*	*0.326*	0.626
Household income	←	Employment & Income	0.954***	0.802***	0.973***
Income sources	←	Employment & Income	0.321*	0.422***	0.327**
Members working	←	Employment & Income	0.204**	0.358***	0.207*
		pR^2 ... Household income	*0.910*	*0.644*	*0.947*
		pR^2 ... Income sources	*0.203*	*0.278*	*0.207*
		pR^2 ... Members working	*0.242*	*0.228*	*0.043*

Notes: Standardized coefficients are reported. Significant at *p<0.10, **p<0.05, ***p<0.01.

Path Analysis Results

Table 1.3 shows the results of SEM predicting employment and income for 242 resettled households including government-supported resettlement (n=126) and self-resettlement (n=116). The following findings first describe results for all households, and then specific to government- supported and self-resettled households.

In the path analysis of predicting household employment and income, the results in Table 1.3 first show that social capital is positively associated with employment and income (β=0.471), but this overall effect differs by resettlement type. Specifically, there are stronger effects among government-supported resettlement households (β=0.626) than self-resettled households (β=0.456). Second, the overall results show that the perceived significance of support received is positively associated with household employment and income (γ_{total}=0.222, γ_{direct}=-0.004, $\gamma_{indirect}$=0.226); this effect is mainly mediated by social capital. However, this overall effect is driven largely by government-supported households in the sample (γ_{total}=0.350 for government-supported households vs. γ_{total}=0.177 for self-resettled households). Third, household average adult education is positively associated with employment and income, although the direct effect of educational level on employment and income is small (γ_{total}=0.335, γ_{direct}=0.124, $\gamma_{indirect}$=0.211). However, this total effect is small for government-supported resettlement households (γ_{total}=0.256, γ_{direct}=-0.028, $\gamma_{indirect}$=0.284), but higher for self-resettled households (γ_{total}=0.484, γ_{direct}=0.320, $\gamma_{indirect}$=0.165). Fourth, gender of household head has a small impact on employment and income (γ_{total}=0.177, γ_{direct}=0.224, $\gamma_{indirect}$=-0.047). Among resettled households, the effect is high for government-supported resettlement households (γ_{total}=0.295, γ_{direct}=0.348, $\gamma_{indirect}$=-0.053), but nonexistent for self-resettled households (γ_{total}=0.024, γ_{direct}=0.068, $\gamma_{indirect}$=-0.044).

In summary, the results show that social capital is positively associated with household employment and income. The perceived significance of support received and having a male household head are strongly associated with higher level of household employment and income for government-supported households. For self-resettled households, education plays a significant positive role in employment and income.

Factor Analysis Results

Examining the results of the factor analysis, we found that the latent variable representing social capital had good measurement characteristics. Validity/factor coefficients (λ) and reliability coefficients (pR^2) for each observed variable are presented in Table 1.3, with higher values indicating better measurement of the latent social capital variable. Factor loadings were high for both observed variables social meeting (λ=0.442) and friends with high social status (λ=0.596), while groups/ organizations participating had slightly lower loading on the social capital (λ=0.300). However, different variables tend to drive social capital across resettlement groups. For government-supported resettlement households, all three indicators are valid and reliable measures of social capital. For self-resettled households, both social meeting and friends with high social status contribute to valid and reliable measures, but group membership indicates poor validity and reliability. Taken together, the results indicate that group membership only contributes minimally to measuring social capital.

Regarding the latent variable employment and income (EnI), total household income had the largest loading on EnI (λ=0.954), while income sources and household employment rate had lower loadings on EnI (λ=0.321 and λ=0.204, respectively). For government-supported households, all three indicators are valid and reliable measures of household employment and income. For self-resettled households, both total household income and income sources

contribute to valid and reliable measures, but percentage of adult household members who are working indicates poor reliability.

7. DISCUSSION AND LIMITATIONS

Discussion

Social capital theory was used to guide the present study and development of its conceptual model. Structural equation modeling was employed to test the plausibility that social capital increases the opportunity to find a job and earn income for urban in-migrants in general, and for displaced people in particular. The measures of social capital pertaining to meeting socially with other people and having personal friends with 'high social status' had good properties (reliability values were 0.287 and 0.345, respectively; validity values were 0.433 and 0.587, respectively) and fit well in the SEM measurement model.

The results of the analysis show that social capital influenced employment and income among displaced households. Specifically, the more extensive the social networks that the households have, the more employment and higher income the households acquire in the context of displacement and resettlement. These results are consistent with previous studies which show a general positive relationship between social networks and both employment opportunities (Chiswick and Miller 1996; Fernandex, Castilla, and Moore 200) and incomes (Aguilera and Massey 2003; Amuedo-Dorantes and Mundra 2007).

The present study suggests that government-supported and self-resettled households faced similar problems of losing jobs and income sources due to relocation but they had different strategies to deal with the loss. Despite both groups relying on informal social networks to seek

jobs and income sources, the ways that they access and utilize their networks are different. Government-supported resettlement generally involved providing households with more and better quality programs[9] (i.e., formation of self-help groups, microcredit programs, financial assistance) than did self-resettlement. These households often encourage their members to join a social group or organization as a means of finding jobs and income sources. Moreover, they often meet with neighbors, friends and colleagues with whom they can get useful information[10] regarding the employment opportunities and income sources.

For self-resettled households, they often relied on their own personal friends who are professionals, community leaders, or business persons. These persons are assumed to possess valuable information regarding employment. These findings support our hypothesis which states that government-supported resettlement households and self-resettlement households use different resources of social networks for seeking jobs and earning income. In conclusion, despite those differences, social capital of resettled households in general has significant effects and plays an important role in assisting people to deal with the change of livelihood circumstances and activities. It allows resettled people to accumulate useful information as well as assistance from other people in order to find jobs and income sources.

Findings also show that for displaced households in the sample, human capital (measured by education) did not exhibit the expected direct effect on household employment and income, but it had an indirect effect. It seems that education is less important in areas where people rely more on social capital or social networks. The reason for this may be simply that education

9 We made a separate analysis for comparing types of supports after resettlement between two groups (see Appendix C for detailed results).

10 A separate analysis of types of support that people have received when joining in group or organization shows that 'collecting useful information about works' is the most popular support with 42 out of 137 responses, occupied 30.7% of total responses (see Appendix D for detailed results).

obtained by resettled people in their area of origin is not recognized or valued in the host city, such as Ho Chi Minh City. Consequently, most of them worked in low-end jobs such as factory workers and service-based employees (see Appendix E for detailed results).

As shown in Table 1.3, household average adult educational level had a strong total effect on employment and income among self-resettled households, but only contributed minimally for government-supported households. To explain this different effect, a correlation matrix was created among above predictors (Table 1.4). The results in Table 1.4 show a negative bivariate association between average adult educational level and household employment rate ($r=-0.288$, $p<0.05$) and positive association between average adult educational level and percentage of adult household members who are currently attending school ($r= 0.181$, $p<0.05$).

Similarly, the role of assistance/support programs did not directly affect employment and income of resettled households, but it had an indirect effect. Most important in this study is the state's ability to identify the needs of displaced people and helps them to re-build their livelihoods. Our further analysis on types of support has shown that issuing official documents (such as identification card, birth certificate, 'ho khau,' and so on) and providing information related to employment and income sources are the most popular types of support[11] that displaced people received during resettlement.

As shown in Table 1.3, male household headship had a strong effect on employment and income among resettled households. The findings support prior research that has shown men are advantaged in seeking jobs and income sources compared to women (McMullin and Ballantyne

[11] A separate analysis of types of support that people have received after resettlement shows that 'issuing official documents' and 'providing useful information' are the most popular supports. They occupied 60.0% and 56.1% of total responses, respectively (see Appendix C for detailed results).

1995; Aiba and Wharton 2001). Not only are women more likely to be concentrated in fewer types of jobs, but those jobs are more likely to be female dominated and often with lower wages.

Table 1.4 Intercorrelation matrix for government-support household

		WORKING %	SOURCES #	INCOME $	EDUCATION	STUDYING %
WORKING%	Pearson Correlation	1				
	Sig. (1-tailed)					
SOURCES#	Pearson Correlation	.205*	1			
	Sig. (1-tailed)	.011				
INCOME$	Pearson Correlation	.275**	.236**	1		
	Sig. (1-tailed)	.001	.004			
EDUCATION	Pearson Correlation	-.288*	-.009	-.012	1	
	Sig. (1-tailed)	.018	.459	.446		
STUDYING %	Pearson Correlation	-.224**	-.074	-.065	.181*	1
	Sig. (1-tailed)	.006	.206	.235	.021	

**. Significant at p=0.05 level (1-tailed)*

***. Significant at p=0.01 level (1-tailed)*

Limitations

Although the results from SEM analysis supported our research hypotheses regarding the effects of social capital on employment and income of displaced households, there are some limitations that need to be considered.

The first limitation of the present study was sample size. Since SEM is based on variances, the larger the sample, the higher the homogeneity of variances and explained variances. Basing on the 'Rule of 20,'[12] the present study is based on medium sample size. This limits somewhat the power to explore causal relationships among the variables in the model, especially to detect differences between the structural models in government-supported

[12] Rule of 20: At the minimum, one should have at least 20 cases per free parameter estimated in the model (Bollen 1989; Byrne 2010)

resettlement and self-resettled households. Nevertheless, these limitations should be balanced against the advantages afforded by using structural equation modelling for statistical analysis (Bollen 1989).

Second, having information about ‘time since resettlement’ and ‘initial resource endowment’ would give us a better picture of household resettlement changes over time. We only captured duration of residence in their current location. Finally, since we were focused on two specific types of resettlement (government-supported resettlement and self-resettlement) in specific areas (peri-urban areas in Ho Chi Minh City,) the findings may not generalize fully to other groups or settings.

In this regard, future research that uses a larger, more representative sample will permit a more comprehensive understanding of the processes involved. Of particular interest would be further examination of the micro, meso or macro-level factors that influence people in similar conditions.

8. POLICY IMPLICATIONS AND SUMMARY

Policy Implications

Despite the limitations of the survey data, the findings have a number of implications for the government’s future policies and planning. Social capital has shown to be an important predictor of livelihoods in the context of displacement and resettlement in Vietnam. Therefore, during the process of proposing and implementing a development project, it is important to understand how relocated people secured their livelihoods through different channels (i.e., family, friends, agencies, and organizations).

Sustainable and balanced development is the motto of the Vietnamese government. Urban development projects have achieved many successes. However, the strategy to entice development into rural and remote areas has had limited success. Consequently, there have been large numbers of rural people who are abandoning rural areas to seek work in the big cities, such as HCMC. On arriving in the city, these migrants encounter administrative obstacles that deny them access to health care, schooling, housing, and labor protection. Many urban development studies, and this study as well, have shown that unplanned urbanization has deteriorated the order, civility, and morality of their neighborhoods and public places. The spontaneous migration of rural people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development.

While this article cannot suggest a specific strategy for assisting displaced households during the resettlement process, the findings can help urban policy-makers and planners to understand the livelihood conditions, networks and other social assets of the resettled-people, in order to anticipate and respond to the possible impact of interventions. As the result, it contributes to making the development process more suitable and sustainable.

Summary

Many people migrate to a large city in search of opportunities for themselves and their families, looking for a better life. In the context of displacement and resettlement, these people seem to be more vulnerable and face many disadvantages compared to local people. This study presented evidence from a survey of 242 households in the areas which received much attention from policy makers and real estate investors regarding both spontaneous and planned developments in Ho Chi Minh City. The findings show that social capital plays an important role in assisting people to deal with the change of livelihoods. It allows displaced people, through

different channels, to accumulate useful information as well as assistance from other people in order to find jobs and income sources.

The main contribution to the literature, especially in the context of Vietnam, is that we have examined both human capital and social capital at the same time and made several unexpected findings. Despite strong consensus among researchers on the relationships between social capital and employment and income of migrants, particularly relocated people, there is very little concern about what forms of social capital that they utilized in order to achieve their goal. Among those who were relocated, we found that state-sponsored resettlement households were more likely to rely on social groups or organizations as a means to find jobs and income sources. They also met with neighbors, friends and colleagues with whom they could get useful information regarding the employment opportunities and income sources. Differently, self-resettled households, they often relied on their own personal friends who are professionals, community leaders, or business persons. These persons are assumed to possess valuable information regarding employment. This findings suggest that it is important to investigate how social capital contribute to the economic adaptation and improvement of resettled-people in the host society. Future researchers are encouraged to study how different dimensions of social capital effect livelihood outcomes of people after they resettled in a new location.

With the rapid growth of big cities, the spontaneous migration of rural people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development. Rural-urban migration, therefore, is a very interesting and important topic for Vietnam. At the macro level, this migrant process significantly influences the redistribution of the labor force and enlarges the economic gap between rural and urban areas. At the micro level, these migrants encounter administrative obstacles that deny them access to health care, housing, schooling, and

labor protection in the host city. As studies of urban development have pointed out, social networks and the many different forms of associational life are crucially important in maintaining and developing urban livelihoods (Beall 2004). Future researchers are encouraged to study how people build social networks after they resettled in a new location in the urban areas. In particular, the study should be focused on strategies and resources that people use to build their own networks including individual interactions, community networks, formal/informal institutions and organizations participation.

APPENDICES

APPENDIX A. GROUP AND ASSISTANCE

		Responses	
		N	Percent
Type of group	Economic group	53	25.5
	Social group	155	74.5
Type of assistance	Economic – cash assistance	29	21.2
	Economic – in kind assistance	37	27.0
	Non-economic assistance	71	51.8
Perceived value of assistance	Economic benefits	114	43.7
	Social benefits	147	56.3

APPENDIX B. QUESTIONNAIRE INTERVIEW RESULTS

Resettlement types	Research settings	Sampled	Interviewed	%	Description
Government-supported resettlement	Apartment blocks in ward 11-district 6	59	50	85%	- 4 households refused to interview - 1 household was unable to interview due to the only interviewee is too old - 4 households could not access due to the door locked
	Services plots in Binh Hung Hoa A ward – Binh Tan district	34	34	100 %	
	Apartment blocks in ward 1-district 5	49	42	86%	- 3 households refused to interview - 2 household was unable to interview due to the only interviewee is too old - 2 households could not access due to the door locked
Household self-resettlement	Residential clusters 20 (KP20)	44	40	91%	- 4 households could not access due to the door locked
	Residential clusters 22 (KP22)	44	43	98%	- 1 household refused to interview
	Residential clusters 26 (KP26)	44	33	75%	- 5 households refused to interview - 6 households could not access due to the door locked
	Total	274	242	88%	

APPENDIX C. TYPES OF SUPPORT AFTER RESETTLEMENT BY TYPE OF RESETTLEMENT

	Full	Government-supported	Self-resettled
Official documents	60.6%	59.8%	62.1%
Useful information	56.1%	60.8%	48.3%
Monetary assistance	30.3%	26.8%	36.2%
Financial resources	25.8%	30.9%	17.2%
Other helpful resources	25.8%	27.8%	22.4%
Job seeking	12.9%	14.4%	10.3%
Self-help groups	6.5%	9.3%	1.7%
Working skill/ training	6.5%	7.2%	5.2%
Production materials/ equipment	2.6%	2.1%	3.4%

APPENDIX D. TYPES OF SUPPORT FROM GROUPS

Types of support	Responses		Percent of Cases
	N	Percent	
1 Job	4	2.9%	4.8%
2 Money	29	21.2%	34.5%
3 Official documentaries	1	0.7%	1.2%
4 Working skill/ training	13	9.5%	15.5%
5 Production materials/ equipment	1	0.7%	1.2%
6 Access to financial resources	18	13.1%	21.4%
7 Access to other helpful resources	11	8.0%	13.1%
8 Useful information about works	42	30.7%	50.0%
9 Gifts	18	13.1%	21.4%
Total	137	100.0%	163.1%

APPENDIX E. JOB CLASSIFICATION

Job classification	Frequency	%	Valid %	Cumulative %
Government Official/ Civil Servant	61	5.6	9.8	9.8
Factory worker/ laborer	100	9.2	16.1	25.9
Service-based employee	101	9.3	16.2	42.1
Informal laborer	82	7.6	13.2	55.3
Hourly wage worker	83	7.7	13.3	68.6
Home-based artisan/ craftsman	81	7.5	13.0	81.7
Small business owner	62	5.7	10.0	91.6
Medium business owner	52	4.8	8.4	100.0
Total	622	57.5	100.0	
Not working	247	22.8		
Under 15 years of old	213	19.7		
Total	460	42.5		
Total	1082	100.0		

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PAPER 2

RESPONSES TO ECONOMIC SHOCKS, LIVELIHOOD ACTIVITIES AND OUTCOMES OF DISPLACED HOUSEHOLDS: A CASE STUDY IN HO CHI MINH CITY

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ABSTRACT

Forced displacement has caused many impacts on families regarding their socio-economic conditions. This paper examines how economic shocks and response strategies affect economic achievements and livelihood outcomes of resettled households in peri-urban areas of Ho Chi Minh City, Vietnam. To understand these relationships, we modified the sustainable livelihoods framework to guide analysis of data from a survey of 242 households interviewed in 2013. The results indicate that increasing earnings was the most effective strategy that positively influenced household income and assets. Both the perceived affordability of basic needs and food security were influenced by household income earned and the value of assets. For government-supported households, the perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. For self-resettled households, the perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with both higher household income and asset value. The ability of resettled households to reestablish their lives is thus strongly conditioned on their livelihood activities and assets. The study further calls the attention of urban policy makers and planners by demonstrating the advantage of using a livelihoods approach to analyze activities and livelihood outcomes for displaced people.

Keywords: displacement, resettlement, livelihood, urban, Vietnam

1. INTRODUCTION

Increased urban impoverishment is not only due to rapid urbanization accompanied by unemployment and underemployment, but is exacerbated by the large number of urban development programs (Cernea 1993; Stanley 2004; Yntiso 2008; Oliver-Smith 2009). Urban infrastructure and transportation projects - including slum eradiation and upgrading, establishment of industrial and commercial estates, and building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have uprooted and forcibly displaced many people from their homes. As a result, many urban dwellers (most of whom are poor) who have been displaced are engaged in an unremitting struggle to secure a livelihood in the face of adverse social and economic circumstances (Cernea 1993, 1997).

