Abstract- Inadequate supply of affordable housing for persons of lower economic status has plagued many countries. This inadequacy is exacerbated by the expense of tenure legitimization through formal channels. The end result is a constant increase in squatter communities. This paper, through the use of surveys and interviews, explores one concept (Board Scheme Concept) that has been utilized by lower income families in western Jamaica to arrive at de facto legitimate housing solutions. It is then applied to squatting to determine the potential for implementation and a review of similar such tenure security initiatives in alignment with the concept. The results suggest that a burdened formal titling system can be simplified, thereby reducing fear of loss of tenure, by creating a bridge between private and government owned land ownership processes utilizing other simplistic land lease approaches to tenure, which in turn may create the potential for permanent homeownership.

Keywords- Board Scheme Concept, Tenure Security, Squatter Settlements, Land Lease, Affordable Housing Solutions

I. INTRODUCTION

The need to provide sufficient housing by governments and individuals themselves has proven to be a great challenge globally, especially in the urban areas. A normally over populated urban community influenced by rural to urban migration, at times impedes the plans for many developing countries. This need has led to a wide spread unregulated housing solution referred to as “squatting”; an act by some definition being the “illegal occupation of land” (A. S. Abubakar1, G. I. Kuta1, S. O. Salihu, M. Mairo 2012), for commercial, residential and agricultural reasons not limited to public but also privately-owned lands.

According to Tindigarukayo 2014, Jamaica’s increased urbanization through the action of rural to urban migration has resulted in a significant impact on squatting, mainly because of not enough affordable housing in these areas. This is reflected by substantial number of Squatter Settlements that is home to almost 20% (Rapid Assessment of the Problem of Squatting in Jamaica, RAPSJ 2008) of an approximately 2.8 million population (STATIN 2011). The Jamaican Housing sector akin many other countries face challenges with providing sufficient housing for its citizens and tenure security for its even poorer citizens. According to the Economic Social Survey for Jamaica (PIOJ Economic Social Survey Overview 2015) a need exists for a minimum of 15,000 housing units annually, however through national, private and informal efforts only 11,190 units were being produced, suggesting a shortfall of 3810 units, majority of which exceeds the financial potential of the poor. This situation is cause for greater concern with 19.9% of the population being below the poverty line (World Bank 2016), indicating a possible additional challenge with providing adequate housing for them and their families.

A. Land Tenure Efforts Locally

There have been several initiatives by the Jamaican government to provide permanent affordable housing for the poorer groups in the population, to include squatting settlers, the following reviews 3 such initiatives:

1) The Program for Resettlement and Integrated Development Enterprise (PRIDE), dubbed “Operation Pride”, was established in 1994 under the supervision of some 13 entities was an initiative to, among other squatter related issues, solve the problem of squatting on government lands and provide funding for squatter settlement upgrades in terms of infrastructure and loans for land, in some cases providing lands to the low-income families at a subsidized rate (J. K. Tindigarukayo 2004).

Limitations of Programme: Although believed to be successful on some level providing 13,365 lots to the poor (J. K. Tindigarukayo 2004), the program was smeared with corruption, gross misuse of funds, impartiality leading to several changes in management. Also, misconceptions by some participants who believed they would receive complete housing solutions, even though it was a development project.

2) Relocation 2000 Programme, announced in 1999 to yet again address the problem of squatting in Jamaica. This time being managed by the National Housing Trust (NHT) who is challenged with housing those in great need. According to Tindigarukayo 2014, this program has the best concept for solving the squatting problem in Jamaica, looking not just at housing but other socioeconomic factors.
Limitations of Programme: For this program 3 communities were selected of the 754 squatter communities in Jamaica for a pilot, Gilchrist in 2003 cited recipients’ complaints of housing size, cost and location. They believed the small size of the houses (5.2m x 3.2m) at a cost of $4688USD was too excessive and the cost for accessibility to schools added to their already strained pockets. The programmed aimed at providing 240 housing options at very low rates when compared to the open market.

