

5-15-2009

Tenure Insecurity and Post-Disaster Housing: Case Studies in New Orleans and Tegucigalpa

Robert Charles Peterson
University of New Orleans

Follow this and additional works at: <https://scholarworks.uno.edu/td>

Recommended Citation

Peterson, Robert Charles, "Tenure Insecurity and Post-Disaster Housing: Case Studies in New Orleans and Tegucigalpa" (2009). *University of New Orleans Theses and Dissertations*. 954.
<https://scholarworks.uno.edu/td/954>

This Thesis is protected by copyright and/or related rights. It has been brought to you by ScholarWorks@UNO with permission from the rights-holder(s). You are free to use this Thesis in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Thesis has been accepted for inclusion in University of New Orleans Theses and Dissertations by an authorized administrator of ScholarWorks@UNO. For more information, please contact scholarworks@uno.edu.

Tenure Insecurity and Post-Disaster Housing: Case Studies in New Orleans and Tegucigalpa

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Master of Arts
in
Urban and Regional Planning
Specialization in International Planning

By

Robert Charles Peterson

B.A. University of Nebraska, 2000

May, 2009

Copyright 2008, Robert Charles Peterson

Acknowledgement

I would like to thank my graduate thesis committee: Dr. Marla Nelson AICP, Dr. David Gladstone, and Steve Villavaso FAICP. I would also like to thank the New Orleans attorney Malcolm Meyers, whose writings inspired this thesis research and are referenced herein. Additionally, my wife, Elena Arias Meza, deserves extra thanks for her networking assistance and her patience with my dedication to this research.

Table of Contents

Abstract.....	vii
Introduction	1
Literature Review	2
A. Tenure Insecurity	3
B. Post-Disaster Housing Assistance	30
C. Tenure Insecurity Affecting Post-Disaster Housing	39
Case Studies: New Orleans & Tegucigalpa.....	44
Methodology	44
Post-Hurricane Katrina New Orleans.....	45
Post-Hurricane Mitch Tegucigalpa	66
Conclusion: New Orleans and Tegucigalpa	81
Glossary.....	88
Bibliography	90
Vita	100

List of Figures

<i>Figure 1. Conceptual Diagram of Literature Review</i>	<i>2</i>
<i>Figure 2. Hurricane Katrina Flood Map</i>	<i>45</i>
<i>Figure 3. Intestate Succession and Division of Interest in Properties</i>	<i>50</i>
<i>Figure 4. Map of Types of Extralegality in Tegucigalpa, Honduras</i>	<i>67</i>
<i>Figure 5. Landslides during Hurricane Mitch</i>	<i>71</i>
<i>Figure 6. Photo of El Berrinche Landslide.....</i>	<i>72</i>

List of Tables

Table 1. Outline Typology Of Land Tenure And Property Rights	7
Table 2. UNDRP's Policy Guidance for the Recovery Phase	36
Table 3. Characteristics, Circumstances and Factors of Heir Property	48
Table 4. Order of Heir Succession in Louisiana	51
Table 5. Neighborhood Distribution of <i>Road Home</i> Applicants	57
Table 6. NGO Post-Disaster Housing Projects of Amarateca	73

List of Acronyms

ADRA	Adventist Development and Relief Agency
AECI	Spanish Agency for International Cooperation
CDBG	Community Development Block Grant
CESCR	Committee on Economic, Social and Cultural Rights
EcoViDe	Ecology, Living Standard and Development
EGM	Expert Group Meeting (UN)
ELF	Emergency Land Fund (U.S. Department of Agriculture)
FEMA	Federal Emergency Management Agency
GCST	Global Campaign for Secure Tenure (UN)
HUD	U.S. Department of Housing and Urban Development
IADB	Inter-American Development Bank
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICF	Inner City Fund, now just 'ICF International'
ILD	Institute for Liberty and Democracy
IOM	International Organization for Migration
LRA	Louisiana Recovery Authority
MDG	Millennium Development Goal (UN)
NGO	Non-Government Organization
OCHA	Office for the Coordination of Humanitarian Affairs (UN)
OHCHR	Office of the High Commissioner for Human Rights
OPS	Disaster Preparation Program
REIT	Real Estate Investment Trust
UN	United Nations
UNDRO	United Nations Disaster Relief Organization
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USGS	United States Geological Service

Abstract

This research focuses upon cases wherein post-disaster housing assistance was affected by tenure insecurity. In the case of post-Katrina New Orleans, the *Road Home*, which provided monies for rebuilding, faced difficulties in allocating its aid because of heirship titles, a form of tenure insecurity to which the United States has often been misconceived as immune. In the case of post-Hurricane Mitch in Tegucigalpa, a post-disaster housing relocation program struggled to find lands in an urban land market with pervasive insecurity.

Keywords for searches:

Hurricane Katrina
Hurricane Mitch
Tenure Insecurity
Post-Disaster Housing
Disaster Recovery
Road Home
Succession
Heir Title
Relocation
Anticommons

Introduction

The present research focuses on the issues of tenure insecurity at the international level in relationship to post-disaster housing assistance. In these cases, tenure insecurity affects post-disaster housing assistance by complicating the identification of beneficiaries and hampering rebuilding efforts. The nature of post-disaster housing assistance is to compensate a loss suffered, often through the provision of rebuilding grants, home buy-outs, replacement housing and/or relocation. The ability to demonstrate or prove one's loss becomes the responsibility of the beneficiary. When a person suffers the loss of their home or property, demonstrating this loss becomes inherently tied to the clarity and security of the tenure system. Furthermore, recovery efforts that deal with relocation and land capital confront tenure insecurity head-on, i.e. lands for relocation should provide security, and buy-out of properties depends on transferability of title.

This research is divided into several parts. A literature review covers the broad scope of tenure insecurity issues and post-disaster housing assistance internationally. Two case studies are researched that expose the connection between post-disaster housing and tenure insecurity: post-Hurricane Katrina New Orleans and post-Hurricane Mitch Tegucigalpa. The research question is "how did tenure insecurity affect post-disaster housing projects?"

In post-Katrina New Orleans, the Louisiana Recovery Authority of the state government launched the *Road Home* Program to provide rebuilding grants, home buy-outs, and other assistance for the recovery effort. Many applicants to the *Road Home* Program face difficulties qualifying because their homes are inherited and a formal succession of the title was never acquired. In those cases where the original owner died without leaving a will, state law passes the property to the heirs, often dividing interest in the property between several heirs, despite the fact that typically only one heir lives in and maintains the home. This divided interest in the property reduces its marketability and creates tenure insecurity.

In post-Mitch Tegucigalpa the international community came to the aid of Honduras, providing various forms of aid, including the building of a planned relocation community in the Amarateca valley. The present research asks civil society entities involved with the Amarateca project how the beneficiaries were chosen to receive these new homes, given the prevalence of informal tenure status? And, how did tenure insecurity affect the selection of lands for the relocation project?

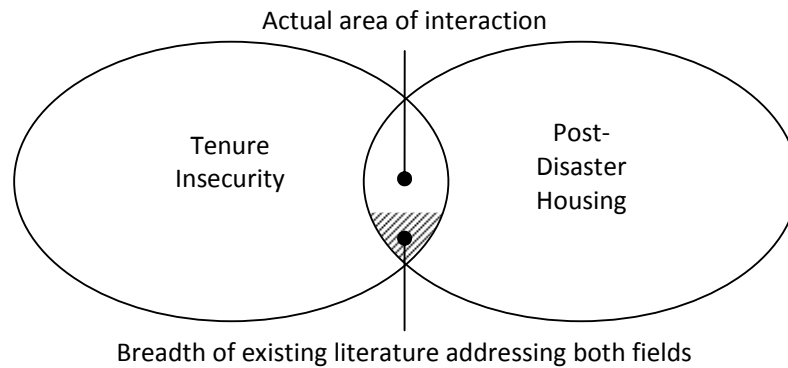
Literature Review

The present literature review is composed of three primary sections:

- A. Literature on tenure insecurity;
- B. Literature on post-disaster housing assistance; and
- C. Literature on tenure insecurity's affect on post-disaster housing assistance.

These divisions are created primarily because there is a wealth of information specifically addressing both tenure insecurity and post-disaster housing, individually. However, there are few cases that unite both fields of study. Focusing solely upon literature that unites these two fields would inadequately convey the breadth of the parent issues. Therefore, all three sections are included because understanding the full breadth of both tenure security and post-disaster housing assistance is crucial to understanding the latter case studies in New Orleans and Tegucigalpa which intend to help fill the gap in research which address the overlap, see figure 1.

Figure 1. Conceptual Diagram of Literature Review



A. Tenure Insecurity

Tenure insecurity is most commonly faced by poor urban residents in developing nations. The world's population has become predominantly urban as people continue to immigrate into cities from rural areas. This influx into cities has placed enormous strains on formal land markets in developing countries that have been unable to meet this increased demand. Therefore, informal housing markets have formed. Many informal neighborhoods stand built upon solid ground, but their legal right to exist may not be recognized.

This section of the literature review examines scholarly publications addressing land tenure security. Tenure security is defined and addressed in terms of the world's breadth of tenure systems and their relative level of security. The role of local governments, land markets and urban planning is evaluated in terms of their roles as contributors and responders to the problem and the policy responses are also discussed. This section of the literature review finishes with a discussion of the recommendations for policies addressing land tenure insecurity.

The breadth of this section of the literature review has been limited considering the number of authors from around the world who have written country-specific case studies. Therefore, this literature review focuses on those authors who have made summations of some of those existing cases studies. Additionally, it considers policy guidance published by entities such as the United Nations.

A number of the terms utilized in the present literature review should be clarified. The term 'slum' will be avoided, despite the United Nations use of 'slum'. Many authors also use the term 'informal settlements' to describe the residential areas that suffer such afflictions as tenure insecurity. However, this author shows a preference for the terms 'informal neighborhoods' and 'informal developments.' In his experience the words 'neighborhood' and 'development' are more equitable as they are more typically used to describe all residential areas across the income strata. Additionally, the term 'neighborhood' does not have the negative connotations that are associated by definition with the word 'slum'. Furthermore, the term 'settlement' is considered by this author to be more applicable to small, geographically isolated, recently settled towns, villages or camps, and not appropriate to describe the residential urban growth of large cities. The term 'settlement' is avoided because its connotation implies separation and isolation of these residential areas. However, current policy approaches promote equity and inclusion, not separation or isolation.

Defining Tenure Security

The international standard for defining tenure security has been set by the United Nations. Tenure security is an indicator of one of the United Nations' Millennium Development Goals (MDGs), which sets guidelines for the activities of civil society throughout the world. The MDG 7, ensuring environmental sustainability, has the following target: "by 2020, to have achieved a significant improvement in the lives of 100 million slum dwellers." This target is also known as the "Cities without Slum" target. Initially, it had only two indicators 'secure tenure' and 'improved sanitation,' thus limiting the definition of a 'slum' to these two characteristics. The United Nations called an Expert Group Meeting in 2002, in recognition of the need for better operational definitions and measures of 'slum' and 'secure tenure,'.

The Expert Group Meeting, organized by UN Habitat, met in Nairobi in October of 2002 to develop global definitions and indicators for the terms 'slum' and 'secure tenure.' The group re-established the commonly used definition of a 'slum':

"A slum is a contiguous settlement where the inhabitants are characterised as having inadequate housing and basic services. A slum is often not recognised and addressed by the public authorities as an integral or equal part of the city." (UN EGM 2002, pg. 22)

Furthermore, the expert group recommend five indicators of a 'slum,':

1. Insecure tenure
 2. Inadequate access to safe water
 3. Inadequate access to sanitation
 4. Poor structural quality of housing
 5. Overcrowding
- (adapted from UN EGM 2002)

At the time of the Expert Group Meeting, four of the five indicators had operational measures. For example, adequate access to safe water is measured by a certain number of liters per day per person of drinking water meeting defined quality standards; and, housing quality is measured by a structural standard for housing that incorporates local architecture and building materials. However, the defining the indicator for 'secure tenure' has proven more problematic. During this meeting, difficulties were revealed surrounding the concept of tenure, particularly because of the breadth of tenure types throughout the world, and the nature of security as a matter of perception among residents, authorities, and others. To reach a simple operational indicator, the group decided upon the use of 'evictions' as an appropriate measure. The Expert Group presented the following definition: "Secure Tenure is the right of all individuals and groups to effective protection by the State against unlawful evictions" (UN EGM 2002).

The group also proposed these five indicators of 'secure tenure':

1. Formal documentation of tenure
2. Local perception of security
3. Low occurrence of evictions
4. Gender balance in ownership and evictions
5. National/local provisions against evictions

(adapted from UN EGM 2002)

Prior to this Expert Group Meeting, UN Habitat had launched two global campaigns in 2000: the Global Campaign for Secure Tenure and the Global Campaign on Urban Governance. These campaigns advocate for the poor by promoting such things as inclusive governance and alternatives to eviction. The Global Campaign for Secure Tenure recognizes that "the urban poor should not be seen as passive, but should be considered as an active force that can and will actively contribute to the solution of their housing problems" (GCST 2009). The initiative for secure tenure is based on the concept that the poor will become more proactively involved in local development activities, investing in their homes and their community, particularly when the fear of eviction has been removed. The Global Campaign for Secure Tenure offered a background paper to the Expert Group Meeting which gave the following definition of 'secure tenure':

Security of tenure describes an agreement between an individual or group on land and residential property which is governed and regulated by a legal and administrative framework. The security derives from the fact that the right of access to and use of the land and property is underwritten by a known set of rules, and that this right is justiciable. The tenure can be affected in a variety of ways, depending on constitutional and legal frameworks, social norms, cultural values and, to some extent, individual preference. (UN EGM 2002, pg. 15)

The key difference between these two definitions is the inclusion of evictions, which provides a clear operational measure for the MDG. An important component of both of the above definitions is their breadth and applicability under wide ranging circumstances. Mere protection from unlawful evictions is possible under a wide variety of tenure systems that exist throughout the world. Furthermore, the later definition by GCST clearly does not restrict secure tenure to any particular legal or constitutional tenure framework. The GCST definition uses the term 'justiciable,' which means 'that which can be proven.' This term will play an important role in the New Orleans case study.

To clearly understand the world's wide ranging levels of tenure security, it is important to first understand the breadth tenure systems. Tenure must be understood beyond the overly simplistic adjectives of 'formal' and 'informal' that are commonly used in the development field.

The Breadth of Tenure Systems

Payne (1997) provides very thorough and clear descriptions of the existing types of land tenure and property rights throughout the world. He defines land tenure as “the mode by which land is held or owned, or the set of relationships among people concerning the use of land and its product” (Payne 1997 p.3). Payne further defines property rights as “a recognized interest in land or property vested in an individual or group and can apply separately to land or development on it... (existing) parallel with ownership” (Payne 1997 p.3). Payne explains that land tenure and property rights must be viewed through the ‘lens of societal values.’ He says, “(societal values) vary enormously from those at one end of the spectrum which regard land as a sacred trust, to be protected for future generations, to those at the other end which regard it as a commodity to be enjoyed or exploited like any other. Tribal, feudal, colonial, capitalist, socialist and religious societies have all evolved distinctive concepts concerning the ownership and use of land” (p.3). Payne categorizes land tenure and property rights into six primary categories: “customary rights; private; public; Islamic tenure; other formal types; and non-formal” (p.52-54). These categories must be considered through this ‘lens of societal values.’ Specific tenure types vary greatly from country to country. Payne (1997) offers an excellent summary of tenure types, detailed in Table 1.

Table 1. Outline Typology Of Land Tenure And Property Rights	
CUSTOMARY RIGHTS	
<i>Tribal/Collective</i>	Members of the group or tribe controlling customary land may be entitled to a variety of rights, such as access, occupation, grazing and development, but not transfer; this can be undertaken only by the group as a whole, or its accepted leaders. Whilst rights can usually be inherited, land cannot be used as collateral for loans to individual group members. <i>e.g. Stool Land</i> Allocation by chiefs of unused land near an existing settlement; common in southern Ghana. Access depends upon chief's approval; secure.
<i>Ejidal Land</i>	Land controlled either by a group of people, as in Mexico, or a co-operative
<i>Individual</i>	In a few cases, as in Burundi and Burkina Faso, customary rights to a family plot may acquire a status akin to individual title. They normally revert to corporate status, however, on the death of the original owner.
<i>Ground Rent</i>	The charges made for long term lease of undeveloped land, often by large landholders, who obtain their rights through grants made under feudal concepts. It is also used for any situation in which the rent is payable on the land as distinguished from rent payable on the building. Under the Ottoman Land Law of 1858, it enabled farmers etc., to settle and develop unused land for the payment of ground rent, or <i>hekr</i> , on registration of a claim. Secure where traditional writs still apply, but less so where active land markets operate.
PRIVATE	
<i>Unlimited duration</i>	Provides for full ownership of unlimited duration and the right to free enjoyment and disposal of objects providing they are not in any way contrary to laws and regulations. The only restriction is normally that of 'eminent domain', whereby the state may acquire part or all of a property, providing due process of law is observed and full compensation paid. <i>e.g. Freehold, Dominium, Mulk</i>
<i>Finite duration</i>	Provides rights to the exclusive possession of land or property by the landlord, or lessor, to the tenant, or lessee, for a consideration or rent. Leases are normally for a specified period, which may vary from one week to 999 years. Long leases are practically indistinguishable from freehold, while shorter leases may be renewed subject to revised terms. The assignment of a lease by a lessee is normally permitted as with freehold. <i>e.g. Leasehold, Individual</i>
<i>Tribal/Collective</i>	As above, though usually for shorter periods, to enable the terms and conditions to be revised in accordance with market trends.
<i>Condominium</i>	A form of 'horizontal ownership' common in multi-storey developments. Rights may be freehold or leasehold.
<i>Leasehold, Rent Control</i>	This form of tenure accords tenants full security and restricts the freedom of the freeholder or head leaseholder to increase rents more than a specified amount over a given period. It is extensive in cities with older, high-rise apartments, such as Bombay. Since rents do not generate an economic return on investment, maintenance is often poor, and both residential mobility and new supply limited. Key money may be required for properties which become available and this, in effect, restores a market value which can benefit outgoing tenants as much as the freeholder.

Table 1. continued	
PUBLIC	
<i>Crown Land</i>	Originally intended to acquire for the Crown unused or unclaimed land in parts of British, Spanish, Portuguese and other colonies. Such lands were often extensive, (e.g. half the land of Buganda), and were allocated to European settlers and companies with freehold or long leases.
<i>State Land</i>	This is not significantly different from Crown Land. In private domain, state land may be placed on the market through the award of leases. In public domain, they are retained by the state for use by public organizations. They are widely used for forests, military camps, roads and other natural resources, but in Namibia also apply to urban areas.
<i>Public Land</i>	This consists of land acquired by government for public purposes. Compensation may be paid in acquiring it from other owners or those with rights and sometimes acquisition is simply to enable land to be developed and/or reallocated as freehold or leasehold.
<i>Occupancy certificates</i>	Also known as 'certificates of rights' or 'permit d'abitation' originally introduced by colonial administration as a device to deny local populations freehold tenure and enforce racial segregation. More recently, used by independent governments as a means of providing allottees on housing projects with security of tenure, whilst restricting the development of freehold land and property markets.
<i>Land record rights</i>	Memorandum of an oral agreement between a local authority and an occupant. Provides for loans to develop the site, providing the occupant pays all dues and builds in conformity to official standards. Duration normally specified.
ISLAMIC TENURE CATEGORIES	
<i>Mulk</i>	Land owned by an individual and over which he has full ownership rights. It is most common in rural areas.
<i>Miri</i>	Land owned by the state and which carries <i>tassruf</i> , or usufruct, which can be enjoyed, sold, let, mortgaged, or even given away. A usufructuary may also transmit it to his heirs, (male or female), although the land could not be divided among them. The State retains ultimate ownership and, if there are no heirs, such land reverts to the State. Also, the State retains the right of supervising all transactions pertaining to the transfer of usufruct rights and their registration.
<i>Musha</i>	Land owned collectively. It originates from the tribal practice of dividing up arable land on which the tribe settles its members and takes account of variations in land quality to ensure equality. Restricted in application to under-populated tribal areas.
<i>Waqf</i>	Land held in perpetuity as an endowment by religious trusts and therefore 'stopped for God'. Originally established to ensure land availability for schools, mosques and other public buildings, it gradually became a means of keeping land away from extravagant heirs or acquisitive States. The governments of many Islamic countries even have <i>waqf</i> ministries.
OTHER FORMAL TENURE TYPES	
<i>Co-operatives</i>	In most developing countries, these are often a device to share costs, but without conforming to the international conventions on co-operatives; transfer is sometimes possible.
<i>Shared equity/ownership</i>	Not common in developing countries: the occupant buys part of the equity (30:70, 50:50, 60:40, etc.) from the freeholder and rents the remaining value. The proportion of mortgage repayments/rent can be amended at a later date, enabling the occupants eventually to acquire the freehold.

Table 1. continued	
<i>Housing association lease</i>	Extensive in Great Britain, but not common in developing countries. Housing associations are non-profit organizations which provide and manage housing primarily for lower income groups. Some also offer shared ownership. Tenancies are secure, providing rents paid and other obligations met.
<i>Collective, shared or joint ownership</i>	A small, but expanding form of tenure in which a group pools ownership and allocates rights of alienation and price to a self-created organization. Well established in Ethiopia and Colombia, where it is used to combat external threats to security of tenure. A variation is the land pooling programmes of Thailand and the Philippines in which land parcels are re-subdivided to enable part of the plot to be developed in return for the settlers receiving security of tenure for an agreed share of the land and/or property.
NON-FORMAL	
<i>Squatter: regularized</i>	Secure, possibly with services and access to formal finance: higher entry cost than before regularization.
<i>Squatter: non-regularized</i>	Security depends upon local factors, such as numerical strength and political support; low entry costs and limited services provision.
<i>Squatter: tenant</i>	Generally the most insecure of all tenure categories; also the cheapest. Contract unlikely. Minimal housing and services standards.
<i>Illegal/unauthorized subdivisions</i>	Land sub-division, without official approval, usually by commercial developers for sale to lower-income households seeking plots for house construction. May take place on public or private land. Now commonly the largest single tenure category in the urban areas of many countries. Legal status varies, but most occupants possess some form of title, such as the <i>hisseli tapu</i> or shared title, found in Turkey. Entry costs are usually modest, due to efficient land development and refusal by developers to follow official standards and procedures. Commonly legalized and serviced after a period.
<i>Unauthorized construction</i>	Development on land which is legally occupied, but for which the occupant does not possess official permission to build. The offence is therefore technical or procedural, but may be classified as illegal. Security can, therefore, be less than indicated by the tenure status <i>per se</i> .
<i>Unauthorized transfer</i>	Widespread in public-sector projects, where original allottees transfer their rights, at a substantial profit, to another. The transfer is invariably not permitted by the allottee's contract, but is effected using a secondary contract or power of attorney, which is recognized in law. It is particularly common in Delhi. Secondary allottees are very rarely removed or punished, due to legal complications. Entry costs are relatively high as the transfer is used to realize the full market value for a subsidized unit.
<i>Purchased customary land</i>	In areas where customary tenure is subject to urbanization, such as southern Africa and Papua New Guinea, illegal sales of land take place to both long-established residents and newcomers, usually kinsmen. Such sales do not enjoy legal or customary approval, but are increasingly accepted by all involved, providing occupants with security of tenure and even <i>de facto</i> rights of transfer.
Source: Payne 1997, p. 52-54	

Payne's categorizations of tenure are a widely accepted standard, yet they do little to define tenure security. In a subsequent article, Payne (2001 p.418) points out that there are "no absolute standards by which security of tenure can be defined." In the absence of a golden rule, Payne notes

that any policy intervention needs to “assess the full range of *de jure* (ownership) and *de facto* (occupancy) tenure systems and sub-markets which exist in any city” (2001 p.418). Successful policy intervention needs to consider all interest groups. Where conflict exists between interest groups, inequity will exist between them as well. It is crucial for any outside actors, such as NGOs or municipalities, to completely understand all the markets where properties are transacted and between whom. The markets considered must include those in the political or customary arenas, and those in the more complex organic reality on the fringe. Yet, while it is true that policy intervention needs to be holistic in order to be successful, it is also true that a policy intervention is an intervention; and as an intervention, it a response to a problem. It is akin to a form of triage, which requires a reliable form of evaluation. Within the UN’s definitions of secure tenure there are several factors that could be used as measures of evaluation such as reliable documentation of tenure (justiciability), local perception of security, low occurrence of evictions, gender balance in ownership and evictions, and national/local provisions against evictions. There also exists guidance on security evaluation measures within the literature.

Evaluating Security

Payne (1997) uses three factors to evaluate tenure security on a case-by-case basis. According to Payne, each form of tenure has varying levels of “clarity, efficiency and equity” (Payne 1997 p.10). The first factor, 'clarity' is akin to the transparency of the tenure status or land registration systems. Clarity can be judged, in part, by their status as *de jure* or *de facto*. Clarity, as used by Payne, is essentially equal to the term 'justiciable' which is used in the UN’s definition of secure tenure to describe those rights that can be reasonably proven. The issues surrounding clarity, particularly the acceptance of alternative documents to prove ownership, is discussed later within this literature review as well as in the case studies in New Orleans and Tegucigalpa.

The second factor, 'efficiency' refers to the functionality of the tenure system. Payne measures efficiency according to following criteria: “simplicity; flexibility; transferability... ; compatibility with... land management; potential for improving over time; ability to use land or property as collateral in raising a loan; and ability to generate additional income from the land/property within planning regulations” (Payne 1997 p.10). 'Efficiency' addresses land markets, specifically the sale or transfer of properties, the use of land, and the hypothecability of land (ability to use land as collateral). This factor plays an important role in the New Orleans case study, wherein certain heir property demonstrate poor efficiency and consequently reduced tenure

security in the United States, which is ironically held as the exemplar of tenure security by some authors. Hernando de Soto (2000) reveals particularly interesting case study work regarding efficiency. He says that in Lima, Peru “to obtain legal authorization to build a house on state-owned land took six years and 11 months, requiring 207 administrative steps in fifty-two government offices” (de Soto 2000 p.20). In the Philippines, building a home with freehold title on state or private land requires the formation of a neighborhood association. He states that “the entire process could necessitate 168 steps, involving fifty-three public and private agencies and taking thirteen to twenty-five years” (de Soto p.20). De Soto repeated the process in Egypt, where to buy and “legally register a lot on state-owned desert land (requires)... at least 77 bureaucratic procedures at thirty-one public and private agencies... five to fourteen years” (de Soto 2000 p.20). De Soto’s studies in Peru, the Philippines and Egypt are all excellent representations of inefficient tenure systems that increase insecurities (Payne 1997).