Cernea's (1997) model of impoverishment risks and livelihood reconstruction (IRLR) was developed in the mid-1990s based on empirical research worldwide on displacement and evaluations of resettlement. IRLR is an analytical model for understanding the process and impacts of involuntary resettlement that highlights the intrinsic risks that cause impoverishment through forced displacement and the ways to counteract such risks. Thus, the model captures the socioeconomic content of both segments of the process: forced displacement and resettlement. This paper provides a socioeconomic analysis of how people's livelihoods are affected by displacement and resettlement. It is a timely issue for Vietnam, a country facing numerous residential displacements and resettlements due to the complex mixture of planned and unplanned urban development projects, particularly in Ho Chi Minh City (HCMC).

The displacement and resettlement in Vietnam has increased in the last two decades. Before 2000, there were nearly 100,000 people affected by Asian Development Bank funded urban development projects (Cernea 2007). Between 2000 and 2010, an estimated a half million

people were displaced in Vietnam for development reasons (GSO 2012). In Ho Chi Minh City, from 1996 to 2009, the project of Environmental Improvement of Nhieu Loc-Thi Nghe Basin displaced about 44,000 people (Roberts and Kanaley 2006). However, it is often not recognized that many others were spontaneously resettling in peri-urban districts (Dzingirayi 1998; Brand 2000; Chimhowu 2002; Nyambara 2002; Chimhowu and Hulme 2006). In the absence of official statistics, estimates based on analyses of migration trends suggest that for every household resettled by the government at least two more self-resettled (Chimhowu 2003).

Our objective in this paper is to exam how economic shocks, which caused by forced displacement or other negative economic changes, and efforts to deal with shocks affect economic resources and livelihood outcomes of resettled households in peri-urban areas of Ho Chi Minh City. The sustainable livelihoods approach is modified and used to investigate how effectively households that resettle through different methods in the same region and around the same time (2005) progress, and thereby achieve better livelihood outcomes. The sustainable livelihoods approach helps to facilitate identification of ways in which resettled people diversify their livelihood activities over time and whether these changes lead to increase or decrease livelihood opportunities. We also compare the livelihoods of government-supported resettlement and self-resettled households in order to have a greater understanding of the effects of resettlement type on livelihood outcomes.

The article is structured as follows. Section 2 presents the causes and consequences of urban displacement and resettlement. Section 3 introduces the context of displacement and urban resettlement in Vietnam. Section 4 presents the analysis framework and hypotheses. Section 5 introduces data sources and research methods. Section 6 presents the results of structural

equation model estimation. Section 7 is comprised of the discussion and limitations. The summary is presented in section 8.

2. URBAN DISPLACEMENT AND RESETTLEMENT: CAUSES AND CONSEQUENCES

Cernea (1993) identified four major causes of urban displacement including urban economic growth (relocation to make room for new industrial estates, transportation, or economic activities), environmental improvements (relocation to make room for structural and infrastructural equipment for environmental services, health facilities, and others), slum upgrading (relocation to eradicate slum areas, improve quality of life, or city image), and non-urban programs (relocation as a result of new reservoirs that extend far beyond the dams and submerge existing towns). In practice, projects may combine two or more of the above causes. For instance, urban economic growth and slum upgrading are often dual causes of urban relocation. Recently, Metcalfe, Pavanello, and Mishra (2011:7) classified two primary categories of subjects that cause urban displacement based on who initiate the displacement process: first, evictions conducted by government and parastatal entities in an attempt to retrieve land for transport or other infrastructure; and secondly, evictions conducted by private landlords in relation to rental disputes or the sale or change of use of the land or property.

In fact, urban development projects are not limited to large infrastructure; many projects require minor land acquisition or relocate people only a few hundred meters. For decades, many U.S based businesses have looked overseas to locate their manufacturing and production in developing countries, especially in the Global South, with large labor forces, low wage rates and favorable business climates as a strategy to effectively compete in the global marketplace. This

trend, therefore, triggers the need of land acquisition for building factories and processing zones in these developing countries. The owners of land become displaced and may receive compensation for their acquired lands.

The ultimate goal of most development projects is to reduce poverty and improve social well-being. However, the problem of development-forced displacement and resettlement expresses the frequent tension between local and national development needs. Addressing this problem, Oliver-Smith (2009) points out that society's need to develop its infrastructure to enhance productive capacity to produce more energy, better water supplies, and more efficient transportation systems is balanced against the welfare of the local communities that face displacement and possible resettlement to make room for such projects. The development-induced displacement and resettlement costs borne by local people are measured against the benefits that the entire society will purportedly enjoy from a project's implementation.

Societal benefits, such as national gross domestic product increase, economic growth, infrastructure convenience, and other social improvements, are often explicit and observable during the process of urbanization. However, displaced people - specifically the poor and the vulnerable - experience many negative consequences of urban development-induced displacement and resettlement, typically not recognized by the public or policy makers.

The involuntary displacement of communities and families is the most disruptive and traumatic consequence of planned development. The impacts are often economic, social, and environmental (Tankha et al. 1999). Economic impacts include the dismantling of production systems, loss of productive assets, loss of income sources, and relocation of people to areas where their skills are less applicable and/or there is greater competition for resources. Labor markets and patterns are disrupted and links between producers and customers are often severed.

Social problems arising from involuntary displacement include weakening of community structures and social networks, dispersal of family groups, loss of cultural identity, diminution of traditional authority and the potential for mutual help. Environmental impacts include inundation of flora and fauna, loss of habitat, and eco-system degradation (Tankha et al. 1999).

Hamdi (2007) finds that due to relocation, transport costs and travel time for the poor have increased, incomes have been adversely affected because women can no longer find work close to home and informal settlements in cities have increased in density to absorb the extra population, causing the conditions in settlements to deteriorate. They are totally cut off from the mainstream urban places. In order to keep the jobs, they have to travel farther. Many of them have to spend more than half of their earnings in traveling between their residence and place of work (Cernea 1993).

Most urban development projects have land acquisition principles that require prompt and adequate monetary compensation for persons who lose their land and property. However, cash compensation is not adequate for their loss, and can even have further negative consequences, particularly for poor people and other marginal populations. For instance, compensation which is based on market value rather than replacement value tends to ignore the current nature of housing infrastructure in communities. Moreover, the sudden cash in the hands of the urban poor gives many the false impression of wealth. The compensation, therefore, may be consumed rather than invested. Thus, when compensation takes the form of cash, it could transfer upon those displaced all the risks related to the market-use of cash for acquiring replacement assets (Partridge 1989).

Although less quantifiable than economic losses, social and cultural disruptions in community ties and kinship networks are arguably the most complex part of the displacement

and resettlement process in most of urban relocation programs. They include the loss of mutual help arrangements, labor exchange relationships, childcare reciprocity, employment-related information sharing, food or productive equipment borrowing, and other informal activities. When these support networks are broken down, displaced people face the loss of several significant resources on which they relied. The impoverishment risks, therefore, are more critical in both level of degree and duration (Cernea 1999).

3. DISPLACEMENT AND URBAN RESETTLEMENT IN VIETNAM: GOVERNMENT-SUPPORTED AND SELF-RESETTLED

Vietnam is located on the eastern edge of the Indochinese peninsula and occupies 331,688 km^2, of which 76 % is agricultural land. The population of Vietnam reached 89 million in 2012, about 268 people per square kilometer (km^2). The population density in the two largest cities is 2,059 and 3,666 persons per km^2 in Ha Noi and Ho Chi Minh City, respectively (GSO 2012). The urban population of Vietnam increased from 18.3 million (1999) to over 28 million people (2012). During the period 1999-2012, the average annual population growth in urban areas was 3.3%. Rapid population growth has increased stress on urban environments that derives from existing deficits in the supply of land, housing and urban infrastructure in big cities, such as Ha Noi and Ho Chi Minh City. In order to solve those urban issues, many urban infrastructure and transportation development projects - including slum eradication and upgrading, the establishment of industrial and commercial estates, and the building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented during the period 2000-2010.

This urban expansion is made possible through the process of compulsory land acquisition by government. Through the government authorities, developers can utilize the right to take land from private owners for development projects and provide them options to resettle. The displaced households participate in identifying and selecting options to either relocate to a new apartment/house; return to their existing plot after upgrading; move to plots provided by the district; or receive cash compensation and make their own arrangements for relocation. Displaced people who choose to relocate to an assigned apartment/house or a plot of land will also receive substantial assistance from government during the resettlement process. However, not everybody is qualified for the assistance. Only legalized residents can receive support.

Resettlement Typology

There are two principal types of resettlement based on how displaced people qualify for a specific resettlement option: government-supported resettlement and household self-resettlement. The first type is often selected within planned development projects which are operated by government, international organizations (i.e., the Asian Development Bank and World Bank) or large domestic real estate companies. These projects are usually planned one to three years in advance and are considered as part of the broader development program. These planned projects often involve infrastructure, slum upgrading and urban development. They typically require moving residents to another area where the basic infrastructure is built, such as roads, schools, markets, apartment buildings, etc. People who were affected by the projects often receive support from government during their resettlement process. Only households that have a legal land use right certificate or whose land use right can be legalized qualify for this type of resettlement.

Self-resettlement, considered as the second type of resettlement, is often the choice of people who are ineligible for compensation rights (i.e., households that do not have a legal land

use right certificate or whose land use right is illegal) from government-funded development projects. It is also the choice of households that are displaced by development projects of smaller private real estate companies or even by local residents who own several plots of land. This type of resettlement, mainly residential in nature, often occurs as a consequence of broader planned projects, such as commercial centers, condominiums, and other infrastructure projects (i.e., roads, airports, hospitals, schools, etc.) These developers only pay compensation for land purchased after negotiating with local residents. They do not assume any responsibility for how people relocate after being displaced. Thus, people within the affected communities have to find ways to resettle themselves. Some may buy farming land and move farther from the city (these people are excluded in this research). Many relocate to a different community or city not directly affected by development-related displacement. There are also cases of people who sold their own house/land for money because of rising market prices, then relocate themselves to a different area. Based on the type of resettlement, three areas were chosen for the study.

Introduction to Case Study Areas

a. Tan Hoa - Lo Gom canal sanitation and urban upgrading project in District 6 and Binh Tan District

The Tan Hoa - Lo Gom (TH-LG) Canal Sanitation and Urban Upgrading Project is one of several donor-funded projects to tackle canal pollution in Ho Chi Minh City. The implementation is a collaboration between the People's Committee of Ho Chi Minh City and Belgian Technical Cooperation (PMU145). The project was carried out at three areas: District 6 - ward 11; District 6 - wards 3, 4, 7, 8; and Binh Tan District - Binh Hung Hoa A ward. From 1998 to 2006, several interrelated pilot projects were implemented: the building of a solid waste

small transfer station, low-cost housing upgrading, an apartment relocation project, an aerated lagoon wastewater treatment plant, and a sites-and-services relocation project.

The project offered two resettlement options to affected households: (1) resettlement to low-rise apartment blocks designed and constructed by the project next to their former houses on the site of a relocated factory in District 6 - ward 11 and (2) resettlement to an area with basic infrastructure and plots to construct their own homes with support from the project in Binh Tan District - Binh Hung Hoa A ward.

The apartment blocks are located next to the slum upgrading project and were designed with other public facilities (i.e., community house, motorbike parking, and hawkers market). The initial design included 250 apartments. However, only 72 apartments and infrastructure (such as roads, market, school, community center, and so on) were constructed. The size of each apartment ranges from 32 to 53 square meters, which is larger than their previous dwelling. As an alternative to the apartments, plots of land were offered to the evicted families for building a house. A 1.6 ha site was chosen in Binh Hung Hoa A ward, between the lagoon treatment plant and an informal residential area. The site is 8 km north of the eviction site of District 6. There were 119 plots of land, ranging from 40 to 53 square meters; with basic infrastructure constructed, the project also built a primary school. After receiving the plot, however, only 70 households have built a house and the rest of them have sold the plot of land. There are many reasons that they sold their plot. Some of them realized that moving into an inner city would give them more occupational and economic opportunities. Some would like to have more convenient transportation and some have been concerned about educational facilities and health care for their family members.[13]

[13] Information was collected from interviewing the key informants

Figure 2.1 Apartment blocks and Sites and services plots

b. Displacement and resettlement project in District 5 - Ward 1

District 5 is located in the southeast part of Ho Chi Minh City. As of 2011, District 5 had a population of 175,217 people, about 41,034 people per square kilometer (GSO 2012). Small business (i.e., grocery, food stores, and coffee shops) and labor services (i.e., 2-3 passenger tricycle taxi, motorcycle taxi) are the major types of livelihood activities in the district. As one of the highest population density districts of HCMC, District 5 has faced many issues related to urban environments, especially urban available space. Several urban development projects have been planned and implemented in order to deal with the short of residential units. The project "Displacement and Resettlement of Apartment Blocks N_o727" in District 5 - Ward 1 was implemented by People's Committee of HCMC and District 5 in 2005. 530 households (about 2,330 people) were displaced to make room for the construction.

The resettlement project in Ward 1 offered displaced households several options, such as resettlement to a similar area, resettlement to a different area, and self-resettlement with compensation. The apartment blocks in Ward 1 include 276 households. The size of each apartment ranges from 36 to 97 square meters.

Figure 2.2 Apartment blocks project N_o727

c. Self-resettlement households in Binh Tan District

Binh Tan is a new urban district in Ho Chi Minh City that was established in 2003. As of 2003, the district had a population of 265,411. However, its population significantly increased to approximately 450,000 by 2006 and 600,000 by 2010. This dramatic growth is the result of the in-flow of migrants from all parts of the country, mainly from the central areas of Ho Chi Minh City and from the Mekong Delta region.

Table 2.1 Population and population density of Binh Tan district from 2003 to 2010

Year	2003	2006	2010
Population	265,411	447,173	595,335
Population density (*person/km*^{2})	5,115	8,618	11,473

Source: Statistical Office in Ho Chi Minh City 2003, 2006, 2010

As one of the fastest-growing districts of Ho Chi Minh City, Binh Tan has become the most attractive destination in the region, especially for people who seek a place for relocation. The 2011 annual report of Binh Hung Hoa A ward shows that only about 10 percent of

households have registered for permanent residence[14] (KT1 type) and 25 percent of households are legally registered (KT2 type), while the number of spontaneous migrants who register on a temporary or part-year basis is on the rise. More than 65 percent of households that have resettled in the ward are from a different city or rural area. Some of them have registered as long-term visitors (KT3 type), and others have no registration certificate, but they have a job and a place to live (KT4 type). These KT3 and KT4 households are mainly people who received compensation for self-resettlement from a development projects, or who sold their own house/land for money because of rising market prices.

Figure 2.3 Housing of self-resettlement people

[14] There is a residence registration system called Ho Khau in Vietnam, often translated as permanent residence. A book containing the information of household members and the household's residence is issued to each household. Ho Khau is registered at district level, and people are supposed to live in the district of the Ho Khau registration. KT1 type is only for local residents; KT2 is for residents from a different district within the same city; KT3 and KT4 are for people who come from different cities or rural areas.

4. ANALYSIS FRAMEWORK AND HYPOTHESES

Analysis Framework

Several scholars and agencies have adopted a livelihood approach and proposed several livelihood frameworks, such as the Sustainable Livelihoods (SL) frameworks (DFID,[15] Chambers and Conway 1992), the Risk and Reconstruction Model (Cernea 1997, 2004, 2007), the Sustainable Rural Livelihoods (Scoones 1998), the Sustainable Livelihoods Diamond (UNDP[16]), and Household Livelihood Security (CARE). These frameworks are used to investigate poor and vulnerable people's livelihood in relation to their assets, constraints, and capabilities, while visualizing the main factors of influence. The DFID Sustainable Livelihood framework (Chambers and Conway 1992, see Appendix A) describes people as operating in a context of vulnerability, within which they have access to certain resources (natural, physical, political, human and social capital). The combination of these livelihood resources results in a subsequent combination of livelihood strategies that are open to people in pursuit of beneficial livelihood outcomes and sustainability. In this framework, the institutional process (government, private sector, laws and policies) will play a role in mediating the ability to carry out such strategies and achieve such outcomes.

In this study, we modified the DFID Sustainable Livelihoods framework to contextualize analysis of livelihood activities of households experiencing displacement and urban resettlement, and how these activities influence livelihood outcomes. The framework depicts people as operating in a context of shocks due to forced displacement and/or emigration or other negative economic changes that hurt the household financially over that past year. Under these conditions,

[15] UK Department for International Development
[16] United Nations Development Programme

resettled people are forced to strategically utilize their assets (social networks, the skills, knowledge, and external resources) and adopt new livelihood activities to provide for themselves and their households. These activities thereby result in a better livelihood outcome.

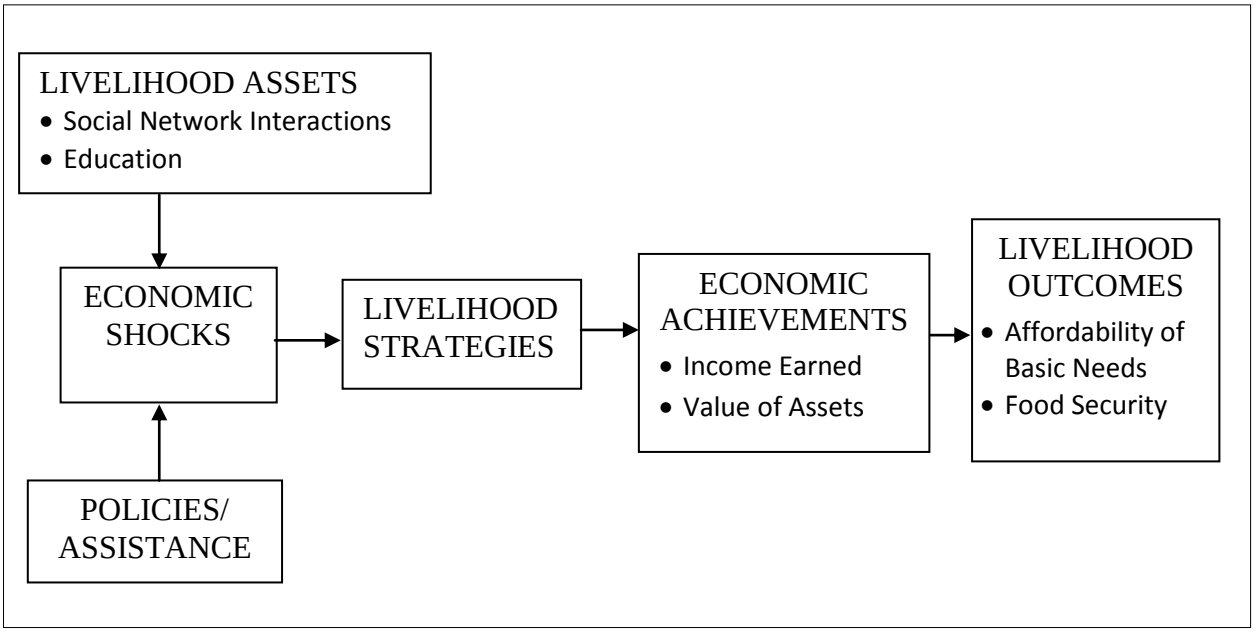


Figure 2.4 Livelihood Framework Adapted from DFID (Carney 1998)

Theoretical Approach and Hypotheses

Development-induced displacement and resettlement has been used to illustrate the loss of assets and forced uprooting of communities that find themselves in the way of public works-type development projects (Cernea 1997). Evidence from development studies (Cernea 1993; Stanley 2004; Yntiso 2008; Oliver-Smith 2009) shows that increased urban impoverishment is not only due to rapid urbanization accompanied by unemployment and underemployment, but also caused by the large number of urban development projects. As a result, many urban dwellers (a majority of whom are poor) who have been displaced are engaged in an unremitting struggle to secure a livelihood in the face of adverse social and economic circumstances. In this context,

sustainable livelihoods for displaced people in urban areas as well as peri-urban areas have received more and more attention in development studies. The concept of livelihood, therefore, warrants examination.