3) The Land Administration and Management Programme (LAMP), began in the year 2000 and was first aimed at 15000 titles now has expanded to 45,000 for the life of the program, with an aim of providing 1200 titles annually. The program is to provide titles to homeowners who have legal claims to lands through deeds and other such gifts, also to persons who purchase lands without proper title documents creating complications for proof of sale, and also community members of squatter settlements belonging to communities under upgrade initiatives (B. A. Wade 2012).

Limitation of Programme: Residents living in resettlement communities endure a slow, tedious and expensive titling process with 5 procedures over a 54-day application time frame and titles being issued in 2 years (KOH and Knight 2014 pg. 4) sometimes amounting to approximately $800USD for 1012 sq. m (B. A. Wade 2012), a cost outside the coffers of many low income families.

Ensuring tenure security locally has been impacted not only by socioeconomic issues, scandal, insufficient funding, but also expensive and slow processes in the titling system. Recognizing some of the challenges faced by developing countries, the World Bank has encouraged the need to provide secure means of tenure legitimately and through less cost extensive methods. “Increasing security of tenure does not necessarily require issuing formal individual titles, and in many circumstance more simple measures to enhance tenure security can make a big difference at much lower cost than formal titles (K. W. Deininger 2003).” Hence, this paper aims to review the Board Scheme Concept of affordable housing solution instituted by community landowners and potential homeowners.

II. METHODOLOGY

III. EMERGENCE OF THE BOARD SCHEME CONCEPT

A. Housing in Westmoreland

The parish of Westmoreland is largest most westerly parish on the island measuring 789 sq. km, with a population of 144,076 in 2011, showing the 4th greatest population movement in 10 years of the 14 parishes in Jamaica. The characteristic of housing for 47,265 dwelling units by tenure for this parish reveals 78% homeownership, 10% rented and a small number of squatters in 186 dwelling units (STATIN 2011). In addition, the houses are categorically made of timber and concrete or a mix of both materials, with 14,550 concrete, 26,675 timber and 5,443 both materials. Similarly, squatter houses in Jamaica mainly comprise of Timber, concrete and a
mix of both, with 63% being the concrete board mix, 20% being timber and 14% being concrete (RAPSJ 2008), or the squatter communities assessed the houses are predominantly Timber.

Tourism being Jamaica’s largest foreign exchange earner and second largest employer has great influence on the socio-economic status of Jamaicans. According to the National Land Policy of Jamaica 1997, the consistent growth in the tourism industry, including Negril Area of Westmoreland, Jamaica, has resulted in insufficient affordable housing. This growth has also impacted land costs, housing rentals and housing costs, within the tourism spaces, creating increases way above the limits of squatters (Brooks 2016). The result of the development of tourism spaces as it regards the housing deficits and costs are actions in the form of squatting in the urban space, rentals and other land lease strategies such as the Board Scheme Concept in the outskirts of the Negril area.

Board schemes, is the local name given to Land Leased Timber Housing developments, consisting of easily relocated (Fig 2) houses constructed solely from Timber, and is on the authority of the landowner. This housing development has been the somewhat legal route for those avoiding squatting, adopted by many in the lower economic groups in peri-urban and semi-rural parts of Westmoreland.

B. Broughton Board Schemes

For the Community of Broughton District in Westmoreland, approximately 20 minutes commute from the major town of Negril, the growth in the tourism industry has been a positive indicator for some, providing well needed jobs. Formerly, a Sugar Cane Farming and Fishing district, with the reduction of the sugar industry and the difficulties associated with utilizing small scale fishing as a means to support one’s family, coupled with increases in cost of living, other alternatives were necessary for supplementing income. The younger population works in the hotels, while the retirees (farmers and public servants) create small scale business, one being the development of Board Schemes.

The images (Fig 3) below shows the significant change in the community’s growth over a 13-year period, an increase that can be contributed to the growth in the Tourism Industry and a willingness of local land owners to lease idle lands in their possession creating the schemes.

The practice begun in 1998 with 1 development and has grown to 12 by 2014. An estimated 144 dwelling units in 12 schemes has emerged providing not only housing but employment for some and created the case for infrastructure improvement. Since the growth, residents have indicated that they have received municipal garbage collection, landline telephones, drainage, cable television, increased street lights, road improvements and improvements with water infrastructure.