Payne’s third component used for judging land tenure is ‘equity.’ The notion of ‘equity’ evaluates whether or not the same level of ‘efficiency’ is afforded to all people regardless of income, ethnicity or gender. Payne measures this by: “the degree of accessibility to all socio-economic groups; the availability of market information; a level of security sufficient to encourage investment by residents; transferability, under conditions which provides a reasonable rate of return...; and balance of rights between all parties, especially tenants and sub-tenants with owners” (Payne 1997 p.10). This recognizes that examples exist wherein secure tenure is available to the majority, but not the minority, or the reverse, which is more likely considering that in developing nations the urban poor are the majority. Other authors have examined the role of ethnic equity with respect to tenure security, (Peters 2004), and the role of gender equity, (Gray 2001).

Payne used clarity, efficiency and equity to evaluate broad tenure categories, disregarding the specific situations of the world’s nations that might affect security. Payne (2001b) organizes the following tenure categories according to their level of tenure security:

- “1. Pavement Dweller (least security)
2. Squatter tenant
3. Squatter ‘owner’ – un-regularized
4. Tenant in unauthorized subdivision
5. Squatter ‘owner’ – regularized
6. Owner – unauthorized subdivision
7. Legal owner – unauthorized subdivision
8. Tenant with contract

9. Lease-holder

10. Free-holder (most security) (Payne 2001b p.419)”

It is important to note that this list completely disregards customary and Islamic tenure forms in order to create simplicity. Although Payne does not specify it in this article, the security of customary tenure varies greatly from region to region, in many cases offering very high levels of security. Additionally, Islamic tenure forms can be very secure. It is also important to mention that pluralism exists in many countries, wherein multiple forms of tenure are present in multiple legal and extralegal systems that exist in parallel. Typically, plurality pairs customary/indigenous systems with colonial systems of free-hold; or various forms of squatter tenure, unauthorized subdivisions, lease-hold and free-hold within one city. The terms ‘formality’ and ‘informality’ are frequently used throughout the present research. The term ‘formality’ is used to describe those tenure forms promoted by any given government, which are not necessarily the most secure. The term ‘informality’ describes the other forms that exist, either traditionally, clandestinely, or as a response to the government’s bureaucracy lack of resources to implement its preferred formal system.

In summary, a case-by-case evaluation of tenure security can be achieved through the operational measures proposed by the UN’s Expert Group Meeting: formal documentation of tenure (justiciable), local perception of security, low occurrence of evictions, gender balance in ownership and evictions, and national/local provisions against evictions. However, Payne (1997) places these measures into a broader conceptual framework composed of three factors: clarity, efficiency and equity. These evaluation tools allow the targeting of policy intervention aligned with the Millennium Development Goals of the United Nations. These MDGs serve as guidance for international NGOs, local governments and other agencies on addressing the issue of land rights directly, with the intention of alleviating the problems associated with tenure insecurity. The UN explains many of those ills:

Living without tenure security can mean the constant threat of (often violent) eviction; limited or no access to basic services, including water, sanitation and electricity; social exclusion and homelessness; human rights violations; reduced revenues for local government; violence against women; particularly severe problems for elderly persons, persons with disabilities, children and other vulnerable groups; reduced investments in housing and distortions in the price of land and services; and an undermining of good governance and long-term planning. Moreover, reduced investments in housing may lead to reduced household and individual security in the home itself as structures become more prone to illegal entry by criminals (UN Habitat 2007 p.120-1).

Using these evaluation tools, the most vulnerable tenure forms can be targeted for policy intervention. The recognition of informal developments and the provision of titles is a logical response, strongly promoted by advocates such as Hernando de Soto 2000. However, other authors and UN policy guidance note significant limitations to this approach.

Providing Security

Among the breadth of tenure forms throughout the world, freehold title is considered to offer the most security. Freehold title is also marketable as a form of collateral for loans, thus empowering residents. However, titling programs require the most resources: surveying, registration offices, mechanisms for resolution of claim disputes, etc. These are resources that developing nations often lack. Programs that offer title to residents of informal neighborhoods often suffer unintended consequences, such as inaccessibility by the poor or increased land values that lead to market-based evictions.

The Peruvian economist, Hernando de Soto, is credited as being one of the greatest proponents for freehold title. In his 2000 book, “The mystery of capital: why capitalism triumphs in the West and fails everywhere else,” de Soto ties the success of capitalism in the US and Europe to the proliferation of freehold title:

Every parcel of land... is represented in a property document that is the visible sign of a vast hidden process that connects all these assets to the rest of the economy. Thanks to this representation process, assets can lead an invisible, parallel life alongside their material existence. They can be used as collateral for credit. The single most important source of funds for new business in the United States is a mortgage on the entrepreneur’s house (de Soto 2000 p.6).

Additionally, a formal land system is enforceable; it “... encourages citizens in advanced countries to respect titles, honor contracts, and obey the law” (de Soto 2000 p.55). De Soto notes that citizens are held accountable to an interconnected credit network involving banks, insurance companies, utilities, etc. De Soto says, “when any citizen fails to act honorably, his breach is recorded in the system, jeopardizing his reputation as a trustworthy party...” (ibid). This system creates confidence among lenders, investors, etc; a confidence not felt in much of the developing world.

According to de Soto, the apparent failure of capitalism in developing countries is due to the lack of capital and not some perceived cultural difference, poor education, or any other biased reason. De Soto says that developing countries have the necessary resources but they have not

converted them into capital. He states "... they hold these resources in defective forms: houses built on land whose ownership rights are not adequately recorded, unincorporated businesses with undefined liability, industries located where financiers and investors cannot see them. Because the rights to these possessions are not adequately documented, these assets cannot readily be turned into capital, cannot be traded outside of narrow local circles where people know and trust each other, cannot be used as collateral for a loan, and cannot be used as a share against an investment" (de Soto 2000 p.6).

The formal property system, according to de Soto, transforms land into a market accessible form, a 'representation' of capital. He says that "unlike physical assets, representations are easily combined, divided, mobilized, and used to stimulate business deals. By uncoupling the economic features of an asset from their rigid, physical state, a representation makes the asset 'fungible' – able to be fashioned to suit practically any transaction" (de Soto 2000 p.56) The 'representation' of capital has flexibility that the capital asset itself does not offer, especially land which is geographically permanent. Investors are able to purchase shares in something like a factory without assuming a role in the management of the factory, or without physically dividing the property. The representation can be bought, subdivided and sold "without affecting the integrity of the physical asset" (de Soto 2000 p. 57).

As de Soto explains, investors can buy and sell these representations of physical assets with ease, often without ever having seen the actual property. In the United States, there are around 180 publicly traded real estate investment trusts (REITs) which own and manage income-producing properties. In order for investors to understand the products offered by these REITs, their products were commodified and nineteen standard real estate products were developed in the early 1990s. These standard products facilitate investment and consequently the financing of new developments. Therefore, a REIT in Idaho can be easily traded on Wall Street in New York because investors understand the properties managed by the REIT according to the commodification. These are the ultimate manifestations of the 'representations' referred to by de Soto; a few examples include 'build to suit office,' 'garden apartments,' and 'mixed use urban office/retail/restaurant.' There has been discussion about adding 'alternative' classifications to the system to allow for more innovation in real estate development (see for example Leinberger 2008).

The United States did not always have standard real estate products, nor did the U.S. always offer formal freehold title to the majority of its lands. The development of these systems in the

States, according to de Soto, is the missing link to the success of capitalism in developing countries. De Soto notes that the U.S. has a rich history of two hundred years, wherein its land systems developed from early pioneer squatting. He discusses the Homestead Act of 1862, and other crucial moments in U.S. history leading to the development of the property system that we have today. Much of the land titling done in the early U.S., as in the case of the Homestead Act, was done through adverse possession. The UN promotes adverse possession policies for developing countries in their 2007 Global Report, defining them as:

... a legal doctrine under which a person or community in possession of land owned by someone else can acquire legal rights, including title to it, as long as certain legal requirements are complied with and the adverse possessor is in possession for a sufficient period of time, which can range anywhere from 5 to 20 years. While specific requirements may differ between countries and different legal regimes, adverse possession generally requires the actual, visible, hostile, notorious, exclusive and continuous possession of another's property, and some jurisdictions further require the possession to be made under a claim of title or a claim of right. In simple terms, this means that those attempting to claim the property are occupying it exclusively (keeping out others) and openly as if it were their own. Generally, possession must be continuous without challenge or permission from the lawful owner for a fixed statutory period in order to acquire title (UN Habitat 2007 p. 141)

Adverse possession still occurs today in the United States, Britain and many other countries, not just in the squatter areas of developing countries. The UN notes that "the Land Registry in the UK receives an average of 20,000 applications for adverse possession registration every year, 75 per cent of which are successful" (ibid).

Adverse possession is just one example of how the history of the U.S. includes important lessons for developing nations regarding the building up of their property systems. As de Soto explains, the American property system creates capital, facilitating successful capitalism and affluence. Payne (2001a) criticized de Soto's direct link between property rights and affluence as lacking empirical evidence. Payne also says, "de Soto... conveniently overlooks the significance of colonialism and slavery in building the economies of the West" (Payne 2001a, p. 23). Despite these criticisms, Payne states that freehold tenure is very important and "deserves a place in the tenure policy of any government..." (ibid). However, Payne uses caution by stating that "it is highly dangerous to place all one's eggs in one basket, especially at the present time, when land registries are so incomplete and inaccurate that moves to provide titles in urban or peri-urban areas may encourage or intensify disputes over who has the primary claim... Where de Soto scores highly is in

his insistence that legal systems cannot aspire to legitimacy if they cut out 80% of their people...” (ibid).

Payne and de Soto both essentially agree that legal studies in developing nations should focus on legitimizing the existing property documentation as part of an inclusionary policy approach. De Soto suggests legitimacy of property documents such as bills of sale, utility bills, etc. should lead to freehold title. However, making the law work for the disenfranchised has its complications. McAuslan (1987) notes that the majority of urban poor have a tendency to view legal and finance systems as being overly bureaucratic, exclusionary and oppressive. Meanwhile, the practitioners of law and finance have been reluctant to loosen regulations and look at more inclusionary alternatives. McAuslan (1987 p.27) states that “No programme of shelter can be successful purely because of reliance on the law, nor can the law alone be used...” McAuslan (ibid) emphasizes the importance of a “political commitment” to balance policy and law; regulation and legislation. De Soto also heavily emphasizes the importance of strong political leadership in the conclusion of his book. After all, if tenure security is measured by evictions, and politicians decide who is evicted, then tenure security is ultimately political. Even the most blatant invasions of private land, can become permanent and secure with political support.

Payne (2001a) promotes legitimizing existing legal documentation as well, but not to the same end as de Soto. Payne says that “legitimacy and diversity of choice are the key ingredients, not necessarily ownership.” This “diversity of choice” refers to broader range of tenure options other than relying solely upon freehold title as de Soto promotes. Payne’s viewpoint is shared by the majority of authors addressing tenure security and the most-current United Nations policy guidance, particularly because of the complications associated with titling programs.

Durand-Lasserve and Royston list several obstacles to the allocation of individual freehold titles, in their 2002 book. They emphasize many of the barriers previously highlighted by authors such as Payne, de Soto, McAuslan, etc. The obstacles are:

- (a) the contradiction between the right to housing and the rights of ownership;
- (b) Lack of human and financial resources;
- (c) The poverty of the populations concerned when any attempt is made to set up cost recovery measures;
- (d) Ill-adapted regulatory frameworks and land management procedures in a context of legal complexity;

- (e) Lack of appropriate land-related information systems and land records;
 - (f) Over-centralized land management and registration procedures; and
 - (g) Little community participation
- (Durand-Lasserve and Royston 2002 p.246)

Durand-Lasserve (1998) notes that planning regulations that are unrealistic given available resources only serve to enhance insecurity. He states that

Planning laws... help to regulate urban space but also widen the gulf between the legal city and the real city. Their ability to regulate the organization of space depends on government agencies' ability to apply the law effectively... the underlying problem is often a tendency to overestimate the power of the public authorities, resulting in the setting of unrealistic objectives and standards (Durand-Lasserve 1998 p.246).

The traditional assumptions are that conditions in informal neighborhoods "have improved only where the government has been willing to intervene and where a certain level of economic development has been achieved," and that government intervention is required to achieve "a rational, unified form of urban management... (expressing) a particular technical logic... an economic logic... and a political logic" (Durand-Lasserve 1998, p. 237). However, this is not always the case.

Hardoy and Satterthwaite (1989) point out that the "obsolete" and "inadequate" administrations of local governments in developing nations are further hindered by ineffective tax collection systems, which typically rely almost entirely on those forms of taxes that are most easily levied, such as income tax. The lack of revenue inhibits the expansion of infrastructure into neighborhoods that local governments consider non-contributors to the tax base. They state that "today, most urban planning and government investment in water supply, sanitation, drains and roads takes place in middle and upper income areas which house only a minority of the total population. This is very similar to what happened under colonial rule." (Hardoy & Satterthwaite 1989 p. 20)

The response to this lack of investment should not necessarily be more government programs. Turner and Fichter (1972) demonstrated that greater resident autonomy and less municipal control could result in less expensive and better built homes than those built by large private or government-run housing programs. They note that the "enforcement of unrealistic standards (of home construction) serves only to worsen the housing conditions of the poor" (Turner

& Fitcher 1972 p.148). They suggest that the focus be taken away from “what” is constructed or what “*ought*” to be constructed, and placed “in realistic terms of what people *could* have” (Turner & Fitcher 1972 p.148-51). They note that the distinction between the housing policy approaches inherent in the ‘*ought*’ and the ‘*could*’, are reflected in the linguistics of the word ‘housing.’ If treated as a noun, ‘housing’ is measured by the physical “products or commodities” (Turner & Fitcher 1972 p.151). If treated as verb, ‘housing’ is then measured by the action of building homes and its relationship to people’s lives. Turner and Fitcher say that the best results come from residents who have a shared responsibility in the design and construction of their homes. This concept could be applied to the word ‘planning’ as well. If ‘planning’ is treated as a verb, it would measure realities, involve the community, and guide the organic growth of the city in a manner reminiscent of the writings of Jane Jacobs. As a noun, ‘planning’ is adherent to a final product, out-dated plans and rigid regulations.

Urban planners in developing nations who have attempted to regulate informal urban growth have often been overly optimistic. The resources are typically not available to effectively implement planning regulations in accordance with their seemingly rational design. The resulting bureaucracy, delays and costs of the formal system cause residents to look towards informal systems, which are open to residents because the municipalities lack the resources to regulate them. It is a vicious cycle that works against both residents and municipalities. Payne (1997) states, “many transfers therefore take place outside the formal procedures, making it virtually impossible to anticipate who benefits and who suffers from a particular policy. It also impedes the collection of land or property taxes and consequently the development of efficient urban administrations” (Payne 1997 p.11).

Durand-Lasserve 1998 comments that the “illegal city is first and foremost the product of a form of society in which the logic of production and exchange is associated with unequal access to resources and wealth” (Durand-Lasserve 1998 p.240). He points to inadequacies in the housing markets of developing countries to explain this disparity, a viewpoint shared by Payne (1997). Payne says that external factors adversely affect the urban land markets in developing countries and prevent the market from functioning appropriately. Payne states

Rapid and sustained urban growth has ensured a permanently high level of demand which provides disproportionate benefits to landowners... The sustained level of demand provides guaranteed levels of return... (yet) constraints on the supply of public finance and services for land market operation are widespread. All these factors tend to intensify the levels of speculative investment in land

and inhibit the efficiency and equity which markets provide in theory. Given the considerable distortion which also exists in urban income distribution, it is equally difficult to achieve equity in access to land at prices which either lower income groups or public agencies can afford on more than a token basis (Payne 1997 p.14).

Because urban land markets are controlled by speculative land owners and public finance is not available for low income people to buy land, the amount of land developed with quality public services, clear title and in accordance with planning standards is limited; real estate demand is permanently high; and consequently speculators take land off the market further exacerbating limited supply and high demand (ibid). These factors widen the gap between the formal and informal areas of cities, leaving the poorest residents with few options.

The most common form of informal tenure for new housing developments targeted at the urban poor of developing countries is unauthorized subdivisions. As Payne 1997 points out, the amount of freehold land is limited, and demand is high for such forms of tenure. Therefore, those who hold large pieces of property are able to realize substantial returns through unauthorized subdivisions. The unauthorized or illegal status of these subdivisions is often due to five separate legal issues, as detailed by Farvacque-Vitkovic and McAuslan (1992 p.39).

- (a) defective land tenure conveyed by the original landowner to the subdivider;
- (b) defective tenure conveyed from the sub-divider to the purchaser;
- (c) establishment of the subdivision in an area in which it is not a permitted land use;
- (d) failure of the sub-divider to follow applicable subdivision regulations as to layout, plot sizes, provision of basic services, etc., or
- (e) failure of the land purchasers to follow building and occupancy codes when building their plots.

These five issues not only generate an illegal or unauthorized status, but they clearly serve to reduce costs to the developer. Payne notes that these developers are usually “specialist land agents who bypass unrealistic official planning standards and complex bureaucratic procedures” in order to create an affordable plot of land for poor residents (Payne 1997 p.14). An assumption might be that developers of such authorized subdivisions are unscrupulous. However, many such developments throughout the world are high quality, low and middle class neighborhoods that exist more so as responses to market and regulatory inadequacies and less so as manifestations of injustice. The opposite is also true; many such developments are not ‘high quality’ and their informal status leaves residents open to exploitation.

Hardoy and Satterthwaite (1998) state that specific interest groups began to note the benefits of informal neighborhoods from around 1950 to the mid-1970s. During this time, businesses drew upon the inexpensive labor force residing in these informal areas, which benefited the middle and upper-income groups by providing low-price goods and services. Many businesses began to “farm out” portions of their manufacturing processes into informal neighborhoods, thereby cutting capital and direct hiring costs. Powerful business interests often influenced the government to turn a blind eye towards informal neighborhoods; and governments benefited from limited spending for housing and infrastructure in the informal neighborhoods. This strategy minimized the municipality’s expenditures and taxes placed on the formal sectors of the affluent urban core (Hardoy and Satterthwaite 1989). However, the acceptance of informal urban growth through tolerance has consequences for the urban poor.

Hardoy and Satterthwaite state, “Benign tolerance also leaves all those living in illegal settlements open to exploitation; no laws or codes can be used in their defense since they are living in illegal settlements” (Hardoy & Satterthwaite 1989 p.100). Many groups take advantage of the situation: private companies form to provide drinking water at inflated prices, and landlords charge inappropriate rents to unprotected tenants. They may even face “intimidation or arson” by powerful interest groups that show interest in an area for commercial development (Hardoy & Satterthwaite 1989 p.100). Hardoy and Satterthwaite state that “Indeed, governments that allow (or encourage) levels of tenure security to decline, that tolerate (or actively support) mass forced evictions, that fail to hold public officials accountable for such violations of human rights, and that place unrealistic hopes on the private sector to satisfy the housing needs of all income groups, including the poor, contribute towards the worsening of these circumstances. The result is even less tenure security and less social (and national) security” (UN Habitat 2007, page 120-121).

Although it may be tempting for local governments to ignore informal neighborhoods, such tolerance only exacerbates the situation. It exaggerates inequities and reduces the municipality’s involvement in the ‘real’ city. If a municipality ever hopes to gain a semblance of control over informal urban growth and have a positive relationship with the residents of these neighborhoods, then benign tolerance is discouraged. However, the correct pro-active response is not always clear given the complexities of urban land markets; and many government policies have missed their mark.

Of the most powerful tools available to planners, eviction has been the most misused. Hardoy and Satterthwaite (1998) write that cities have taken it upon themselves to remove those poverty-ridden areas that were like a “cancer” (Hardoy & Satterthwaite 1989 p.41). Dr. Ana Tibaijuka writes that:

... forced evictions are most prevalent in areas with the worst housing conditions; that women, children and other vulnerable and disadvantaged groups are most negatively affected by evictions; and that evictions invariably increase, rather than reduce, the problems that they aim to ‘solve’ (UN Habitat 2007, intro).

Forced evictions are characterized by urban renewal, urban beautification, infrastructure projects, crime alleviation, economic development initiatives and major international events such as the Olympics. UN Habitat estimates that annually more than 2 million people are evicted by force (UN Habitat 2007, page 124). One case of an aggressive urban ‘clean up’ occurred in Zimbabwe in 2005, affecting around 700,000 people:

With little warning, in May 2005, the Government of Zimbabwe launched a mass evictions and demolitions campaign, called ‘Operation Murambatsvina’, in many urban centres of Zimbabwe. While described and justified by the Government as a measure to rid the cities of ‘illegal activities’, it led to the displacement of hundreds of thousands of people, destruction of homes, businesses and property, widespread loss of livelihoods and the injury and deaths of some residents (COHRE & ZLHR 2007).

Further case studies have revealed startling numbers of evictions. Nigeria had an eviction rate of around 2 million people per year since 2000. In China, 1.7 million people were evicted during the seven years leading up to the Olympics in Beijing (UN Habitat 2007).

The United States has also implemented policies involving eviction. A campaign of urban renewal began with the blessing of planners and U.S. Congress’ passage of the Housing Act of 1949. By 1965, approximately one million low-income people were evicted, most of which were relocated to substandard housing with higher rents (Hall 2002). The campaign built fewer housing units than it destroyed. The housing that was built was typically high-rise apartments demanding much higher rents. According to planner Chester Hartman, urban renewal only made “the rich richer and the poor poorer” (qtd in Hall 2002 p.253).

There are cases when a specific nation’s eviction program complies with both national law and international expectations. The UN Committee on Economic, Social and Cultural Rights (CESCR) clarifies when evictions could be legal, specifically those cases where all other options have been exhausted through “consultation with the affected persons,” under “appropriate procedural

protection and due process,” with “adequate compensation,” with “provision... of legal aid,” not as “punitive measures,” nor during “bad weather or at night,” etc. (OHCHR 1997). The UN refers to this form of allowable eviction as expropriation or compulsory acquisition. One such example is eminent domain.

In the United States, eminent domain is one of urban planners’ most powerful tools. A government’s use of eminent domain is founded in the American Constitution’s fifth and fourteen amendments, which together guarantee due process, compensation, and equal protection for property that is taken for a ‘public use.’ It was left to the American court system to hash out the details regarding the meaning of ‘public use.’ According to Mandelker (2005), highways, bridges, and schools are clearly ‘public use,’ however, urban renewal is not as clear. In *Berman v. Parker* (1954) the U.S. Supreme Court upheld a blight redevelopment in Washington, D.C. This involved a private developer, whose final product was not for ‘public use’ per se. However, it was seen as fulfilling a ‘public purpose’ (Mandelker et al. 2005). Additionally, in *Kelo v. New London* (2005) the U.S. Supreme Court upheld the use of eminent domain for the transfer of a private property from one private owner to another who was developing a waterfront hotel, restaurants, retail, residences and offices, as part of the city’s economic development plan, thus serving a ‘public use’. It is important to note that these decisions are not entered into lightly; due process and equal protection are given the upmost consideration.

There are many authors that discuss piecemeal evictions that include relocation as a form of compensation. One of the earliest authors on relocation programs, Marris (1961) reveals the problems associated with urban renewal programs that relocate poor citizens in order to redevelop the poor neighborhoods into economically viable areas. He studied the slums of Lagos, where the government began using a public health policy facade to promote an urban renewal agenda. Lagos began a program in 1955 to relocate around 200,000 people over a six year period. Residents were compensated, but it proved to be inadequate to purchase a new home in the resettlement community. Additionally, the relocation program was an enormous financial strain on the municipality. Marris states,

It seems that if compulsory rehousing is to be just, and a benefit to those rehoused, it must fulfill two conditions. (1) The people must be able to afford it... (2) They must be able to re-establish their pattern of life in the new surroundings. They must not be too far distant from their kin, nor their work, and the same range of economic activities must be open to them... where they have the same chances of custom, or where there are alternative ways of earning a living open to them (Marris 1961 p.129-130).

The criteria of affordability and the maintenance of existing social, cultural and economic networks are not easily attainable according to Marris. The very nature of relocation is a contradiction of these criteria. Marris states that those persons relocated must not be moved so far that their social, cultural and economic ties are broken. However, urban geographies often lack adequate land within their cores for the creation of large public sector housing developments. Additionally, the costs borne by the public sector would be substantially higher for relocation developments within a city. Such developments are typically created on the fringes, as in Lagos, consequently breaking apart existing social, cultural and economic networks. Additional research and international policy guidance advises against relocation with only few exceptions such as upgrading programs with only localized relocation for the purpose of installing infrastructure (Durand-Lasserve 1998).

Payne (1997) discusses how the difficulties facing the urban poor in finding property such as artificially inflated prices, speculation, and constrained financial markets, also serve as impediments to the provision of housing for the poor by the public sector. Public sector approaches are typically goodwill attempts to provide housing to the poor when the market fails, but in most cases the market impedes these approaches as well. Public sector housing projects often require subsidies, especially if they are built according to formal planning regulations, which tend to raise costs and reduce the number of homes that can the public sector can afford to provide. Furthermore, the low-income residents that receive public sector housing with freehold title at below market rates may be tempted to sell to higher income residents, realizing the true market value of their properties and essentially cashing out the subsidy (Payne 1997). Sites-and-services projects, were a form of public sector housing that was popular in the 1980s because it had strong cost recovery. These projects consisted of the division of undeveloped land into plots or sites, and the provision of paved streets with lighting and the full spectrum of household utilities. The home construction was left to the responsibility of the allottee. In essence, in sites-and-services projects the government takes on the role of a subdivision developer. Pugh (1997) states that “sites-and-services schemes were convenient for project management... They fitted into a neo-liberalist genre, limiting subsidies and instead relying upon affordability, cost recovery and replicability” (Pugh 1997 p.1562). These projects are limited in scale, and rarely able to be adapted as an effective policy for an entire city. Van der Linden (1986) states that such programs could not keep up with the pace of urban growth, nor hope to meet low-income housing demands.