A livelihood is often defined as "income, both cash and in-kind, as well as the social institutions (kin, family, compound, village and so on), gender relations, and poverty rights required to support and to sustain a given standard of living" (Ellis 1998:4). Livelihoods also include the accessibility of, and benefits derived from, public services like education, health, roads, water, and related infrastructure (Chimhowu and Hulme 2006). Ellis (2000) further brought in a more explicit consideration of the claims and access issues, and in particular the impact of social relations and institutions that mediate an individual or family's capacity to secure a means of living. He stated that "A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household" (Ellis 2000:10). For the purpose of this study, Ellis's definition of a livelihood is adopted. It suggests that people's assets, activities and mediating processes can enable them to meet their basic needs and to support their well-being.

One important component of household livelihoods, besides economic and the accessibility of resources, is food security. Food security is defined as a state in which "all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life" (USAID 1992:1). Research carried out in the early 1990s indicated that the focus on food security as it was conceived then needed to be broadened (Frankenberger and McCaston 2009). It was found that food security is but one subset of the objectives of poor households; food is only one of a range of factors that determine why

the poor take decisions, how they try to spread risk, and how they balance competing interests in order to subsist in the short and longer term (Maxwell and Smith 1992). In this paper, food security, in its broadest sense, is seen as a significant element in assessing the household livelihood outcomes.

Livelihood assets are the important household resource in the livelihood framework. These assets are considered the basic platform upon which the household livelihood may be built. In the context of displacement, assets are closely related to vulnerability through three pathways: a lack of assets, a lack of diversity of assets, and the ownership of assets. Specifically, it seems probable that households with fewer or less diverse assets will be more vulnerable during the process of displacement and resettlement (Chambers and Conway 1992).

Social networks are widely considered to be valuable and critical sources which contribute to one's well-being, especially during times of crisis and socioeconomic change. The existence of informal social networks significantly decreases the likelihood of the poor perceiving their household's food, economic or housing as vulnerable (Moser 1996; Dersham and Gzirishvili 1998). Beyond families and households, Beall (2004) found evidence of this relationship in many African and Asian cities, especially through savings and self-help groups. Such activities, and the social relations associated with them, can provide an essential buffer for the poor against deepening vulnerabilities and shocks. Informal support networks can lead to more sustained or organized forms of collective action, not least when livelihoods are threatened (Beall 2004). However, a curvilinear relationship was observed between social networking and shock incidence, highest for 1-2 network interactions and lower above that level (Arun et al. 2010).

Education is another important asset that can help people, sometimes indirectly, to reduce vulnerability. The findings show that mere accumulation of assets such as human capital (education) is not sufficient to reduce vulnerabilities and shocks, unless this translates into meaningful assets and productive outcomes (Arun et al. 2010). Education and training systems help to impart capacities that can help cope with stresses and shocks, such as loss of work, and recognize and create opportunities, such as self-employment in lieu of readily available employment (Rakodi 2002).

The important role of external support, especially from government and NGOs, in the process of displacement and resettlement has been confirmed in many development studies (Tan et al. 2003; Hendriks 2008; Amirthalingam and Lakshman 2009). However, the perceived significance of external support's role needs to be studied with caution. The government plays several significant roles in resettlement but its administrative functions often clash with market forces. Lack of participation of migrants in their resettlement, particularly selection of location, may increase their dependence on the government and result in more problems relating to livelihoods (Tan et al. 2003). A study of planned and spontaneous resettlement in Zimbabwe, however, found that initial security of government-assisted resettlement households weakened as the state withdrew its support. They argued that assisted settlers were less diversified than spontaneous settlers as they had been encouraged to specialize in a specific livelihood strategy with support from external sources, such as government, NGOs, and local organizations. With poorly developed informal livelihood resources and limited livelihood networks, the capacity of these households to cope with shocks reduced considerably (Chimhowu and Hulme 2006).

As mentioned, displaced persons are forced to strategically utilize their assets and adopt new livelihood activities to provide for themselves and their households (Sanderson 2000).

Unlike rural residents whose livelihood activities consist of both on- and off-farm activities, most urban dwellers - especially the poor - diversify their sources of income through participating in the wage labor market where they can find jobs and earn money. Durston (1982) pointed out that poor urban households engaged in activities within the informal sector will over-exploit their members in order to obtain basic consumer goods, pay their debts and replace the inputs and instruments of production. When this happens, members increase their household responsibilities and working hours, and children drop out of school or have less chance to complete their studies. However, if the household's circumstances improve, they will continue working to improve economic conditions and security. Therefore, increasing the number of workers in a household often started as a short-term response to crisis, but over time it becomes an established trend, as poor households became dependent on two or more earners to reach certain levels of security (Durston 1982; Mosser 1996). Mendez-Lemus (2012) found that an increase in the number of family members engaged in off-farm employment was a strategy used by campesinos to diversify and maximize their monetary income. Migration is another critical strategy to secure off-farm employment (Scoones 1998; Adger et al. 2002). In the context of urban relocation, displaced people migrate to a different part of the city or even to a different city in order to diversify their income sources (Moser 1998).

Reducing spending is another strategy that people often use to respond to shocks. According to Beall (2004), the urban poor, especially migrants, adopt strategies involving modulating patterns of consumption (i.e., reduced household size, food consumption, or limited expenditure) in order to adapt to shifts in household income or shocks to the household resource base, such as price rises, loss of subsidies or periods of ill-health. Studies on urban livelihood strategies found that people engaged in expenditure saving by walking to work, eating only once

a day, withdrawing children from school, postponing medical treatment and using self-medication (Bradley et al. 1990; Hamid 1992, Harpham and Tanner 1995; Beall 2004). As result of reducing consumption and spending a large proportion of their income on household necessities such as food, they are not able to purchase or invest in household assets, for which the value declines over time.

A common response to shocks is to dispose of assets. The types of assets commonly referred to include small livestock, personal possessions such as jewelry, home items, productive tools, and land. Asset management is an important feature of coping behavior since, together with the use or sale of its labor power, the quantity and type of assets that a household possesses play a critical role in generating current and future income. In the first stage of responding to an economic shock or food crisis, households will attempt to preserve their holdings of key productive assets intact as long as they can. They only dispose of those assets which are held primarily as stores of values or forms of self-insurance, such as domestic assets and jewelry (Corbett 1988). During crises, when households take the decision to dispose of key productive assets, it can jeopardize the future economic welfare of the household, even if it helps to ensure its current survival (Corbett 1988). Findings from an investigation of coping strategies of women and female heads of households (Engler 2005) showed that in order to respond to crisis, Palestinian women often sell their gold and assets, reduce consumption to basic needs, and rely on charity and aid. When households are faced with declining entitlements to food, they tend to sell assets, starting with the least valuable and then the more valuable as they try to cope with stresses (Kalinda and Langyintuo 2014).

Moreover, Beall (2004) found that individuals and households secure themselves against shocks and stress not only by working, saving and investing, but also relying on their social

networks and relationships. Asking for assistance from relatives in times of hardship was cited as a key coping strategy for the urban poor. Beyond families and households, asking for help from groups/organizations in which they are members (such as savings, self-helps group, or labor unions), was considered as an alternative strategy that people utilized, especially the urban poor (Beall 2004). Use of social networks, including familial social networks and friendship networks, among immigrants is positively related to labor force participation (Aguilera 2002; Caspi et al. 1998) as well as job tenure (Aguilera 2003). Moreover, migrants with a larger social network are more likely to have a better paid job than those with a smaller network (Munshi 2003; Sanders, Lee, & Sernau 2002). Reciprocal kinsfolk obligation is strong enough to make it very reliable and thus is effective for reducing vulnerability and avoiding destitution (Moser 1996; Coleman 1998; Narayan et al. 2000; Woolcock and Narayan 2000).

In this analysis, a structural equation model is used to analyze how economic shocks and efforts to deal with shocks affect economic resources and livelihood outcomes of resettled households. In the structural equation model, hypotheses concerning relationships between variables are examined by testing the following hypotheses. First, we test the hypothesis that social network interactions, education, and the perception of significance of external support are significantly associated with households' experience of economic shocks. Second, strategies to respond to the shocks are significantly associated with household income earned and assets. Finally, we posit that the greater the level of household income earned and assets owned, the more affordable its basic needs and better its food security are expected to be. Then, we analyze data separately for government-supported and self-resettled households. To date, there has been little research on resettlement type differences regarding to any association between livelihood outcomes and economic resources. Moreover, government-supported and self-resettlement are

the most common types in Vietnam, including Ho Chi Minh City. Understanding the impact of shock responses and economic resources on livelihood outcomes for households that experienced these two types of resettlement will be important in promoting appropriate assistance programs in the context of displacement and resettlement.

5. DATA SOURCES AND RESEARCH METHODS

Data

The data employed in this study were collected in August 2013 through interviewing households in three areas of Ho Chi Minh City (HCMC), Ward 1 in District 5, Ward 11 in District 6, and Binh Hung Hoa A Ward in Binh Tan District. These areas were selected for this study due to their central location in terms of number and level of urban development projects in HCMC. They have received much attention from policy makers and real estate investors regarding both spontaneous and planned developments. Despite having a long experience in urban development, compared to other peri-urban areas in HCMC, District 5, 6 and Binh Tan District are currently facing many social and economic problems associated with rapid urbanization.

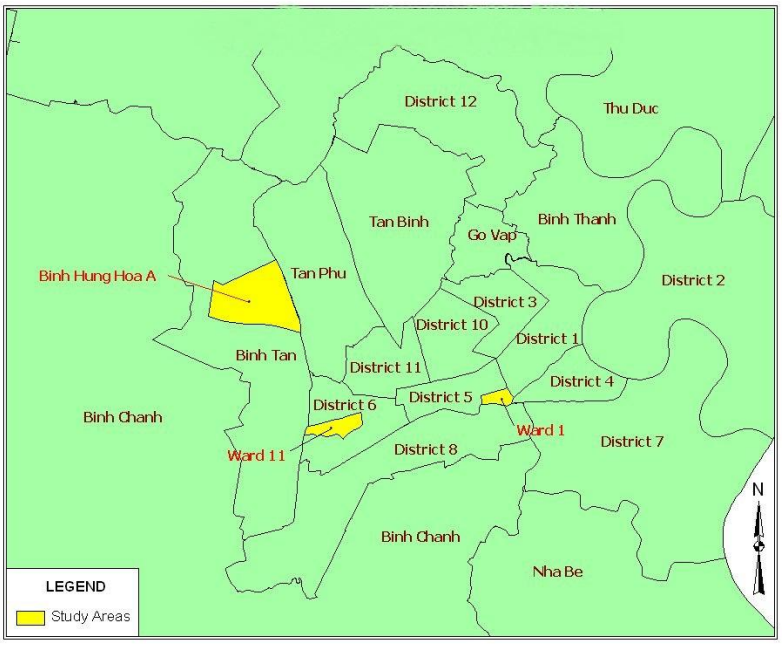


Figure 2.5 Map of study areas (Researcher created by using GIS)

The sample of government-supported resettlement included 142 households who live in apartment blocks (49 sampled units) in Ward 1 in District 5; apartment blocks (59 sampled units) in Ward 11 in District 6; and sites and services plots (34 sampled units) in Binh Hung Hoa A Ward in Binh Tan District.

For purposes of comparative analysis, a sample of households that were identified as self-resettlement was chosen in Binh Hung Hoa A Ward, Binh Tan District. Cluster sampling, a multi-stage random sample method, was used to select self-resettled households. In stage 1, based on the "2012 Population Statistics of Binh Hung Hoa A Ward," we chose 3 residential clusters which have the highest percentage of the number of temporary residences (KT3 and KT4). In stage 2, for each selected-residential cluster, we randomly picked 1 residential unit (there are about 8-10 residential units per residential cluster). In stage 3, within each unit, we relied on official documents and local authorities' records to obtain a list of households that have in-migrated since 2005 (the year in which the government-supported households received their

apartment or land for resettlement). Then, we drew a random sample using a random-number table to select households from the list. Within each unit, 44 households were chosen, giving a total of 132 households for 3 units.

A total of 242 households were interviewed using a structured questionnaire. These households had a total of 1,082 individuals, with an average of 4.4 people per household. This number is slightly higher than the national and Ho Chi Minh City average size for households (3.8 people for the national average size and 3.9 for HCMC) (GSO 2012). The sample consisted of 126 households that are in government-supported resettlement and 116 households that are identified as self-resettlement (see Appendix B for detailed sampling results). The questionnaire includes 43 questions which capture the social and economic elements of displaced households.

Variables in the Model and Measures

The primary response variables, representing perceived household livelihood outcomes, were measured through two indicators: perceived affordability of household basic needs and household food security.

- Perceived affordability of basic needs (ABNEED) was measured by summing the responses (0 = unaffordable and 1 = affordable) to eight items of the question: "How affordable are your household's basic needs?" They are (a) Paying for food and beverages; (b) Paying school tuition and fees; (c) Paying for visit at clinic or medicines; (d) Recreation expenditures in general; (e) Traveling expenditures; (f) Buying home equipment (not for transportation); (g) Buying transportation means; (h) Building house or reconstruction. The score ranges from 0 to 8. Higher scores reflected higher level of perceived affordability of basic needs. The ABNEED showed adequate reliability with the current data (Cronbach's alpha $\alpha = 0.85$).

- Household food security (FSECURE) was measured by adopting the Household Food Insecurity Access Scale (HFIAS) from the Food and Nutrition Technical Assistance (FANTA) Project (Coates, Swindale and Bilinsky 2007). The index consists of nine two-part items that respondents are asked whether it has occurred. If the respondent answers "yes," a frequency-of-occurrence question is then asked to state whether the condition happened rarely (once or twice), sometimes (three to ten times) or often (more than ten times) in the four weeks preceding the interview. The frequency-of-occurrence code was coded as 0 = no, 1 = rarely, 2 = sometimes, and 3 = often. The household food insecurity score was measured by summing the frequency-of-occurrence codes. The score[17] ranges from 0 to 27. The higher the score, the more food insecurity the household experienced. The lower the score, the less food insecurity a household experienced. When the present survey was implemented, the frequency-of-occurrence questions were asked and coded to capture the experience as sometimes (coded as 2) or often (coded as 3); that is, the 'rarely' option was inadvertently omitted.[18] In the analysis, we coded the above scores in reverse order so that the higher score indicates a more food secure household.

The explanatory variables included the perceived significance of external support received since resettlement, social network interactions, household education, an index of negative economic shocks, strategies to respond to the shocks, household income earned, and value of household assets.

[17] The maximum score for a household is 27 (if the household response to all nine frequency-of-occurrence questions was "often"); the minimum score is 0 (if the household responded "no" to all occurrence questions).

[18] Due to omitting the category "rarely," household food security is likely underestimated.

- We constructed the perceived significance of external support (PSES) as the sum of responses to nine items, each measured using a four-point response scale for the question: "How significant is [support/program] in affecting your household's livelihood?" The types of support/program include job seeking, monetary assistance, the formation of self-help groups, issuing official documentation, work skill/training, production materials/equipment assistance, access to financial resources, access to other helpful resources, and obtaining useful information. The PSES showed adequate reliability with the current data (Cronbach's alpha $\alpha = 0.69$). The scale is scored as 0 = did not receive at all, 1 = very little, 2 = significant, and 3= very significant. Higher values reflect greater perceived significance of support received.
- Social network interactions (SNI) was measured by the average number of times the household head met socially with neighbors, friends or colleagues in the last month. This indicator was created by calculating the mean number of times met socially with neighbors, friends, and colleagues in the last month.
- Education (EDU) was measured by the average number of years of schooling of adult household members
- Negative economic shocks (SHOCKS) was calculated by counting the different types of negative economic shocks that household members experienced during past year, such as loss of regular job, cut-off or decrease of remittances, cut-off or decrease in pension, abandonment or divorce, theft, fire, or destruction of household property, major crop failure, widespread death/disease of livestock, failure or bankruptcy of business, loan not repaid as expected, death of wage earner, death of non-wage earner, serious injury or illness of household member, and income decreased while

expenditure increased. The values range from 0 to 13. Higher values reflect greater level of economic shocks. The SHOCKS showed adequate reliability with the current data (Cronbach's alpha $\alpha = 0.65$).

- Household strategies to respond to the shocks included four types of items. Each type was calculated by counting the different activities of that type that household members have done to respond to the economic shock(s). (1) Increase earning (INEA) included: increase effort in a current local economic activity, initiate a new local economic activity, and temporary migration for a new economic activity; (2) reduce spending (RESP): take children out of school, reduce food consumption, send family members to live elsewhere, and reduce expenditure (not food); (3) sell assets (SEAS): sell assets/possessions (not cattle or equipment), sell equipment/tools, and land or cattle; and (4) get help (GEHE): remittances from a family member, ask a family or community member for help, borrow from a savings group, borrow from money lender. Higher values reflect greater efforts to apply that strategy in order to relieve the impact of shocks. All items showed adequate reliability with the current data (Cronbach's alpha $\alpha = 0.64$, 0.69, 0.61, and 0.72, respectively).
- Household income earned was measured as the total of household income earned from working during the last 3 months.
- Value of household assets was measured as the total value of household assets, such as bicycle, motorcycle, electric bicycle, auto vehicle, mobile phone, home phone, washing machine, television, home theater, DVD player, laptop, tablet, desktop computer, refrigerator, air conditioner, electric fan, sofa sets, and rice cooker.