The cost for constructing the houses and to rent the land annually has made it an attractive means for shelter, it is estimated that it can range from $500 USD to $8000 USD for construction, with the size being defining factor. A $500 USD house is normally a 3.05m x 3.05m studio dwelling, without toilet, which is added by the owner after. The main individuals participating in this business are retirees, farmers and small business owners. Lot sizes are mainly 24.5m², and totals approximately $100 USD per annum.

C. Community Perspective of Board Schemes

Expressions of gratitude and pride were the emotions emanating from the interviewees, with Landowners indicating on average 25% growth in the numbers of lots being leased annually and homeowners grateful for opportunity afforded to them by the developers. From the interviews conducted with both landowners and homeowners, the general consensus is that the emergence and consistent growth of these types of development are based off the following:

Landowners
a) Land is left idle incurring additional cost to an already depreciating income. Now compounded by potential increases in property tax.

b) It is obvious to him that people need places to live.
c) He is no longer able to work and needs the supplemental income.

d) lack of collateral

e) Ability to gradual build on their houses to a sufficient comfort level, makes the schemes attractive.

Homeowners

a) Lack of sufficient funds to purchases houses or lands on the open market.
b) Lack of proof of ability to pay for loans in the formal credit system.
c) Low income jobs

d) lack of collateral

e) Ability to gradual build on their houses to a sufficient comfort level, makes the schemes attractive.

IV. SIMILAR LAND LEASE APPLICATIONS

TABLE I. APPROACHES TO TENURE SECURITY IN OTHER DEVELOPING COUNTRIES

<table>
<thead>
<tr>
<th>#</th>
<th>Location</th>
<th>Name</th>
<th>Description</th>
<th>Board Scheme (similarity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bangkok, Thailand</td>
<td>Temporary Land Rental</td>
<td>Private Landowners and Potential Tenants of low income status engage in a system that benefits both parties, through temporary lease agreements. Income is generated for the landowner and tenant is able to secure housing. Easy access to employment and other services.</td>
<td>Most similar. Currently Landowners and prospective tenants make the arrangements without the mediation of the authorities. Both parties benefit, land owners through income generation and tenants by access to affordable housing and proximity to employment and other opportunities.</td>
</tr>
<tr>
<td>2</td>
<td>Trinidad and Tobago</td>
<td>Certificate of Comfort (CoC)</td>
<td>The CoC gives holders a guarantee that they will not be removed from their dwelling or plot unless an alternative plot is identified and made available.</td>
<td>Roll over Leased contracts afford the tenants some level of security with notice granted in case of removal, however the need to remove a tenant is rarely done. As it relates to the application of the Board Scheme concept having a certificate of comfort could only be provided for GOJ properties.</td>
</tr>
</tbody>
</table>

Picture 1: Two Board Schemes that are a recent trend in housing solution has proven to be the answer for many on both sides of the sphere. (Show in color)
The economic challenges faced by squatters, coupled with the deep reaching fear that comes with tenure security, in relation to housing cost, land cost, construction cost and even loan access, greatly impacts their ability to provide suitable housing in ideal locations, this deficit forces them to occupy some very unfavorable areas, creating risks to life, property and environment, most times these are disaster prone or environmentally sensitive areas (G. Payne and A. Durand-Lasserve 2012). For those areas that are suitable for inhabittance, there have been efforts made by governmental agencies to rectify the situation, through community upgrades. However, Jamaica similar to many other countries’ processes to legitimize tenure can be a varied, slow and difficult task (W. H. A. Olima and L. M. Obala 1999).

It is an ordeal for many in both middle and low-income families to acquire the necessary financial credit to provide for basic housing needs. In Jamaica, the main source of mortgages comes from the National Housing Trust (NHT), who is challenged with housing those in great need, however the requirements severely limit the capacity of squatters to take advantage of this system and its perk of low interest rates. Each applicant for a loan whether to purchase a house or to build on their land has to make payments at minimum of 2% of their earnings, for at least a 52 weeks period and 26 weeks of continuous payments. Additionally, a 5% deposit, property tax payments, registered titles, valuation reports, approved building plans among other requirements, presents as a deterrent for members of the squatter community.