In summary, the literature has shown faults in tolerance policies, relocations, public sector housing projects and even titling programs with regards to increasing tenure security for low-income populations. However, even the most basic form of recognition by a municipality can offer increased tenure security to an informal neighborhood. Karst (1971 p.551) states that the barrios of Caracas had a form of security not based on land titles, which “has instead been the product of an informal legal system in which rights... are created and defined by such actions as the government’s provision of water pipes...” Additionally, access to credit can be achieved through measures other than collateral of freehold land title. Payne (1997) says that “It is the reluctance of the formal credit institutions to enter the small loans market for the poor, because of the high transaction costs and perceived risk, which is the real impediment to obtaining formal credit” (Payne 1997 p.20). There are various non-land collateral options; the classic examples being the Indian Housing Development Finance Corporation and the Grameen Bank in Bangladesh, which uses incremental access to credit through social networks as a form of collateral.

In thinking about increasing tenure security, Fourie (1999) states that a variety of tenure options should be available to the residents of informal neighborhoods. Fourie states that,

Provision of individual property titles should be considered as a long-term, not immediate, objective. Alternatives to individual ownership should be promoted. Conventional tenure regularization programmes based on the allocation of individual freehold are neither possible nor desirable (qtd in Durand-Lasserve 2002 p. 252).

Fourie cites the problems associated with titling programs such as a lack of administration resources and also sudden land value increases which can lead to increased costs to owners resulting in market-based evictions. Fourie suggests that “leases become the instrument of choice... rather than freehold. Private landowners should be encouraged to set up lease contracts with occupiers” (ibid).

Fourie’s promotion of leasehold is essentially supported by Durand-Lasserve and Royston (2002). They state that programs aimed at improving tenure security can have ill effects on the rental sector within informal neighborhoods. Such programs often result in increased land values and increased costs of compliant construction, both of which make rents less affordable. They rebut the notion that squatter settlements are ‘free’ by stating, “An entry fee must generally be paid to an intermediary, or the person or group who exerts control over the settlement, and sometimes also rent” (Durand-Lasserve and Royston 2002 p.5). The rental sector has participation by the lowest income residents, making it extremely volatile. Durand-Lasserve and Royston state that “tenants are in the front line here. Administrative measures aimed at improving or controlling the low-income

rental sector may have undesirable adverse effects, and generate severe housing shortages by restricting the rental option” (Durand-Lasserve and Royston 2002 p.252).

Renting is often the majority form of tenure within both formal and informal neighborhoods. Yet, housing policies are most frequently aimed at owners, and renters are left out of the policy discussion. Payne (1997) notes that leasehold title may be used as collateral for credit, typically for leases with a minimum term of 30 years. The difference is that Payne, Durand-Lasserve and others, including the UN, see leasehold as part of an incremental spectrum of tenure forms; and not the “instrument of choice” as Fourie suggests.

One of the most basic responses to tenure insecurity is to provide legal protection from forced or illegal eviction. This approach is a small step above the tolerance policies which were discussed earlier. The difference between tolerance and legal protection is that the right is explicitly granted. However, some of the outcomes can be similar. Durand-Lasserve and Royston say there is a concern among officials that providing such protections only encourages illegal land occupations, thus reducing the power of the municipality. Furthermore, residents may see basic protection from eviction as a mere token. Durand-Lasserve and Royston (2002 p.16) criticize programs wherein legal protection is not the “first step of an incremental tenure upgrading process, but rather as a temporary solution, which can last forever if administrations do not have the capacity or the will to pursue the process.” Despite this caution from Durand-Lasserve, basic legal protection does lead to increased tenure security, which can lead to incremental home and neighborhood improvements. As Wegelin and Borgman (1995 p.131) state “lack of security of tenure hinders most attempts to improve shelter conditions...”

Above the basic protection from eviction, policies of land administration and registration offer even greater tenure security. Land registration programs are critical components to developing tenure security. Registries and cadastres are tools for enforcement of human rights, protection from eviction, property restitution following displacement due to conflict or disaster, urban planning initiatives, and tax collection. Registration programs are especially effective for updating an out-of-date registry. Yet registrations need to be carried out in a culturally, politically and socially sensitive manner to avoid public backlash. Furthermore, these programs need to be transparent and efficient so that residents are not discouraged from participating (UN Habitat 2007).

The creation of such a registry or cadastre may be complicated by limited resources and a lack of title records. Payne (1997) suggests that residents may be discouraged from participating,

“because of the costs involved or the fear of having to pay property taxes.” Therefore, Payne suggests “intermediate forms of register, such as a land inventory, which would be mandated to record claims and titles without having to adjudicate or guarantee them... ” (Payne 1997 p.27). Payne discusses one methodology of creating such a land inventory. Payne explains the “social cadastre” methodology wherein detailed aerial photographs are brought to community meetings with all interested parties such as residents, business owners and city officials. During these meetings, the property lines are outlined and they reach an “agreement on the spot” (ibid).

Hardoy and Satterthwaite (1989 p.133) note that “improving a city’s land registration system can make it easier to buy and sell land legally.” They refer to this as part of a larger initiative to “unblock” the market, wherein registration systems “can help expand housing finance markets, since an individual with a legal document (might be able to use it as) collateral” (ibid). Payne notes that “criteria for determining the most appropriate tenure category... should be based upon an assessment of what constitutes the minimum level necessary to stimulate local investment...” (Payne 1997 p.29).

The embracing of customary land policies by local government can also be a powerful tool. Customary systems can offer substantial tenure security, especially when local government does not attempt to impose colonial influenced land regulations upon these systems. It is commonly the case that governments attempt to standardize and modernize their property systems to enhance efficiency. Many of these attempts have failed, especially in Africa. An alternative is to find ways for the two forms to coexist, commonly referred to as plurality. McAuslan (2005) states that for pluralism to work local and national governments must recognize and treat customary systems equally, offering equal protection and respect for the rights adjudicated by each system. Additionally, he recommends that land owners be able to “opt from one system to another” (McAuslan 2005 p.3). McAuslan criticizes de Soto’s notion that customary systems need to move into a Western property system in order to create capital, rather he recommends that credit markets recognize and involve themselves in customary systems (ibid). This view is shared by Durand-Lasserve who writes:

The task for the state, then, is to find ways of applying the law that will be to some extent compatible with alternative legal systems... Compatibility exists, for instance, when a government directive does not hinder the workings of another... The different systems must articulate each other. Compatibility also exists when the law is sufficiently flexible to allow movement between different systems... Legal devices acting as bridges between the different systems are needed. Usufruct rights or local forms of tenure may then, with

government consent, be transformed into full, duly-registered, property rights (Durand-Lasserve 1998 quoted in UN Habitat 2007 p.249)

Durand-Lasserve and Royston (2002 p.250) state the “innovation lies not in new tools, but in the new uses to which existing tools can be put...” They promote the formation of partnerships between governments, financial sectors, customary entities and informal actors. Payne also suggests joint public/private ventures as an alternative to separate public sector and private market housing approaches. However, he expresses caution that “public sector agencies need to be sensitive to the nature and operation of urban land markets and the criteria which the private sector applies when investing land or property” (Payne 1997 p.14). In order for the public sector to be open to the realities of the private market, Payne notes that the public sector “may require a considerable change in existing bureaucratic attitudes and practices” (ibid). This form of joint venture for the creation of housing for urban poor is currently being practiced in the United States, where the Housing and Urban Development National Community Development Initiative has formed partnerships with community based organizations to develop affordable residential areas.

Recommendations

Durand-Lasserve (1998) comes to the ultimate conclusion that a decentralized approach is necessary to increase tenure security, which transfers power from national governments to municipalities. He states that:

... state agencies have a clearly defined and very wide field of influence in urban land management, but that they do not have the resources to ensure observance of their rules, the will to modify them, or the will to delegate these responsibilities to other bodies... At the local level, residents and community authorities often devise innovative approaches to land management issues – conflict resolution, the management of relocation projects, informal credit systems or the provision of labour for upgrading projects – but the lack of a suitable legal or institutional context for their efforts denies them a more lasting role in the process of settlement consolidation... (Durand-Lasserve 1998 p.242).

Durand-Lasserve sees municipalities filling this gap between the grassroots and the national government. He states that the formation of these intermediary groups such as housing authorities rarely achieves the desired results. He promotes a more direct involvement by the authorities of the municipalities; he states that “regularization policies carried out in close collaboration with local authorities, or by those authorities themselves... succeed best” (ibid).

Payne and Majale (2004) suggest that a municipality's first step in this involvement should be an audit of existing conditions. They propose both quantitative and qualitative evaluation of the public's understanding of existing land regulations: what form of tenure do they have, what regulations are they aware of, what options are they aware of, what are their primary concerns and what really happens in the informal market? Payne and Majale offer the following "guiding principles for effecting change..."

- Recognize and accept realities on the ground...
- Focus on key aspects of public concern...
- Understand and acknowledge the knowledge and information systems of people living in poverty...
- Adopt an enabling role... (streamlining regulations)...
- Invest in precedents... (pilot projects to demonstrate regulatory changes)...
- Strengthen inclusiveness... (accountability to all)...
- Promote partnerships between key stakeholders...
- Facilitate local ownership of processes...
- Identify 'Champions of Change' and create a critical mass... (reform minded individuals)...
- Apply rules consistently... (in poor and rich neighborhoods)...
- Integrate planning and development strategies...
- Accept regulation as a process rather than a product...
- Acknowledge the principle of incremental development...
- Guarantee access to information...
- Take advantage of windows of opportunity...
- Build institutional capacity...
- Political will...
- Professional will...
- Enforcement... (Payne & Majale 2004 p.112).

The underlying principle throughout this literature review reflects an incremental approach towards security. Low-income residents build and improve their homes incrementally. Municipalities are wise to take an incremental approach to servicing of neighborhoods. Alternative credit markets take incremental approaches to offering loans and validating customary tenure systems. Policies addressing tenure security have been successful that follow this incremental approach, allowing municipalities to incrementally levy taxes and expand their resources in order to administer the

incrementally growing demands placed upon them. Municipalities normally do not have the resources to take on everything at once; finally there must be the will to take on these challenges and involve the community in the process. However, regardless of how gradually a municipality shifts its policies, inherent conflicts will always exist: How can land markets be profitable without decreasing access to land for the poor? How can land use regulations create orderly, serviceable, environmentally-sound urban growth while not being oppressive and causing poorer residents to look to informal housing markets to meet their housing needs?

B. Post-Disaster Housing Assistance

Response to disaster is generally divided into four phases: mitigation, preparedness, response and recovery. Quarantelli (1995) describes the four stages of post-disaster housing within the recovery phase: “(a) immediate relief (within hours); (b) immediate shelter (within a day or two); (c) temporary housing (preferably within weeks); and (d) permanent housing reconstruction (probably within a few years)” (qtd. in Johnson 2006).

At all stages, it is important to note that housing is inherently connected to the human experience. Homes are the physical representations of the culture, community and private lives of a society. Programs that offer post-disaster housing assistance need to consider this connection. Oliver-Smith (1990 p.9) states that “houses are physical objects with social meaning expressed in their material components and their location in space. This social space and the situation of houses and other structures within it may have profound implications for the success or failure of post-disaster urban reconstruction in terms of positive social change and development.” These implications are evident in the common failures of post-disaster housing projects and the international policy guidance discussed in this review.

In consideration of housing as a representation of society, it should be noted that housing represents the ills of society as well. Poverty is made obvious in form, discrimination expressed by geography, and disasters highlight both. Bolin and Stanford (1998 p.2) note that “(disasters) sometimes reveal things about communities that many, in other less turbulent times, would prefer to ignore. The disruptions of a disaster can unmask social inequalities and the injustices that accompany them... destabilize entrenched political interests...” If disasters expose such challenges, then reconstruction should be the time to correct them. Unfortunately, not only has that been shown to be naïve and optimistic, but reconstruction often re-establishes and exacerbates inequalities (ibid). Oliver-Smith (1990 p.9) states “post-disaster reconstruction in both design and implementation may play an important role in the re-establishment of traditional patterns of inequality...” Considering the expression of inequality in terms of the physical form of homes and their spatial arrangement, post-disaster housing programs that control form and geography are at risk of exacerbating inequalities. Unfortunately, controlling form and geography are unavoidable consequences of post-disaster housing programs that provide temporary shelters, permanent homes and programs that relocate residents or influence resettlement.

Disasters reveal inequities, Rebuilding reinforces inequities

Bolin and Stanford (1991 & 1998), Peacock et al (1997), and Schulte (1991) all demonstrate discrimination in post-disaster assistance programs in the U.S. Bolin and Stanford (1998 p. 38) highlight one such case: “Following the 1989 Loma Prieta earthquake in northern California, the local Mexican community organized public protests and a resistance movement to publicize and seek redress for discriminatory assistance programs and the lack of affordable housing.” Comerio et al (1996) and Wallrich (1996) reveal a preference for middle-class home owners over renters in U.S. Federal assistance programs. Furthermore, Bolin (1994) and Perry and Lindell (2001), recognize the need to properly identify and respond to at-risk groups.

In cities such as San Francisco and Santa Cruz, some service providers tried to ensure that those who lost their homes to the disaster – ‘legitimate’ disaster victims – would not have to mix with homeless and transient people in temporary shelters. Community and homeless advocacy groups contended that programs should try to meet the housing needs of everyone affected by the earthquake, including those who had been homeless before, rather than restricting eligibility to those who lost their homes in the disaster (Perry and Lindell 2001 p.104).

This further reinforces Bolin and Stanford’s comment (1998 p.2), that “a disaster can unmask social inequalities and the injustices that accompany them...” It is true for all aspects of post-disaster housing: shelter, temporary housing, permanent housing assistance, and relocation programs.

Temporary Housing

The Office of the United Nations Disaster Relief Coordinator (UNDRO) (1982) states that temporary housing often takes two forms: (a) minimum investment using inexpensive pre-fab homes to facilitate the reconstruction of the damaged permanent structures, after which the pre-fab homes are often “forcibly removed – despite the probably prevailing housing shortage” (Johnson et al. 2006 p.369); (b) state-of-art temporary units durable enough for long term occupation, which according to Bolin (1994) will be converted into permanent housing in many cases.

Johnson et al (2006) summarizes temporary housing research from Bolin (1982), Bolin and Stanford (1991), Aysan and Davis (1992), Dandoulaki (1992), Ellis and Barakat (1996), Comerio (1998), and Harada (2000) in order to develop the following guidelines for temporary housing:

- Organized in strategic terms... how are responsibilities and risks shared (among agencies involved).
- Procured – with what financing and within what administrative and public accountability constraints and controls?

- Delivered – to what locations, including how these locations are cleared and made ready to receive houses?
- Set Up by whom – with what level of participation by the future inhabitants?
- Connected to ‘hard’ infrastructure (utilities, streets) and to ‘soft’ infrastructure (postal, public transit, etc)
- Used by disaster victims – including their selection (by some – hopefully – objective procedures)?
- Taken down – which raises the question of when and what happens to the erstwhile occupants? (Johnson 2006 p.369).

Most importantly, temporary housing is not an independent program from the rest of the recovery and reconstruction effort. The installation and removal of temporary housing needs to be coordinated within the context of other recovery programs. If temporary housing is to serve a transitional purpose, then permanent housing programs need to be aligned to accommodate this transition.

In post-Hurricane Katrina New Orleans, the Federal Emergency Management Agency (FEMA) had two basic forms of temporary housing assistance: travel trailers and rental assistance. The story of the travel trailers in New Orleans highlights the need to have permanent housing programs available as soon as possible. The trailers are pre-fabricated structures, around 240 square feet of particle board and aluminum on wheels. To the credit of FEMA, the trailers were made available to both owners and tenants. They were positioned by FEMA in essentially two manners: individually (on the beneficiary’s property, thus facilitating reconstruction of the damaged home) or on group trailer sites. For individual sites, both space and hard utilities needed to be available. For group sites, site selection was complicated by protests by the residents of the potential receiving neighborhoods and power struggles between the New Orleans Mayor and the City Council. The notion of a ‘trailer park’ is heavily stigmatized in the United States. These protests were, at least in part, fueled by prejudice. Many residents expressed concern that crime would increase in their neighborhoods if group trailer sites were located there. Considering that the majority of the beneficiaries of the trailers were low income residents, this case reflects the “re-establishment of traditional patterns of inequity,” both in form and geography, as noted by Oliver-Smith (1990). Furthermore, FEMA intended to remove the trailers after 18 months, which was met with protest by the beneficiaries whose anticipated home rebuilding grants had not yet arrived, showing a disconnect between the temporary and permanent housing programs of the overall recovery effort. To make a bad situation worse, many residents of the trailers began getting sick from the formaldehyde gas leaching out of many of the trailers, due to poor quality construction materials.

Consequently, FEMA began systematically removing the trailers about a year after the original deadline of 18 months. However, today, almost four years after Hurricane Katrina, some people are still occupying their trailers as they continue to wait for their home rebuilding grant monies.

Permanent Housing - Relocation

Oliver-Smith notes that disasters, of even the strongest magnitude, rarely destroy everything. He says that “structures of organization emerge from the rubble. On the other hand, involuntary resettlement often involves removal from an environment in which the society has evolved centuries old patterns of adaptations” (Oliver-Smith 1991 p.13). He notes that people have strong connections to the local environment, food systems, networks of labor resources, political territoriality, religious links, etc. Resettlement or relocation breaks these connection and networks, as Oliver-Smith warns, that disruption “may engender a serious dependency syndrome” (ibid). Thus, he advises against resettlement. Coburn et al (1984) also says that relocation can fail for many of the following reasons, which are reminiscent of the arguments against evictions with a relocation component as described by Marris (1961):

- poor site selection, there is a preference for sites that can be easily and cheaply acquired and easily built on due to level topography and accessibility.
- Distance from resources and labor markets
- Poor site layouts that lack cultural appreciation
- Poor construction materials, home designs that disregard the climate and domestic activities
- Little community consultation (adapted from Coburn et al. 1984)

UNDRO (1982 p.46) has additional critiques of relocation that may be added to this list:

- Insufficient services (schools, hospitals, markets, etc.)
- Poor or inexistent utilities
- Inability of relief agencies to “master-plan” an entire community, thus focusing solely on the residential component
- Desertion of relocation development in favor of returning to city.
- Those relocation developments created within the borders of the same municipality compete with the other reconstruction efforts for the funds to expand services to the development. If the relocated community is outside municipal boundaries, “neither the local nor the regional authorities (are) willing to bear the costs of development and maintenance” (ibid).

In light of the inadequacies of relocation, the UNDRO recommends risk-based partial relocations within the same area, given five pre-conditions: community consent, land availability, nearness to employment, utility provision, and home building support (ibid). Furthermore, government relocation programs should adhere to principles similar to those that apply to evictions under the ICESCR (see previous literature review section). The UN's Principles on Housing and Property Restitution for Refugees and Displaced Persons or the Pinheiro Principles are applicable for the restitution of property rights to persons that are displaced by disaster or conflict. The principles state that restitution policies, and consequently relocation policies, must be applied equitably, un-arbitrarily, and lawfully. According to these principles, displaced persons (owners and tenants alike) have the right to return to their homes or be compensated for their loss. Additionally, people have the right to privacy, peaceful enjoyment of possessions, adequate housing, and freedom of movement. States, under these principles, are expected to act in equitable and transparent manners that comply with international law and facilitate the rights of people, particularly the right to the restitution of property (OCHA 2007).

The United States, in comparison to the developing world, might be expected to have better enforcement of urban planning regulations and consequently less development in high risk areas. Klein and Zellmer (2007) argue that development in flood plains and coastal areas is actually fostered by the provision of flood control structures, federal flood insurance and post-disaster relief. Compounding the encouragement to develop in high risk areas is the security offered by the Fifth Amendment of the U.S. Constitution which requires compensation be given to the owner if the government takes his property or even denies a development permit, as in *Lucas v. South Carolina Coastal Council* (Klein & Zellmer 2007). However, contrary to Klein and Zellmer, environmental related use-restrictions on property, and even full property takings, can be justifiable and not deserving of compensation. Consider for example the Texas Open Beaches Act of 1959, which has been utilized to remove structures from the shifting beaches of Galveston, following Hurricane Alicia in 1983, Hurricane Francis in 1998 and Hurricane Ike in 2008. This mechanism performs a taking without compensation. Therefore, in keeping with Klein and Zellmer, other factors such as coastal erosion control programs may have encouraged development of thousands of homes in these high risk coastal areas, rather than discouraged it. In consideration of relocation programs, it is important to note that although the UN states that compensation is a right, individual nations may have legal frameworks that deny compensation. However, this denial must be equitable, un-arbitrary and lawful.

Permanent Housing - Rebuilding

UNDRO, in “Shelter after Disaster: Guidelines for Assistance,” notes that post-disaster housing differs from normal public housing because typically money is more available, hazard-resistant construction is more acceptable, more agencies are present, the lowest income people are of special interest to the international community, and the post-disaster setting often allows for “unusual opportunities for improvements” (UNDRO 1982 p. 40). Regarding the “unusual opportunities for improvements,” there is a delicate balance that needs to be achieved. UNDRO notes that “wholesale reforms in housing, building and planning... are costly, technically difficult and politically complex. Progress in reform is generally slow, and an incremental approach is therefore easier to adopt” (ibid).

One clear “unusual opportunity,” is to rebuild with more disaster-resistant technologies. UNDRO notes that when a disaster reveals weakness in the traditional home construction methodologies, two types of initiatives to build better and more hazard-resistant structures emerge. In the first case, agencies bring in outside prototype designs and attempt to deliver sufficient supplies to the public. This is rarely sustainable. In the second approach, indigenous technology is better understood and areas where improvements can be made are identified and delivered to the public through training programs. The second approach, according to UNDRO, almost always requires incentives in order for the public to adopt the new methodologies. Additionally, the construction of demonstration homes has been proven to work well (ibid).

Recommendations

Baradan (2008) notes that rebuilding programs can take two forms: the ‘technology-based approach’ and ‘community-based approach’. Therein, lays the classic conflict between top-down and bottom-up approaches, or between rational and communicative planning theory. Johnson et al (2006 p.369) proposes an approach that takes into consideration, “the many apparently separate facets of a complex process... (and the) important relationships between them... decomposing the whole into its parts... how those elements work together.” Their ‘systems approach,’ considers the ‘organizational’ and the ‘technical’ components and their interdependence. Johnson et al (2006) outlines these two components:

The organizational sub-system includes elements regarding ‘who is to do what’, for example:

- selection of participants and design of interfaces between them;

- sources of financing, and definition of authorization and control mechanisms;
- relationships with the beneficiaries and definition of their levels of participation;
- procurement and management policies, and their implementation;
- decisions about the knowledge to be brought in and how it is to be preserved for future projects.

The technical sub-system includes elements regarding 'how' to consume the resources, for example:

- selection of materials and construction methods;
- selection of labour force;
- type of temporary housing to be built (detached units? communal spaces? and so forth) and;
- 'hard' products to be included (shelters, kitchens, latrines, and so forth) and 'soft' services to be provided (medical and psychological aid, employment opportunities, security, and so forth) (Johnson et al 2006 p.369-70)

This 'organizational' component appears to present a token relationship with regards to community involvement. This is not surprising. International aid agencies have deadlines and prefer to see immediate results; for them the communicative model takes too much time; and post-disaster settings require a swift response.

The UNDRO "Shelter after Disaster: Guidelines for Assistance" offers a concise list of guidelines. They outline clear and pragmatic policies that should be adopted and those that should be avoided. (see the following table).

Table 2. UNDRO's Policy Guidance for the Recovery Phase	
Policies to Avoid	
1. Restoration of pre-disaster conditions	... will result in the loss of unique opportunities presented after a disaster...
2. Taking too narrow a view of risk-reduction policies	...communities vulnerable to natural hazards are normally aware of the risks they face, but their economic survival may be directly dependent on their particular location...
3. Confusing the 'normal' housing deficit with that created by a disaster	...pre-disaster housing deficits are added to disaster losses... Such a policy is probably inevitable but unrealistic...
4. Regarding reconstruction as being limited to buildings or infrastructure	There is an urgent need following a disaster to strengthen all the components of reconstruction... training, employment, community development, financing...

Table 2. Continued...	
Policies to Adopt	
1. Risk reduction	...modify the conditions which caused the disaster. There are unique opportunities following a disaster to make substantial improvements to the infrastructure, building forms, building techniques and land use patterns...
2. Varied policies	... not to place reliance on a single, technocratic risk-reduction policy, such as... structural regulations or land-use controls...
3. Establish priorities for building improvements	... for social groups such as children, the disabled and the elderly... public buildings... churches, mosques, cinemas, markets; buildings in regular rather than occasional use; vital public buildings... hospitals, dispensaries, fire stations... buildings that are known to be in a dangerous condition...
4. Modification of existing housing	... this poses considerable difficulties, particularly in a pre-disaster context, in view of potential social upheaval and the cost of such modifications... more research is required into vulnerable types... safe alternatives need to be developed which satisfy the demands of culture, local economics, climate, available materials, skills and risks... (requiring research priorities)
5. Training for management of relief and reconstruction	It must be emphasized that the provision of shelter and post-disaster housing is (a specialized activity)... The need for properly trained personnel is therefore vital, and applies to both governmental and external agency staff.
6. Training of local builders	... to be fully effective, they should be linked with: (a) financial assistance for those being trained; (b) incentives in cash or kind to build safer homes; (c) the supply (possibly at subsidized prices) of key building materials...; (d) the provision of simple educational aids...
7. Mitigation policies as an element of upgrading programmes	... normally include: (a) official recognition of the existence of marginal or squatter settlements, i.e. they have been legalized; (b) provision of essential infrastructure, e.g. roads, bus services, electricity, water, sanitation, schools, dispensaries, etc.; (c) some form of assistance with local housing, e.g. supply of materials, provision of subsidies and loans; (d) in disaster prone areas, upgrading programmes should also include hazard resistant building methods, and the safe siting of housing. These measures should be based on hazard, vulnerability and risk analysis"
Table adapted from UNDRO 1982 pp. 43-44	

The policies presented by UNDRO (1982) are limited in two ways. They do not address 'who' will implement these recommendations, and they are specific to housing, which should be considered in the framework of a larger recovery effort. Post-disaster housing programs need to coordinate with sheltering, temporary housing and permanent housing options that can seamlessly transition displaced persons from one to the other. For this to happen, the housing effort must be

coordinated with all other recovery efforts and urban planning efforts: mitigation, economic recovery, infrastructure repairs, utilities, transportation, land use regulation, building codes, finance markets, health and safety, even parks and recreation. Therefore, one comprehensive and unified recovery plan needs to be developed by a task force with representation from all of these sectors, and this needs to happen quickly. Schwab (1998) suggests designating a lead agency or person to oversee the entire recovery effort. That lead agency would coordinate the entire recovery effort, and through this one accountable and transparent entity all information would flow out and assistance would flow in. Additionally, public participation must not be forgotten. Schwab (1998) recommends gathering initial public input before the task force develops the plan, and following it up by building a public consensus on the plan and any subsequent revisions or updates. Schwab (1998) notes that public consensus will be more easily obtained if the recovery task force involves representation from community organizations. This community involvement should reduce the tendency for rebuilding efforts to reconstruct inequalities as expressed by Bolin and Sanford (1998).