To examine how different types of resettlement affect household livelihood outcomes, a control variable was included in the model. This is a dummy variable in which households that were relocated through government-supported program are coded 1 (hereafter 'government-supported') and households that relocated by themselves are coded 2 (hereafter 'self-resettled').

Statistical Procedures

This study relied upon SEM as the primary analytic technique. A SEM is "a stochastic model where each equation represents a causal linkage, rather than a simple empirical association" (Goldberger 1972:979). SEMs are comprised of regression equations, which are included in the model only so far as it is possible to interpret them as causal relationships, theoretically justifiable and not falsified by data. This approach allows for greater flexibility of statistical assumptions. It has the capability to model relationships between measurement errors, direct and mediated effects, and provides alternative measures of construct validity and reliability (Bollen 1989; Kaplan 2000). The technique is used to test whether a proposed causal structure is supported by the data, whereby the SEM model attempts to replicate the observed correlations between variables (DeLisi et al. 2013). A good fitting of a path model describes how well it fits into a set of observations in the data. Good fit indices summarize the discrepancy between the observed values and the values expected under a statistical model (Olivares and Forero 2010). In this analysis, a structural equation model is used to analyze how different indicators influence livelihood outcomes.

In the estimated model, the squared multiple correlations (R^2) show how well predictor (independent) variables predict the dependent variables and the strength of the hypothesized relationships between the independent and dependent variables. The model's factor loadings show how an independent variable affects a dependent variable or, in other words, how much

change occurs in the dependent variable when an independent variable changes by one standard deviation. The mathematical model for the structural equation is described by the following expression:

$$\underline{y} = \underline{B}\,\underline{y} + \underline{\Gamma}\,\underline{x} + \underline{\zeta}$$

In those:

- y observed endogenous variable matrix (*p* x *1*)
- x observed exogenous variable matrix (*q* x *1*)
- B (beta) endo-endo regression matrix (*p* x *p*)
- Γ (gamma) exog-endo regression matrix (*p* x *q*)
- ζ (zeta) residuals/disturbances vector (*p* x *1*)

All data and statistical assumptions of SEM are met for the analysis. To ensure that the parameters are uniquely estimated, the SEM meets the necessary conditions of identification by using the t-Rule (since the number of unknown parameters is smaller than the number of known parameters) and sufficient conditions of identification by using fully recursive rule (since it shows that β -beta is lower triangular and its ψ-psi is diagonal).

6. RESULTS

Descriptive Statistics

Table 2.2 Descriptive statistics for livelihood outcome variables

	Full (N=242)		Government-supported (n=126)		Self-resettled (n=116)	
	Mean	SD	Mean	SD	Mean	SD
Perceived significance of support (0-8)**	2.97	3.25	3.61	3.26	2.28	3.12
Social network interactions (#)**	36.41	29.91	41.30	35.52	31.10	21.17
Education (year)	8.70	3.34	8.77	3.61	8.61	3.02
Income earned ($)*	473	339	515	398	429	256
Value of assets ($)*	2,857	2,800	3,189	2,452	2,498	1,796
Affordability of basic needs (0-8)*	4.87	2.04	4.59	2.11	5.18	1.93
Food security (0-27)	19.09	7.32	19.18	7.33	18.99	7.34

Note: Significant at *p<0.05, **p<0.01.

As indicated in Table 2.2, the mean value of perceived significance of external support were 3.61 and 2.28 in government-supported resettlement and self-resettled groups, respectively. The possible range for perceived significance of support is between 0 and 8. Thus, the scores indicate a below possible midpoint (4.0) of the scaled construct. The mean reported number of times that the household head met socially with neighbors, friends or colleagues in the last month were 41 and 31 in government-supported resettlement and self-resettled households, respectively. Both government-supported and self-resettled households have similar educational levels, which average 8.8 and 8.6 years, respectively.

Regarding variables related to household livelihoods, government-supported households arrived with higher income earned and value of assets than those of self-resettled household. Specifically, the average household income earned in the last 3 months was $515 and $429 per

month in government-supported resettlement and self-resettled groups, respectively. The corresponding mean values of household assets were $3,189 and $2,498. Regarding livelihood outcome indicators, the mean values for perceived affordability of basic needs were 4.59 and 5.18 in government-supported resettlement and self-resettled groups, respectively. Household food security is a 27-point scale indicator. The mean scores of 19.18 and 18.99 for government-supported and self-resettled groups, respectively, indicate mildly household food insecurity.

Causal Analysis

Model Fit

Table 2.3 summarizes the results from fit statistics of the structural equation model (SEM) for measuring household livelihood outcomes. Measures of the model's goodness of fit are a function of the residual, i.e., the difference between the empirical variance-covariance matrix and the model created variance-covariance matrix. It is possible to show that, if the model is correct, the fitting statistic follows Chi-square (χ^2) with *df* degrees of freedom, where $df = \frac{1}{2}(p + q)(p + q + 1) - t$, p is the number of endogenous variables, q is the number of exogenous variables, and t is the number of estimated parameters (Bonnet and Bentler 1983).

The result from the baseline model Chi-square test shows a good fit of the model compared to the empty model. Specifically, it reports a low value of Chi-square ($\chi^2 = 493.081$) and non-significant value (p=0.790) in the default model and very high value of Chi-square ($\chi^2 = 1262.871$) and significant value (p=0.00) in baseline model. Moreover, the results of root mean square error of approximation (RMSEA) also indicate that the model has good fit. Specifically, RMSEA equals 0.031 which is less than 0.05 and its 90 percent confidence interval, which ranges from 0.018 to 0.044, falls into the good fit range.

Table 2.3 Fit statistics of measuring livelihood outcomes

Model	CMIN (*p*)	RMSEA	Lo90	Hi90
Default model	493.081 (0.790)	0.031	0.018	0.044
Saturated model				
Independence model	1262.871 (0.000)	0.086	0.080	0.092

Path Analysis Results

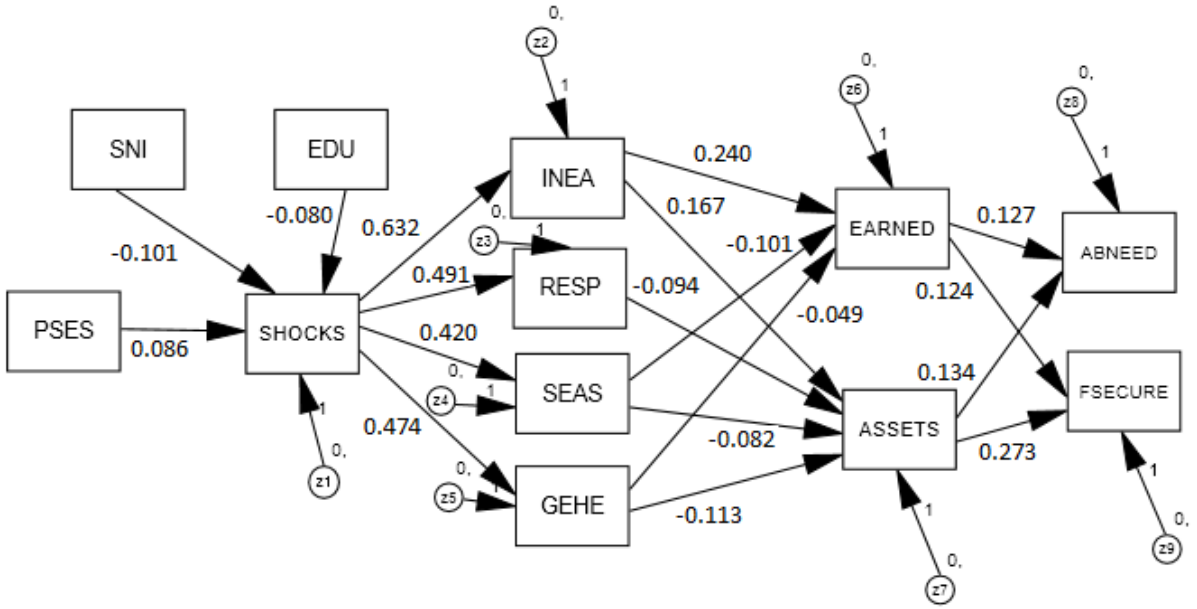


Figure 2.6 Structural equation model for predicting household livelihood outcomes

Table 2.4 and Figure 2.6 shows the results of SEM predicting the perceived household livelihood outcomes model for the full sample including government-supported resettlement and self-resettlement.

Table 2.4 Results of SEM predicting livelihood outcomes

		Full *N=242*	*Government-supported* *n=126*	*Self-resettled* *n=116*
Path Analysis				
Economic shocks	← External support	0.086	0.055	0.119
	← Social network interactions	-0.101	-0.041	-0.228**
	← Education	-0.080	-0.080	-0.098
Increase earnings	← Economic shocks	0.632**	0.688**	0.579**
Reduce spending	← Economic shocks	0.491**	0.511**	0.487**
Sell assets	← Economic shocks	0.420**	0.351**	0.489**
Get help	← Economic shocks	0.474**	0.455**	0.511**
Income earned	← Increase earnings	0.240**	0.256**	0.194*
	← Sell assets	-0.101	-0.156	-0.007
	← Get help	-0.049	-0.021	-0.112
Value of assets	← Increase earnings	0.167**	0.188*	0.120
	← Reduce spending	-0.094	-0.106	-0.187*
	← Sell assets	-0.082	-0.094	-0.022
	← Get help	-0.113	-0.084	-0.101
Affordability of needs	← Income earned	0.127*	0.185*	0.062
	← Value of assets	0.134*	0.074	0.338**
	← Increase earnings *(indirect)*	0.053	0.061	0.052
	← Reduce spending *(indirect)*	-0.013	-0.008	-0.063
	← Sell assets *(indirect)*	-0.024	-0.036	-0.008
	← Get help *(indirect)*	-0.021	-0.010	-0.075
Food security	← Income earned	0.124*	0.106	0.153*
	← Value of assets	0.273**	0.271**	0.338**
	← Increase earnings *(indirect)*	0.075	0.078	0.070
	← Reduce spending *(indirect)*	-0.026	-0.029	-0.063
	← Sell assets *(indirect)*	-0.035	-0.042	-0.008
	← Get help *(indirect)*	-0.037	-0.025	-0.085
	pR^2 ... Affordability of needs	0.135	0.141	0.240
	pR^2 ... Food security	0.192	0.187	0.219

Notes: Standardized coefficients are reported. Significant at *p<0.05, **p<0.01.

Results of path analysis predicting household livelihood outcomes are shown in Table 2.4. We first describe results for all households, and then specific to government-supported and self-resettled households. For all households, negative economic shocks (SHOCKS) was positively associated with household livelihood strategies. Specifically, one standard deviation increase in economic shocks is associated with 0.632, 0.491, 0.420, and 0.474 standard deviation change (increase) in efforts to increase earnings, reduce spending, sell assets, and obtain help from others, respectively, in order to relieve the effects of shocks. Efforts to increase earnings (INEA) emerged as a significant predictor of household income earned (EARNED) (γ= 0.240, p<0.01) and value of assets (ASSETS) (γ= 0.167, p<0.01). As expected, household income earned had a significant effect on perceived affordability of basic needs (ABNEED) (γ= 0.127, p<0.05) and household food security (FSECURE) (γ= 0.124, p<0.05). Values of household's assets also had a significant effect on perceived affordability of basic needs (γ= 0.134, p<0.05) and household food security (γ= 0.273, p<0.01). To summarize the results for all households, we found that among efforts to relieve the effects of negative economic shocks, increase earnings was the most effective strategy that positively influenced household income and assets; the perception of affordability of basic needs and food security were influenced by household income earned and value of assets.

In order to determine whether the hypothetical model applies equally for government-supported and self-resettled households, Table 2.4 also includes the standardized factor loadings for measuring the household perception of livelihood outcomes model for both types of households. The results show that there are different effects for the two types.

First, social network interactions (SNI) had a significant effect on household experienced economic shocks (SHOCKS) in self-resettled households (γ= -0.228, p<0.01), while it had little

effect and was not significant (γ= -0.041, p>0.05) in government-supported households. Second, both types shared the similar pattern regarding all four strategies to respond to negative economic shocks. Third, efforts to increase earnings had a significant effect on household income earned (γ= 0.256, p<0.01) and value of assets (γ= 0.188, p<0.05) in government-supported households, while self-resettled households it was only significant for household income earned (γ= 0.194, p<0.05). In contrast, efforts to reduce household spending (RESP) had a significant effect on the value of assets only for self-resettled households (γ= -0.187, p<0.05). Regarding livelihood outcomes, as shown in Table 2.4, household income earned had a significant effect on perceived affordability of basic needs (γ= 0.185, p<0.05) only for government-supported households. In contrast, the value of the household's assets owned had significant effect on perceived affordability of basic needs only for self-resettled households. The other indicator of livelihood outcomes, food security, show a slightly difference between two groups. While only the value of household assets had significant effect on food security only for government-supported households (γ= 0.271, p<0.01), self-resettled households both household income earned (γ= 0.153, p<0.05) and value of assets (γ= 0.338, p<0.01) had significant effects on food security.

To summarize the distinct results for government-supported households, we found that among efforts to relieve the effects of negative economic shocks, increase earnings was the most effective strategy that positively influenced household income and assets. The perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. In contrast, the results for self-resettled households were quite different. Households experiencing economic shocks had lower levels of social network interactions. Efforts to increase earnings and reduce spending had effects on

household income and assets. The perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with higher household income and asset value.

7. DISCUSSION AND LIMITATIONS

Discussion

Consensus exits among researchers that livelihood strategies play a significant role in resettled households' adaptations to new living conditions and responses to economic shocks caused by forced displacement. Ellis (1998) suggested that the way a household copes with and withstands economic shocks depends on the assets, options available and activities. A livelihood strategy is the way those options are selected and arranged (see also Alinovi et al. 2010). This study was guided by the assumption that strategies to deal with experienced shocks can contribute to resettled households' well-being.

Differing from our expectation in the first hypothesis, only social network interactions affected economic shocks. However, this characterized only self-resettled households. Specifically, the higher the number of the household's social network interactions, the less the household experienced economic shocks. This result is consistent with the findings of Beall (2004) regarding the important role of strong ties among the urban poor, especially in-migrants; ties to members of community and local organizations were associated with more interaction, emotional involvement, and intimacy. Wider-based reciprocity can provide safety-nets when deprivation is exacerbated by shocks, stress and other sources of vulnerability (Granovetter 1973). Therefore, resettled households often rely on these to adapt within the new living conditions during the first stage of resettlement and rehabilitation.

It is well known that development-induced displacement involves many risks. For instance, loss of employment, loss of income sources, or loss of productive assets. Such negative economic changes cause vulnerability and shocks. Therefore, strategies to respond to shocks are very important for understanding the overall livelihood outcomes of resettled households. As shown in Table 2.4, increasing earnings, reducing spending, selling assets, and obtaining help from others were the strategies that resettled people used to deal with negative economic shocks. However, we found that among efforts to relieve the effects of economic shocks, increasing earnings was the most effective strategy that positively influenced household income and assets. This strong effect, which indicates that increasing earnings increases household income and assets, supports our second hypothesis and is consistent with the view that livelihood diversification is associated with a gradual increase in household income (Adger et al. 2002; Ellis and Freeman 2004; Mendez-Lemus 2012). Our findings show that resettled households often diversify their income sources in order to secure their livelihoods. To guard against prolonged unemployment and other economic problems, households try to diversify their sources of income, such that loss of income from one source could be compensated by income from another source (Hamid 1992). A separate analysis of income sources, not shown here, revealed that most households in the sample had two sources of income. It also demonstrated government-supported resettlement households had more sources of income than self-resettled households (see Appendix C for detailed results).

The results further showed support for the proposition that there is distinct difference between government-supported and self-resettled households regarding efforts to relieve the effects of shocks. While increasing earnings was the most effective strategy for government-supported households to increase household income and assets, efforts to increase earnings and

reduce spending had positive effects on household income and assets among self-resettled households. This finding is consistent with several studies on urban livelihood strategies which showed that the urban poor, especially in-migrants, adopt strategies involving modulating patterns of consumption (i.e., reduced household size, food consumption, or expenditures) in order to adapt to shifts in household income or shocks to the household resource base, such as price rises, loss of subsidies or periods of ill-health (Bradley et al. 1990; Hamid 1992, Harpham and Tanner 1995; Beall 2004).

In the analysis of predictors of household livelihood outcomes, both the perception of affordability of basic needs and food security were influenced by household income earned and value of assets. This supports our research hypothesis which stated that the greater the level of household income earned and assets owned, the more affordable its basic needs and better its food security are expected to be. Focused on examining how different types of resettlement affect household livelihood outcomes, as noted in Table 2.4, we found considerable support for the proposition that type of resettlement are associated with differences in perceived household livelihood outcomes. For government-supported households, the perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. For self-resettled households, the perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with higher household income and asset value. Overall, the current analyses support prior research that has examined the connection between household income earned and well-being (Durston 1982; Mosser 1996; Orr and Mwale 2001). The current findings also support prior research that has shown possession of valuables, such as means of transportation or electronic devices, reflected the economic position of households. Households that have

relatively complete and good quality productive equipment and household amenities seem to be better reestablished in a new living location (Yntiso 2002; Chimhowu and Hulme 2006).

Limitations

Although the results from SEM analysis supported our research hypotheses regarding the effects of economic shocks and efforts to deal with shocks to livelihood outcomes of displaced households, there are some limitations that need to be considered. The first limitation of the present study was sample size. Since SEM is based on variances, the larger the sample, the higher the homogeneity of variances and explained variances. Basing on the 'Rule of 20,'[19] the present study involved a medium sampled size. This may limit power to explore causal relationships among the variables in the model, especially to detect differences between the structural models in government-supported resettlement and self-resettled households. Nevertheless, these limitations should be balanced against the advantages afforded by using structural equation modeling for statistical analysis (Bollen 1989; Byrne 2010). Second, having information about 'time since resettlement' and 'initial resource endowment' would give us a better picture of household resettlement changes over time. We only captured duration of residence in the household's current location. Third, since we were focused on two specific types of resettlement (government-supported resettlement and self-resettlement) in specific areas (peri-urban areas in Ho Chi Minh City,) the findings may not generalize fully to other groups or settings. Future research that uses a larger, more representative sample will permit a more comprehensive understanding of the processes involved. Of particular interest would be further examination of the micro, meso or macro-level factors that influence people in similar conditions.