According to Durand, Squatters gain tenure security over time through collection of various documents such as property taxes, utility charges, voter registration forms, ration cards, and other formal documents. Suggesting this to be the most common of all urban land tenure systems and can provide sense of security that can encourage investment in home improvements, local businesses, and infrastructure. Authorities ensure land titles under this regime stays within the income levels of the affected.

Access to legal electricity and majority registered for voting (according to electoral office of Jamaica approximately 70% of the Westmoreland population), this documentation can be utilized with the Board Scheme Concept, to further legitimize the squatters who are on lands slated for community upgrades. Additionally, rental fees can be utilized as proof of tenure allowing access to formal credit from mortgage companies, mainly the NHT, towards land purchase or home improvement.

The results of the survey cited several reasons why residents chose to squat, these include: lack of collateral, low income jobs, housing cost and land cost. Majority of respondents indicated that their low-income job (50%), lack of collateral (50%) and land cost (46%) were the main reasons for living in a squatter settlement (Fig 4). The respondents were asked to rate their responses on a scale of 0 to 5, 0 being not a factor and 5 the highest, which revealed that Lack of Collateral, Land Cost and Housing Costs were weighted strongly with ratings of 5, 4.5 and 4.4 respectively. Even with the added difficulty, the provision of housing by the squatter communities amounted for an acknowledgeable portion of the total housing supply for the country island wide.

According to the SALISES survey, the salary of squatter settlers ranges between $125- $280 USD per month, with an average of $240USD per month. The minimum salary being below the national minimum wage of $194 per month further limits the capacity of the residents to access formal loans; this is because salaries must be above minimum wage and in other cases, Income and Expenditure ratios must be at satisfactory levels to allow for NHT loan access.

VI. APPLICATION OF BOARD SCHEME CONCEPT TO THE SQUATTER SETTLEMENTS

The burden for the government to provide sufficient affordable land or housing to meet the needs of squatters and other low-income families has proven to be overwhelming, not only in Jamaica but in other countries, especially in urban areas with the most promise for a satisfactory way of life. The concept of Board schemes with its obvious growth and popularity in certain areas provides a feasible response to this challenge, especially in the western parts considering the similarities of housing types in both formal and informal sectors. Moreover, the typical housing cost in Jamaica on the formal market poses as a constraint to the willing, with NHT Mortgage loans to individuals for 2015 being an average of 2.6 million Jamaican Dollars (JMD) or approximately $22,000 USD (Bank of Jamaica “BOJ” 2016). This amount is to go towards purchasing a concrete structure at a housing cost of minimum 4.5 million JMD or $35,156 USD on the open market. On the contrary an individual constructing their own home from timber or purchasing a timber structure to live in...
the Board Schemes, depending on the size could spend an average of 820% less, not to mention the monthly payments for NHT would take all the salaries earned by these individuals.

It is widely known that the fear of lack of tenure through threats of eviction creates a gloom over the heads of many, especially for the residents of the Whitehall community; some were not shy about discussing the fact that they have been assessed for such actions, although they have lived undisturbed in some cases for 20 years. For others, the idea of having their homes destroyed, presented as an obstacle in gathering this data (residents were not convinced the survey was for educational purposes and not for the benefit of the government). The introduction of the Board Scheme Concept could however, create a sense of security among the inhabitants in the absence of titling programs, certainly with the use of similar systems such as the Certificate of Comfort. The Land Lease concept utilized in Thailand has proven beneficial to all parties, and carries similar characteristics to the Board Scheme Concept, it has provided many with a secure mode of living at lower costs, although focused mainly urban areas and for a stricter timeframe.

During the research household heads indicated that even though they are living in squatter settlements some are paying rent (Fig 5) at compound prices that exceeds the cost of renting lots in a Board Scheme. The common factor of homeownership in Westmoreland in terms of formal and squatter housing, squatter tenure indication (Fig 5) or the desire to own the lands occupied by squatters, creates a favorable environment for the use of Board Scheme Developments, especially since majority of the houses in the surveyed squatter settlements are Timber based and so easily relocatable. In addition, with the average income of household heads being $360USD, the lot costs being $100USD per annum makes it a feasible venture as lot payments will be within reach of squatters, also the fact that 72% of respondents (Figure 6) enjoy standard of living between average to very good (difference of very good and poor being an inability to provide basic food everyday), the concept could provide tenure security to maintain the expressed standard of living.