C. Tenure Insecurity Affecting Post-Disaster Housing

Limited research addresses how tenure insecurity affected the abilities of government and civil society to allocate post-disaster housing assistance. In many cases, requirements are made of beneficiaries to produce ownership documents. This delivers post-disaster housing to only those with secure tenure and not the most vulnerable populations. Major complications can still arise when assistance is only offered to owners. For instance, public records offices can be destroyed in a disaster, thus destroying the few land title records that exist. Any surviving property documents can be rendered useless because the geophysical references used to delineate property lines can be erased by a disaster.

A brief example of tenure insecurity's affect on post-disaster housing was reported by the United States Agency for International Development (USAID) in 2006. The USAID report contains a list of challenges and lessons learned during its disaster recovery projects in Central America and the Caribbean. USAID listed several important considerations such as setting appropriate time frames, creating thorough cost assessments, looking for opportunities beyond restoration, involving community organizations, and, most relevant here, understanding the local land tenure system. The report states:

The USAID contractor responsible for housing in Grenada also encountered challenges due to land title issues. The contractor told us that although it originally identified 400 to 500 prospective beneficiaries who met selection criteria established by the Grenadian government, many of these people lacked the land titles or proof of ownership that USAID required of new-housing beneficiaries. Because the process of verifying ownership was so time consuming, the contractor eventually ran advertisements soliciting respondents who met the selection criteria and had proof of land ownership. (GAO 2006 p.38)

In another case in the Philippines in 1987, following Typhoon Sisang, there was a program to rebuild 22,665 homes by the national government with the support of the UN and the Asian Disaster Preparedness Center. The beneficiaries were also required to demonstrate secure tenure, occupancy status, income, and need (Barakat 2003). In summary, the projects in Grenada and the Philippines excluded beneficiaries who lacked proof of ownership, although they were most likely legitimate residents of a disaster-afflicted area, albeit with informal status or as renters, and not people attempting to defraud the programs. Therefore, these programs may have excluded the poorest and most needing of housing assistance.

Various reports and studies suggest that beneficiaries should be selected according to vulnerability, i.e. those in public shelters, large numbers of children, elderly, poor, single-parent, etc (Barakat 2003 & Fengler 2005). Tenure insecurity should be included among those vulnerabilities considered when selecting beneficiaries. UNDRO (1982) states that land tenure issues cannot be ignored in post-disaster housing programs, noting the following complications and considerations:

- Programs directed towards homeowners only, with no other provisions for renters or registered properties in informal neighborhoods will only serve “those who are better off to begin with.” This will exacerbate inequities and increase social tensions.
- The provision of a temporary shelter to a resident living with a form of squatter tenure, specifically those without permission from the land owner, can result in a dispute between the owner and the resident over the ownership of the structure itself.
- Some governments, in consideration of an affordable housing deficit and political tensions, allow reconstruction on disaster-affected areas which face additional risks.
- Private land ownership systems do not enjoy the same success rate for relocation programs as do countries with nationalized lands.

(adapted from UNDRO 1982)

The most documented cases of tenure insecurity’s affect on post-disaster recovery are associated with the 2004 Boxing-Day Tsunami on the Indian Ocean coast, which was produced by the December 26th Sumatra-Andaman earthquake in the depths of the sea. The tsunami affected multiple countries such as Sri Lanka, Indonesia, Thailand, and others. The tsunami has made a special case study on tenure insecurity for many scholars, because the waves erased property lines in areas where customary land holdings proliferated.

The tsunami’s affect on Sri Lanka exposes an area of tenure security that deserves further attention. There are substantial similarities between the restitution of property rights post-disaster and post-conflict. In Sri Lanka, the post-disaster and post-conflict environments occur simultaneously. Consequently, the regional politics of conflict influenced the post-disaster housing construction projects, essentially guiding projects into certain areas and away from others, in disregard of actual need (Shanmugaratnum 2005).

Banda Aceh, Indonesia was hit especially hard by the tsunami. One of the things that the tsunami exposed about tenure security was the security of the documentation of tenure itself. In Banda Aceh, the cadastre office was completely destroyed. However, only 60,000 of the 300,000

damaged parcels of land were registered with the cadastre office. The World Bank offered a \$28.5 million loan for the recreation of the cadastre office and its records, which involves re-establishing property rights, titles, surveys, records, administration, etc. (World Bank 2006). The re-creation of the cadastre office was a crucial top-down approach that functioned well because of its compatibility with a bottom-up approach. The bottom-up programs included community environmental assessments and participatory rural appraisals which involve the community in data gathering, analysis and use (Spaling & Vroom 2007, Fitzpatrick 2005, Brown & Crawford 2006).

Once the community has reached agreement on the land ownership and the position of the land parcels... (the National Land Registry) is called in to survey the area, finalize ownership (and allow for complaints), and then issue titles (Brown & Crawford 2006 p.13).

In Banda Aceh only 5-10 per cent of the land had formal titles. The rest was traditional or communal property. However, Indonesian law only recognizes formal titles obtained through inheritance or certified by the local police or sales certificates. Brown and Crawford (2006 p.6) state “this meant that until ownership was clarified neither the Indonesian government nor foreign aid organizations were willing to build permanent houses.” This was the local standard for formal title, and as Brown and Crawford note, anything less would offer little tenure security and place them at risk of eviction, thus “increasing their disaster vulnerability” (ibid).

Spaling and Vroom (2007 p.48) note that one particular program in a small village had “no clear rule for land ownership when the housing is done, especially for widows.” This specific project was to resolve land title issues after occupancy of the reconstruction project, which made many people uncomfortable. Fengler et al (2005 p.40) states that establishing property rights lays a “solid foundation for reconstruction work, spatial planning, compensation, and long-term economic development... (and) establishing social justice and... social stability.” Barakat (2003 p.9) notes “a common mistake is to start the reconstruction of permanent houses on the understanding that securing tenure will follow automatically.” As was made clear in the tenure insecurity section of this literature review, any outside actors attempting to establish property rights for a post-disaster housing project should be careful to not impose tenure systems that are unmanageable by the municipality or contrary to national customary systems. This appreciation for local systems, and the use of tools such as Banda Aceh’s community mapping can reduce the occurrence of conflicts, and reduce the risk of the degradation of the tenure system after the outside actors no longer oversee the project.

Rowbottom (UN Habitat 2007 p.26) says that private landowners and government were grabbing up land on the coast following the tsunami, often evicting residents. He notes that coastal

lands were taken away in the name of mitigation by restricting developments within a coastal buffer area. Rowbottom states “many communities are simply going back to their land to rebuild, even without permission, or while the land is still being disputed. This was the strategy of the Aceh’s Udeep Beusaree network of villages and Thai communities, who then used their solidarity and occupation as a negotiation tool” (ibid). The communities took up the planning role by conducting community-based ownership mapping. Rowbottom says the result of these community networks has been “land sharing and collective land tenure arrangements” (ibid). He explains:

Land sharing entails disputed land being shared by both parties. The community rebuilds on one portion of the land with legal and secure rights, and the landowner develops the other portion commercially. Collective land tenure includes collective leases, collective title and collective user rights. The community is the unit of ownership/lease holding, which can fend off challenges and manipulation more easily than individuals can. Plots cannot be sold independently (ibid).

These community-based tools are used to reduce vulnerabilities, or rather, defend against exploitation and disenfranchisement that had occurred for years. Rowbottom claims that this community empowerment and increased tenure security will encourage more local investment, community development and disaster mitigation (ibid).

In summary, the limited number of case studies available has shown us that when outside actors stipulate that previous ownership be a requirement for post-disaster housing assistance, it can cause two distinct results. The brief examples in Grenada and the Philippines demonstrate that the ownership requirement can further disenfranchise the disenfranchised. However, in Banda Aceh, the community response was to demand tenure security through local land mapping initiatives. These maps were used by the community as a tool to prevent government and private enterprises from grabbing up lands and evicting long-time residents.

The following case studies address tenure insecurity’s affect on post-disaster housing assistance programs. Both case studies, New Orleans and Tegucigalpa, will begin with a background review of the case-specific literature that explains how and why tenure insecurity exists in each case. The background will also address the details of the post-disaster housing assistance program. The case study research focuses on the question, “How did tenure insecurity affect post-disaster housing? This has several components:

- What was the tenure status of the affected population, pre-disaster?
- Was freehold title documentation necessary to become a beneficiary of post-disaster housing programs?
- Was the selection of beneficiaries equitable and directed towards the most vulnerable?

- Were renters included?
- In the case of relocation, what type of tenure was delivered via the post-disaster housing project? Was it secure?

As the case studies show, additional considerations arise, showing additional connections between tenure insecurity and post-disaster housing. These connections did not occur in the literature review examples in Banda Aceh, Sri Lanka, Grenada or the Philippines, nor were they postulated in the research design.

Case Studies: New Orleans & Tegucigalpa

Methodology

The following case studies are exploratory studies, “the goal being to develop pertinent hypothesis and propositions for further inquiry” (Yin 2003 p.6). The research question explored is: How does tenure insecurity affect post-disaster housing? The structure of each case study is ‘theory-building.’ “The sequence of the chapters or sections will follow... theory-building logic” (Yin 2003 p.154). As with the literature review, each case study evaluates three sections (a) tenure insecurity, (b) post-disaster housing programs and (c) the effect of tenure insecurity on post-disaster housing. In this manner, the nature of part A and part B are understood separately, before the effect of part A on part B is explored.

The case studies begin by establishing that tenure insecurity existed in New Orleans, in the form of heir properties¹. The case study researches available documentation and archival records from *Road Home* and the law firms involved with title succession cases. Additionally, open-ended interviews and email correspondence were conducted with persons involved with heir property issues.

The case study in Tegucigalpa, Honduras begins with a review of agency documents and reports specific to the local tenure systems and the post-Hurricane Mitch relief effort. Additionally, open-ended interviews and email correspondence were conducted with representatives of these entities (NGOs, international institutions, etc.). These conversations were conducted similarly to the New Orleans case study, with an open format to identify anecdotal stories of their experiences with post-disaster housing and insecure tenure.

In the conclusion, both case studies will be summarized and compared. The purpose of this is to develop ‘theoretical replication’ (Yin 2003). The selection of two case studies with so few similarities between them, allows for the development an explanation that will have external validity in the widest range of cases possible. The resulting explanation or theory will be a conceptualization of the ways in which tenure insecurity can affect post-disaster housing assistance.

¹ Properties held by the decedents of the original property owner whose name remains on the title, despite being deceased. Often multiple heirs have rights to the property, and a legal succession or transfer has not been completed.

Post-Hurricane Katrina New Orleans

On August 29th of 2005, the most economically destructive hurricane in U.S. history made landfall in Louisiana (NOAA 2005). Breaches in the levee system left 80% of New Orleans severely flooded (Kunzelman 2008). Approximately 700,000 homes were lost throughout the Gulf coast, about 300,000 of which were low-income (Hartman et al 2006 p.125). The resulting diaspora was unprecedented in U.S. history. A month after the storm, evacuees were in all fifty states, although the majority remained in the region; for example Houston received 240,000 families (Quigley 2006).

Figure 2. Hurricane Katrina Flood Map



Source: NOLA.com 2009

The disaster recovery of New Orleans was and still is a labored experience. Immediate assistance was slow to respond, much of the rhetoric blamed U.S. President, George W. Bush. New Orleans mayor, Ray Nagin was quoted as saying,

I basically told him (President Bush) we had an incredible crisis here and that his flying over in Air Force One does not do it justice. Don't tell me 40,000 people are coming here. They're not here. It's too doggone late. Now, get of your (censored) and let's do something and let's fix the biggest goddamn crisis in the history of this country (Russert, 2005).

The Mayor's frustration came, at least partially, from one particularly obvious and distasteful characteristic of the disaster, a characteristic previously reserved for disasters in developing nations; Hurricane Katrina disproportionately affected the poor (Hartman et al 2006).

The hurricane and the flooding associated with the failure of the levee system destroyed or significantly damaged 123,000 homes and 82,000 rental properties (HUD 2006). Initially, the Federal Emergency Management Agency (FEMA) supported shelters and assisted individuals with hotel reimbursements or rental assistance. FEMA's rental assistance program offered 18 months of coverage to displaced people for rent and personal costs, up to \$26,200 per household. In many cases, this assistance came in the form of a rent-free FEMA travel trailer (Hartman et al 2006 p. 129). As discussed in the literature review, this temporary housing model did not have a seamless transition into the permanent housing recovery program, entitled *Road Home*.

The *Road Home* program was focused on the reconstruction of damaged homes. Many applications to the *Road Home* program were filed by persons who did not have clear title to the homes that they intended to rebuild or sell to the program. The titles were unclear because the owner's name listed on the title was the name of a deceased relative. This form of heir title demonstrates inefficiency in the transfer of ownership and creates a form of tenure insecurity in the United States.

A. Inheriting Insecurity in New Orleans

In the United States, a property owner who dies without leaving a will, also called intestate, leaves the property to be passed to the spouse, children, or other heirs of the intestate in accordance with state law. The heir takes possession of the property, continuing to pay taxes, maintenance, insurance, etc; however in many cases a succession or transfer of the title is never carried out, which leaves the original owner's name on the title. Although legal mechanisms exist to carry out the succession, these successions do little to resolve the issues that intestate creates initially. Multiple heirs with multiple interests in a property can discourage succession to one individual heir. In this form the title has divided interests, lacks one clear owner and becomes unmarketable, i.e. inadequate for use as loan collateral or, as in the case of *Road Home*, invalid or unjustifiable proof of ownership for applicants to post-disaster housing grants.

This research definitively states that heir title with multiple interests creates tenure insecurity in consideration of Payne's (1997) evaluation criteria. Payne uses three factors to evaluate tenure security on a case-by-case basis, "clarity, efficiency and equity" (Payne 1997 p.10). Clarity, as used by Payne, is essentially equal to the term 'justiciable' which is used in the UN's definition of secure tenure to describe those rights that can be reasonably proven. 'Clarity' directly relates to the acceptance of alternative documents to prove ownership, which occurred in the *Road Home* program. The 'efficiency' of a title is judged on its ability to be easily transferred, used as credit and generate income, according to Payne. As research has shown, multiple heir title scores poorly in each of these measures of efficiency. Finally, 'equity' is measured by the "accessibility to all socio-economic groups; the availability of market information; a level of security sufficient to encourage investment by residents; transferability, under conditions which provides a reasonable rate of return..." (Payne 1997 p.10). The notion of 'equity' evaluates whether or not the same level of 'efficiency' is afforded to all people regardless of income, ethnicity or gender. The following research will show that multiple heir titles have been predominately studied among historically disenfranchised groups. Therefore, by using 'clarity, efficiency and equity' the United States is revealed to have a form of tenure insecurity that many international researchers, such as Hernando de Soto, have overlooked.

The occurrence of heir property in urban residential areas of New Orleans came as a surprise to those designing the *Road Home* program. They did not appreciate the breadth of the issue, despite a body of research that looks at heir property issues in rural areas among historically disenfranchised groups: African American-owned farmlands, Native American reservation lands, and even immigrant farmers in Canada (Gagan 1976). *Road Home* grant applicants with heir titles represent the first time that large scale heir property issues have been studied in a specifically urban setting in the United States, to the knowledge of this author. It should also be mentioned that despite excluding a specific discussion of heir property, the connection between U.S. land policy and urban poverty alleviation has been made on several occasions by authors such as Mumford (1962), Miller (1986), and Geisler (1995).

In a 1980 study, "The Impact of Heir Property on Black Rural Land Tenure in the Southeastern region of the United States," the Emergency Land Fund (ELF) of the U.S. Department of Agriculture conducted surveys in 10 Southeastern states over a one year period. The study exposed heir property as one of the reasons for a decline in black-owned agricultural lands by nearly a third between 1910 and 1965 in the South (ELF 1980). Other reasons proposed by ELF (1980) and authors

such as Gilbert et al (2001) for the decline of black-owned agricultural lands, include: difficulty competing with large-scale farms, loss of land through tax sales or heir partition sales, mortgage foreclosures, and other factors associated with a low socio-economic status. ELF (1980) showed that 41% of the total land surveyed was made up of heir properties.

By not leaving a will, the intestate who have multiple heirs who each receive an interest in the property are inadvertently leaving the property open to a number of factors and circumstances that would not have occurred had the property been designated by will to a single heir. ELF (1980) described seventeen of the circumstances, characteristics and factors that explain heir property and why it is unfavorable condition (see Table 3).

Table 3. Characteristics, Circumstances and Factors of Heir Property	
1. Inherited Syndrome	...it is acquired by operation of law... nothing in particular was done by the present owner to acquire the property, nor by the past owner to deliver it...
2. Joint Ownership	Technically, heir property can rest in a single owner since all real property which passes by intestate succession is heir property... Most heir property is jointly owned... (which) has a significant impact on how the property is perceived valued and used... joint ownership requires joint consultation and agreement with other owners... the affirmative acts of ownership (by one heir), such as payment of taxes, possession, assessments and use... (are) to the benefit of all
3. Number of Interests	... the more joint owners there are, the more difficulty there is in making and executing decisions concerning property... Cases have been reported in which the number of heirs or owners exceed 1,000. Each time an heir dies with more than one lineal descendent and without a will, the number increases...
4. Variation in Size of Interests	(first generation children) each has an equal interest in the property... the balance is significantly changed... when any of the first generation heirs die with children...
5. Kinds of Interests	The variations can include fee simple interests, life interests, future interests, and remainder interests... if a person dies and leaves seven children, each of whom is married... there are fifteen interests in the property... (of three types)
6. Undivided Interests	All interest in heir property are undivided; that is, no heir owns any of the property individually, but all own it jointly
7. Right to Possession and Use	Each heir has the right to possess the entire heir property, but not to the exclusion of the other heirs. That right is no greater or smaller than the right of any other heir, regardless of the size of the interest. In actuality, possession is often determined by agreement, family circumstances, past practices, wishes of the original owner...

Table 3. Continued...
8. Right to Benefits ... each heir has the right to benefits equal to his proportionate interest in the property. The determination is easy when the benefits result from timber, minerals, rent, etc., but it becomes more difficult in matters which involve the individual efforts of heirs, as with regards to the planting of crops...
9. Lack of Possession ... the lack of actual possession by at least some of the heirs. It is a rare occasion when there are multiple heirs and they all reside on the property.
10. Scattered Locations of Owners The scattered locations of heirs complicate communication problems which profoundly affect all decision-making efforts.
11. Unknown Location of Owners Interaction with the land and with other owners is non-existent, but their "presence," through their interests, affects every decision which relates to the heir property.
12. Unknown Owners ... (heirs) move to faraway places and then after many years die, they often leave widows and children that the other family members are not aware of... These can be resolved only by resort to legal action.
13. Required Affirmative Acts of Ownership Unlike single owners, most owners of jointly held property are not required to take affirmative steps to protect their interests. They are not required to assess the property, to pay taxes, or to be in possession... joint owners can simply ride the coattail of one or two of their co-owners.
14. Absence of Record Title (Normally) a potential purchaser, lender or lessee can examine the public records to determine the owners of the property. This is not true of heir property. Without court action, it is often impossible to determine all the owners.
15. Family Disputes Family disputes are common... disagreements arise over use, possession, payment of taxes, disposition, spouses, jealousy, and completely unrelated matters.
16. Sharp Practices There is an array of persons and entities that prey on the heir property situation... The usual practice entails purchasing the mortgage on an heir's interest, with subsequent foreclosure and ultimate partition and sale. Many lawyers, because of the attorney fee connected with partition sales, often persuade their clients to file partition and sale suits, which are contrary to the real interest of the heirs. Judges, acting in concert with lawyers, often pursue a partition sale when a division of the property would be more appropriate, both legally and morally.
17. Potential for Partition and Division or Partition and Sale The possibility that land can be involuntarily divided and sold has a chilling effect on long-range plans and development.
Adapted from ELF 1980, pp. 38-45

ELF (1980) asked survey respondents about the rights of the possessor of the property, and about half of them erroneously believed that the possessor did have some sort of superior rights to the land. As the table explains, the person in possession and/or paying the property taxes does not have a superior right to the property. Their interest may be represented as a fraction, but that interest is undivided. Figure 3 demonstrates how property interest becomes ‘divided’ among all living heirs; yet they each have a portion of the undivided interest.

Figure 3. Intestate Succession and Division of Interest in Properties

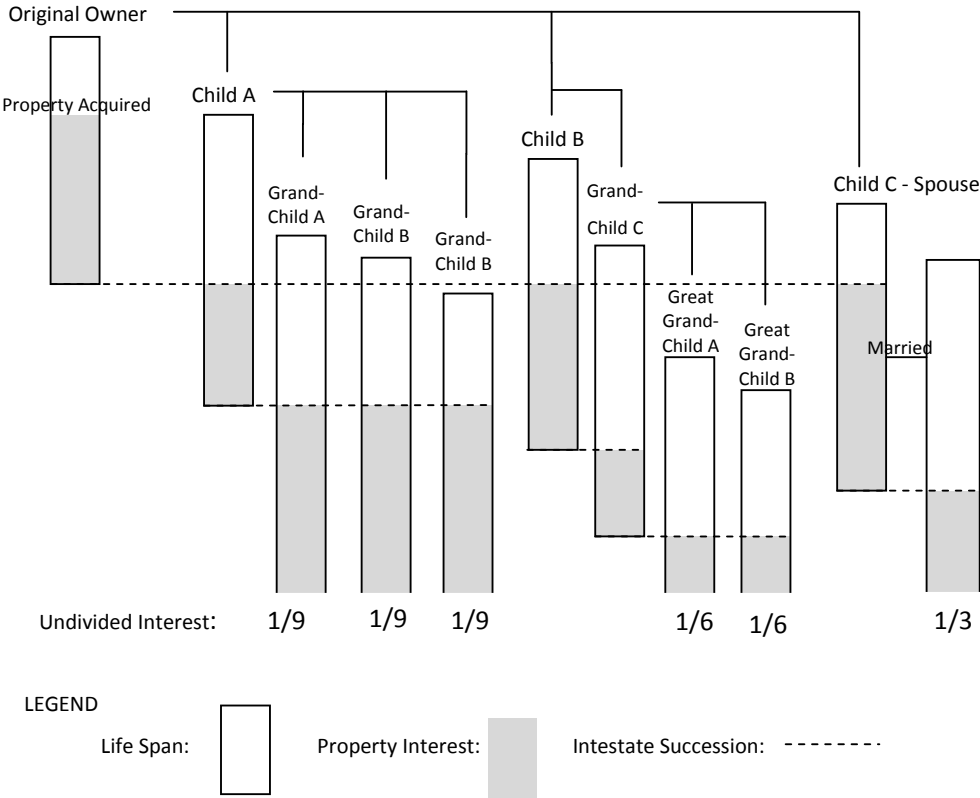


Figure 3 shows the potential complexity that can occur after only three generations of intestate. However, this is an oversimplification of the succession process, leaving out all the potential variations that could exist, such as children of unmarried parents, or grandparents that out-live their grandchildren, etc. Louisiana’s order of succession for heir property is detailed in Table 4.

Table 4. Order of Heir Succession in Louisiana

Community Property (purchased during marriage)	Separate Property (purchased before marriage)
1. To children or children's descendants, with usufruct to spouse. If nobody exists in this group, then	1. To children or children's descendants. If nobody exists in this group, then
2. To spouse, if there are no children or descendants of children. If nobody exists in this group, then	2. To brothers and sisters with usufruct to parents, if parents are alive. If nobody exists in this group, then
3. To brothers and sisters with usufruct to parents, if parents are alive. If nobody exists in this group, then	3. To nieces and nephews, or their descendants, with usufruct to parents, if parents are alive. If nobody exists in this group, then
4. To nieces and nephews, or their descendants, with usufruct to parents, if parents are alive. If nobody exists in this group, then	4. To parents, if there are no brothers or sisters, nieces or nephews, or other descendants. If nobody exists in this group, then
5. To parents, if there are no brothers or sisters, nieces or nephews, or other descendants. If nobody exists in this group, then	5. To spouse. If there is no spouse, then
6. To grandparents or other ascendants. If nobody exists in this group, then ?	6. To grandparents or other ascendants. If nobody exists in this group, then
7. To nearest collateral relative. If nobody exists in this group, then	7. To nearest collateral relative. If nobody exists in this group, then
8. To State of Louisiana.	8. To State of Louisiana
LA Legal, 2009	

It may sound contradictory to say that each heir has a portion of the undivided interest in the property. The distinction is that each heir has right to possess the whole property, but not exclude the other heirs. Obviously, a large number of heirs cannot occupy a small property simultaneously, thus requiring the heirs to reach an agreement. That agreement must be reached unanimously, regardless of the portion of an heir's interest in a property. This creates a high potential for conflicts among the heirs. The actual portion of an heir's interest in the property only becomes relevant when the property generates some form of benefit (like rent or harvests), when the property is sold, or when *Road Home* rebuilding grant checks are handed out.

The sale of a property with multiple owners is typically a *partition by sale*, this ultimately results in the partition of the purchase price according to the respective interests of the individual owners. There is also a *partition in kind* which results in the physical subdivision of the property according to the respective interests of the owners. ELF (1980) reveals unscrupulous activities (see Table 3, item 16) to influence owners into a partition sale. Additionally, the implications of African American heir properties for urban planning are discussed by Johnson and Floyd (2006) in coastal South Carolina. However, these investigations were focused on larger rural heir properties. In cases where a small urban property is owned by a large number of heirs, a partition sale would yield insufficient profit when divided up according to the interests, and a physical subdivision would result in properties so small that they are unusable.