[19] Rule of 20: At the minimum, one should have at least 20 cases per free parameter estimated in the model (Bollen 1989; Byrne 2010)

8. POLICY IMPLICATIONS AND SUMMARY

Policy Implications

Despite the limitations of the survey data, the findings have several important implications for the government's future policies and planning. Sustainable and balanced development is the motto of the Vietnamese government. Urban development projects have achieved many successes. However, the strategy to entice development into rural and remote areas has had limited success. Consequently, there have been large numbers of rural people who are abandoning rural areas to seek work in the big cities, such as HCMC. On arriving in the city, these migrants encounter administrative obstacles that deny them access to health care, schooling, housing, and labor protection. Many urban development studies, and this study as well, have shown that unplanned urbanization has degraded the order, civility, and morality of their neighborhoods and public places. The spontaneous migration of people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development.

Further, the study calls the attention of urban policy makers and planners by demonstrating the advantage of using a livelihoods approach to analyze activities and livelihood outcomes for displaced people. The analysis indicates that the ability of resettled households to reestablish their livelihoods is strongly conditioned on their assets and available economic activities. Under conditions of poverty and shocks, without some sort of security in the new place (i.e., food, available jobs, or financial sources), it is difficult for displaced households to engage in viable economic activities and maintain their well-being. Additionally, examining several capitals, rather than just financial capital, facilitates a thorough understanding of the roles of household resources and activities in adapting to new living conditions.

This study indicates there are distinct differences between government-supported and self-resettled households regarding efforts to relieve the effects of shocks as well as to achieve better livelihood outcomes. The findings, thus, can help urban policy makers and planners to understand the livelihood conditions, networks and other social assets of migrants, in order to anticipate and respond to the possible impact of interventions. As the result, it contributes to making the development process more suitable and sustainable.

Studies of people's livelihoods, especially resettled people, have been limited because of the lack of suitable data in Vietnam. Even when data have been available, the failure to apply rigorous techniques of analysis has restricted the value of the studies. As mentioned, the present study has data limitations which do not permit a generalized assessment of displacement and resettlement processes in Vietnam. This leads to the need for further study in which a large-scale survey can provide robust estimates of the prevalence of livelihood issues and their determinants in the population. Moreover, the research could examine the micro, meso, and macro-level factors that influence people's decisions and experiences in similar conditions.

Summary

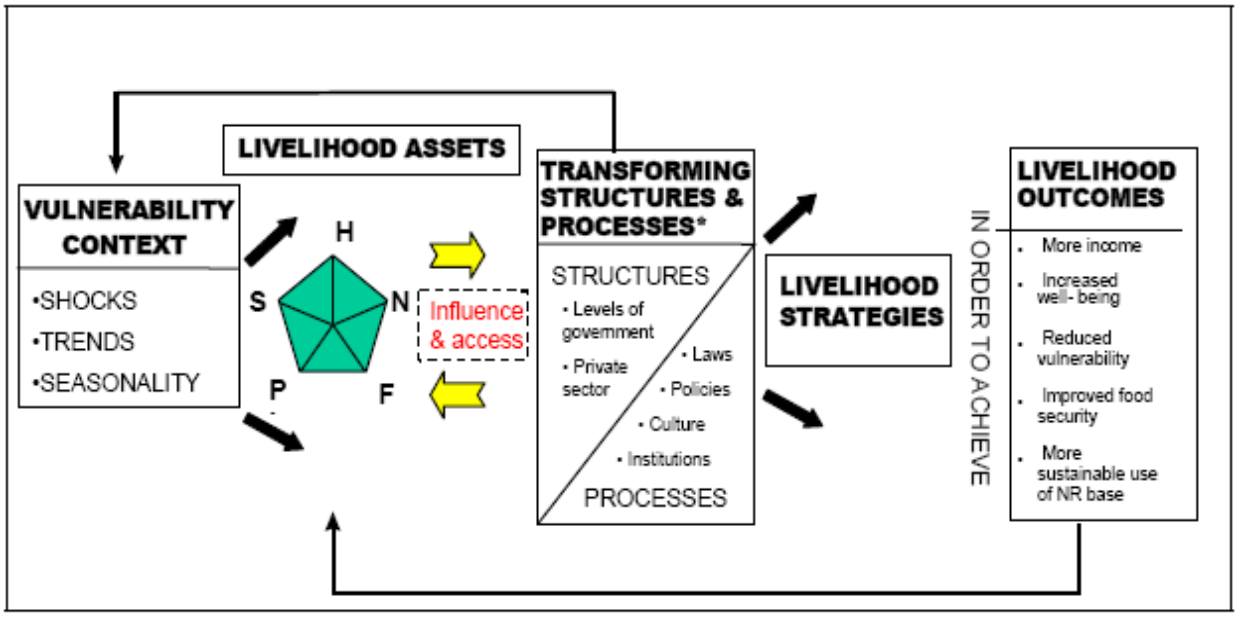
This study focused on household capability to respond to negative economic shocks caused by forced displacement and/ or negative economic changes. We modified the sustainable livelihood framework to contextualize analysis of livelihood activities of households experiencing economic shocks during displacement and resettlement, and how these activities influence livelihood outcomes. The results are meaningful and the livelihood strategies compared between resettlement types show significant differences. Specifically, increasing earnings was the most effective strategy that positively influenced household income and assets. Both the perceived affordability of basic needs and food security were influenced by household income

earned and value of assets. For government-supported households, the perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. For self-resettled households, the perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with higher household income and asset value. Moreover, this study illustrates the advantages of using a livelihoods approach to analyze economic activities and outcomes for resettled people. The analysis indicates that the ability of resettled households to reestablish their livelihoods is strongly conditioned by their livelihood assets and economic activities. Under conditions of poverty and shocks, without some sort of security in the new place (i.e., social networks, available jobs, or financial sources), it is difficult for displaced households to engage in viable economic activities and maintain their well-being.

The results of examining the effects of different capitals - social network interactions (social capital), human capital (education), income earned (financial capital), and the value of assets (physical capital) – on livelihood outcomes of resettled people were consistent with several previous studies that used Sustainable Livelihoods as an analytic framework. This study demonstrates the appropriateness of using the sustainable livelihoods framework to analyze resettlement. Moreover, examining the causal relationships among components of the framework helps to understand the factors influencing the propensity of experiencing shocks, and to recognize the importance of shocks and efforts to relieve the effects of shocks. Together, these permit a fuller understanding of household strategies to adapt to new living conditions as well as to achieve better livelihood outcomes.

APPENDICES

APPENDIX A. DFID'S SUSTAINABLE LIVELIHOODS FRAMEWORK (Carney 1998)



APPENDIX B. QUESTIONNAIRE INTERVIEW RESULTS

Resettlement types	Research settings	Sampled	Interviewed	%	Description
Government-supported resettlement	Apartment blocks in ward 11-district 6	59	50	85%	- 4 households refused to interview - 1 household was unable to interview due to the only interviewee is too old - 4 households could not access due to the door locked
	Services plots in Binh Hung Hoa A ward – Binh Tan district	34	34	100 %	
	Apartment blocks in ward 1-district 5	49	42	86%	- 3 households refused to interview - 2 household was unable to interview due to the only interviewee is too old - 2 households could not access due to the door locked
Household self-resettlement	Residential clusters 20 (KP20)	44	40	91%	- 4 households could not access due to the door locked
	Residential clusters 22 (KP22)	44	43	98%	- 1 household refused to interview
	Residential clusters 26 (KP26)	44	33	75%	- 5 households refused to interview - 6 households could not access due to the door locked
	Total	274	242	88%	

APPENDIX C. HOUSEHOLD INCOME AND INCOME SOURCES

	Full (N=242)		Government-supported (n=126)		Self-resettled (n=116)	
	Mean	SD	Mean	SD	Mean	SD
Income earned ($)*	473	339	515	398	429	256
Number of income sources (#)*	1.67	0.803	1.79	0.870	1.54	0.703

Significant at *p<0.05, **p<0.01.

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PAPER 3

EXAMINING THE EFFECTS OF COMMUNITY TIES ON RESETTLED PEOPLE'S WELL-BEING: A COMMUNITY FIELD PERSPECTIVE

A paper to be submitted to

the journal *Community Development*

ABSTRACT

This paper examines the relationships connecting two principal dimensions of community field (community participation and quality of neighboring) and an indicator of the systemic model (length of residence) to livelihood outcomes of households after resettlement. The data were obtained during interviews with 242 households in peri-urban areas of Ho Chi Minh City in 2013 and analyzed with structural equation models. Among government-supported households, improved economic conditions and well-being were both associated with higher levels of community participation (membership in a group/organization or participating in community activities) and higher perceived quality of neighboring. For self-resettled households, length of residence emerged as a significant predictor of improved economic conditions and well-being. Thus, building community social ties with family, friends, and organizations is an essential part of successful household economic and social development strategies.

Keywords: displacement, resettlement, community field, urban, Vietnam

1. INTRODUCTION

The work of Kenneth P. Wilkinson (1991) on community attachment, using the community field approach, has informed the research of social science scholars (Beggs, Hurlbert, and Haines 1996; Theodori and Luloff 2000; Theodori 2001; 2004; Scannell and Gifford 2010; Sundblad and Sapp 2011) over the past two decades. Most sociological analyses of community attachment have focused on the strength of attachment as well as the qualities or attributes of the place to which people become attached (Theodori 2004; Brehm, Eisenhauer, and Krannich 2004; Sundblad and Sapp 2011). Theodori (2004) explored the main effects of length of residence and the interactive effects between length of residence and age, gender, education, and income on community attachment. Sundblad and Sapp (2011) found that the strongest predictor of community attachment was perceived neighboring followed by community satisfaction, length of residence, and level of participation. They also explored the effects of qualities of place on attachment. According to the authors, when residents participate more in community organizations and activities, and sense a higher degree of neighboring, they generally are more attached to the communities in which they live.

Community field perspective as a relevant factor in social change and development has been actively discussed in the literature. Many studies have shown that displacement results not just in asset and job losses but also in the breakdown of/and loss of food security, social capital, local friendship ties and community attachment, cultural identity and heritage. The overall result is that some people enjoy the gains (i.e., new roads, parks, shopping centers), while others receive primarily negative impacts of development (Cernea 1997, 2004; Scoones 1998; Francis 1999, Amirthalinggam and Lakshman 2009). Economic impacts of displaced people include the dismantling of production systems, loss of productive assets, loss of income sources, and

relocation of people to areas where their skills are less applicable and/or there is greater competition for resources. Labor markets and patterns are disrupted and links between producers and customers are often severed. Social problems arising from involuntary displacement include weakening of community structures and social networks, dispersal of family groups, loss of cultural identity, diminution of traditional authority and the potential for mutual help (Tankha et al. 1999).

Since 1986, Vietnam's economy has grown considerably as a result of the economic reforms, called Doi moi (renovation). The government of Vietnam launched a set of controlled reform measures towards market liberalization and emphasized the diversification of production. These reforms produced a positive impact on the overall socioeconomic development of Vietnam. With the growth of the national economy, the process of urbanization in Vietnam has been rapid. The intensification of urban development activities has entailed large-scale loss of farmland in the peri-urban boundary of major metropolitan areas, such as Ha Noi, Da Nang, and Ho Chi Minh City. For Vietnam as a whole, approximately 10,000 hectares of agricultural land has been converted to urban use annually, mostly at the peri-urban fringe (Yeung 2007). In Ho Chi Minh City, the agricultural land decreased by 9,407 hectares from 2000 to 2009 for urban development projects, mainly infrastructural construction and housing (GSO 2009). The peri-urban areas of Ho Chi Minh City have been characterized as a complex mixture of planned and unplanned developments due to the large number of residential displacements and resettlements. Most displacements are related to slum upgrading, infrastructural improvement (i.e., construction of roads, airports, hospitals, and schools), and city renewal (i.e., building commercial centers and condominiums). This urban encroachment is made possible through the process of compulsory land acquisition. Through the government authorities, developers can utilize the right to take

land from private owners for development projects and provide them with compensation. These projects, therefore, uproot and forcibly displace people from their homes. Such involuntarily displaced persons are known to face the most disruptive and traumatic consequences of displacement (Cernea 1993).

The concept of community attachment has been used primarily as dependent variable (Sampson 1988; Wilkinson 1991; Lewicka 2010; Sundblad and Sapp 2011). The objective of most studies that have treated attachment as dependent has been to identify its determinants. Few researchers have examined how community attachment contributed to factors such as quality of life and community development efforts (Goudy and Ryan 1982). The purpose of this article, therefore, is to examine the effects of key dimensions of community attachment in conjunction with the systemic model on perceived livelihood outcomes after relocation in peri-urban areas of Ho Chi Minh City. By treating different dimensions of the community field (community participation and quality of neighboring) and an indicator of the systemic model (length of residence) as independent variables, this paper aims to explore the causal relationships connecting indicators of community field and systemic involvement to perceived livelihood outcomes of resettled households. Perceived household livelihood outcomes are measured through a food security index, indicators of household economic change and household living conditions.

The paper begins with conceptual background in section 2. Section 3 introduces the context of displacement and urban resettlement in Vietnam. Section 4 will then present the theoretical model and hypotheses to examine the relationships between community attachment and livelihood outcomes. Section 5 introduces data sources and research methods. Section 6

presents the results of structural equation model estimation. Section 7 is comprised of the discussion and limitations. The summary is presented in section 8.

2. CONCEPTUAL BACKGROUND

Regarding urban migration, Cernea (1993) pointed out that urban relocation is a subset of a broader spectrum of displacement processes. For the author, it is important to distinguish between gradual population migration and sudden displacements. Concerning sudden displacement, there are three main types of urban displacement based on causes: (a) natural causes - earthquakes, floods, landslides, etc., (b) political events - wars, revolutions, or other forms of political/ethnic turmoil, and (c) planned developments programs - particularly infrastructural equipment (Cernea 1993:10). Despite having many similarities, displacement caused by development projects differs significantly from displacement experienced by victims of natural disasters and political conflicts. The displacement caused by development projects is often planned and known in advance. Oliver-Smith (2009:4) showed that "As in disasters and wars, people in development-forced displacement and resettlement (DFDR) are 'pushed' to move rather than 'pulled' or attracted by better possibilities elsewhere. DFDR is entirely involuntary, despite the inducements devised to attract people to resettle voluntarily." Moreover, unlike voluntary migration, disasters and wars, there is no returning home after the situation has stabilized. Development-forced displacement is permanent.

The term "development-induced displacement and resettlement" (DIDR) was first used by Cernea (1997a, 1997b) to illustrate the loss of assets and forced uprooting of communities that find themselves in the way of public works-type development projects. In the case of urban development projects, the displacement of individuals and households deprives those affected of

dwellings and/or of employment. According to Cernea (1993:28), "the single most critical problem associated with urban displacement is not the loss of housing, but the loss of employment or of site-related income sources and the uncertainly of finding new employment in the relocation area."

Evidence from development studies (Cernea 1993; Stanley 2004; Yntiso 2008; Oliver-Smith 2009) shows that increased urban impoverishment is not only due to rapid urbanization accompanied by unemployment and underemployment, but also caused by the large number of urban development projects. As a result, many urban dwellers (a majority of whom are poor) who have been displaced are engaged in an unremitting struggle to secure a livelihood in the face of adverse social and economic circumstances. In this context, sustainable livelihoods for displaced people in urban areas as well as peri-urban areas have received more and more attention in development studies. The concept of livelihood, therefore, warrants examination.

The livelihood definition provided by Chambers and Conway (1992:7) has been widely used in the development studies (Scoones 1998; Ellis 1998; Carney 1998; Chimhowu and Hulme 2006).

> A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers and Conway 1992:7)

According to these authors, understanding how livelihoods are constructed and maintained can provide insight into ways that members of households make a living within their broader environmental context. Although access to resources is an integral part of building livelihoods, livelihoods should not be viewed solely as access to material assets such as financial capital, but also involve access to a diverse set of assets including natural, physical, human, and

social capital, as well as the dynamic and complex strategies required to integrate these to make a living (Chambers and Conway 1992).

Several components of this definition have been developed. Ellis looked at a livelihood as more than just income:

> Income refers to the cash earnings of the households plus payment in kind that can be valued at the market prices. The cash earning component of income include items like agricultural products sales, wages, rents, and remittances. The in-kind component of income refers to consumption of own farm produce, payment in kind, and transfers or exchanges of consumption items that occur between households in rural communities (Ellis 1998:4).

For Ellis, the livelihood perspective encompasses income, both cash and in kind, as well as the social institutions (kin, family, compound, village and so on), gender relations, and poverty rights required to support and to sustain a given standard of living. Livelihoods also include the accessibility of, and benefits derived from, public services such as education, health, roads, water, and related infrastructure (Ellis 1998; see also Chimhowu and Hulme 2006).

Ellis (2000) further builds on Chambers and Conway's definition by bringing in a more explicit consideration of the claims and access issues, and in particular the impact of social relations and institutions that mediate an individual or family's capacity to secure a means of living. He stated that "A livelihood comprises the assets (natural, physical, human, financial and social capital) and the activities that together determine the living gained by the individual or household" (Ellis 2000:10). For the purpose of this study, Ellis's definition of a livelihood is adopted. It suggests that people's assets and economic activities provide the means for them to meet their basic needs and to support their wellbeing.

One important component of household livelihoods, besides economic and the accessibility of resources, is food security. Food security is defined as a state in which "all people at all times have both physical and economic access to sufficient food to meet their

dietary needs for a productive and healthy life" (USAID 1992:1). Research carried out in the early 1990s indicated that the focus on food security as it was conceived then needed to be broadened (Frankenberger and McCaston 2009). It was found that food security is only one of a range of factors that determine why the poor take strategic decisions and spread risk, and how they finely balance competing interests in the short and longer term (Maxwell and Smith 1992). In this paper, food security is a significant element to assess in household livelihood outcomes.

Interest regarding community social ties emerged during the late nineteenth and early twentieth centuries as sociologists studied the effects of rapid industrialization, modernization, and urbanization on the quality of social relationships (Sundblad and Sapp 2011). Wilkinson's 'community field' (1991) is one of the most significant approaches that provides understanding of the key dimensions of community interaction that can be linked to the sustainable livelihoods model. This approach suggests that social interaction serves as the foundation for collective action, community development, and enhanced community well-being. Wilkinson (1991) defines the community field as a locality-oriented social field through which actions expressing a broad range of local interests are coordinated. He notes that it is through the community field that comprehensive community improvement efforts are conducted. According to community field theory, social fields exist and emerge through ongoing contacts among persons participating within the field (Wilkinson 1991). Many studies have included questions assessing local friendship, organizational membership, one's sense of feeling at home in a given place (Goudy 1990; Beggs et al. 1996; Sundblad and Sapp 2011), sense of influence and involvement in local affairs (Lewicka 2010), and interest in community affairs (Flaherty and Brown 2010) as key measures of attachment to community and place. In this study, we consider community

participation and perception of neighboring to be conceptually linked with community filed perspectives.