![Figure 5. Shows Percentage response according to tenure in the Squatter Communities.](image)

![Figure 6. Shows description of respondents’ standard of living](image)

This concept creates the solution to implications of the squatter settlements on protected and sensitive environmental areas, as suitable or more feasible lands could be allocated for relocation under the land lease strategy. Not only the environmental areas would benefit, but also locations zoned for commercial development would now be able to proceed with creating the added well need jobs some of these same individuals seek.

A. Proposed Flow of Operations

Having consideration to the fact that 79% of squatter communities are located on Government of Jamaica (GOJ) lands, they would be the autonomy on the operations and implementation of the concept, through a sole entity the Tax Administration of Jamaica. In addition, the best mediators between squatter communities and private land owners (similar to the Thailand initiative). The proposal is that by way of voter’s registration or utility bills (two of the most widely accessible means of address identification), contracts will be signed by the squatter settlers, and they would make property payments to the local Tax office under the property tax section (Chart 1). This would allow for any subsidies contemplated to be offset and payments made to private land owners. However, in the case of the GOJ direct payments would be made.

![Chart 1: Demonstrates possible flow of operations for a GOJ based Board Scheme Initiative.](image)

In addition, further initiatives for titling would be easier to be undertaken with the possibility of incorporating an already existing system of Facilities for Titles Act and Certificate of Compliance for proof of ownership (M. Koh and G. Knight 2014 pg. 6), allowing recipients to demonstrate proof of term of inhabitance of a property, this would lead to access to loans
through the formal credit system. However, building type and materials will be restricted to strict stipulations of those within the Board Schemes (having been assessed and passed as safe) to allow for easy relocation if needs be.

VII. CONCLUSION

It is the dream of many to live comfortably ensuring the safety of themselves and families, this dream has been threatened by increase poverty and fear developed from lack of tenure. In addition, the complexities associated with the formal system and the deficit regarding affordable housing faced by many governments further cripples this dream.

Jamaica is facing challenges with implementing programmes that will create permanent tenure, and so would do well to look at strategies being utilized by residents in solving their housing needs. In some cases, a simpler land lease route may be the better option for tenure security, as encouraged by the World Bank, for instance the Board Scheme Concept, with potential improvements to the natural environment by way of relocating settlements in environmental sensitive zones, such as Nonpareil. In this situation, the Board Scheme Concept creates a bridge between the problems related to housing for low income families and the Government, providing affordable housing solutions, a simplistic approach to tenure security, employment, potential for minimizing environmental impacts and drive infrastructure upgrades in other communities needing the development.

It can be deduced from the data provided by respondents who suggested average standard of living and their reason for that response, also from the fact that some are actively paying rent for the houses they occupy, that they are able and willing to pay fees towards tenure security. Application of the Board Scheme Concept through the local Tax Office under the Property Tax Department can steer this initiative in a direction of legitimacy and minimize the costs associated with processing formal titles through multiple agencies, especially for areas already deemed suitable for residential purposes.

It is established that with the increase in Tourism development requiring more workers and the lack of affordable housing to meet those needs, creates the perfect environment for squatting (S. Brooks 2016), especially considering the exorbitant prices for land and/or housing in these areas. Therefore, relocation to other semi-rural areas in the outskirts of Negril such as Broughton District that has cheaper lands for sale ($35000USD for 10890 sq. ft.) in comparison to Negril ($19,385USD for 4553 sq. ft.) and cheaper land lease rates, along with sufficient infrastructure capabilities, will provide improved living conditions and ensure tenure security. This move will also minimize current threats to environment such as the protected areas (Negril Great Morass), while improving Zoning breach situations. Subsequently, providing economic growth to smaller towns such as Little London and giving support to under populated public schools and other services.

ACKNOWLEDGMENT

I would like to publicly express thanks to Jehovah for his spirit of guidance, strength and my health. In addition, the Graduate School of Systems and Information Engineering Young Researcher Development Program, for the financial support received to collect well needed data towards this project. Finally, am grateful to my family and friends who have encouraged and supported me along this journey.

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