The 'divided' interest in a property creates a unique situation, which results in the underuse of the property or resource. Zabawa (1991) notes that there is a reluctance to improve an heir property by the possessing heir out of fear that other heirs would sell their shares and the possessor would lose their investment. Additionally, an heir title is typically not accepted as collateral, and not likely to be used as a rental property because revenues could be split between co-heirs, thus potentially under-utilizing the land's capital value. The underuse of private land with multiple owners is the opposite of the phenomenon of overuse of 'common' lands with no private owner proposed by Hardin's (1968) theory of the 'tragedy of the commons'. In a 1998 article, Michael Heller calls this underuse "the tragedy of the anticommons" (Heller 1998). Although Heller refers to post-socialist Russia, wherein multiple owners all had rights of exclusion, the notion of the 'tragedy of the anticommons' is applicable to heir property in the United States. Heir property has multiple owners, although not endowed with rights of exclusion, they effectively under-utilize a property's potential (Zabawa 1991, Heller 1998).

The tragedy of the anticommons reappeared in Kobe, Japan, following the Great Hanshin Earthquake in 1995. West and Morris (2003 p.904) note that following the earthquake, the property rights of the condo-unit owners became "entrenched as an anticommons" or, as they state, a "tragedy of the condominiums." The owners could not unanimously agree on how to restore or rebuild, and eventually Japanese law was reformed to address the issue. According to a Kobe city official "it's like trying to get thousands of little corporate presidents to agree on one plan" (qtd. in Heller p. 684). Heller (1998 p.662) notes that "private property requires that one owner have full decision making authority... (with) complete and exclusive rights and privileges..."

In New Orleans, the complications associated with heir property may have been privy to a handful of lawyers, but policy makers were unaware of the widespread implications. New Orleans Attorney Malcolm A. Meyers (2008) writes that in the United States heir title issues caught most policy makers by surprise. He states that “neither (Hernando de Soto) nor I nor any other attorney I have ever met ever theorized why people in the developed West would have opted out of an existing equitable and transparent system with all its economic benefits.” (Meyer 2008 p.2). Meyer is right about de Soto. De Soto (2000) touts the United States as having an exemplar property system that creates capital, which de Soto says is the secret to successful capitalism and all developing nations should strive towards this example. De Soto does not mention why people might ‘opt out’ of a system that creates capital. He only mentions heirship once, “in a developed country, the farmer’s son who wishes to follow in his father’s footsteps can keep the farm by buying out his more commercially minded siblings. Farmers in many developing countries have no such option and must continually subdivide their farms for each generation until the parcels are too small to farm profitably, leaving the descendant with two alternatives: starving or stealing” (de Soto 2000 p.57). De Soto did not realize that under heirship laws, the farms are not being physically divided; it is the capital representations that are broken into pieces and remain as such because of poverty and difficulties reaching a consensus among multiple heirs. Meyer (2008) estimates there are 20,000 heir properties in New Orleans and as many as 100,000 in the entire State of Louisiana. Therefore, if one uses de Soto’s infamous calculation, New Orleans is shown to have \$1.74 billion, and Louisiana, \$9.2 billion in ‘dead capital’ because of unmarketable heirship properties.² But just as in developing countries, the leap from informality to formality may not be that easy. Furthermore, informality may actually benefit the poor.

Unlike developing countries, where, according to de Soto 2000, ‘dead capital’ exists because of inefficient administration, implying the people would seek titles if available. In Louisiana, Meyer (2008) notes that people have had the opportunity to perform a succession on their heir titles, but have not. Meyer (2008) says that heir title might be prevalent because of the cost of title succession, citing the \$325 transfer tax in New Orleans. In addition, legal fees can vary from \$1,000 to \$5,000 and sometimes up to \$10,000 depending on the number of heirs that need to be contacted. Meyer also points to indirect costs as a deterrent to succession, i.e. tax increases that would automatically be applied at the moment of succession. The succession of the title would

² Present author uses Meyer’s estimated heir property counts and the Zillow Home Value Index for the Holy Cross Neighborhood \$87,000, and \$92,000 for Louisiana (www.zillow.com, accessed 4/1/2009).

trigger a visit by the tax assessor, the typical “*ad valorem* assessment method” (ibid). Meyer states that this encourages heir title holders to “lay low.” In a January 2009 interview with this author, Meyer states that assessors are supposed to reassess every four years, but New Orleans does not have the resources to support the reassessment of “100,000 properties” every four years. Therefore, pre-Katrina, tax assessors typically revaluated properties by using census data, inflation rates, etc. According to Meyer, this resulted in an artificially low home value that was carried over cyclically, maintaining low taxes unless something triggers a visit from the assessor. In another interview with this author, Coty (2009) notes that there may little validity to the heirs’ avoidance of *ad valorem* because of Louisiana’s \$75,000 homestead exemption on property taxes. So that leaves the question; other than the cost of performing a succession, why would people opt out of having a formal title?

Meyer (2008) states that heir title holders did not need a formal marketable title for collateral on loans, either because they did not want loans, or they were protecting their homes from the collectors of loans that they already had. Meyer (2008) notes that “opaque titles” were “below the radar” of creditors. Although, heir title is created by an act of complacency (intestate) or as a matter of local culture which suggests that “a succession implies that the family is not getting along,” once created, an heir title is often kept in this opaque status by a complicit action to avoid loan collectors (Coty 2009 & Meyer 2008). However, in most cases, the cost of succession is the primary discouragement (Meyer 2008, Coty 2009, Finger 2009).

Malcolm Meyer and Louisiana Senator Edwin R. Murray have drafted amendments to the Louisiana law to simplify the successions process, make it more affordable to low-income families, and respond to specific issues that arose with the *Road Home* program. The amendments would raise the defining value of a small succession from \$50,000 to \$135,000 property, and include an additional definition, ‘ancient successions’ for an intestate that occurred thirty years prior. This change is important, because the amendment would allow for both the small and ancient succession to happen with a simple affidavit, and not require adjudication (Meyer & Murray draft 2009). Meyer stated that a \$15 notarized signature is sufficient to name a beneficiary to a life insurance policy, which often values more than a home. Yet, a succession can cost thousands of dollars (Meyer 2009). The amendments state that this affidavit would be accepted as evidence of the “relationship to the deceased of the parties recognized therein, as heir, legatee, surviving spouse in community, or usufructuary, as the case may be, and of their right to the possession of the estate of the deceased” (Meyer & Murray draft 2009 Art.3434:C). Furthermore, this prevents unknown heirs from appearing

and making claims, because the amendments state that parties not listed in the affidavit have two years to assert their claim, or lose their interest. Finally, one of the most important of Meyer and Murray's amendments allows for a possessing heir to receive grant funds to rehabilitate the property without a consensus among all co-heirs (2009).

It is important to note that the amendment proposed by Meyer and Murray simplifies the succession process. In cases of conflict between co-heirs, the amendment does little to offer a remedy that could unify these multiple interests under one heir. The affidavit is not designed to intentionally remove co-heirs since all heirs need to be listed. The legal mechanisms to involuntarily remove inheritance rights are limited to article 941 of the Louisiana civil code which deems convicted murders 'unworthy.' Otherwise, heirs must voluntarily submit a written renunciation of their interest in a property according to Louisiana civil code article 963. Meyer (2009) says that:

Prescription of ownership rights against co-owners is frowned upon in the law, as co-owners have fiduciary duties to each other to protect the ownership interests. Generally the acts of possession against a co-owner have to be clear and unequivocal, like locking a door and forbidding entry with a mental intent to gain ownership. If the relationship has a higher value of trust, such as that between parent and child or husband and wife, or even lessee and lessor, under Louisiana law written notice must be given to deprive one of ownership. I once read a case where in France an order of nuns had occupied a castle for over 400 years (after having been given permission to do so by a nobleman), and their suit to claim ownership based upon possession was denied (Meyer 2009).

Given the nature of property rights, mechanisms that remove these rights are limited. One option is acquisitive prescription, which is akin to adverse possession, allowing a *de facto* occupancy to convert into a *de jure* ownership after a certain period of time. Therefore, a possessing heir could remove or prescribe the interests of co-heirs. In Louisiana, a property must be held in good faith for period of time of ten years (La C.C. art. 3475). In order to use acquisitive prescription to remove co-heirs or co-owners, one heir (most likely the possessor) would need to demonstrate "by overt and unambiguous acts sufficient to give notice to his co-owner that he intends to possess the property for himself," before the clock begins to roll on the ten year limit (La. C.C. art. 3478). Furthermore, a 'just title' which can be a bill of sale, act of donation, or other real right must be in written form and on file with the parish's office of land conveyance (La. C.C. art. 3483); if not filed, the prescription time for acquisitive possession is thirty years (La. C.C. art. 3486). Consequently, without reforms, acquisitive prescription is an ineffectual tool for removing un-located, unknown or uncooperative heirs.

The origin of the problems surrounding multiple heir titles is actually two-fold: (a) the original owner did not leave a will, or (b) the will listed multiple heirs (ELF 1980, Coty 2009). ELF (1980) states, “81% of all black landowners surveyed had not made wills,” mainly citing two reasons: “have not got around to it” or “children/spouse will get it anyway” (ELF 1980 p.113). A survey, twenty years later, by the Association for the Advancement of Retired Persons found that only 60% of people over 50 years of age had prepared a will (AARP 2000). Gwen Hamilton, Baton Rouge Area Foundation, suggests that the importance of wills be taught in high school social studies (Riegel 2007). Additionally, ELF (1980) suggests making tax incentives for will creation. The present author suggests promoting this through tax preparation services, especially in impoverished urban areas. However, this is a two-fold problem; any such program should stress the importance of designating one heir to a property. Although people may designate all children as heirs to a property in order to not show preference or otherwise create conflict between their children today, it is important that they understand the conflicts created by designating multiple interests, tomorrow.

B. Road Home in New Orleans

In response to Hurricane Katrina, the Louisiana governor created the Louisiana Recovery Authority (LRA) in October 2005 to oversee the state’s recovery effort. In 2006, the U.S. Department of Housing and Urban Development (HUD) proportioned \$8.08 billion in community development block grants (CBDGs) to the State of Louisiana. To distribute these funds, the Louisiana governor established the *Road Home* program, under the administration of the Louisiana Division of Administration, Office of Community Development, which administers CBDGs, and under the LRA which plans the recovery effort. The execution of much of the *Road Home* program was contracted out to ICF International, a consulting firm headquartered in Virginia.

The *Road Home*’s homeowner program began in August 2006 and the last day to apply to the program was July 31st of 2007. As of March 23rd 2009, the *Road Home* had received a total of 229,416 applications statewide to the homeowner program. The total number of applications was cut down to 185,113 by removing duplicates, test submissions and incomplete applications. Following review, 152,330 of the applicants were deemed eligible. A few of the eligibility requirements include: ownership and occupancy during the 2005 disaster. Of those eligible, 140,519 applications were completed, and of those 123,444 received awards, which averaged \$63,779, as of March 23rd 2009 (*Road Home* 2009).

The *Road Home's* requirements of ownership and occupancy for the homeownership program, facilitates the reevaluation of the social effects of the disaster. As Bolin and Stanford (1998 p.2) note, “disasters... can unmask social inequalities and the injustices that accompany them,” and New Orleans was no exception. It has been shown that Hurricane Katrina disproportionately affected low-income African American neighborhoods (Gabe et al. 2005, Sharkey 2007, Colten 2008). Using data on owner occupancy and other neighborhood characteristics from the 2000 Census, along with the number of applications to *Road Home* per neighborhood, the disproportionate affects of Katrina can be demonstrated in yet another way (see Table 5).

Table 5. Neighborhood Distribution of *Road Home* Applicants

Neighborhood	Katrina's Impact:		Neighborhood Characteristics (Census 2000)					
	Total <i>Road Home</i> Applications	Percent of Homeowners who applied to <i>Road Home</i>	Total occupied housing units	Owner occupied	Average household income	Black	White	Asian
Desire Area	626	93.09%	1,398	48.1%	\$27,077	94.1%	3.5%	0.2%
Holy Cross	770	92.94%	1,982	41.8%	\$32,202	87.5%	9.4%	0.2%
Pines Village	990	91.76%	1,699	63.5%	\$43,386	87.5%	9.7%	0.3%
Village de l'Est	1627	90.50%	3,817	47.1%	\$36,856	55.4%	3.6%	37.1%
Read Blvd West	1507	90.21%	1,963	85.1%	\$45,303	79.8%	16.2%	0.8%
Plum Orchard	1246	88.49%	2,453	57.4%	\$32,743	93.1%	4.4%	0.1%
Pontchartrain Park	821	88.35%	1,009	92.1%	\$44,070	96.7%	0.6%	0.1%
Lower Ninth Ward	2493	87.66%	4,820	59.0%	\$27,499	98.3%	0.5%	0.0%
Gentilly Woods	962	85.87%	1,480	75.7%	\$41,497	68.4%	24.8%	2.7%
Read Blvd East	2128	84.54%	2,841	88.6%	\$61,721	73.3%	16.6%	6.8%
Little Woods	6780	83.69%	15,761	51.4%	\$43,217	86.1%	9.8%	0.9%
St. Roch	1527	83.45%	4,336	42.2%	\$28,280	91.5%	3.9%	0.2%
Milneburg	1282	82.07%	2,194	71.2%	\$42,348	75.4%	17.7%	0.7%
Gert Town	306	82.05%	1,541	24.2%	\$22,685	94.5%	2.9%	0.5%
Hollygrove	1180	82.00%	2,655	54.2%	\$30,659	94.7%	2.6%	0.1%
St. Anthony	1052	81.93%	2,233	57.5%	\$37,968	58.0%	29.8%	4.0%
Dillard	1236	81.82%	2,609	57.9%	\$35,093	88.4%	6.9%	0.3%
Florida Area	568	81.66%	1,189	58.5%	\$29,295	98.4%	0.4%	0.0%
Dixon	225	80.01%	668	42.1%	\$25,099	94.9%	3.2%	0.1%
Filmore	1846	78.22%	2,757	85.6%	\$57,893	56.9%	36.4%	1.6%
West Lake Forest	659	77.39%	3,578	23.8%	\$32,305	95.3%	2.0%	0.4%
St. Claude	1415	76.60%	4,114	44.9%	\$29,802	90.5%	6.9%	0.2%
Seventh Ward	1594	73.99%	6,489	33.2%	\$26,519	93.6%	3.0%	0.1%
Gentilly Terrace	2133	72.92%	4,258	68.7%	\$42,321	69.7%	24.9%	0.5%
Lakeview	2249	71.53%	4,524	69.5%	\$63,984	0.7%	94.0%	0.7%
St. Bernard Area	244	71.05%	2,020	17.0%	\$19,982	97.8%	1.1%	0.0%
Lake Catherine	495	69.64%	788	90.2%	\$54,763	2.0%	94.3%	2.2%
Broadmoor	975	69.54%	2,915	48.1%	\$36,399	68.2%	25.8%	0.6%
Navarre	561	68.27%	1,470	55.9%	\$54,431	3.2%	89.1%	0.6%
West End	976	65.04%	2,472	60.7%	\$69,909	1.7%	90.6%	1.6%
Desire Development	16	64.13%	189	13.2%	\$14,392	98.1%	0.0%	0.8%
Fairgrounds	829	63.74%	2,983	43.6%	\$39,012	69.0%	26.0%	0.2%
Mid-City	1029	63.26%	5,830	27.9%	\$31,442	64.3%	23.2%	1.2%

Table 5. Continued...

Neighborhood	Total <i>Road Home</i> Applications	Percent of Homeowners who applied to <i>Road Home</i>	Total occupied housing units	Owner occupied	Average household income	Black	White	Asian
Freret	200	62.64%	902	35.4%	\$40,686	82.6%	13.5%	0.4%
Milan	569	54.31%	3,175	33.0%	\$36,460	73.8%	21.6%	1.0%
St. Thomas Development	46	53.55%	834	10.3%	\$17,380	93.1%	4.2%	0.1%
Central City	711	53.54%	8,147	16.3%	\$23,237	87.1%	9.9%	0.6%
Lakewood	345	48.23%	780	91.7%	\$153,990	1.7%	94.0%	1.2%
Bayou St. John	336	45.43%	2,113	35.0%	\$36,311	67.8%	26.7%	0.9%
B.W. Cooper Apts	25	45.11%	1,421	3.9%	\$13,263	98.4%	0.2%	0.0%
Leonidas	684	45.04%	3,633	41.8%	\$32,016	75.5%	20.6%	0.5%
Behrman	694	41.30%	3,568	47.1%	\$30,409	77.4%	12.8%	1.6%
Whitney	168	38.18%	873	50.4%	\$33,614	85.0%	11.1%	0.5%
U.S. Naval Support Area	163	36.14%	893	50.5%	\$36,705	63.2%	30.2%	0.7%
McDonogh	171	33.84%	1,055	47.9%	\$27,142	87.6%	9.3%	0.6%
Irish Channel	214	32.70%	1,750	37.4%	\$30,397	68.4%	26.0%	0.2%
Bywater	276	32.01%	2,263	38.1%	\$27,246	61.0%	32.4%	0.6%
Lake Terrace/ Lake Oaks	200	30.52%	689	95.1%	\$112,813	18.9%	72.5%	3.8%
Florida Development	4	30.38%	399	3.3%	\$12,210	98.1%	0.2%	0.0%
City Park	194	29.51%	1,565	42.0%	\$47,023	9.4%	81.9%	1.4%
East Riverside	138	23.21%	1,386	42.9%	\$31,970	63.9%	30.9%	0.3%
Uptown	277	19.74%	3,233	43.4%	\$55,282	36.0%	57.7%	1.1%
Old Aurora	822	18.82%	5,926	73.7%	\$56,422	30.9%	60.0%	2.7%
East Carrollton	145	16.95%	2,182	39.2%	\$59,583	31.5%	60.8%	1.6%
West Riverside	167	15.53%	2,635	40.8%	\$48,811	36.1%	56.9%	0.7%
Black Pearl	50	13.57%	967	38.1%	\$43,120	36.7%	55.0%	2.7%
Lower Garden District	105	12.71%	3,332	24.8%	\$56,981	34.2%	55.5%	1.5%
Audubon	386	12.47%	5,700	54.3%	\$108,964	5.1%	86.1%	2.4%
Marigny	64	9.92%	1,960	32.9%	\$35,764	17.7%	72.7%	1.0%
Algiers Point	46	8.37%	1,145	48.0%	\$52,457	25.1%	67.4%	0.8%
Touro	37	6.85%	1,672	32.3%	\$48,145	18.4%	74.1%	1.6%
Central Business District	12	5.62%	921	23.2%	\$67,633	32.9%	55.3%	5.9%
Garden District	24	4.38%	1,117	49.1%	\$90,702	2.7%	89.2%	0.9%
French Quarter	22	3.08%	2,908	24.6%	\$58,571	4.3%	89.7%	1.2%
Iberville Development	n/a	-	830	0.5%	\$7,279	98.1%	0.7%	0.0%
Lakeshore/ Lake Vista	n/a	-	1,543	85.7%	\$111,664	0.6%	93.8%	2.1%
Marlyville/ Fontainebleau	n/a	-	2,845	52.0%	\$60,067	27.9%	62.6%	3.5%
New Aurora/ English Turn	n/a	-	1,712	72.8%	\$62,939	68.1%	16.9%	13.0%
Tall Timbers/ Brechtel	n/a	-	5,007	35.4%	\$53,280	54.6%	35.8%	3.7%
Tremé/ Lafitte	n/a	-	3,429	21.8%	\$19,564	92.4%	4.9%	0.1%
Tulane/ Gravier	n/a	-	1,583	19.3%	\$16,569	78.2%	13.5%	5.0%
Viavant/ Venetian Isles	n/a	-	617	27.6%	\$20,595	76.5%	14.3%	3.3%
Orleans Parish	49,662	56.73%	188,251	46.5%	\$43,176	66.6%	26.6%	2.3%
Louisiana	185,113	16.46%	1,656,053	67.9%	\$44,833	32.3%	62.6%	1.2%
United States			105,480,101	66.2%	\$56,644	12.1%	69.2%	3.6%

source: *Road Home* (WIMBY reports online) and Census 2000, column 3 calculated by author

The neighborhood characteristics in Table 5 demonstrate the racial makeup of the city quite clearly. Of the 73 neighborhoods in the city, twenty six had more than 85% African American populations in the year 2000, and ten of those were more than 95% African American. In those twenty six neighborhoods, relatively high ownership rates are shown, especially in historic African American neighborhoods like Pontchartrain Park, with 92.1% home ownership. Of those twenty six neighborhoods (over 85% black), seventeen of them had more than 70% of their homeowners apply to *Road Home*. Consider alternatively that nine of the 73 neighborhoods had more than 85% white populations, and only one of them had more than 70% of its homeowners apply to *Road Home*. A disparity would appear to exist, but this should be cautioned. The city was 67% African American, and only 17% of its neighborhoods were as white as the rest of the country. When Hurricane Katrina came and the levees broke, flooding some 80% of the city, the storm was not calculating in its selection of neighborhoods. The development of low lying areas happened so long ago that is difficult to translate this into present social inequalities. Furthermore, neighborhoods like the Lower Ninth Ward do not have a relatively low elevation; this neighborhood was flooded because of the adjacent levee rupture. The Lower Ninth Ward was 98% black in 2000, and was severely flooded in 2005, but it is not fair to say that the people living in this neighborhood were taking a blatant risk by living in there. The connection between lower property values and environmental risk is not clear enough to draw that conclusion. Pre-Katrina, there was a general confidence in the levee system; furthermore, the Mississippi River had traditionally been considered the most ominous hazard. Therefore, although the flooding disproportionately affected black neighborhoods, the inequalities exposed by the hurricane are most evident in the post-disaster recovery. For example, a clear inequality is seen in how *Road Home* calculated its grants.

The *Road Home* program gave homeowners three options: (1) a rebuilding grant, (2) a buy-out of their home if they move in-state, or (3) a buy-out of their home if they move out-of-state. As of March 30, 2009, 88% of the eligible applicants chose option one (*Road Home* 2009), partially because *Road Home* has incentives to choose the first option. Unless the applicant is elderly, the dollar amount is cut by 40% for applicants that choose options two or three. The logic behind this incentive is the rebuilding focus of the program; i.e. a strong population in New Orleans would benefit the overall recovery effort. Additionally, Eden and Boren (2008) note that options two and three faced more delays because of belated formation of the land bank that would receive the buy-out properties, the Louisiana Land Trust. This delay marks a disconnect between the programs of the overall recovery effort. So although it was inequitable, the delays and the 40% penalty were relatively justifiable. However, the additional nuances of the grant calculation would not be so clear.

The *Road Home* grant amount is based on the pre-Katrina value of the home or the damage costs as a percentage of the value, and “not the actual cost of repairing the damaged home” (Finger 2008). This exposed another disparity in how *Road Home* calculates its awards. Considering that African American neighborhoods have typically lower home values and damage costs could be as much as in higher income neighborhoods, “African American homeowners... had average shortfalls of \$39,082, compared with \$30,863 for white applicants” (Finger 2008 p.12). Furthermore, “*Road Home* rejects any Louisiana-certified appraisal that is more than 20 percent greater than *Road Home*’s valuation” (Finger 2008 p.13). Another possible factor explaining this disparity may be the 30% penalty applied to grants to homeowners who did not have insurance. Logically, a grant amount should be reduced by the amount of the insurance payment, which is due to the homeowner because they have been paying premiums to the insurance company. To then offer a higher grant amount to homeowners who have not been paying premiums, would be unfair. Regardless of fairness, a shortfall could have more widespread effects for the overall recovery effort. Additional programs, such as gap loans, could be considered. These nuances, although demonstrating inequities, do not compare to the inequities between resident homeowner and rental property programs.

The *Road Home* program established several different forms of assistance in addition to the homeowner program: assistance for small rental properties, condominiums, affordable housing, and the homeless. These additional programs demonstrate inequalities as well. The *Road Home* repeats the tendency of programs to neglect the rental sector, (Fourie 1999, Durand-Lasserve 2002, Payne 1997, UN Habitat 2007 and Schwab 1998). In a study of the *Road Home* small rental program, Rose et al (2008b) notes that “Renters are still out of luck: in hurricane affected areas across the state, only 2 in 5 affordable damaged rental units will be repaired or replaced with recovery assistance. In New Orleans, just over 1 in 3 will receive recovery assistance—leaving displaced renters critically vulnerable. Of the approximately 24,600 rental homes projected to receive assistance, only eleven percent (2,600) are open for occupancy.” Despite being under admittedly under-funded the program has well intentioned policies, “unlike the homeowner program, funds will be insufficient to provide every small-scale property owner with enough money to repair or replace their rental properties” (HUD 2006). The program has three tiers of assistance, \$25,000, \$50,000 and \$75,000 per rental unit. Landlord owners who agree to offer lower rents can qualify for the highest funding level, which unlike the homeowner program, is not only dramatically less, but is also considered a deferred 0% loan. Owners pay back the *Road Home* assistance upon the sale of the property or, as a

penalty, if they break the ten year-affordable rent agreement by which the assistance was conditioned (HUD 2006). The \$25-50-75 thousand funding levels, like the homeowner program, are cap levels to an assistance amount which is decided by a calculation that deducts insurance and the maximum private financing the property rents will support.

Additionally, *Road Home* promotes new workforce and affordable housing developments through the use of the Low Income Housing Tax Credits of the Gulf Opportunity Zone legislation that was implemented post-Katrina to incentivize economic development of the disaster-affected region. Although such housing developments would not have sufficient tax liabilities to make a large tax credit worthwhile, these credits have typically funded projects by being sold to corporations that do have large tax liability. However, the recent economic recession has reduced corporate revenues and tax liabilities. Consequently, the tax credit tool is not functioning as well as intended. Rose et al (2008b) states that this situation is “jeopardizing the financing for as many as 4,600 of the planned 13,100 units of multifamily rental housing in southern Louisiana.”