Community participation includes many different relationships such as friendship, neighbors, or voluntary associations. Beall (2004) argues that participation in local affairs can lead to more sustained and organized forms of collective action, at least when livelihoods are threatened. In the process of urban displacement and resettlement, a household that is forcibly relocated to a new place often gravitates toward persons or groups of the same ethnic and geographic origin, or the same local voluntary associations (e.g., women's associations, youth associations, and other self-help groups). Organizational participation plays an important role in facilitating exchange of assistance and support for displaced people, even when they have limited access to other resources (e.g., financial, natural, physical) in order to address social and economic problems, specifically livelihood insecurity derived from displacement and resettlement.

In the social field approach, 'perceived quality of neighboring' is the most significant predictor of place attachment (Lewicka 2010). Factors found to be related to quality of neighboring include social participation and residential satisfaction (Jesser 1967), social/spiritual satisfaction (Filkins et al. 2000), satisfaction with employment (Brown 1993; Filkins et al. 2000), and duration of residence (Marans and Rodgers 1975; Campbell et al. 1976; Miller and Crader 1979, Brown 1993). Sundblad and Sapp (2011) measured perceived neighboring by asking a list of questions regarding respondents' feeling of friendly, trusting, and supportive in their living area. These authors revealed that "when residents participate more in community organizations and activities, and most importantly, sense a higher degree of neighboring, they generally are more attached to the communities in which they live." (Sundblad and Sapp 2011:530).

Another approach to understanding community attachment is the systemic model. The systemic model views community as a complex system of friendship and kinship networks and formal and informal associational ties rooted in family life and on-going socialization processes (Kasarda and Janowitz 1974). The key exogenous variable in the systemic model is the individual's length of residence, which is hypothesized to be positively associated with community attachment. Kasarda and Janowitz (1974) found that length of residence was positively related to most measures of local social ties and community sentiment. They argued that:

> Since assimilation of new comers into the social fabric of local communities is necessarily a temporal process, residential mobility operates as a barrier to the development of extensive friendship and kinship bonds and widespread local associational ties. Once established, though, such bonds strengthen community sentiments (Kasarda and Janowitz 1974:330)

Several others have examined the model since it was described by Kasarda and Janowitz. Many supports for the systemic model have been received (Fischer 1982; England and Albrecht 1984; Goudy 1990). A similar result was found in Goudy's study for rural Iowa communities (Goudy 1990), wherein length of residence generally was the most strongly related to the social bonds and local sentiments. He found that greater time in the community should lead to selectivity in social relationships; these in turn would produce more positive evaluation of local attachment (Goudy 1990). There were also criticisms. Wasserman (1982), for example, reported that population size was more important than length of residence in explaining local sentiments in his study.

The systemic model also points to the role of community-level residential stability in promoting an individual's social integration into the community. Sampson (1988) argued that an individual in a highly mobile area faces quite different constraints than residents of stable areas-regardless of his or her own length of residence.

Evidence suggests that displaced households, in the context of displacement and resettlement, use their existing endowments and capabilities to survive, to secure livelihood stability, and to increase their security. They secure themselves against shocks and stress by working, saving, and investing, including in social networks and community ties. Before presenting the theoretical model and hypotheses to examine the relationships between community attachment and livelihood outcomes, the context of displacement and urban resettlement in Vietnam will be introduced.

3. DISPLACEMENT AND URBAN RESETTLEMENT IN VIETNAM: GOVERNMENT-SUPPORTED AND SELF-RESETTLED

Vietnam is located on the eastern edge of the Indochinese peninsula and occupies 331,688 km^2, of which 76 % is agricultural land. The population of Vietnam reached 89 million in 2012, about 268 people per square kilometer (km^2). The population density in the two largest cities is 2,059 and 3,666 persons per km^2 in Ha Noi and Ho Chi Minh City, respectively (GSO 2012). The urban population of Vietnam increased from 18.3 million (1999) to over 28 million people (2012). During the period 1999-2012, the average annual population growth in urban areas was 3.3%. Rapid population growth has increased stress on urban environments that derives from existing deficits in the supply of land, housing and urban infrastructure in big cities, such as Ha Noi and Ho Chi Minh City. In order to solve those urban issues, many urban infrastructure and transportation development projects - including slum eradication and upgrading, the establishment of industrial and commercial estates, and the building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented during the period 2000-2010.

This urban expansion is made possible through the process of compulsory land acquisition by government. Through the government authorities, developers can utilize the right to take land from private owners for development projects and provide them options to resettle. The displaced households participate in identifying and selecting options to either relocate to a new apartment/house; return to their existing plot after upgrading; move to plots provided by the district; or receive cash compensation and make their own arrangements for relocation. Displaced people who choose to relocate to an assigned apartment/house or a plot of land will also receive substantial assistance from government during the resettlement process. However, not everybody is qualified for the assistance. Only legalized residents can receive support.

Resettlement Typology

There are two principal types of resettlement based on how displaced people qualify for a specific resettlement option: government-supported resettlement and household self-resettlement. The first type is often selected within planned development projects which are operated by government, international organizations (i.e., the Asian Development Bank and World Bank) or large domestic real estate companies. These projects are usually planned one to three years in advance and are considered as part of the broader development program. These planned projects often involve infrastructure, slum upgrading and urban development. They typically require moving residents to another area where the basic infrastructure is built, such as roads, schools, markets, apartment buildings, etc. People who were affected by the projects often receive support from government during their resettlement process. Only households that have a legal land use right certificate or whose land use right can be legalized qualify for this type of resettlement.

Self-resettlement, considered as the second type of resettlement, is often the choice of people who are ineligible for compensation rights (i.e., households that do not have a legal land

use right certificate or whose land use right is illegal) from government-funded development projects. It is also the choice of households that are displaced by development projects of smaller private real estate companies or even by local residents who own several plots of land. This type of resettlement, mainly residential in nature, often occurs as a consequence of broader planned projects, such as commercial centers, condominiums, and other infrastructure projects (i.e., roads, airports, hospitals, schools, etc.) These developers only pay compensation for land purchased after negotiating with local residents. They do not assume any responsibility for how people relocate after being displaced. Thus, people within the affected communities have to find ways to resettle themselves. Some may buy farming land and move farther from the city (these people are excluded in this research). Many relocate to a different community or city not directly affected by development-related displacement. There are also cases of people who sold their own house/land for money because of rising market prices, then relocate themselves to a different area.

4. THEORETICAL MODEL AND HYPOTHESES

According to Wilkinson's theoretical approach (1991), the community serves as the space that fosters multiple interactions and gives meaning to the individual and others. Through the most basic processes of social interaction, community arises, and the potential for collective and cooperative actions exist. The social conditions and organization that arise influence the quality of individual well-being, contributing to community social well-being and the emotional bonds that individuals sense toward the places in which they live. Theodori (2001) found both community satisfaction and community attachment were positively and significantly associated with perceptions of individual well-being. In the social field approach, the quality of neighboring

and social participation are significant predictors of place attachment (Jesser 1976; Lewicka 2010, Sundblad and Sapp 2011).

Length of residence in the area has also been considered as a key exogenous factor that influences attitudes and behavior toward the community (Sampson 1988). Kasarda and Janowitz (1974) found that length of residence was positively associated with individual local friendships and community sentiment. Similarly, Bonaiuto et al. (1999), Brown et al. (2003), and Lewicka (2005) also found a positive association between residence length and place attachment. Beggs et al. (1996) pointed out that long-term residence has been found to be a significant contributor to such attachment by allowing for the development of increased social ties. Skjaeveland, Garling, and Maeland (1996) further found that living 10 years or more in a neighborhood was associated with more positive reports of neighboring and well-being. Regarding the relationship between mobility and attachment, Bolan (1997) found that frequent movers may work out efficient ways of adapting to new circumstances and thus may be better adapted than less frequent movers.

In this study, we argue that the variations in place attachment of resettled people in a new location will greatly influence the integration process and, thus, key livelihood outcomes. In the context of urban displacement and resettlement, community social ties are important as an asset that displaced people and their households can utilize to satisfy their basic needs and advance themselves. Various strategies to deal with the loss of livelihood as well as to realize positive livelihood outcomes differ significantly, depending on variations in community attachment among displaced people. In particular, the study investigates the effects of the two major dimensions of attachment (community participation and quality of neighboring) on the perceptions of livelihood outcomes of resettled households in peri-urban communities. At the

same time, we examine effect of length of residence, as an indicator of the systemic approach, on household livelihood.

Another potentially important predictor of livelihood outcomes is human capital. Human capital refers to the skills, knowledge and values that individuals acquire in formal schooling, in the workplace and in other settings that raise their productive capacity (Daklhi and de Clercq 2004). Human capital has been identified as instrumental in economic growth and well-being (Lee and Kim 2009; Keller 2006; and Kwabena et al. 2006). In this household-level analysis, human capital is measured as the average number of years of schooling among adult household members.

In addition, researchers have put a great deal of effort into examining the relationship between age and perception of well-being. Many studies have found a positive relationship between age and well-being (Shmotkin 1990; Horley & Lavery 1995; La Barbera & Gürhan 1997). However, as Hsieh (2003) suggested, the relationship between age and well-being might not be a simple linear one. Hsieh (2003) found that the perception of well-being does not significantly differ between middle-age people (age 45-64) and elderly people (age 65-74), in contrast to differences between younger (age 18-34) and middle-age adults. In their research on migration, Chou and Chow (2009) found that people who migrate at a young age often perform better economically than those who do so at an older age. In this analysis, age is measured as the average age of adult household members.

In this analysis, a structural equation model is used to analyze how different dimensions of community attachment and systemic indicator (length of residence) influence resettled households' livelihood outcomes. In the structural equation model, hypotheses concerning relationships between variables are examined by testing the following hypotheses. We test the

hypotheses that length of residence, community participation, and perceived quality of neighboring are significantly associated with household livelihood outcomes (perceived economic change, food security, and perceived well-being). These hypotheses are tested in a series of structural equation models. Then, we also analyze data separately for government-supported and self-resettled households. To date, there has been little research on resettlement type differences regarding to any association between livelihood outcomes and community field attributes. Moreover, government-supported and self-resettlement are the most common types in Vietnam, including Ho Chi Minh City. Understanding the impact of community ties on livelihood outcomes for households that experienced these two types of resettlement will be important in promoting appropriate assistance programs in the context of displacement and resettlement.

5. DATA SOURCES AND RESEARCH METHODS

Data

The data employed in this study were collected in August 2013. The data were obtained through interviewing households in three areas of Ho Chi Minh City (HCMC), District 5 - Ward 1, District 6 - Ward 11, and Binh Tan District - Binh Hung Hoa A Ward. These areas were selected for this study due to their central location in terms of processes of urban development in HCMC. They have received much attention from policy makers and real estate investors regarding both spontaneous and planned developments. Despite having a long experience in urban development, compared to other peri-urban areas in HCMC, District 5, 6 and Binh Tan District are currently facing many social and economic problems associated with rapid urbanization.

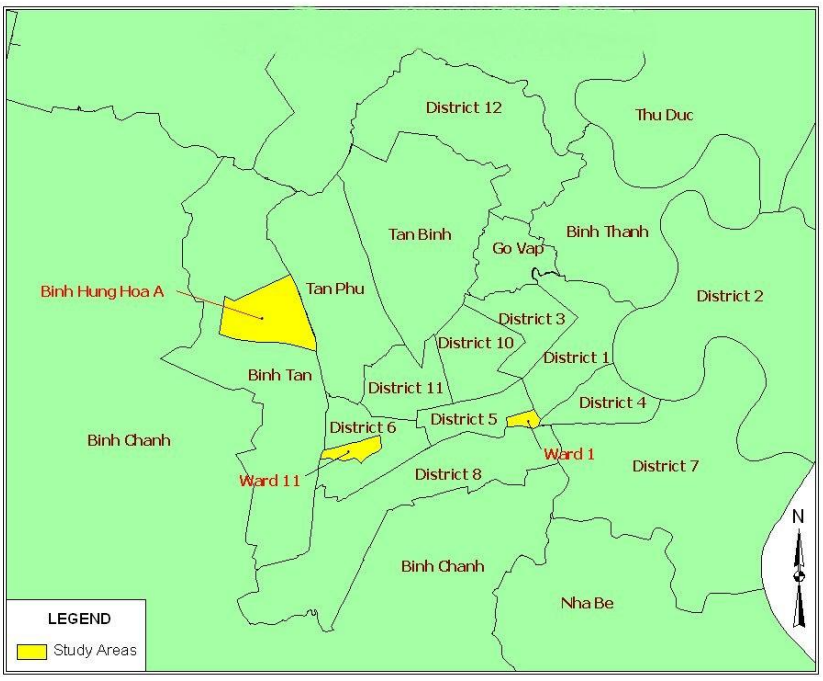

Figure 3.1 Map of study areas (Researcher created by using GIS)

The sample of government-supported resettlement included 142 households that live in apartment blocks (49 sampled units) in District 5 - Ward 1; apartment blocks (59 sampled units) in District 6 - Ward 11; and sites and services plots (34 sampled units) in Binh Tan District - Binh Hung Hoa A Ward. For purposes of comparative analysis, a sample of households that were identified as self-resettlement was chosen in Binh Hung Hoa A Ward, Binh Tan District. Cluster sampling, a multi-stage random sample method, was used to select self-resettled households. In stage 1, based on the "2012 Population Statistics of Binh Hung Hoa A Ward," we chose 3 residential clusters which have the highest percentage of the number of temporary residences (KT3 and KT4)[20]. In stage 2, for each selected-residential cluster, we randomly picked 1 residential unit (there are about 8-10 residential units per residential cluster). In stage 3,

20 There is a residence registration system called Ho Khau in Vietnam, often translated as permanent residence. A book containing the information of household members and the household's residence is issued to each household. Ho Khau is registered at district level, and people are supposed to live in the district of the Ho Khau registration. KT1 type is only for local residents; KT2 is for residents from a different district within the same city; KT3 and KT4 are for people who come from different cities or rural areas.

within each unit, we relied on official documents and local authorities' records to obtain a list of households that have in-migrated since 2005 (the year in which the government-supported households received their apartment or land for resettlement). Then, we drew a random sample using a random-number table to select households from the list. Within each unit, 44 households were chosen, giving a total of 132 households for 3 units.

A total of 242 households were interviewed by using a structured questionnaire. These households had a total of 1,082 individuals, with an average of 4.4 people per household. This number is slightly higher than the national and Ho Chi Minh City average size for households (3.8 people for the national average size and 3.9 for HCMC) (GSO 2012). The sample consisted of 126 households that are in government-supported resettlement and 116 households that are identified as self-resettlement (see Appendix A for detailed sampling results).

The questionnaire includes 43 questions that measure social and economic elements of displaced households. In the following section, the variables included in the analysis are briefly introduced.

Variables in the Model

In this study, it is assumed that different aspects of the community concept can influence livelihood outcomes in dissimilar ways. Thus, the study focused on the extent to which household variables such as length of residence, community participation, and perceived quality of neighboring affect household livelihood outcomes. Table 3.1 lists the model variables and constructs and their indicator items.

Table 3.1 Measurement of model variables

	Cronbach's Alpha[21]
Dependent variables	
Perceived economic change	
Perceived change in family economic condition in the last 6 months	
Household food security	
During last 4 weeks (one month), because of lack of money or other resources, did/were you…. (9 items)	
Perceived well-being	0.77
We don't have to worry about our future	
All members of family have good health	
My house is quite good for me	
In general, we are able to access financial and social resources to achieve our basic needs.	
Independent variables	
*Length of residence (*years*)*	
Participation in community	
The number of memberships/non-memberships in various groups/organizations of household	
Perceived quality of neighboring	0.79
I have a lot in common with people in my neighborhood	
People in this neighborhood is friendly	
My neighbors treat me with respect	
I get involved with most local issues	
People in my neighborhood are willing to help each other out	
Most people who live in this neighborhood can be trusted	
Control variables	
Average number of years of schooling of adult household members (years)	
Average age of adult household members (years)	

[21] See Cronbach, Lee J. (1951)

The primary dependent variables, perceived household livelihood outcomes, were measured through three indicators. They are perceived household economic change, food security, and perceived well-being.

- Perceived household economic change was measured by responses to the question about how respondents perceive change in their family economic condition during the last six months preceding the surveyed time (08/2013). Response categories ranged from (1) significantly worse to (5) significantly improved.
- Household food security was measured by adopting the Household Food Insecurity Access Scale (HFIAS) from the Food and Nutrition Technical Assistance (FANTA) Project (Coates, Swindale and Bilinsky 2007). The index consists of nine two-part items that respondents are asked whether it has occurred. If the respondent answers "yes," a frequency-of-occurrence question is then asked to state whether the condition happened rarely (once or twice), sometimes (three to ten times) or often (more than ten times) in the four weeks preceding the interview. When the survey was implemented, the frequency-of-occurrence questions were asked and coded to capture the experience as sometimes or often; that is, the 'rarely' option was inadvertently omitted.[22] By combining information from responses to nine questions, the HFIAS indicator categorizes households into four levels of household food insecurity: food secure, and mild, moderately and severely food insecure.[23] In the analysis, we coded

22 Due to omitting the category "rarely," household food security is likely overestimated. Specifically, the index likely underestimates the number of households that are severely, moderately and mildly food insecure.

23 A food secure household experiences none of the food insecurity conditions, or just experiences worry, but rarely. A mildly food insecure household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a more monotonous diet than desired and/or some foods considered undesirable, but only rarely. A moderately food insecure household sacrifices quality more frequently, by eating a monotonous diet or undesirable foods sometimes or often, and/or has started

the above categories in reverse order so that the higher score indicates a more food secure household. They are (1) severely food insecure, (2) moderately food insecure, (3) mildly food insecure, and (4) food secure.

- Perceived well-being was measured by 4-item self-report instrument, each based on a five-point Likert-type scale. They are: (a) "We don't have to worry about our future"; (b) "All members of family have good health"; (c) "My house is quite good for me"; and (d) "In general, we are able to access financial and social resources to achieve our basic needs." Responses ranged from 1 (strongly disagree) to 5 (strongly agree). This indicator was created by taking the mean score of four responses for each household. The Cronbach's alpha reliability value for perceived well-being was satisfactory for the total scale (alpha = 0.77)

The independent variables included length of residence, participation in community, and perceived quality of neighboring.

- We measured length of residence in years.
- We measured community participation as the reported total number of household memberships/non-memberships in various groups/organizations (religious groups, neighborhood committees, job-related organizations, and other local groups).
- We measured perceived neighboring by asking respondents whether they (1) strongly disagreed, (2) disagreed, (3) neither disagreed or agreed, (4) agreed, or (5) strongly agreed with each of the following items concerning their perception of neighboring:

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to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes. A severely food insecure household has graduated to cutting back on meal size or number of meals often, and/or experiences any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating), even as infrequently as rarely (Coates, Swindale and Bilinsky 2007:19-20).

(a) “I have a lot in common with people in my neighborhood”; (b) “People in this neighborhood is friendly”; (c) “My neighbors treat me with respect”; (d) “I get involved with most local issues”; (e) “People in my neighborhood are willing to help each other out”; and (f) “Most people who live in this neighborhood can be trusted.” We calculated a composite ‘perceived quality of neighboring’ score by averaging the scores of all 6 items. Higher scores reflected higher levels of perceived quality of neighboring. The Cronbach’s alpha reliability value for perceived quality of neighboring was satisfactory for the total scale (alpha = 0.79).

To examine how household demographic factors affect livelihood outcomes, two control variables were included in the model. They are the average number of years of schooling of adult household members ages 18^{+}(education) and the average age of adult household members ages 18^{+}(age).

Analysis Procedure

Relationships connecting all the variables are investigated by means of a structural equations model (SEM). A SEM is “a stochastic model where each equation represents a causal linkage, rather than a simple empirical association” (Goldberger 1972:979). SEMs are comprised of regression equations, which are included in the model only in so far as it is possible to interpret them as causal relationships, theoretically justifiable and not falsified by data. This approach allows for greater flexibility of statistical assumptions. It has the capability to model relationships between measurement errors, direct and mediated effects, and provides alternative measures of construct validity and reliability (Bollen 1989; Kaplan 2000). Another advantage of this method is the capability for modeling unobserved constructs with multiple measures and is routinely used for between-group comparisons, one of the foci in this study. In this type of

model, the Fs are factors and the arrows (F1 → F2 → F3) represent hypothesized causal effects. In this analysis, a structural equation model is used to analyze how different dimensions of community attachment influence resettled households' livelihood outcomes.

6. RESULTS

Descriptive Statistics

As indicated in Table 3.2, the mean reported length of residence exceeded 16 years in the 242 households surveyed. Government-supported households have resided in the area about 25 years on average, while self-resettled households have resided about six and a half years. Regarding participation in community, the results show a range of 0 to 5 for number of groups/organizations (religious groups, neighborhood committees, job-related organizations, and other local groups) in which members of a household participate. The average numbers of organizations were 1.31 and 0.75 in government-supported and self-resettled households, respectively. The perceived quality of neighboring scale was unidimensional[24]. The scale has a possible range of 1 to 5. The mean scores were 3.45 and 3.53 for government-supported and self-resettled groups, respectively. These scores are above the possible midpoint (3.0) of the scaled construct of the perception of neighboring.

Regarding dependent variables, the mean values for perceived family economic change were 2.98 and 2.73 in government-supported resettlement and self-resettled groups, respectively. The possible range for perceived economic change is between 1 and 5. Thus, the scores indicate the perception of overall slightly decrease in family economic condition (middle point is 3.0).

[24] Perceived quality of neighboring indicator was constructed by using principal component analysis. The analysis shows that only one component was extracted. The percentage of total variance explained is quite large (42%).

Household food security is a four-point scale indicator. The mean scores of 2.74 and 2.75 for government-supported and self-resettled groups, respectively, indicate a mildly food insecure of households. The possible range for perceived well-being is between 1 and 5. This scale was also unidimensional, with 50.6% of total variance explained. The mean scores were 3.62 and 3.64 for government-supported and self-resettled groups, respectively. These scores indicate an above the possible midpoint of the scaled construct of the perception of well-being.

Table 3.2 Descriptive statistics for the model variables

	Full (N=242)		Resettlement type: Government-supported (n=126)		Resettlement type: Self-resettled (n=116)	
	Mean	SD	Mean	SD	Mean	SD
Length of residence (year)	16.18	14.911	25.04	16.028	6.55	2.685
Participation in community (0-5)	1.04	1.307	1.31	1.394	0.75	1.141
Perceived quality of neighboring (1-5)	3.49	0.552	3.45	0.587	3.53	0.509
Perceived economic change (1-5)	2.86	0.996	2.98	1.099	2.73	0.858
Food security (1-4)	2.74	1.097	2.74	1.111	2.75	1.086
Perceived well-being (1-5)	3.63	0.656	3.62	0.715	3.64	0.588
Educational level (year)	8.70	3.340	8.77	3.617	8.61	3.025
Average age of adults (year)	41.05	8.031	42.84	7.725	39.10	7.936

As indicated in Table 3.2, the mean reported educational level was nearly 9 years in the 242-household survey. Both government-supported and self-resettled households have similar educational levels, which average 8.8 and 8.6 years, respectively. Regarding the age of adult household members, the mean values were approximately 43 and 39 years in government-supported resettlement and self-resettled groups, respectively (p=0.000).

Causal Analysis

Figure 3.2 provides a graphic representation of the model, which follows the path analysis symbology. It reports the variables, their errors and the linkages connecting variables. Such connections are represented both graphically by arrows, and numerically by regression coefficients. In the LISREL (LInear Structural RELationships) praxis, the graphic representation is based on the following criteria:[25] latent variables are inscribed in ellipses, and observed variables are inscribed in rectangles. The causal nexus between two variables is represented by a straight arrow moving from the independent variable to the dependent variable. The absence of arrows means the absence of linkages between variables.

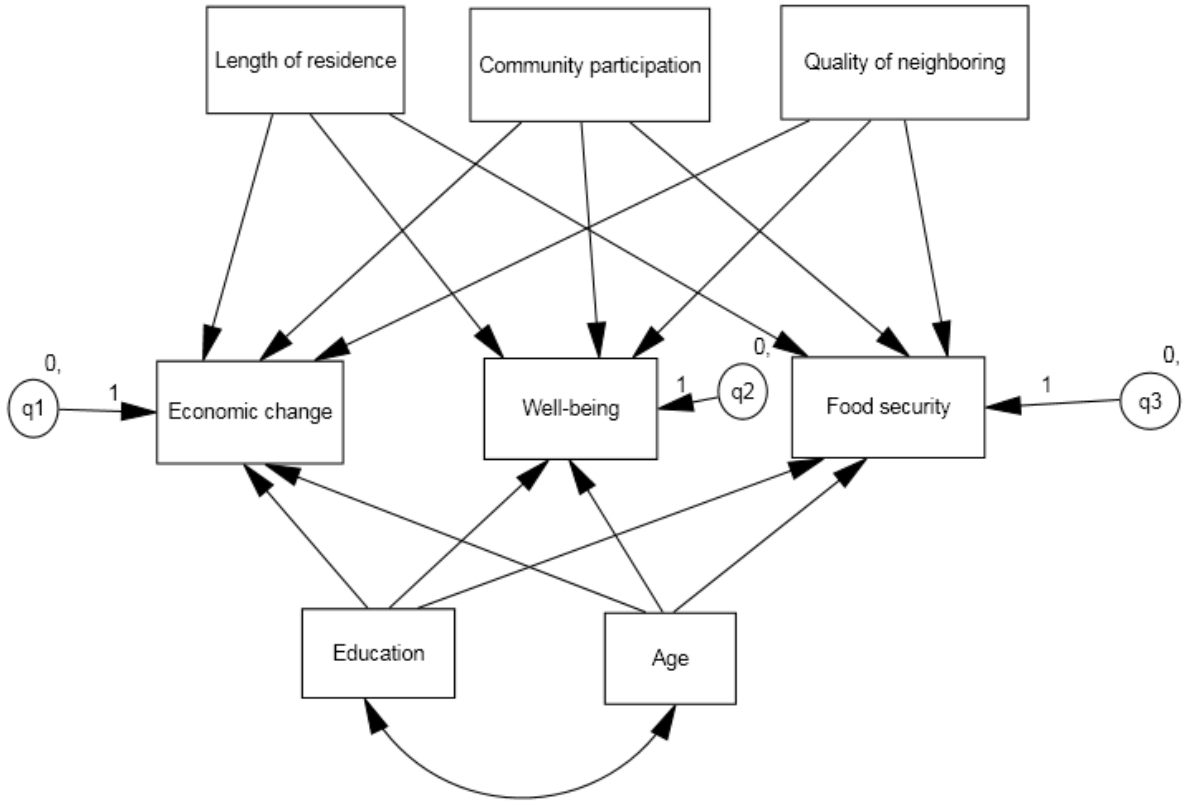

Figure 3.2 Structural equation model for predicting household livelihood outcomes

[25] The term LISREL is the acronym of LInear Structural RELationships, a software for factor analyses developed by Karl Jöreskog, a statistician and psychometrician, at the beginning of the 1970s (Jöreskog and Van Thillo 1973).

In the estimated model, the squared multiple correlations (R^2) show how well predictor (independent) variables predict the dependent variables and the strength of the hypothesized relationships between the independent and dependent variables. The model's factor loadings show how an independent variable affects a dependent variable or, in other words, how much change occurs in the dependent variable when an independent variable changes by one standard deviation. The mathematical model for the structural equation is described by the following expression:

$$\underline{y} = \underline{B}\,\underline{y} + \underline{\Gamma}\,\underline{x} + \underline{\zeta}$$

In those:

- y observed endogenous variable matrix (*p* x *1*)
- x observed exogenous variable matrix (*q* x *1*)
- B (beta) endo-endo regression matrix (*p* x *p*)
- Γ (gamma) exog-endo regression matrix (*p* x *q*)
- ζ (zeta) residuals/disturbances vector (*p* x *1*)

The model was identified basing on the t-rule (since the number of unknown parameters is smaller than the number of known parameters) and fully recursive rule (since it shows that *β* - beta is lower triangular and its ψ-psi is diagonal).

Prior to analyzing the data, the assumption that all variables were normally distributed was tested. We constructed the bar-charts for both dependent and independent variables by using their standardized values, none of the values exceeded +/- 4. Thus, all endogenous and exogenous variables have normal distributions and no outliers.

Table 3.3 also presents the values of skewness and kurtosis for all variables included in the SEM model. To test the assumption of a multivariate normal distribution, the kurtosis and skewness coefficient for each measured variable was divided by its standard error, and the resulting quotient was below an absolute value of 2.0 (suggesting a distribution with a normal shape) for all but two of the variables. The two variables, length of residence (RESIDENCE) and participation in community (COMPARTI), had skewness coefficients above the threshold. To address this slight violation of the normality assumption, the SEM model was tested using robust maximum likelihood estimation, which provides standard errors that are correct even when distributional assumptions are violated.

Table 3.3 Skewness and Kurtosis values for the model variables

Indicators	*Variable*	*Skewness*	*Kurtosis*
Length of residence	RESIDENCE	1.335	0.705
Participation in community	COMPARTI	1.408	1.401
Perceived neighboring	NEIGHBOR	-0.248	0.291
Perceived economic change	ECOCHANGE	0.142	-0.191
Food security	FSINDEX	-0.009	-1.500
Perceived well-being	WELL	-0.376	0.491
Educational level	EDUCATION	0.086	-0.196
Average age of adults	AGE	0.790	1.578
Resettlement type	RESETTLE	0.083	-2.010
1=Government-supported (n=126)	52.1 %		
2=Self-resettlement (n=116)	47.9 %		

Table 3.4 summarizes the results from fit statistics of the structural equation model (SEM) for measuring household livelihood outcomes. Measures of the model's goodness of fit are a function of the residual, i.e., the difference between the empirical variance-covariance matrix and the model created variance-covariance matrix. It is possible to show that, if the model

is correct, the fitting statistic follows Chi-square (χ^2) with *df* degrees of freedom, where $df = \frac{1}{2}(p + q)(p + q + 1) - t$, p is the number of endogenous variables, q is the number of exogenous variables, and t is the number of estimated parameters (Bonnet and Bentler 1983).

The result from the baseline model Chi-square test shows a good fit of the model compared to the empty model. Specifically, it reports a low value of Chi-square ($\chi^2 = 21.349$) and non-significant value (p=0.890 > 0.05) in default model and very high value of Chi-square ($\chi^2 = 305.050$) and significant value (p=0.00) in baseline model. Moreover, the results of root mean square error of approximation (RMSEA) also indicate that the model has good fit. Specifically, RMSEA equals 0.025 which is less than 0.05 and its 90 percent confidence interval, which ranges from 0.017 to 0.056, falls into the good fit range.

Table 3.4 Fit statistics of measuring livelihood outcomes

Model	CMIN (p)	RMSEA	Lo90	Hi90
Default model	21.349 (0.890)	0.025	0.017	0.056
Saturated model				
Independence model	305.050 (0.000)	0.083	0.028	0.049

Table 3.5 shows the results of SEM predicting the perceived household livelihood outcomes model for the full sample including government-supported resettlement and self-resettlement.

Results of path analysis predicting household livelihood outcomes are shown in Table 3.5. We first describe results for all households, and then specific to government- supported and self-resettled households. For all households, length of residence (RESIDENCE) had no significant effect on all indicators of perceived livelihood outcomes. Community participation (COMPARTI) emerged as a significant predictor of perceived household economic change

(ECOCHANGE) ($\beta = 0.148$, $p<0.05$) and perceived well-being (WELL) ($\beta = 0.198$, $p<0.01$). This indicates that one standard deviation increase in the community participation is associated with 0.148 and 0.198 standard deviation change (increase) in perceived household economic change and perceived well-being, respectively. As expected, perceived quality of neighboring (NEIGHBOR) had a significant effect on economic change ($\beta = 0.207$, $p<0.01$) and perceived well-being ($\beta = 0.297$, $p<0.01$). Educational level and average age of adults had significant effects on household food security ($\beta = 0.216$ and $\beta = -0.123$, respectively). To summarize the results for all households, we found that perceived economic change was influenced by community participation and perceived quality of neighboring, perceived well-being was influenced by community participation and perceived quality of neighboring, while food security was influenced only by the two control variables, education and age.

In order to determine whether the hypothetical model applies equally for government-supported and self-resettled households, Table 3.5 also includes the standardized factor loadings for measuring the household perception of livelihood outcomes model for both types of households. The results show that there are different effects for the two types.

Table 3.5 Results of SEM predicting household livelihood outcomes (*N*=242)

			Full *N=242*	*Government-supported n=126*	*Self-resettled n=116*
ECOCHANGE	←	RESIDENCE	-0.048	0.043	0.183*
FSINDEX	←	RESIDENCE	0.073	0.144	-0.015
WELL	←	RESIDENCE	-0.028	-0.032	0.267**
ECOCHANGE	←	COMPARTI	0.148*	0.208*	0.110
FSINDEX	←	COMPARTI	0.061	0.018	0.097
WELL	←	COMPARTI	0.198**	0.321**	-0.026
ECOCHANGE	←	NEIGHBOR	0.207**	0.269**	0.097
FSINDEX	←	NEIGHBOR	0.023	0.043	0.027
WELL	←	NEIGHBOR	0.297**	0.312**	0.105
ECOCHANGE	←	EDUCATION	0.042	-0.035	0.112
FSINDEX	←	EDUCATION	0.216**	0.219**	0.247**
WELL	←	EDUCATION	0.044	0.036	0.021
ECOCHANGE	←	AGE	0.027	0.067	0.031
FSINDEX	←	AGE	-0.123*	-0.242**	0.024
WELL	←	AGE	0.017	0.024	0.028
		pR^2 ... Economic change	0.269	0.323	0.267
		pR^2 ...Food security	0.276	0.332	0.269
		pR^2 ...Well-being	0.331	0.392	0.304
Means					
		Length of residence	16.18	25.04	6.55
		Participation in community	1.04	1.31	0.75
		Perceived quality of neighboring	3.49	3.45	3.53
		Educational level	8.70	8.77	8.61
		Average age of adults	41.05	42.84	39.10

Notes: Standardized coefficients are reported. Significant at *p<0.05, **p<0.01.

First, length of residence had a significant effect on perceived household economic change (β = 0.183, p<0.05) and perceived household well-being (β = 0.267, p<0.01) in self-resettled households, while it was not significant in the government-supported households.

In contrast, participation in community had significant effect on perceived economic change (β = 0.208, $p<0.05$) and perceived household well-being (β = 0.321, $p<0.01$) in government-supported households, while it was not significant in the self-resettled households. This pattern of the effects was the same for neighboring. As shown in Table 3.5, the perception of neighboring had a significant effect on perceived economic change (β = 0.269, $p<0.01$) and perceived household well-being (β = 0.312, $p<0.01$) in government-supported households, while it was not significant in the self-resettled households. While both groups experienced a similar effect of educational level on household food security, age had a significant effect on household food security (β = -0.242) only for government-supported households.

To summarize the results for government-assisted households, we found that both perceived economic change and perceived well-being were influenced by community participation and perceived quality of neighboring, while food security was influenced only by education and age. In contrast, the results for self-resettled households were quite different from those for government-assisted households. For those self-resettled, we found that perceived economic change and perceived well-being were influenced only by length of residence and food security was influenced by education.

7. DISCUSSION AND LIMITATIONS

Discussion

The analysis carried out in this paper provides significant support for the proposition that community attachment indeed affects household livelihood outcomes. Moreover, different dimensions of attachment influence livelihood outcomes in distinct ways. Overall, community participation and perceived quality of neighboring contributes to household economic change

and well-being. As shown in the structural equation model analysis, the effect of these dimensions remained positive and statistically significant. Households that perceived more quality of neighboring and had higher levels of community participation were more likely than their counterparts to report higher levels of well-being.

This is consistent with Theodori (2001) whose research showed that community satisfaction and community attachment are positively associated with perceptions of individual well-being. In our study, community social ties contribute to and improve household well-being. This result is also consistent with the findings of Beall (2004) regarding the important role of strong ties among the urban poor; ties to members of community and local organizations were associated with more interaction, emotional involvement, and intimacy. Wider-based reciprocity can provide safety-nets when deprivation is exacerbated by shocks, stress and other sources of vulnerability (Granovetter 1993). Therefore, resettled households often rely on these to adapt within the new living conditions during the first stage of resettlement and rehabilitation. In sum, significant effects of community participation and the perceptions of neighboring provide support for our hypothesis.

The analysis further focused on examining how different types of resettlement affect household livelihood outcomes, and used sophisticated statistical modeling to test for variance of the hypothetical model for government-supported resettlement and self-resettlement. Specifically, we argued that the effects of community participation, perceived quality of neighboring, and length of residence on household livelihoods would be different between government-supported households and self-resettled households. As noted in Table 3.5, we found considerable support for the proposition that types of resettlement were also associated with perceived household livelihood outcomes.