One of the biggest problems with *Road Home* is the program’s administration under the contractor ICF International. It seems fair to say the praise for the program would have outweighed the criticism, had it been properly administered in a timely manner. After all, it has dispersed \$7.9 billion in grants to homeowners for rebuilding, as of March 30th, 2009. However, because of blatant mistakes and inadequacies, many opinions of the program are quite negative. The grants took an average of 251 days with the longest being 500 days (Eden & Boren 2008). Applicants tend to distrust the management of the program, and keep detailed logs and recordings of all their dealings with the program’s employees in order to protect themselves. Many have filed appeals or disputes and found themselves lost in a process of appeal. Finger notes:

... while receiving no new information about their grant disbursement. Applicants are given various instructions for required documents. For instance, applicants are told they must produce various types of documentation during one phone conversation, only to be told something completely different in a subsequent phone call with *Road Home* (Finger 2008 p.20)

Considering that *Road Home* is one of ICF International’s largest contracts, their stock prices have taken a hit, down from a high of \$32.70 a share in October, 2007 to a low of \$15.66 in July, 2008. Furthermore, ICF is being fined \$1 million by the State for not meeting performance benchmarks, and faces lawsuits by employees for overtime issues and age discrimination (Times Picayune 2/11/09).

In summary, the inefficiencies of *Road Home* have greatly hindered its effectiveness. As Bolin and Stanford (1998) noted, disasters reveal social inequities. Additionally, administrative inefficiencies could be added to this statement. Just as in developing nations, where the ability of a municipality to manage the city's growth depends upon its resources, in New Orleans the post-disaster recovery program suffered a similar plight. The present author is not the first to compare New Orleans to a developing country. When Dr. Arjun Sengupta, a United Nations Human Rights Commission Special Reporter, visited New Orleans shortly after the storm, he said "the US is the richest nation in the history of the world. Why cannot it restore electricity and water and help people rebuild their homes and neighborhoods?" (Quigley 2005). As the present research shows, it does not seem to matter whether a disaster happens in a developed or developing nation; the disaster will always reveal inequities, inefficiencies, and, as the following section will explore, insecurities.

C. Heirship and Road Home

Homeowner applicants needed to prove both ownership and occupancy to be eligible for the *Road Home* grants. However, proof of ownership was complicated by heir properties. The initial policy of ICF on heir properties was not consistent, nor has it ever been. In the beginning of the *Road Home* program, many applicants with heir titles were told that they needed a succession before they could apply; successions take time and consequently a large, but unknown, number of applicants missed the deadline on July 31st, 2007 (Hammer 3/2008, Finger 2009, Coty 2009).

The *Road Home* program eventually streamlined its policies to facilitate heir property applicants. For those heir property applicants choosing to rebuild (option 1) they are required to file an 'Affidavit of Death, Domicile, and Heirship.' This policy was originally suggested by First American Title Insurance Company, a company contracted to perform title searches on the applicants' properties. First American realized that around 15% of the titles they researched had owner names that did not match the name of the *Road Home* applicant. However, full succession is still required for the buy-out (options two and three) at the closing of which, all co-heirs must be present or provide power of attorney.

The affidavit essentially confirms the death of the title holder and lists the names of all heirs and other pertinent details regarding the heir property. It is the same affidavit which Meyer and Murray hope to give more validity through their proposed legislative amendments. Although *Road*

Home's policy is to accept the affidavits, this acceptance is conditioned by the acceptance of the affidavit by title insurance attorneys whose discretion does not follow any concrete standards (Coty 2009). Furthermore, in cases of multiple co-heirs, the grant check for rebuilding has frequently been split into multiple checks in accordance with the individual heirs' interests in the property. This could obviously direct the grant monies into non-rebuilding expenditures. In some cases, *Road Home* has written the check to one heir, which would be preferred if that heir was the possessing heir with the intention of rebuilding. However, in many instances that has not been the case; non-possessing co-heirs have received the rebuilding grant, used it according to their own discretion, and left the possessing heir with nothing (Coty 2009).

Many applicants are still waiting for their rebuilding monies, and some continue to supply supporting documentation to-date. In June 2008, pro bono attorneys were seeing an increase in denials to applicants with successions pending (Rose et al. 2008a). At one point, in July '08, the LRA director Paul Rainwater placed deadlines of Sept. 5th on some 8,400 *Road Home* applicants to file the lacking documentation, and October 1st on some 2,700 applicants with title issues and 1,200 more lacking proof of occupancy (Cohen 8/2008 & Hammer 8/2008). Advocates for the applicants came out against the deadlines in a letter to the Louisiana governor stating:

Sending people chasing to document that they should get an extension and having ICF and LRA staff reviewing as to entitlement to extensions is an unnecessary and counterproductive waste of time... Leaving applicants with just 30 days to complete submissions is inadequate given how poorly ICF has administered the *Road Home* Program (qtd in Cohen 8/2008).

The letter's authors, legal advocates David Williams, Davida Finger and Bill Quigley, also commented on the need for additional assistance to for the legal assistance programs for *Road Home* applicants. They noted that such deadlines would disproportionately affect the African-American population, stating, "In our experience about 90 percent of the homeowners with difficult succession matters are African-American. As a result, it is clear that the impact of this change would disproportionately disqualify African-Americans from participating in this program" (qtd in Cohen 8/2008). The delays could be contributed, in part, to an inadequate provision of funds to the legal aid program. In March of 2008, the original allocation of \$570,000 needed to be nearly doubled to continue providing title assistance. From the beginning of *Road Home* to March '08, some 1,525 title cases were opened (Hammer 3/2008). By August of 2008, there would be some 2,700 title cases active (Cohen 8/2008, Hammer 8/2008). Consequently, the LRA director, Paul Rainwater, met with applicants and their advocates, and decided to rescind the unreasonable Sept 5th and October 1st deadlines. The

program labors forward and many applicants continue to struggle to prove ownership of their homes because of heir title.

The infamous Lower Ninth Ward has experienced substantial delays with recovery. Anecdotal evidence suggests that heir properties are prevalent in this neighborhood, which in 2000 had a 98% African American population, 59% homeownership and an annual household income around \$15K less than the rest of Orleans Parish (see Table 5). Following Hurricane Katrina nearly 88% of the former resident homeowners have applied to *Road Home*. Information on the success of those homeowner applications and the success of the small rental property owners is not available. However, it is clear that recovery is slow. In June of 2008, the Lower Ninth Ward had the lowest percent recovery of all Orleans Parish neighborhoods, at only 11.2%³ (GNOCDC 2008). As data becomes available, heir property's effect on this neighborhood's slow recovery could be evaluated.

In conclusion, heirship property as a form of tenure insecurity in U.S. cities has not been given attention in the past. Heir title has complicated the allocation of post-disaster housing assistance in New Orleans. The implications of this are widespread. Although the data is not yet available from *Road Home*, heir property seems to be prevalent in African American neighborhoods. However, this conclusion should be cautioned. Because of the disproportionate damage to African American neighborhoods in New Orleans, it seems obvious that more heir property cases would arise from this segment of the population. Even the ELF (1980) study admitted their research was focused on explaining the decline of black-owned farms, and consequently only black-owned farms were part of the survey. Therefore, more research is needed to identify and clarify the factors that might affect the occurrence of heir title in urban areas, such as race, income, housing age, and percentage of homeownership. For example, the greater the age of the home, the less likely it is that the original owner is still alive. The lower the income, the less likely it is that the original owner prepared a will (AARP 2000) and the less likely it is that the heir performed a succession (Meyer 2008, Finger 2009, Coty 2009).

It is important to consider the impact of heir title on more than just recovery efforts. All urban planning efforts that address property rights need to be prepared to address this issue, such

³ The 11.2% recovery rate is measured by the 5,363 active mailboxes in June 2005, and the 601 active mailboxes in June 2008. These measures are by neighborhood. The Florida Development had a lower percent recovery at 0.2%. Although listed by the GNOCDC as a 'neighborhood', the Florida Development is public housing project with only 406 active mailboxes in 2005. Therefore its 0% recovery rate is considered to be an anomaly. Although, the recovery of this housing project does not speak to the heirship issue, it does speak to the post-Katrina state of affordable housing programs.

as programs that use eminent domain or intend to leverage land capital. The fact that heir property could be occurring in concentration within certain neighborhoods has serious implications for the equity of the program's results. Urban planning policies and programs could be less effective and/or dramatically delayed in areas that have a high occurrence of heir property; legal services may need to be provided in a project area. Furthermore, there may be implications for the land market as a whole which need to be further addressed. However, it should be noted that these implications, delays, and demand for additional legal services, are only as great as the policy makers and planners make them. After all, heirs are real property owners with real rights, despite the fact that their ownership documentation is not in the most formal or efficient state possible. In some cases, this informality offers protections to low income residents. Consequently, further research should also address the implications for the poor of programs that do not accept this informal status, and require formality, i.e. the succession of heir titles.

Post-Hurricane Mitch Tegucigalpa

Tegucigalpa is the capital of Honduras and the primate city. In 2001, the city's population was 850,227 people, and it is expected to double by 2031 (Angel et al 2004). As the city has grown, the municipality has not been able to realistically enforce its land use regulations. Tegucigalpa sits in a mountain valley at an elevation between 900 and 1150 meters above sea level. It has exhausted the lands most suitable for development in the valley and development now reaches up the mountain slopes and down to the Choluteca River, areas at risk to landslides and flooding. In 2001, almost 8% of the total urban area had been developed in areas at risk to landslide (Angel et al 2004). More suitable land exists on hill top plateaus further away from the urban core, but development has historically built on risky sites closer to the urban core rather than further away.

In 1998, Hurricane Mitch inundated the city with rainfall causing flash flooding and landslides, destroying a disproportionate number of informal low-income neighborhoods. The international community responded with substantial disaster recovery assistance. One of the primary projects was the construction of a relocation community. However, given pervasive informality, how did the housing recovery assistance propose to reach the appropriate beneficiaries and find land for the relocated population?

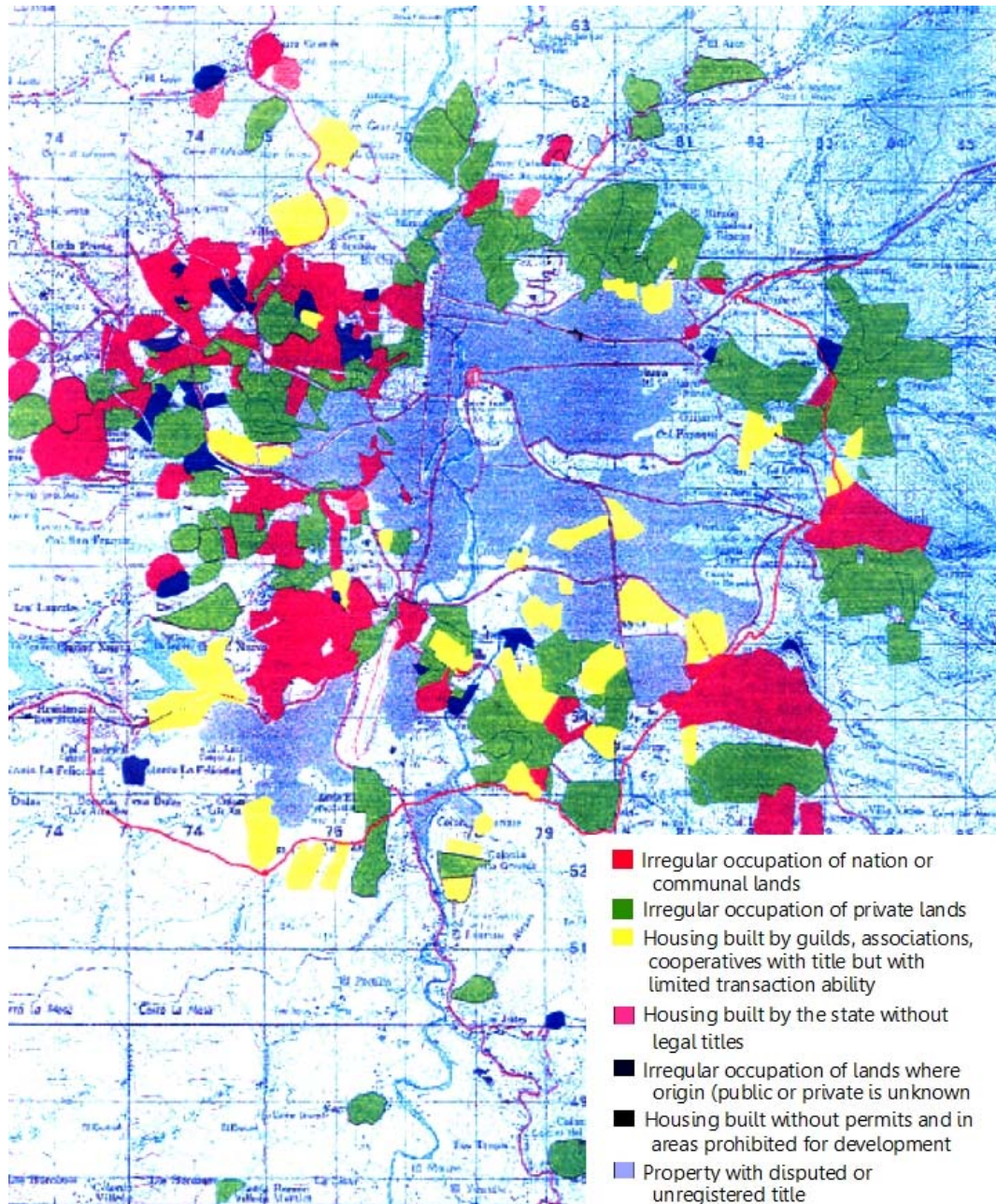
A. Tenure Insecurity in Tegucigalpa

Three basic types of formal land tenure exist in Honduras: state owned, privately owned and common land which is for public use and managed by individual municipalities. Informal developments have occurred in all three cases. According to a 2001 report by Hernando de Soto's Institute of Liberty and Democracy (ILD), Honduras' urban real estate has a dead capital of US\$8 billion (qtd. in InfoPress CA 2003).

In 2003, Dr. Shlomo Angel of the Woodrow Wilson School of Public and International Affairs at Princeton University led a team of graduate students to Tegucigalpa for the preparation of a report entitled "Rapid Urbanization in Tegucigalpa, Honduras: Preparing for the Doubling of the City's Population in the Next Twenty-five Years." Angel et al (2003) quote from de Soto's ILD report, which states that 55% of the Tegucigalpa's properties are "extra-legal invasions on public and private lands" (qtd. in Angel et al 2004 p. 29). About half of these invasions occurred on common land, much of which was privatized by the municipality because of the vagueness of usufruct rights. In addition to the 'invasions', another 23% of the properties were extra-legal because "they had been sold without 'free-and-clear legal title, or without regard to deed or usage restrictions that should have limited or prohibited their sale..." (ibid). That means that 78% of the properties, around 45-

55% of the city's area, and 60% of the city's population are in an extra-legal status (ibid). The following map is an excellent representation of the city's extralegal growth around the formal urban core (Figure 3).

Figure 4. Map of Types of Extralegality in Tegucigalpa, Honduras



Source: ILD 2001 reproduced in Pearce-Oroz 2005 (image enhanced by Peterson)

Unauthorized subdivisions have proliferated in Tegucigalpa, especially on lands with building restrictions due to high risk of flooding or landslides. Angel et al (2004 p.30) state, "the municipality does not classify construction of housing on private land as illegal if the construction has been done

with the consent of the land owner and if the land owner has been paid. Such construction has been construed only as a technical violation of building code.” Furthermore, unauthorized subdivisions are a response to regulatory inefficiencies (Payne 1997, Farvacque-Vitkovic and McAuslan 1992). The municipality has been unable to discourage informal developments. They lack the resources to enforce the existing regulations and the resources to facilitate those residents that choose to follow the formal system.

The role of adverse possession is very important in Tegucigalpa. Unauthorized subdivisions constitute 23% of the city’s properties, while ‘invasions’ make up 55% (qtd. in Angel et al 2004 p. 29). However, the percentage of unauthorized subdivisions may actually be higher, considering that a large amount of land facing development restrictions has been part of clandestine sales, “masquerading as invasions” (Angel et al 2004 p.30). The true ‘invasions’ are legitimized by adverse possession laws, which give title to lands continuously occupied over a ten year period, disregarding the previous ownership. Angel et al (2004) state that adverse possession causes insecurity and uncertainty of titles, which affects the market, depresses prices on land with unclear titles and causes investors to look towards properties held under previous long term ownership. However, in the literature review, adverse possession is shown to be a common policy internationally in both developed and developing countries; it has an influential role in U.S. history as a tool to clarify title; and it is promoted by the United Nations (2007) for being pro-poor. Therefore, contrary to Angel et al, it is more likely that municipality of Tegucigalpa lacks the resources to maintain an up-to-date land registration that would make adverse possession function appropriately.

De Soto (2001) states that, in Tegucigalpa, legally formalizing a property sale, subdividing, and building takes an average three years and costs U.S. \$1,083 in fees (qtd in Pearce-Oroz 2005). Pearce-Oroz (2005) notes that even those properties formally registered may not be clearly defined enough to avoid dispute. He reprinted the following translation of a typical deed of sale, which lacks definitive boundaries:

seller is owner of a lot located in Aldea Remolino, Municipality of Puerto Cortés, which has the following measurements and boundaries: to the north 44 feet and bounded by the property of Mrs. A. Paz; to the south 44 feet and bounded by the property of Mrs. N. Sánchez; to the east 29 feet and bounded by the highway to La Lima; and to the west 23 feet and bounded by the property of Mrs. A. Paz and Mrs. A. Membreño (Pearce-Oroz 2005 p.7).

Pearce-Oroz (2005 p.7) further notes that an “inaccurate land registry system, complicated registry practices..., and a weak judicial system... contribute to the inefficiency and weakness of the formal

land market.” It is a fair conclusion that inefficiencies contribute to informalities (Hardoy and Satterthwaite 1989, Durand-Lasserve 1998 and Payne 1997).

The history of Tegucigalpa’s urban planning sheds light on its inadequacies. Around 1989, the municipality became more tolerant of informal growth, and stopped calling informal developments ‘illegal,’ in favor of the adjective ‘extra-legal’. These policies were marked with the benign tolerance warned of by Hardoy and Satterthwaite (1989). However, the municipality has been more pro-active since around 2000. Hernando de Soto’s ILD report (2001) demonstrated the city’s dead capital, following which, the city opened a national cadastre institute and implemented legal reforms. Additionally, Dr. Angel and his Princeton graduate student team were invited to Tegucigalpa because the Mayor was contracting an international firm to prepare a new master plan for the city. The previous plan was written in 1974 and included much of what ‘ought to’ be, and not what realistically ‘could’ be (Turner and Fitcher 1972). Angel et al (2004) state:

failure to plan with the realistic conditions of Tegucigalpa in mind—the poverty of its population; the limited availability of long-term credit for financing housing and land subdivisions; the limited availability of fiscal and financial resources for infrastructure investments; the limited political will to enforce unrealistic zoning laws, land subdivision regulations, and building codes; and the preponderance of wishful thinking among decision-makers. (Angel et al 2004 pp.4-5)

Steps have been taken to address the issues surrounding informal developments. The city has been legalizing titles (voluntarily) in informal neighborhoods and charging the residents 10% of the assessed value of their properties. The income generated by the program is then earmarked for infrastructure improvements in those same neighborhoods. Additional efforts to address informal settlements have combined and streamlined two different property offices. Also, the Honduran government passed new laws addressing informal settlements, but this will probably not be sufficient to remedy the situation (Angel et al 2004).

Legal reforms, the 2004 *Property Law* and the 2003 *Territorial Organization Law*, could help the municipality by streamlining and simplifying property registration. The *Property Law* establishes one single institution, *El Instituto de la Propiedad* (IP), for the registration of properties. According to Pearce-Oroz (2005), a geospatial property survey will be needed in order for the new laws to have an impact, a formidable task. Pearce-Oroz’s suggestion is remnant of Payne’s (1997) ‘social cadastre’ methodology. One hope is that the new *Property Law* will increase investor confidence by offering more secure land tenure. Therefore, land development should increase; land prices should rise; and, the economy should be stimulated. Unfortunately, no one measure stands alone. For any

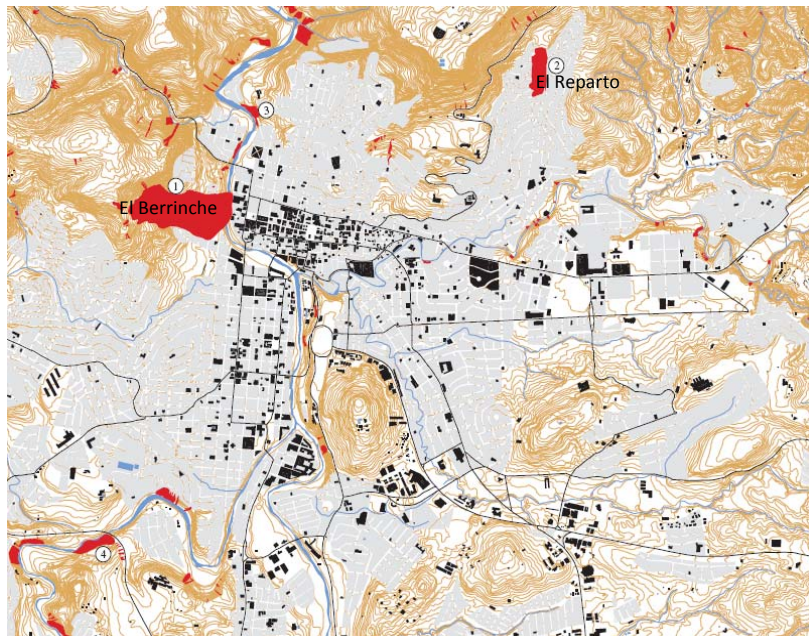
new law to work there must be universal implementation and enforcement among all governmental entities involved, which assumes that they have to capacity, personnel and willingness to collaborate (Pearce-Oroz 2005). A dependable and enforceable land tenure system would give poor families more opportunity to hold legal indisputable titles. Once poor families have title, they could leverage it as collateral to obtain credit for income generating activities such as small businesses, thus helping to alleviate poverty. Again, this assumes that financial institutions would have the capacity, personnel and willingness to collaborate in such credit schemes (ibid).

B. Response to Hurricane Mitch in Tegucigalpa

Informal urban growth onto high-risk lands in Tegucigalpa had horrible repercussions. Between October 26th and November 1st 1998, the “most powerful” hurricane in two hundred years, Hurricane Mitch, lingered over Honduras (Martine, 2002). Major losses were felt throughout Honduras, Nicaragua, El Salvador and Guatemala. In Central America, 9,214 bodies were recovered and another 9,171 individuals were unaccounted for. The majority of these were in Honduras, where 5,657 bodies were found and another 8,058 remained unaccounted for (IADB 1999). Hurricane Mitch was a slow moving category five hurricane as it rolled over the north coast of Honduras. The storm slowly moved inland and gradually decreased in strength. Its 24 inches of rain caused major floods and landslides throughout the country and in the capital city (OPS 1999). Half to three quarters of the homes destroyed in Honduras were the result of poor land-use planning (Angel 2004, IADB 1999). In Honduras, 285,000 people were forced into public shelters, 66,188 houses were destroyed, and 82,735 houses were damaged (OPS 1999).

Landslides occurred throughout the country, but none as severe as El Berrinche which smashed through part of the neighborhood, Colonia Soto, of Tegucigalpa. Additionally, the El Reparto landslide affected the city (see the Figure 5). Luckily, both landslides began slowly, giving residents an opportunity to evacuate.

Figure 5. Landslides during Hurricane Mitch



Source: USGS 1999 (landslide areas shown in red)

El Berrinche landslide was the largest landslide caused by Hurricane Mitch in all of Honduras. The landslide's mass was roughly 6 million cubic meters (1.3 times the volume of the Superdome in New Orleans). After plowing through the neighborhoods of Colonia Soto, the toe of the land mass dammed the Choluteca River, flooding in the Comayagua market and leaving behind a lagoon of contaminated water. Some areas were covered in up to two meters of contaminated mud (OCHA 1998). The lagoon remained dammed up by the El Berrinche landslide for several months until the United States Geological Service (USGS) and the US Army Corps of Engineer determined that it would not cause further instability to excavate a channel, thus draining the lagoon (see Figure 6) (USGS 2002).

Figure 6. Photo of El Berrinche Landslide



Aerial view of the El Berrinche landslide, a complex slump/earth flow that dammed the Río Choluteca in Tegucigalpa. The arrow indicates the direction of movement of the earth-flow tongue. "T" denotes the toe of the landslide that dammed the river, and "L" indicates the lagoon dammed by the toe of the landslide. "DT" indicates the highly deformed toe of the landslide where the center of Colonia Soto was, and "SB" denotes the upper slump block.

Source: USGS 2002

Most of the residents of the homes destroyed in the landslides and river flooding were not allowed to return. Future development in these disaster areas has been prohibited. These restrictions have been relatively well enforced, at least in part due to the public's awareness of risk following Hurricane Mitch. To date, there is a large green swath of land immediately adjacent to the downtown area, the remnants of El Berrinche. However, some have perceived a public backlash from the land use restrictions. According to Rhyner (2006), the number of people currently living in environmentally vulnerable areas is probably greater than in 1998.

To meet immediate housing needs the Norwegian Government, the United Nations Development Programme (UNDP) and the International Organization for Migration (IOM) started a sheltering project in the capital on February 8th, 1999, about three months after the disaster to meet the sheltering needs that local organizations, schools and churches could not meet. One shelter area, El Trebol, was to the south of the city, and the other, El Molino was to the northwest.

These were extensive areas, allowing the expansion of the shelters: El Trebol 1, El Trebol 2, El Molino 1 and El Molino 2 (IOM 2000). In total there were 71 wood frame modules with zinc roofs, which housed 4,922 persons (1,404 families) (IOM 2000). The large-scale transition out of the shelters did not begin until November of 1999 when the first 293 people moved into permanent housing built by the Red Cross in the Amarateca Valley about ten miles to the northwest of the city (IOM 2000).

International donors looking for land to build a single project of 2,500 homes were constrained by weaknesses in the urban land market and a lack of support from the Honduran government (Alder 2002). The donors ultimately had to look to the Valley of Amarateca, approximately ten miles from the municipality's border. Nearly 3,700 homes were built in the Amarateca Valley by 2004 along with social facilities such as primary schools and community centers. The resettled population was approximately 18,500.