In the analysis of predictors of household livelihood outcomes, length of residence did not reach statistical significance for government-supported resettlement households, but did for self-resettled households. In contrast, participation in community and perceived quality of neighboring had significant effects on livelihood outcomes in government-supported households, but not in self-resettled households. These demonstrate that government-supported and self-resettled households are distinct, and that they are associated with dimensions of place attachment in different ways.

The effect of length of residence on self-resettled households' livelihoods was supported by Bolan's findings as he found that frequent movers may work out efficient ways of adapting to new circumstances and thus may be better adapted than less frequent movers (Bolan 1997). In our study, self-resettled households are most likely the spontaneous migrants, who attracted vulnerable and encountering a livelihood crisis due to urbanization. They often move to large cities in search of economic opportunities for themselves and their families, looking for a better life. While state sponsored resettlement households often have longer time[26] living in the neighborhood and less frequent moving than do self-resettled households.

It's also worth noting that state sponsored resettlement, through agencies and other organizations, generally provides households with more and better services (i.e., issue land use rights and land tenure, public education, social welfare) and quality programs (i.e., formation of self-help groups, microcredit programs, working skill training) than does self-resettlement. These households, consequently, often encourage their members to join a local social group or organization as the means to achieve better livelihoods. It is obvious that when residents

[26] A separate analysis on comparison the living time in the neighborhood between two groups shows that the living time of government-supported resettled households is statistically significant higher than that of self-resettled households (300.44 months compared to 75.69 months, see Appendix B for detailed statistics).

participate more in community organizations and activities and sense a higher degree of neighboring, they generally are better adapted to communities in which they live.

Limitations

Although the results from SEM analysis supported our research hypotheses regarding the effects of community social ties on livelihood outcomes of displaced households, there are some limitations that need to be considered.

The first limitation of the present study was sample size. Since SEM is based on variances, the larger the sample, the higher the homogeneity of variances and explained variances. Basing on the 'Rule of 20,'[27] the present study is based on medium sample size. This may limit power to explore causal relationships among the variables in the model, especially to detect differences between the structural models in government-supported resettlement and self-resettled households. Nevertheless, these limitations should be balanced against the advantages afforded by using structural equation modeling for statistical analysis (Bollen 1989; Byrne 2010).

Second, having information about 'time since resettlement' and 'initial resource endowment' would give us a better picture of household resettlement changes over time. We only captured duration of residence in their current location. Finally, since we were focused on two specific types of resettlement (government-supported resettlement and self-resettlement) in specific areas (peri-urban areas in Ho Chi Minh City,) the findings may not generalize fully to other groups or settings.

[27] Rule of 20: At the minimum, one should have at least 20 cases per free parameter estimated in the model (Bollen 1989; Byrne 2010).

In this regard, future research that uses a larger, more representative sample will permit a more comprehensive understanding of the processes involved. Of particular interest would be further examination of the micro, meso or macro-level factors that influence people in similar conditions.

8. POLICY IMPLICATIONS AND SUMMARY

Policy Implications

Sustainable and balanced development is the motto of the Vietnamese government. Urban development projects have achieved many successes. However, the strategy to entice development into rural and remote areas has had limited success. Consequently, there have been large numbers of rural people who are abandoning rural areas to seek work in the big cities, such as HCMC. On arriving in the city, these migrants encounter administrative obstacles that deny them access to health care, schooling, housing, and labor protection. Many urban development studies, and this study as well, have shown that unplanned urbanization has deteriorated the order, civility, and morality of their neighborhoods and public places. The spontaneous migration of rural people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development.

Further, the study calls the attention of urban policy makers and planners by demonstrating the advantage of using a community field approach to analyze activities and livelihood outcomes for displaced people. The analysis indicates that the ability of resettled households to reestablish their livelihoods is strongly conditioned on their community ties. Thus, building community social ties with family, friends, and organizations is an essential part of

successful household economic and social development strategies. The findings also suggest implications for community development efforts aimed at enhancing community ties

Summary

Empirical research on community development has shown that attachment and well-being have been the significant subject, but very few studies have examined relationships between these two constructs. This study presented evidence from a 242 household survey in peri-urban areas of Ho Chi Minh City that replicates and extends a model of community attachment. We examined the extent to which indicators of the dimensions of community field affect resettled households' livelihoods.

The analysis examined the two principal community field dimensions (community participation and perception of quality of neighboring) and an indicator of systemic model (length of residence). It measured them by means of principal component analyses. Household livelihood outcomes were measured through indicators of food security, household economic change and household living conditions. The causal relationship between the dimensions of community field and livelihood outcomes was assessed through the use of structural equations models.

Our findings indicate that community field plays an important role in livelihood outcomes of relocated people in peri-urban areas of Ho Chi Minh City. The results reveal that different dimensions of community field have distinct effects on household livelihood outcomes. Community participation and perceived quality of neighboring had the strongest positive effect on perception of well-being. They also had the positive effect, albeit small, on perception of household economic change. The indicator of length of residence had no significant influence on livelihood outcomes. These results suggest that the community field perspective can complement

previous approaches by revealing the important of community participation and perceived quality of neighboring.

The data also showed that length of residence, community participation, and perceived quality of neighboring vary by resettlement type. We found that joining a group/organization or participating in community activities were strategies frequently adopted by government-supported resettlement households to adapt to new living conditions after resettlement, and then achieve better livelihood outcomes. For self-resettled households, length of residence emerged as a significant predictor of improved economic conditions and well-being. Thus, building community social ties with family, friends, and organizations is an essential part of successful household economic and social development strategies. Future researchers are encouraged to study how people build social networks after they resettled in a new location.

Finally, studies of people's livelihoods, especially resettled people, have been limited because of the lack of suitable data in Vietnam. Even when data have been available, the failure to apply rigorous techniques of analysis has restricted the value of the studies. As mentioned, the present study has data limitations which do not permit a generalized assessment of displacement and resettlement processes in Vietnam. This leads to the need for further study in which a large-scale survey can provide robust estimates of the prevalence of livelihood issues and their determinants in the population. Moreover, the research could examine the micro, meso, and macro-level factors that influence people's decisions and experiences in similar conditions.

APPENDICES

APPENDIX A. QUESTIONNAIRE INTERVIEW RESULTS

Resettlement types	Research settings	Sampled	Interviewed	%	Description
Government-supported resettlement	Apartment blocks in ward 11-district 6	59	50	85%	- 4 households refused to interview - 1 household was unable to interview due to the only interviewee is too old - 4 households could not access due to the door locked
	Services plots in Binh Hung Hoa A ward – Binh Tan district	34	34	100 %	
	Apartment blocks in ward 1-district 5	49	42	86%	- 3 households refused to interview - 2 household was unable to interview due to the only interviewee is too old - 2 households could not access due to the door locked
Household self-resettlement	Residential clusters 20 (KP20)	44	40	91%	- 4 households could not access due to the door locked
	Residential clusters 22 (KP22)	44	43	98%	- 1 household refused to interview
	Residential clusters 26 (KP26)	44	33	75%	- 5 households refused to interview - 6 households could not access due to the door locked
	Total	274	242	88%	

APPENDIX B. INDEPENDENT SAMPLES TEST FOR LIVING TIME DIFFERENCE BETWEEN GOVERNMENT-SUPPORTED RESETTLEMENT HOUSEHOLDS AND SELF-RESETTLED HOUSEHOLDS

Group Statistics

Types		N	Mean	Std. Deviation	Std. Error Mean
Time living in the neighborhood	Government-supported	126	300.44	192.333	17.134
	Self-resettled	116	75.69	32.621	3.029

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	156.226	.000	12.421	240	.000	224.755	18.095	189.109	260.401
Equal variances not assumed			12.917	132.793	.000	224.755	17.400	190.338	259.172

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SUMMARY AND SIGNIFICANCE OF THE RESEARCH

The rapidly growing of population, primarily due to in-migration, has increased stress on urban environments that derives from existing deficits in the supply of land, housing and urban infrastructure in Ho Chi Minh City. Many urban infrastructure and transportation development projects - including slum eradication and upgrading, the establishment of industrial and commercial estates, and the building and upgrading of sewerage systems, schools, hospitals, ports, etc. - have been designed and implemented during the period 2000-2010. Many successes have been achieved, such as national gross domestic product increase, economic growth, infrastructure convenience, and other social improvements (GSO 2012); but there are also many negative consequences from the process of displacement and resettlement, such as dismantling of production systems, loss of productive assets, loss of income sources, weakening of community structures and social networks, dispersal of family groups, loss of cultural identity, diminution of traditional authority and the potential for mutual help.

This research was designed to explore the livelihood issues that emerged from the process of urban development in Ho Chi Minh City, Vietnam. In particular, the study looked at the linkages and connectedness - through membership in informal networks and associations - that they establish and maintain to survive and make a living. The study modifies and utilizes the sustainable livelihoods framework to identify the factors that affect how resettled people have diversified their livelihood activities over time. To have a better understanding of the effects of resettlement type on livelihood outcomes, we compared the livelihoods of government-supported resettlement and self-resettled households. In addition, with the focus on interactions among residents, the study aimed to explore the causal relationships connecting diverse aspects of community field to livelihood outcomes of resettled households. The data were obtained during

interviews with 242 households in peri-urban areas of Ho Chi Minh City in 2013 and analyzed with structural equation models.

Summary of Findings

Under the proposition that displaced people's social capital, both pre-existing and acquired in the new resettled place, will greatly influence the integration process and, thus, their livelihoods, the present study first investigated how different forms of social capital affect access to employment and income of households after displacement in Ho Chi Minh City. As a whole, the results, informed by structural equation models, indicate that different forms of social capital have distinct effects on the income of displaced households and their ability to obtain employment and, more broadly, how social capital influences development. For both government-supported resettlement and self-resettled households, households with more extensive social networks have higher employment and income. We also found that state-sponsored resettlement households were more likely to rely on social groups or organizations as a means to find jobs and income sources. They met with neighbors, friends and colleagues with whom they could get useful information regarding the employment opportunities and income sources. Differently, self-resettled households often relied on their own personal friends who are professionals, community leaders, or businesspersons. These persons are assumed to possess valuable information regarding employment and income sources. The results further show that education and age did not have direct effects on household employment and income as we expected, but it had an indirect effect on employment and income via social capital.

In the context of displacement and resettlement in Vietnam in general and HCMC in particular, displaced people's livelihoods, both official and spontaneous, vary. They might work as mobile food vendors, in retail sales in neighborhood markets, house-front stalls, hawkers'

carts, or lottery ticket sales; male-dominated work includes house construction, repair services, and transport services; female-dominated industries are weaving, fabric dyeing, sewing, embroidering, hair-dressing, and domestic work. All these livelihood activities and sources can be used to achieve better quality of life. By modifying the sustainable livelihood approach, we found that increasing earnings, reducing spending, selling assets, and obtaining help from others were the strategies that resettled people used to deal with negative economic shocks caused by forced displacement. Among efforts to relieve the effects of economic shocks, increasing earnings was the most effective strategy that positively influenced household income and assets. Regarding livelihood outcomes, both the perceived affordability of basic needs and food security were influenced by household income earned and value of assets. For government-supported households, the perceived affordability of basic needs was associated with higher household income, and food security was associated with higher value of household assets. For self-resettled households, the perceived affordability of basic needs was associated with higher value of household assets, and food security was associated with higher household income and asset value.

One of the most interesting findings of this study is that place attachment, viewed through the community field approach, had significant effects on the perceived livelihood outcomes of displaced households. By treating different dimensions of the community field (community participation and quality of neighboring) and systemic model (length of residence) as independent variables, the study explored the causal relationships connecting diverse aspects of community field to the perceived livelihood outcomes of resettled households.

Community participation and perceived quality of neighboring had the strongest positive effect on perception of well-being. They also had a positive effect, albeit small, on perception of

household economic change. The dimension representing length of residence had no significant influence on livelihood outcomes. These results suggest that the community field perspective can complement previous approaches by revealing the important of community participation and perceived quality of neighboring.

Analysis also showed that length of residence, community participation, and perceived quality of neighboring vary by resettlement type. We found that joining a group/organization or participating in community activities were strategies frequently adopted by government-supported resettlement households to adapt to new living conditions after resettlement, and then achieve better livelihood outcomes. For self-resettled households, length of residence emerged as a significant predictor of improved economic conditions and well-being. Thus, building community social ties with family, friends, and organizations is an essential part of successful household economic and social development strategies.

In conclusion, the results from the structural equation models examined here supported our research hypotheses which were derived from the analytic frameworks. Social capital proved to be an appropriate approach to study people's employment and income after resettlement. In particular, different forms of social capital have distinct effects on the income of displaced households and their ability to obtain employment. While not all of our hypotheses fit in the sustainable livelihoods framework used to examine how economic shocks and efforts to deal with shocks affect economic resources and livelihood outcomes, the results of examining the effects of different capitals - social capital, human capital, financial capital, and physical capital - on livelihood outcomes of resettled people were consistent with several previous studies that used Sustainable Livelihoods as an analytic framework. This demonstrates the appropriateness of using the sustainable livelihoods framework to analyze resettlement in this study. This study also

illustrates the value of using the community field approach to analyze livelihood outcomes of resettled people in association with their community attachment. It suggests that building community social ties with family, friends, and organizations is an essential part of successful household economic and social development strategies.

Research Limitations

Although the results from structural equation model (SEM) analysis and other significant tests supported our research hypotheses, there are some limitations that need to be considered when interpreting our results.

The first limitation of the present study was sample size. Since SEM is based on variances, the larger the sample, the higher the homogeneity of variances and explained variances. Basing on the 'Rule of 20,'[28] the present study is based on medium sample size. This limits somewhat the power to explore causal relationships among the variables in the model, especially to detect differences between the structural models in government-supported resettlement and self-resettled households. Nevertheless, these limitations should be balanced against the advantages afforded by using structural equation modeling for statistical analysis (Bollen 1989; Byrne 2010).

Second, having information about 'time since resettlement' and 'initial resource endowment' would give us a better picture of household resettlement changes over time. We only captured duration of residence in their current location. Finally, since we were focused on two specific types of resettlement (government-supported resettlement and self-resettlement) in

[28] Rule of 20: At the minimum, one should have at least 20 cases per free parameter estimated in the model (Bollen 1989; Byrne 2010)

specific areas (peri-urban areas in Ho Chi Minh City,) the findings may not generalize fully to other groups or settings.

In this regard, future research that uses a larger, more representative sample will permit a more comprehensive understanding of the processes involved. Of particular interest would be further examination of the micro, meso or macro-level factors that influence people in similar conditions.

Policy Implications

Despite the limitations of the survey data, the findings have a number of implications for the government's future policies and planning. Social capital has shown to be an important predictor of livelihoods in the context of displacement and resettlement in Vietnam. Therefore, during the process of proposing and implementing a development project, it is important to understand how relocated people secured their livelihoods through different channels (i.e., family, friends, agencies, and organizations).

Sustainable and balanced development is the motto of the Vietnamese government. Urban development projects have achieved many successes. However, the strategy to entice development into rural and remote areas has had limited success. Consequently, there have been large numbers of rural people who are abandoning rural areas to seek work in the big cities, such as HCMC. On arriving in the city, these migrants encounter administrative obstacles that deny them access to health care, schooling, housing, and labor protection. Many urban development studies, and this study as well, have shown that unplanned urbanization has deteriorated the order, civility, and morality of their neighborhoods and public places. The spontaneous migration of rural people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development.

Further, the study calls the attention of urban policy makers and planners by demonstrating the advantage of using a livelihoods approach to analyze activities and livelihood outcomes for displaced people. The analysis indicates that the ability of resettled households to reestablish their livelihoods is strongly conditioned on their assets and available economic activities. Under conditions of poverty and shocks, without some sort of security in the new place (i.e., food, available jobs, or financial sources), it is difficult for displaced households to engage in viable economic activities and maintain their well-being. Additionally, examining several capitals, rather than just financial capital, facilitates a thorough understanding of the roles of household resources and activities in adapting to new living conditions.

This study indicates there are distinct differences between government-supported and self-resettled households regarding efforts to adapt with new living conditions as well as to achieve better livelihood outcomes. The findings, thus, can help urban policy makers and planners to understand the livelihood conditions, networks and other social assets of migrants, in order to anticipate and respond to the possible impact of interventions. As the result, it contributes to making the development process more suitable and sustainable.

Areas for Further Research

In the most recent decade, in order to reduce stress on big cities such as HCMC, Ha Noi, and Da Nang, the Vietnamese government has implemented several rural development projects in rural areas. Many development projects have been launched, such as dams, highways, housings, and industrial zones constructions. However, this rural development process still has had limited success. There have been large numbers of rural people who are abandoning rural areas to seek work in the big cities (many of them are displaced by the rural infrastructure projects). Future research, therefore, should carefully assess the causes and consequences of rural

displacement projects in order to explore the determinants of migration. In particular, the research focuses on understanding and examining the livelihood resources and economic activities of displaced people. Furthermore, an assessment of social and environmental impacts of displacement is also important and needed as Cernea (1993) has pointed out, the primary reason for the failures of those displacement programs is the neglect of attention to the social and environmental costs of displacement.

With the rapid growth of big cities, the spontaneous migration of rural people to the cities calls into doubt the efficacy of official schemes to initiate sustainable and balanced development. Rural-urban migration, therefore, is a very interesting and important topic for Vietnam. At the macro level, this migrant process significantly influences the redistribution of the labor force and enlarges the economic gap between rural and urban areas. At the micro level, these migrants encounter administrative obstacles that deny them access to health care, housing, schooling, and labor protection in the host city. As studies of urban development have pointed out, social networks and the many different forms of associational life are crucially important in maintaining and developing urban livelihoods (Beall 2004). Future researchers are encouraged to study how people build social networks after they resettled in a new location in the urban areas. In particular, the study should be focused on strategies and resources that people use to build their own networks including individual interactions, community networks, formal/informal institutions and organizations participation.

Finally, studies of people's livelihoods, especially resettled people, have been limited because of the lack of suitable data in Vietnam. Even when data have been available, the failure to apply rigorous techniques of analysis has restricted the value of the studies. As mentioned, the present study has data limitations which do not permit a generalized assessment of displacement

and resettlement processes in Vietnam. This leads to the need for further study in which a large-scale survey can provide robust estimates of the prevalence of livelihood issues and their determinants in the population. Moreover, the research could examine the micro, meso, and macro-level factors that influence people's decisions and experiences in similar conditions.

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