Table 6. NGO Post-Disaster Housing Projects of Amarateca

Organization (Project Neighborhood)	# of Homes
Cruz Roja (Cuidad España)	968
Cristo del Picacho	850
EcoViDe (La Betania of Cuidad España 317, & Nueva Suyapa 170)	487
Cáritas	479
Hábitat para la Humanidad (La Joya)	400
Spanish Agency for International Cooperation AECI (Cuidad España)	243
ADRA Adventist Development and Relief Agency (La Joya)	137
Ven a Servir (La Joya)	73
TOTAL	3,637

Sources: Belli 2008 and Cruz Roja 2002

The move out of the city was difficult for many of the new residents of Amarateca, particularly due to the economic aspects related to being so far from the urban economy. They were spending between ten to sixteen percent of their weekly incomes on travel expenses (Pearce-Oroz 2005). Although the settlement is over ten miles from the capital city, the Amarateca valley is fairly industrialized, which does offer employment opportunities to some of the residents. However, many of the beneficiaries were from the market area of Comayaguela, which was flooded with mud from the combined effect of the flooding of the Choluteca River and El Berrinche landslide.

Consequently, the location to Amarateca separated them from their economic network (Meza 2009). An IOM study (2001), noted an increase in unemployment from 20% to 28% (Alder 2002).

Marris (1961) notes the problems with relocation projects that break social, economic and cultural networks. Barrios (2001) states that displaced populations tend to be confronted with a significant loss of social power. Government and/or nongovernment's large-scale relocation of people tends to disintegrate the existing social networks (Barrios 2001, Marris 1961). Alder (2002) states that a secondary social network was established between families who spent two years living together in the macro-shelters, but this too was broken when families moved into the various permanent housing projects in Amarateca. Rhyner (2006) notes that the disconnect between Amarateca and the capital city ultimately created an unwanted housing stock in many of the neighborhoods, especially in La Joya, resulting in high vacancy, poverty and crime, which furthered the negative social image (Rhyner 2006, Pearce-Oroz 2005, Barrios 2001, Carcache 2009). The high vacancy left many empty homes that became gang havens, or in some cases, they were converted into outhouses with pit latrines dug inside (Alder 2002).

The 1,500 homes of Ciudad España differed from many of the other projects. The Spanish Government and the Honduran Red Cross had an unceasing presence in the neighborhood. The Honduran government also invested large amounts of money in the project, and had the highest level of institutional coordination (Alder 2002). Ciudad España includes a school, park, day care, community center, senior center, market, postal office, police post, potable water, sewer system, and electricity, as well as community development programs, small business assistance and reforestation efforts (Cruz Roja 2002). The Spanish Agency for International Cooperation (AECI) financed 243 of the homes, as well as most of the potable water system and sewer for Ciudad España, the new market, and supported the Mayor's Office of Tegucigalpa in the development of the Amarateca land use plan (Cruz Roja 2002).

Part of Ciudad España includes La Betania, which is the relocation neighborhood for residents of one of the informal neighborhoods affected by flooding from Mitch. The original Betania was built along the banks of the Choluteca River on the edge of the Capital. The flooding destroyed around 100 homes and damaged about 300. The NGO EcoViDe, funded by the Swiss Red Cross, worked substantially with local community leaders. Consequently, this project avoided the disconnect of social network seen in other areas, such as La Joya. Besides being conceptually well designed, Betania and the rest of Ciudad España used architectural variety and an appealing layout.

Given these factors, it was developed much faster than others. Rhyner 2006 notes it has all the basic services and full occupancy.

Probably the most distinguishing factor between Ciudad España and La Joya was the level of support and solidarity on the part of the Honduran government. Alder (2002) states that because of “institutional weaknesses and the lack of leadership” the reconstruction effort was marked with “justified complaints” about the potable water systems, sanitation, security, and employment opportunities in the Amarateca Valley (Adler 2002 p.35). “The government and international agencies elaborated the planning and development process without evidence of the slightest participation or organization on the part of the residents...” (ibid). In light of the lack of capacity and transparency of the national institutions, the international donors formed their own coordination organizations and sector committees, to which the Honduran government was invited to participate. Without coordination there were duplications of efforts, for example workshops were repeated by different NGOs for the same recipients. Additionally, two land use studies were conducted without cooperation between them, neither of which involved the community in their design (ibid).

Alder (2002) criticizes many of the donor NGOs for being focused on developing the highest number of homes, while disregarding sustainability. One of the typical approaches used by civil society in Honduras to facilitate such construction goals and sustainability is to have the beneficiary community contribute to projects in the form of labor. This labor requirement is often fulfilled by men and women alike. However, the elderly or people unable to work are either excused or required to hire a *mozo* who does the work on their behalf, typically for about US\$ 6 per day. In the project by Hábitat para la Humanidad, beneficiaries were required to work 54 days, in the EcoViDe project, it was 210 days (Benítez Salem 2009, Martínez 2009). Additionally, beneficiaries to EcoViDe were required to demolish their former properties so that no one could return to live in these at risk areas (EcoViDe 2005). After building their new homes with EcoViDe as a group, the homes were assigned to beneficiaries through a lottery system. On the other hand, Hábitat allowed the beneficiaries to work on their own homes (Meza 2009).

During the recovery effort, throughout all of Honduras from 1999-2001, approximately 27,000 homes were built with the assistance of international organizations. The low-income families that received these homes had several things which would have been practically unattainable previously: a new home, in a low-risk area, and legal title. The internationally assisted development caused a housing boom that the Honduran government’s capacity could not sustain alone.

However, Pearce-Oroz (2005) states that “six years after the hurricane, housing and land markets continue to function poorly even though urbanization trends were appreciably influenced in some localized cases.”

C. Avoiding and Finding Insecurity in Amarateca

The Honduran government’s collaboration with Ciudad España would have positive results, but other projects suffered. The Honduran government offered 141 acres, 103 of which by donation, in the Amarateca Valley to the Cruz Roja, AECI and EcoViDe for the construction of 1,500 homes in Ciudad España (Alder 2002, Cruz Roja 2002). The rest of the projects struggled to find land. The international NGOs expressed their wish to develop near the city, but the Honduran government was unwilling to impose purchases upon wealthy land owners who maintain speculative vacant properties around the city (Alder 2002). This lack of political will highlights the role of politics with regards to tenure security (McAuslan 1987). In this case, politicians’ cronyism inequitably provides tenure security to the privileged few, while increasing insecurity for those who wish to assist the most vulnerable.

The NGOs were unwilling to risk purchases of lands without clear and long established ownership (Pearce-Oroz 2005). Therefore, NGOs resorted to the Amarateca Valley. Alder (2002 p.38) states that “many properties in Honduras are in dispute, and whatever intent to buy land in the country can find itself tangled up in prolonged legal disputes.” This statement turned out to be prophetic for Hábitat para la Humanidad Honduras. After struggling to find land closer to the city, Hábitat and IOM were the first to find clear-titled land in Amarateca, and the rest of the international civil society followed (ibid). Yet Hábitat was sued three times by three different property owners for property encroachment. Hábitat was exonerated in two of the cases, but one case was ruled against Habitat for the usurp or possession without right of a strip of land measuring between 3,500 and 4,900 square meters, for which Habitat has compensated the owner (Benítez Salem 2009). This confusion represents the uncertainty of the geographic landmarks used in titles, as mentioned by Pearce-Oroz (2005). Furthermore, it demonstrates how tenure insecurity can affect post-disaster housing, specifically the lands acquired for relocation housing projects.

Insecurity affected the donors’ search for project lands, but the donors did not allow it to affect the selection of beneficiaries. A close comparison of Figure 4 and Figure 5, shows that the residences affected by El Berrinche landslide were originally settled as an invasion of public land; La

Betania and others were the same. Tenure insecurity is very pervasive and well-known in Honduras. NGOs knew they could not require formal title as an eligibility requirement (Martinez 2009). The eligibility criteria used by Hábitat para la Humanidad was simple: be affected by the disaster, have lived in the macro-shelters and have participated in self-construction (Benítez Salem 2009, Meza 2009). The documentation required included: birth certificate, national identity card, police record, and a property affidavit from the municipality. The affidavit is a declaration that the person does not own a property, or that their property was destroyed during the hurricane. Persons that lost these documents in the disaster could recuperate them through the National Persons Registry or the municipality, whose files were not damaged (Meza 2009). The actual sign-up process of beneficiaries occurred in the macro-shelters, allowing the most vulnerable population to be identified, disregarding their former tenure status. Persons who previously held 'extra-legal' properties or renters were admitted to Hábitat's housing programs without discrimination. The Cruz Roja functioned in much the same way by identifying the beneficiaries at the macro-shelters. Additionally, the Cruz Roja called for as many as 200 handicapped persons to be selected (Cruz Roja 2002).

EcoViDe worked more closely with specific communities to identify beneficiaries. They designed their project to assist those persons who lost their homes in the neighborhoods of La Betania, El Reparto and Suyapa (EcoViDe 2005). They worked directly with the *patronatos*, local neighborhood or village associations, to identify beneficiaries. The *patronatos* issued proof of residence letters to establish that beneficiaries were members of that specific neighborhood. Beyond residency, the other requirements included: to have been affected by Mitch, to not have the financial means to solve your own housing situation, to be current on your dues payments to the *patronato* and utility bills, to be willing to work 210 days in construction or pay a *mozo* to take your place, and to be a family (no singles without children); exceptions to these rules were made for the elderly however (Martinez 2009, EcoViDe 2005). The actual selection of beneficiaries was done through the *patronato*, but it was a long process because people were constantly coming in and out of the project (Rhyner 2009, Martinez 2009). Compared to the selection process through macro-shelters used by Hábitat para la Humanidad, which would bring the affected people together from all over the city, EcoViDe's approach helped to carry over the social connections of the original neighborhood into the new neighborhood. On the other hand, it is important to note that Hábitat's selection criteria may have been more equitable and transparent. Utilizing local community leaders has the potential of reducing equity in the selection process. The process worked well with EcoViDe, but other housing projects administered by religious organizations had different results.

Cristo del Picacho of the Catholic Archdiocese was one of the best organized, cleanest and safest housing projects in Amarateca (Alder 2002). However, the selection of beneficiaries did not reach the most vulnerable population, nor those living in the macro-shelters. Cristo del Picacho selected beneficiaries through the churches, tending to choose only those who were “the best of the flock” (Alder 2002 p.39). These beneficiaries were Honduran lower-middle class persons who meet the financial qualifications to receive and make payments on the home, which was not donated, but heavily subsidized by international donors. Cristo del Picacho, had and used the power to revoke the property from the beneficiary, for a variety reasons: missed payments, drinking or selling alcohol, or participating in teachers’ strike (which are quite common in Honduras) (Alder 2002, Meza 2009). In the end, it could be said that the international donors’ contributions to Cristo de Picacho were dedicated to the construction of an exclusive housing development that had little to do with post-disaster recovery. Furthermore, tenure security was reduced because residents were threatened with eviction according to judgments of their behavior by a religiously aristocratic leadership at the community level.

It was common that the homes in Amarateca were actually sold at subsidized prices and not donated; apparently Cruz Roja was the only program to donate the homes (Meza 2009, Carcache 2009). Interestingly, some of the beneficiaries who had fulfilled the eligibility requirements for the Hábitat program were allowed to sell their beneficiary right to other persons who would have not otherwise qualified, in one case that transfer happened for around US\$ 1,700 (Carcache 2009). Additionally, Hábitat appears to be the most lenient regarding the resale of beneficiary homes. Other organizations implemented lengthy time restrictions, before a resale could occur.

EcoViDe required the beneficiary to sign an agreement stating they cannot sell the property, mortgage or otherwise transfer the property for twenty years, with the exception of inheritance by a husband, wife or children (EcoViDe 2005). The Cruz Roja donated the lot and home with formal title, under the condition that the beneficiaries would not sell, give away, mortgage, transfer, pawn or pledge the property for ten years (Cruz Roja 2002).

Despite restrictions, the pervasive informality that originally pushed the NGOs out of the city’s periphery would ultimately follow them to Amarateca. Many beneficiaries returned to Tegucigalpa, selling their Amarateca properties (Angel 2004, Pearce-Oroz 2005, IFRC 2002, Adler

2002). One of the international donors, the International Federation of Red Cross and Red Crescent Societies noted that the resale restriction was unrealistic and unenforceable (IFRC 2002).

Given that many projects had restrictions on the sale of properties, i.e. the transferability of land title, secure tenure became insecure when sold. A restriction on the sale would ideally prevent the cashing out of the housing subsidy, and the move out of the intended beneficiaries (Payne 1997). The reality is that these sales happened anyway. Therefore, that which began as formal became informal. In this light, many NGOs fell victim to the same realities that caused the informal land development around the capital originally: unenforceable and overly optimistic regulations that focus on that which 'ought to be' and not that which 'could be' (Hardoy and Satterthwaite 1989, Turner and Fichter 1972, Payne 1997, and others). Consider the restrictions on mortgages that kept land capital essentially tied-up for the duration of the restriction. De Soto would refer to this as 'dead' capital. Considering that many residents were making payments to the donor NGOs on what could be called subsidized 'mortgages,' the restrictions were essentially on 'second' mortgages. Had 'second' mortgages been allowed, this would have freed up the subsidized portion of the real property value, which was 'dead' capital under the restriction. If real property values were greater than the amount owed to the NGO, the resident could use the property as collateral for a private sector loan to pay back the NGO and to invest the remainder in a small business or other activities that could increase property values and equity. In this manner, the NGO recuperates their money much more quickly and investment is encouraged in the area because increases to property values can be realized and benefited from.

The negative side of allowing the transfer, sale or mortgages of these properties is also apparent. Had beneficiaries been allowed to sell the properties, given the subsidy, higher income groups would be the best positioned to make the purchase. The result is that higher income groups move in, and the intended beneficiaries move out. Thus, the end result could have just as easily been accomplished by writing a check to the beneficiaries and being done with it. This is most likely the scenario that NGOs were attempting to avoid by implementing the property transfer restrictions, especially in Ciudad España. The irony is that property owners in La Joya who were allowed to sell, have reported losses in built equity (Meza 2009). Therefore, the lack of desirability of the La Joya project has kept it as a low-income area, which speaks poorly to the overall design.

In summary, tenure insecurity affected the ability of NGOs to locate adequate lands for relocation projects. However, it did not hamper their selection of beneficiaries, which was left open

to formal and informal, owner-residents and renters alike. But, informality came to some of the housing projects along with the *capitalinos*⁴, many of whom sold their properties, despite restrictions; ultimately converting the formality that NGOs fought so hard to develop into informality.

⁴ Spanish name for the residents of the capital city.

Conclusion: New Orleans and Tegucigalpa

These two case studies, post-Katrina New Orleans and post-Mitch Tegucigalpa, explore the manner in which tenure insecurity affects post-disaster housing programs. The literature review and the case studies all followed the same 'theory-building logic' (Yin 2003). Each explores three sections (a) tenure insecurity, (b) post-disaster housing programs and (c) the effect of tenure insecurity on post-disaster housing. In this manner, the nature of part A and part B are understood separately, before the effects of one on the other are explained.

Part A: Tenure Insecurity

Tenure insecurity is examined in each case study. Even the United States, which has been touted as the world's exemplar of what a tenure system 'ought to' be, is shown to be susceptible to the inequities, inefficiencies and insecurities that disasters reveal (Hernando de Soto 2000, Turner and Fichter 1972, Bolin and Stanford 1998). In New Orleans, the formal property system is shown to create insecurity as an operation of law. When a property owner dies without leaving a will, and years later, the receiving heirs die without leaving wills, the interest in a property becomes divided into smaller and smaller pieces. All the co-heirs have equal rights to the property regardless of who actually occupies and maintains it. This division creates an under-utilization of the property (an inability to use the property as collateral, and a reluctance to improve the property) according to the theory of the tragedy of the anticommons (Heller 1998, Zabawa 1991, ELF 1980). In this condition, the property title exhibits weak 'clarity' and 'efficiency', which delineates insecurity (Payne 1997).

Tenure insecurity is shown to exist in Honduras as a response to inoperable laws and not as an operation of law as in the US. Half of the capital city's properties are 'extra-legal'; even clear titles are commonly disputed. The pervasiveness of informality is credited to the municipality's unrealistic land use regulations given their lack of resources (Angel et al 2004, Perez-Oroz 2005). Hernando de Soto calculated \$8 billion in 'dead' capital in Honduras' urban areas (qtd. in InfoPress CA 2003). Following which, the Honduran government began a more proactive role in servicing informal neighborhoods.

Part B: Post-Disaster Housing

In New Orleans, the *Road Home* program provides rebuilding grants to homeowners, property buyouts, assistance to small rental property owners, etc. To date, \$7.9 billion has been dispersed in grants to homeowners. However, the program has been poorly administered by a

contractor, causing extensive delays and mistakes, which affect the beneficiaries' ability to transition out of temporary housing almost four years after Hurricane Katrina. The programs for rental sector housing were under-funded in comparison, which repeated the neglect of renters which is typical of post-disaster programs (Fourie 1999, Durand-Lasserve 2002, Payne 1997, UN Habitat 2007).

In Tegucigalpa, many people were still in macro-shelters two years after the storm. Many lost their homes entirely, and many more were not allowed to return because of the high risk of flooding and landslides. The post-disaster housing program was therefore not a rebuilding effort, but a relocation effort. International donors, struggling for collaboration from the local government, were ultimately forced to resort to building ten miles outside the capital city, in the Amarateca Valley (Alder 2002). Their reluctance to develop lands so far away from the city stemmed from a desire to not break the important social, cultural and economic ties that residents had within the city (Marris 1961, Oliver-Smith 1991, Coburn et al. 1984). But, they had little alternative.

Part C: Tenure Insecurity's effect on Post-Disaster Housing

In New Orleans, the *Road Home* policies were not clearly defined regarding heir property, from the onset. Policy makers were caught off guard as to the extent of heir property in the city. The program began with unclear policies on heir property, as a consequence many people missed the filling deadline because of misinformation. Furthermore, many actual property-holders continue to struggle to complete successions of multiple heir titles in order to receive *Road Home* grants, only to see their grant checks divided between them and absentee heirs, or sent to the wrong heir entirely. Additionally, the concentration of heir properties in certain neighborhoods of New Orleans has the potential of explaining, at least partially, why some neighborhoods have recovered faster than others. The occurrence of concentrated heir property in urban settings has implications for urban planning efforts, and deserves further consideration.

Tenure insecurity was partially responsible for taking NGOs ten miles outside of Tegucigalpa in their search for lands with clear title, only to find out that 'clear' title is still disputable in Honduras. The beneficiaries to the projects were generally chosen through the shelters, without prejudice for formal or informal owners or renters. Everyone that was affected by Hurricane Mitch was equally eligible. Some NGOs chose beneficiaries using existing community organizations, *patronatos*, which yielded positive results. However, other religiously-affiliated NGOs chose beneficiaries from church congregations, thus missing the most vulnerable population. Such

religiously-based administrations offered tenure which was only as secure as their judgment of a resident's behavior, evicting those who did not meet the organization's moral standards.

In Honduras, most NGOs offered clear title to their beneficiaries, but restricted subsequent sale and other forms of transfer. Therefore residents, who wished to sell and return to the city, resorted to informal sales. Consequently, the tenure insecurity and informality around the city, which was created by the municipality's unrealistic planning regulations and was part of the reason that NGOs went as far as Amarateca for clear title, was essentially reproduced by another set of unrealistic restrictions by those same NGOs.

Summary Results:

In summary, tenure insecurity affects post-disaster housing programs in a number of different manners, which may not be obvious even to the most experienced of post-disaster relief agencies. By evaluating the present literature review and case studies, this author attempts to conceptualize the manners in which tenure insecurity could potentially affect post-disaster housing.

Concepts:

- (a) Failure to create adequate and realistic post-disaster housing programs can delay rebuilding, exacerbate housing shortages and encourage people to accept high risk environments, non-resistant building methods, and/or insecure tenure as the only alternative.
- (b) Programs do not reach the most vulnerable population when they exclude informal, rental and customary tenure holders, by only using formal ownership documentation as part of the selection criteria for beneficiaries of post-disaster housing programs, as well as pre-disaster mitigation programs.
- (c) Hazard-mitigation mapping is often left to the disaster itself. Even in cases with a very minimal likelihood of recurrence, residents of disaster-affected areas are often evicted when a moderate amount of mitigation would prevent future disasters.
- (d) Post-disaster housing programs may offer stable dwellings in a safe environment, but they often leave land title issues to be resolved later (Spaling & Vroom 2007, Fengler 2005, Barakat 2003). On the other hand, many of those programs that offer secure tenure are subject to subsidy cash-outs wherein poor beneficiaries sell their new homes to higher income groups (Payne 1997).

- (e) The provision of a temporary shelter to a resident living with a form of squatter tenure, specifically those without permission from the land owner, can result in a dispute between the owner and the resident over the ownership of the structure itself (UNDRO 1982).
- (f) Post-disaster relocation programs, which attempt to restrict the sale, mortgage or transfer of beneficiary titles for a certain period of time, are encouraging informal transfers that undermine the security intended to be delivered through the project.
- (g) Post-disaster relocation can experience resistance from the native residents of the potential receiving areas. This resistance can delay and/or redirect resettlement to less desirable areas. Following resettlement, this resistance can heighten the insecurities of the project.
- (h) Private land ownership systems do not enjoy the same success rate for relocation programs as do countries with nationalized lands (UNDRO 1982).
- (i) Projects can experience unanticipated delays if they assume that the land titles of all beneficiaries are clear and efficient. Even in freehold systems like the U.S., issues such as heir title will require substantial time and resources if they are to be resolved.
- (j) Post-disaster housing programs administered by organizations that have unreasonable selection criteria, such as some religious groups, will inevitably turn to less vulnerable persons as beneficiaries or even persons that were not affected by the disaster. Furthermore, unreasonable requirements placed upon the chosen beneficiaries can increase the likelihood of evictions, thus causing the organization to be even more selective, and shadowing out even more vulnerable people (Alder 2002, Meza 2009).
- (k) Disasters can destroy government land registry databases and files. This can make previously secure tenure insecure (World Bank 2006).
- (l) Disasters can alter land geography, turning land into water or erasing the landmarks that define properties on formal and informal titles. This is especially true when geographic coordinate systems are not used.
- (m) Post-disaster confusion over ownership may encourage powerful groups to perform large scale land grabs (Rowbottom 2007).
- (n) Politics can greatly influence tenure security. Party affiliation can create inequities in the distribution and access to post-disaster housing. Additionally, political transitions can render insecure a previously secure post-disaster housing project.
- (o) Post-disaster recovery and post-conflict situations have many similarities. Tenure security can be greatly reduced for certain communities, post-conflict. When a disaster

occurs simultaneously, the political alliance of a given community will often result in even greater inequities (Shanmugaratnum 2005).

These fifteen concepts draw from and elaborate on the case studies in New Orleans and Tegucigalpa, as well as the literature review of research from similar post-disaster relief undertakings in Sri Lanka, Banda Aceh, Grenada, etc. Many of these concepts have not previously been stated in such clear terms. However, more research is needed to further clarify these connections between tenure security and post-disaster housing. For example, the implications of heir property may be of particular interest to researchers in the United States, considering that occurrence of heir property in urban settings and its potential effects on urban planning initiatives has passed below the radar of researchers until now.

The conclusion is several policy recommendations that correspond to the above concepts. Caution is to be used with these recommendations, considering the breadth of tenure systems throughout the world, the variability of the societies in which they exist and the plethora of post-disaster scenarios that could occur. These recommendations are offered as guidance, and consequently, utilize the term 'could' instead of the term 'should' or 'ought to.' As Turner and Fichter (1972) explain, when planners talk about what 'ought to' happen, the emphasis is transferred to the final product, and often results in unrealistic expectations. When planners talk about what 'could' happen, the emphasis is placed on the planning process, community involvement and openness to alternatives. Therefore, if post-disaster housing programs are to reach the most vulnerable populations who often have insecure tenure, the rhetoric needs to focus on what 'could' be done.

Guidance:

- (a) A municipality that lacks the resources to implement general land policies on a city-wide basis could target high-risk areas for mitigation and regulation, in a transparent and equitable manner.
- (b) The selection criteria for the beneficiaries of post-disaster projects could be open to residents with formal, informal, rental or customary land tenure by accepting a variety of alternative documentation, such as utility bills.
- (c) Municipalities could use mitigation in high-risk areas, instead of eviction or relocation; considering the tendency to assume that disaster-affected areas are doomed to be affected again, regardless of actual risk, more scientific risk assessments could help decide when relocation is appropriate for disaster-affected areas.

- (d) Land title issues could be resolved at the onset of a post-disaster housing project, and not be left for later, which can create uncertainty. However, 'resolving' title issues could be done in a variety of ways which do not necessarily create formal title.
- (e) Temporary shelter structures provisioned to squatters could be configured for easy removal and relocation if disputes arise with the land owner.
- (f) Considering the tendency of beneficiaries to sell subsidized housing to higher income groups, which cashes out the subsidy and frustrates project developers; alternative forms of tenure could minimize this. Customary tenure, shared equity, and leasehold immediately come to mind.
- (g) The intolerance of native communities that receive outside relocation projects could be lessened with appropriate design. Group trailer sites, tent cities, and cinder-block row houses are not the most appealing and do not typically raise local property values. The tendency to create these concentrated projects, influenced by their economy of scale and urgency of donors, could be replaced with market-wide incentives that aim to decrease the post-disaster housing deficit for urban poor through the creation of affordable 'temporary' rental units, or more dispersed developments mixed into the city.
- (h) Governments with nationalized lands can relocate populations more successfully, but they could reconsider this authoritative approach in favor of a community-led alternative.
- (i) The requirement for the succession of heir properties could be re-evaluated, as in New Orleans, which allowed a simple affidavit to qualify beneficiaries for rebuilding grants.
- (j) A lead agency guiding the overall recovery effort could ensure that beneficiaries are chosen in an equitable manner. A universal beneficiaries' bill of rights could clarify this.
- (k) Damage to municipal records could be avoided with electronic back-up. It could also be recovered through community-mapping efforts.
- (l) Given that resources are typically lacking to create land titles with geographic coordinates for an entire cadastre, these mapping efforts could focus on just the highest-risk areas whose geophysical indicators may shift.
- (m) Post-disaster land grabbing could be used as a tool by a disenfranchised, but organized, community group (Rowbottom 2007).
- (n) International intervention and/or grassroots organizing could promote equitable political consideration for housing projects that face insecurities following political transitions and/or conflict.

Tenure insecurity affects post-disaster housing in more ways than this research design originally postulated. There is a wealth of information revealed in the present thesis that deserves further scholarly attention. If any one point stands out, it should be that post-disaster housing programs need to be realistic about the policies they implement. Misconceived preferences for 'formality' often neglect the 'reality' which is 'informality.' If the 'reality' of a tenure system's function in a post-disaster environment is to be understood and appreciated, more research is warranted. The value of understanding this 'reality' is the creation of a more thorough understanding of ways that disaster response can be pro-poor and truly assist the most vulnerable segments of the population.

Glossary

Ad Valorem (adjective) imposed at rate percent of value

Adjudicate (transitive verb) to settle judicially

Cadastre (noun) an official registry of the quantity, value, and ownership of real estate used in apportioning taxes

Commodify (transitive verb) to turn into a commodity... that is subject to ready exchange or exploitation with a market.

De jure (adverb or adjective) 1. by right; of right 2. based on laws or actions of the state <de jure segregation>

De facto (adverb or adjective) 1. actual ; especially : being such in effect though not formally recognized <a de facto state of war> 2. exercising power as if legally constituted <a de facto government> 3. resulting from economic or social factors rather than from laws or actions of the state <de facto segregation>

Fiduciary (adjective) held or founded in trust or confidence

Fungible (adjective) 1. Being of such a nature that one part or quantity may be replaced by another equal part or quantity in the satisfaction of an obligation <oil, wheat, and lumber are fungible commodities> 2. Interchangeable 3. flexible

Hypothecate (transitive verb) to pledge as security without delivery of title or possession

Inter alia (adverb) among other things

Interest (noun) right, title, or legal share in something

Intestate (adjective) 1. having made no valid will <died intestate> 2. not disposed of by will

Justiciable (adjective) 1. Liable to trial in a court of justice 2. capable of being decided by legal principles or by a court of justice

Laissez faire (noun) 1. a doctrine opposing governmental interference in economic affairs beyond the minimum necessary for the maintenance of peace and property rights 2. a philosophy or practice characterized by a usually deliberate abstention from direction or interference especially with individual freedom of choice and action

Per se (adverb or adjective) 1. by, of, or in itself or oneself or themselves : as such : intrinsically, 2. being such inherently, clearly, or as a matter of law <a per se conflict of interest>

Succession (noun) the act or process of a person's becoming beneficially entitled to a property or property interest of a deceased person

Usufruct (noun) 1. the legal right of using and enjoying the fruits or profits of something belonging to another, 2. the right to use or enjoy something

All terms are defined by Merriam-webster.com

Bibliography

- AARP Research Group. "Where there is a will... Legal Documents Among The 50+ Population: Findings From an AARP Survey." April 2000 <assets.aarp.org/rgcenter/econ/will.pdf>
- Alder, Dan. "Amarateca: Oportunidad Tras El Desastre." published in Manuel Torres Calderón, Thelma Mejía, Dan Alder, Paul Jeffrey, and Jack Spence. "Descifrando a Honduras: Cuatro puntos de vista sobre la realidad política tras el huracán Mitch." Hemisphere Initiatives. August 2002.
- Angel, S. Housing Policy Matters: A Global Analysis. Oxford University Press, Oxford. 2000.
- Angel, Shlomo, Katherine Bartley, Mary Derr, Anshuman Malur, James Mejía, Pallavi Nuka, Micah Perlin, Sanjiv Sahai, Michael Torrens and Manett Vargas. "Rapid Urbanization in Tegucigalpa, Honduras: Preparing for the Doubling of the City's Population in the Next Twenty-five Years." Woodrow Wilson School of Public and International Affairs. Princeton. February 2004.
- Aysan, Y and I. Davis. Disasters and The Small Dwelling: Perspectives for the UNIDNDR. James and James. London. 1992.
- Baradan, Berna. "Review of Literature for the Concept of Post-Disaster Housing in Turkey." G.U. Journal of Science Volume 21(2) 2008: 43-49.
- Barakat, S. "Humanitarian Practice Network, Network Paper: Housing Reconstruction After Conflict and Disaster." Overseas Development Institute: Humanitarian Practice Network. London. 2003.
- Barrios, Roberto E. "Reconstruyendo la marginalidad: la economía política de la reubicación después del Huracán Mitch en el sur de Honduras." Presentation at the 2001 Annual Congress of the Society for Applied Anthropology in Honduras. 1 April 2001.
- Belli, Charlotte. "Impacto Social de los Ecomateriales." EcoViDe Report: Proyecto Betania, Honduras. April 2008.
- Benítez Salem, Alberto. Director Ejecutivo de Hábitat para la Humanidad Honduras. Correspondence with Robert Peterson. 2 April 2009.
- Bolin, R. "Long-Term Family Recovery from Disaster." Program on Environment and Behavior Monograph #36. University of Colorado. Boulder. 1982.
- Bolin, R. "Household and Community Recovery after Recovery." Program on Environment and Behavior Monograph #56. Boulder: Institute of Behavioral Science. University of Colorado. 1994.
- Bolin, R. "Postdisaster Shelter and Housing: Social Processes in Response and Recovery." In R. Dynes and K. Tierney Disaster, Collective Behavior, and Social Organization. University of Delaware Press. Newark. 1994.

Bolin, Robert and Lois Stanford. The Northridge Earthquake: Vulnerability and Disaster. Routledge, 1998.

Brown, Oli and Alec Crawford. Addressing Land Ownership after Natural Disasters. International Institute for Sustainable Development. July 2006.

Carcache, Oglá. Telephone Interview. 31 March 2009.

Coburn, A.W., J.D.L. Leslie and A. Tabban. "Reconstruction and Resettlement 11 years later: A Case Study of Bingöl Province, Eastern Turkey." in Schupisser S. and J. Studer. Earthquake Relief in Less Industrialized Areas. A.A. Balkema. Rotterdam. 1984: 49-58.

Cohen, Ariella. "Road Home won't budge on deadlines despite criticism." New Orleans City Business. 8 August 2008.

<<http://www.neworleanscitybusiness.com/uptotheminute.cfm?recid=19083&userID=0&referrer=dailyUpdate>>

COHRE & ZLHR. Centre On Housing Rights and Evictions and Zimbabwe Lawyers for Human Rights Operation Murambatsvina: A Crime Against Humanity. Independent Legal Opinion. May 2007.

Colten, Craig E. "Vulnerability and Place: Flat Land and Uneven Risk in New Orleans." American Anthropologist. Vol. 108 Issue.4. 2008. pp.731-734.

Comerio, M., J. Landis, C. Firpo, and J. Monzon. "Residential Earthquake Recovery: Improving California's Post-Disaster Rebuilding Policies and Programs" Berkeley, California Policy Seminar Brief Series. 1996.

Comerio, Mary C. Disaster Hits Home: New Policy for Urban Housing Recovery. University of California Press. Berkeley. 1998.

Comerio, Mary C. "Housing Issues After Disasters." Journal of Contingencies and Crisis Management. Volume 5 Issue 3. 16 December 2002: 166-178.

Coty, Chris. Telephone Interview. The Pro-Bono Project of New Orleans. March 31, 2009.

Cruz Roja Hondureña. "La Intervención de Cruz Roja en el valle de Amarateca: El Plan Ciudad España." Cruz Roja Internal Report. October. 2002.

Dandoulaki, M. "The reconstruction of Kalamata City after the 1986 earthquakes: some issues on the process of temporary housing" in Aysan, Y. and I. Davis Disasters and The Small Dwelling: Perspectives for the UNIDNDR. James and James. London. 1992.

de Soto, Hernando. The mystery of capital : why capitalism triumphs in the West and fails everywhere else. New York : Basic Books. 2000.

Durand-Lasserve, A. "Law and urban change in developing countries: Trends and issues." in E. Fernandes and A. Varley (eds) Illegal Cities: Law and Urban Change in Developing Countries. Zed Books, London, pp176–190. 1998.

Durand-Lasserve, A. and L. Royston. "International trends and country contexts: From tenure regularization to tenure security." in A. Durand-Lasserve and L. Royston (eds) Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries. Earthscan, London. 2002: 1-26.

Dyer, C. Assessment of the Economic Development Administration's Post-Disaster Recovery Program after Hurricane Andrew. Aguirre International. 1996.

EcoViDe. "Sistematización Programa de Autoconstrucción de viviendas: sector Betania - Ciudad España." EcoViDe Internal Report. April, 2005.

EcoViDe. "Perfil EcoVide OPD sin fin de lucro." EcoViDe Internal Report. 2008

Eden, Rick and Patricia Boren. Timely Assistance: Evaluating the Speed of Road Home Grantmaking. RAND Gulf States Policy Institute. Study Report. 2008.

El Heraldó. "Engavetan decisión sobre Ciudad Mateo Informe: Ciudad Mateo no debe ser obstáculo para construir embalse Guacerique II" 17 September 2007. last visited 7/28/2008.
<<http://www.elheraldo.hn/nota.php?nid=83128&sec=2&fecha=2007-09-17>>

Ellis, S. and S. Barakat. "From relief to development: the long-term effects of 'temporary' accomodation on refugees and displaced persons in the Republic of Croatia." Disasters. Vol.20 No.2. 1996: 111-24.

EMF Emergency Land Fund. The Impact of Heir Property on Black Rural Land Tenure in the Southeastern region of the United States. U.S. Department of Agriculture, Farmers Home Administration. 1980.

Fainstein, Susan S. "New Directions in Planning Theory." Urban Affairs Review. Vol.35 No.4 March 2000: 451-78.

Farvacque-Vitkovic, C., and Patrick McAuslan. "Reforming urban land policies and institutions in developing countries." World Bank: Urban Management Program, Series 5. 1992.

Fengler, W., J. Clark, M. Stephens, A. Ihsan, A. Sim, A. Bald, et al. "Building a Better Aceh and Nias." World Bank. Jakarta. 2005.

Finger, Davida. "Stranded and Squandered: Lost on the Road Home." Seattle Journal for Social Justice. Vol.7 Issue1. 2008.

Finger, Davida. Telephone Interview. 30 March 2009.

Fourie, C. "Best Practices Analysis on Access to Land and Security of Tenure." UN-Habitat Research Study. 1999.

Gabe. Thomas, Gene Falk, & Maggie McCarty. "Hurricane Katrina: Social-Demographic Characteristics of Impacted Areas." CRS Report for Congress. 4 November 2005.

Gagan, David P. "The Indivisibility of Land: A Microanalysis of the System of Inheritance in Nineteenth-Century Ontario." The Journal of Economic History. Vol. 36. No. 1. March 1976: 126-141.

GAO "Foreign Assistance: USAID Completed Many Caribbean Disaster Recovery Activities, but Several Challenges Hampered Efforts." GAO-06-645. 26 May 2006:

GCST. Global Campaign for Secure Tenure of UN Habitat. GCST homepage. 9 January 2009. <www.unhabitat.org/categories.asp?catid=24>

Geisler, Charles C. "Land and Poverty in the United States: Insights and Oversights." Land Economics. Vol. 71. No. 1. February 1995: 16-34.

GNOCDC. "New data reveals 16 New Orleans neighborhoods have less than half their pre-Katrina households." press release. August 21, 2008. <www.gnocdc.org>

Gray, Leslie. "Evolving Tenure Rights and Agricultural Intensification in Southwestern Burkina Faso." World Development. Vol.29 Issue 4. April 2001: 573-87.

Hall, Peter. Cities of Tomorrow. 3rd Edition. Blackwell Publishing. Oxford. 2002.

Hammer, David. "Road Home deadlines are rescinded." The Times-Picayune. 27 August 2008.

Hammer, David. "State can't pay legal aid bill for Road Home applicants." Times-Picayune. 25 March 2008.

Harada, T. "Space, materials, and the 'social': in the aftermath of a disaster." Environment and Planning D: Society and Space. Vol.18 No.2. 2000: 205-12.

Hardin, Garrett. "The tragedy of the commons." Science Vol.162. 1968: 1243-8.

Hardoy, J. E. and D. Satterthwaite. Squatter Citizen: Life in the Urban Third World. Earthscan. London. 1989.

Hartman, Chester and Gregory D. Squires. There is no such thing as a natural disaster: Race, Class and Hurricane Katrina. Routledge New York, 2006.

Heller, Micheal. "The Tragedy of the Anticommons: Property in the Transition from Marx to Markets." Harvard Law Review. Vol. 111. No. 3. January 1998.

HUD. Housing and Urban Development. "The Road Home Housing Programs: Action Plan Amendment for Disaster Recovery Funds" Docket No. FR-5051-N-01, Federal Register Vol.71 No.29. 2006.

IADB. Inter-American Development Bank. "Reducing Vulnerability to Natural Hazards: Environmental Management." Regional Operations Department 2. Consultative Group Meeting for the Reconstruction and Transformation of Central America. Stockholm, Sweden, May 25, 1999.

IFRC. International Federation of Red Cross and Red Crescent Societies. "Rebuilding after Hurricane Mitch: Housing reconstruction in Honduras and Nicaragua." IFRC Case Study. January, 2002.

Infopressca.com. "Honduras: Proponen crear Instituto Nacional de Propiedad y Catastro." Infopress Centroamericana. February 21, 2003. <<http://www.inforpressca.com/inforpress/infor2003/1500-12.htm>>

IOM. International Organization for Migration. "Evaluation of IOM Project for Shelter Construction and Emergency Assistance for Victims of Mitch." Internal Evaluation. Office of Programme Evaluation. July 2000

Johnson, Cassandra and Myron F. Floyd. "A Tale of Two Towns: Black and White Municipalities Respond to Urban Growth in the South Carolina Lowcountry." Human Ecology Review. Vol.13 No.1 2006.

Johnson, Cassidy, Gonzalo Lizarralde and Colin H. Davidson. "A systems view of temporary housing projects in post-disaster reconstruction." Construction Management and Economics Volume 24 April 2006:

Karst, K.L. "Rights in land and housing in an informal legal system: the barrios of Caracas." American Journal of Comparative Law. Vol.19. 1971: 550-74.

Kirschenbaum, Alan. Chaos Organization and Disaster Management. CRC Press. 2004.

Klein, Christine A. and Sandra B. Zellmer. "Mississippi River Stories: Lessons from a Century of Unnatural Disasters." SMU Law Review. 60 SMU L. Rev. 1471. Fall. 2007.

Kunzelman, Michael. "FEMA Plans Trailer Exodus Over Chemical." Associated Press. 14 February 2008. <ap.google.com/article/ALeqM5iuGq6yeUvIwslsXQiT_3Qx23gcpswD8UQ9UBO2>

La Legal. "Louisiana Success Law." La-Legal.com <www.louisiana-legal.com/successions.htm> last accessed 1 April 2009.

Leinberger, Christopher B. "Creating Alternatives to the Standard Real Estate Types." eScholarship Repository. Vol.17 Issue 2. 2008.

Louisiana Civil Code (La. C.C.) <www.legis.state.la.us/lss/tsrsearch.htm> last accessed 1 April 2009.

Mandelker, Daniel, John M. Payne, Peter W. Salsich, Jr. and Nancy E. Stroud. Planning and Control of Land Development: Cases and Materials. 6th Edition. Lexis Nexis. 2005.

Marris, P. Family and Social Change in an African City. Routledge and Kegan Paul, London. 1961

Martine, George and Jose Miguel Guzman. "Population, Poverty, and Vulnerability: Mitigating the Effects of Natural Disaster." The Woodrow Wilson Center. Environmental Change & Security Project Report. Issue No. 8, Summer 2002.

Martínez, Victor. Director. EcoViDe. Correspondence with Robert Peterson. 30 March 2009.

McAuslan, Patrick. "Legislation, regulation and shelter; Hindrance or help to the homeless?" Cities. Vol.4 Issue 1. February 1987

McAuslan, Patrick. "Legal pluralism as a policy option: Is it desirable, is it doable?" UNDP International Land Coalition Workshop: Land Rights for African Development: From Knowledge to Action. Nairobi. 2005.

Mema Ayi. "Katrina evacuees at home in Chicago." Chicago Defender. 30 August 2006.

Meyer, Malcolm A. "Louisiana Heirship Property: Solutions for Establishing Record Title." Louisiana Bar Journal. 55 LA Bar Jnl. 328. February/March, 2008.

Meyer, Malcolm & Edwin R. Murray. "Draft Legislation Amendments" 2009.

Meyer, Malcolm. Interview and correspondence with Robert Peterson. January-March 2009.

Meza, Christina. Interview. 30 March 2009.

Miller, D. L. "Introduction to the Urban Prospect." in The Lewis Mumford Reader, ed. D. L. Miller, 101-3. New York: Pantheon. 1986.

Morris, Saul S. & Quentin Wodon. "The Allocation of Natural Disaster Relief Funds: Hurricane Mitch in Honduras." World Development. Volume 31 No. 7. 2003: 1279-1289.

Mumford, Lewis. "The Future of the City-Part II: Yesterday's City of Tomorrow." Architectural Record. Vol.132. 1962: 139-44.

Nelson, Marla, Renia Ehrenfeucht & Shirley Laska. "Planning, Plans, and People: Professional Expertise, Local Knowledge, and Governmental Action in Post-Hurricane Katrina New Orleans." Cityscape. Vol.9. No.3. 2007.

NOAA's Katrina Database. <www.ncdc.noaa.gov/oa/climate/research/2005/katrina.html>
Last accessed 4/1/2009.

NOLA.com Times-Picayune Interactive Graphics. <www.nola.com/katrina/graphics/flashflood.swf>
Last accessed 4/1/2009.

OCHA. Office for the Coordination of Humanitarian Affairs. Handbook on Housing and Property Restitution for Refugees and Displaced Persons: Implementing the 'Pinheiro Principles'. Inter-Agency Internal Displacement Division (IDD), March 2007.

OCHA. Office for the Coordination of Humanitarian Affairs. Hurricane Mitch: United Nations Inter-Agency Transitional Appeal for Relief and Immediate Rehabilitation in Honduras, Nicaragua, El Salvador, Guatemala, and Belize. Inter-Agency Internal Displacement Division (IDD). December 1998.

OHCHR. Office of the High Commissioner for Human Rights. General Comment No. 7: The right to adequate housing (Article 11 (1) of the Covenant): Forced evictions. adopted at the 16th session. 1997

Oliver-Smith, Anthony. "Post-Disaster Housing Reconstruction and Social Inequality: A Challenge to Policy and Practice." Disasters Volume 14 Issue 1 March 1990: 7-19.

Oliver-Smith, Anthony. "Successes and Failures in Post-Disaster Resettlement." Disasters Volume 15 Issue 1, March 1991: 12-23.

Oliver-Smith, Anthony & Susannah M. Hoffman. The Angry Earth: Disaster in Anthropological Perspective. Routledge. 1999.

UNDRO. Office of the United Nations Disaster Relief Co-ordinator. Shelter after Disaster: Guidelines for Assistance New York 1982.

OPS. Programa de Preparativos para Desastres. Serie Cronicas de Desastres: Huracan Mitch en Honduras 1998. Secretaria de Salud de Honduras, Tegucigalpa MDC, February 1999.

Payne, G. Urban Land Tenure and Property Rights in Developing Countries: A Review. Intermediate Technology Publications/ODA, London. 1997

Payne, G. "Book review: The mystery of capital: Why capitalism triumphs in the West and fails everywhere else: Hernando de Soto." Habitat Debate 7(3):23. 2001.

Payne, G. "Urban land tenure policy options: Titles or rights?" Habitat International 25(3): 415–429. 2001.

Payne, G. and M. Majale The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor. Earthscan, London. 2004.

Peacock, W., B. Morrow, and H. Gladwin. Hurricane Andrew: Ethnicity, Gender, and the Sociology of Disaster. Routledge. London. 1997.

Pearce-Oroz. "Limits to Large-Scale Reconstruction: Constraints on Land Development for the Poor in an Inadequately Functioning Land Market with Unenforced Regulations." Urban Research Symposium, World Bank. Brasilia. 2005.

Perry, Ronald W. and Michael K. Lindell. Facing the unexpected: disaster preparedness and response in the United States. Joseph Henry Press. 2001.

Peters, Pauline. "Inequalities and Social Conflict over land in Africa." Journal of Agrarian Change. Vol.4 No.3 July 2004. pp.269-314.

ProVention Consortium and ALNAP "South Asia Earthquake 2005 Learning from previous recovery operations" Internal Report. 2005.

Pugh, Cedric. "Poverty and Progress?: reflections on housing and urban policies in developing countries 1976-96." Urban Studies. Vol.34 No.10 October 1997: 1547-95.

Quarantelli, E.L. "Patterns of shelter and housing in US disasters." Disaster Prevention and Management. 4(3). 1995: 43-53.

Quigley, Bill. "Why are they making New Orleans a Ghost Town?" Mother Jones. October 31, 2005.

Quigley, Bill. "Six Months After Katrina: Who was left behind then and who is being left behind now?" Center of Concern. February 2006. <www.coc.org/index.fpl/1090/article/3678.html>

Rhyner, Kurt. "Cries in the Dark." Open House International. Vol.31. No.1. March 2006.

Rhyner, Kurt. Architect. EcoSur. Correspondence with Robert Peterson. 30 March 2009.

Riegel, Stephanie. "Unsuccessful succession." The Greater Baton Rouge Business Report. January 30, 2007.

Road Home program website <www.road2la.org> last assessed 1 April 2009.

Rose, Kalima, Annie Clark and Dominique Duval-Diop. "Equity Atlas: A Long Way Home." Policy Link. Aug. 2008a.

Rose, Kalima, Annie Clark and Dominique Duval-Diop. "Filling the Gaps in Recovery: New Orleans Nonprofits Address Voids Left by Housing Recovery Programs." Policy Link. Aug. 2008b.

Rowbottom, S. "The Indian Ocean tsunami: Vulnerabilities exposed ... opportunities to seize" in Global Report on Human Settlements 2007.

Russert, Tim, "In Katrina's Wake, Transcript: Mayor Nagin vs. Tim Russert." WorldNetDaily.com. September 11, 2005.

Schulte, P. The Politics of Disaster: An Examination of Class and Ethnicity in the Struggle for Power following the 1989 Loma Prieta Earthquake in Watsonville, California. Unpublished M.A. thesis. Sacramento: California State University. 1991.

Schwab, Jim et al. "Planning for Post-Disaster Recovery and Reconstruction." FEMA 421, 12/98. PAS Report No. 483/484. Federal Emergency Management Agency and Planning Advisory Service, American Planning Association. 1998.

Shanmugaratnam, N. Challenges of Post-disaster Development of Coastal Areas in Sri Lanka. Norwegian University of Life Sciences. 2005.

Sharkey, Patrick. "Survival and Death in New Orleans: An Empirical Look at the Human Impact of Katrina." Journal of Black Studies. Vol.37. No.4. 2007: 482-501.

Simunovich, David. The Quiet Dissolution: Post-Disaster Redevelopment and Status-Preserving Compensation. Seton Hall Law School. 2007.

Spaling, Harry and Bryan Vroom. "Environmental assessment after the 2004 tsunami: a case study, lessons and prospects." Impact Assessment and Project Appraisal 25(1), March 2007: 43-52.

Times Picayune. "Louisiana needs to keep watch on Road Home contractor ICF International." editorial. 11 February 2009. <http://blog.nola.com/editorials/2009/02/keep_watch_on_icf.html>

Turner, J.F.C. and R. Fichter, Freedom to Build: Dweller Control of the Housing Process. Macmillan Company. New York. 1972.

UN EGM. "Expert Group Meeting on Urban Indicators: Secure Tenure, Slums and Global Sample of Cities." UN-Habitat Revised Draft Report. Nairobi. November 2002.

UN Habitat. "United Nations Conference on Human Settlements (Habitat II)." UN Document A/Conf.165/14. 1996

UN Habitat. Enhancing Urban Safety and Security: Global Report on Human Settlements 2007. Earthscan. London. 2007.

UN Habitat. The Challenge of Slums: Global Report on Human Settlements 2003. Earthscan. London. 2003.

UN Resolution 55/2. "Resolution adopted by the General Assembly: 55/2 United Nations Millennium Declaration." United Nations General Assembly. September 18, 2000.

USGS. United States Geological Service. Landslides Triggered By Hurricane Mitch In Tegucigalpa, Honduras: Open-File Report 02-03. USGS. 2002.

Van der Linden, J.J. The sites and services approach reviewed: solution or stopgap to the Third World housing shortage? Gower. U of Michigan. 1986.

Vancouver Declaration. UN Conference on Human Settlements. 31 May - 11 June 1976.
<habitat.igc.org/vancouver/van-decl.htm>

Wallrich, B. "The Evolving Role of Community-Based Organizations in Disaster Recover." Natural Hazards Observer. Vol.21 No.2 1996.pp.12-13.

Wegelin, E. A. and K. M. Borgman. "Options for Municipal Interventions in Urban Poverty Alleviation." Environment and Urbanization. Vol.7 No.2 1995: 131-151.

West, Mark D. and Emily M. Morris. "The Tragedy of the Condominiums: Legal Responses to Collective Action Problems after the Kobe Earthquake." The American Journal of Comparative Law Volume 51, Number 4. Autumn. 2003: 903-940.

Williams, Marie C. "Successions: Wills and Donations." The Pro Bono Project. New Orleans. 2005.

World Bank. Records in Danger: Learning from Recovery. World Bank Group Archives and Records Management. 1997.

Yin, Robert. Case Study Research: Design and Methods. 3rd Edition. Sage Publications. 2003.

Zabawa, Robert. "The Black Farmer and Land in South-Central Alabama: Strategies to Preserve a Scarce Resource." Human Ecology. Vol. 19. No. 1. March 1991: 61-81.

Vita

Robert Peterson is a graduate student of Urban and Regional Planning at the University of New Orleans (UNO). He has a specialization in international planning, which as this thesis demonstrates, focuses on housing, disaster recovery and advocacy. He is the receipt of the Full Graduate Dean's Scholarship, and works as a graduate assistant at the UNO Transportation Center, dedicated the National Study of Carless and Special Needs Evacuation Planning.

Before studying at UNO, Robert served as a Peace Corps volunteer in Honduras from 2005 to 2007. His field of work was water and sanitation, which began by offering technical assistance to Save the Children on their projects that were funded by grants dedicated to post-Mitch recovery. While in Honduras, he worked on a number of other projects as well, including hosting a weekly comedy series about the environment on Radio Sabanagrande.

Prior to the Peace Corps, Robert worked as an environmental technician at the Nebraska Department of Environmental Quality, groundwater division and with a private consulting firm in Florida, which performed air quality monitoring tests. He holds bachelors degrees from the University of Nebraska in environmental studies and anthropology.