REPORT 1 / 2016

DOCUMENTING EXPERIENCES ON STDM PILOTING IN SAINT LUCIA, AND ST. VINCENT AND THE GRENADINES

SECURING LAND AND PROPERTY RIGHTS FOR ALL

UN HABITAT
FOR A BETTER URBAN FUTURE

GLTN
GLOBAL LAND TOOL NETWORK

DOCUMENTING EXPERIENCES ON STDM PILOTING IN SAINT LUCIA, AND ST. VINCENT AND THE GRENADINES

HS Number: HS/009/16E

DISCLAIMER

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning delimitation of its frontiers or boundaries, or regarding its economic system or degree of development. The analysis, conclusions and recommendations of the report do not necessarily refl ect the views of the United Nations Human Settlements Programme, the Governing Council of the United Nations Human Settlements Programme or its member States.

United Nations Human Settlements Programme (UN-Habitat)
PO Box 30030, Nairobi 00100, Kenya
Tel: +254 2 623 120
Fax: +254 2 624 266
www.unhabitat.org

ACKNOWLEDGEMENTS

We are grateful to our partners in the OECS Secretariat and the national government agencies, especially those of Saint Lucian, and St. Vincent & the Grenadines, who all supported the pilot project. We also wish to thank the participants in the surveyed communities who took part in the workshops, the fieldworks, and the focus group discussions on experiences. In particular we thank: Jenny Daniel, Joanna Raynold-Arthurton, David Desir, Bentley Browne, Cornelius Isaac, Hildreth Lewis, Gemyma Norville, Bernella Charlemagne, Shama Jn Baptiste, Esther Lucien-Stephen, Karen Augustin, Dyan Joseph, Celsus Baptiste, Paul Popo, Eldrama St. Luci, Curby Daniel, Corliss Murray, Dornet Hull, Sharon Diamond, Paulina Charles and Avon Campbell.

Principal authors: Charisse Griffith-Charles, Asad Mohammed, Sunil Lalloo
Editing and Lay-out: Victoria Quinlan, Stefanie Freccia
Printer: UNON, Publishing Services Section, Nairobi, ISO 14001:2004 certified

DOCUMENTING EXPERIENCES ON STDM PILOTING IN SAINT LUCIA, AND ST. VINCENT AND THE GRENADINES

UN-HABITAT
FOR A BETTER URBAN FUTURE

GLTN
GLOBAL LAND TOOL NETWORK

CONTENTS

LIST OF FIGURES

Squatting on private land in Layou, St. Vincent and the Grenadines. Photo © Sunil Lalloo.

EXECUTIVE SUMMARY

This report documents the experiences of piloting the STDM in Saint Lucia, and St. Vincent and the Grenadines (St. Vincent). The member states of the OECS have a number of land tenure types, including customary tenures (called variously family land, minors' property, and occupation by indigenous groups) and informal land settlements (squatting and long-standing, unregistered occupation). Due to limitations, only two different tenure types and two different locations were used for the pilot project. Family land and squatting tenure were recorded, and rural and peri-urban locations were selected. Regarding squatting, the selected areas were La Panse in Saint Lucia, and Pole Yard and Point Village in St. Vincent. For family lands communities, the selected areas were Praslin in Saint Lucia, and Layou and La Croix in St. Vincent.

Questionnaires were prepared to capture the necessary information from the occupants on squatted and family land. The fieldwork for the studies on squatting was done by the state land administration institutions of St. Lucia and St. Vincent. While, the family land studies had to be performed by non-state actors to gain the trust of the communities.

The process included encoding data from the completed survey questionnaires and digitizing the plots/houses by using an aerial photograph as an overlay to represent the spatial unit. After attribute information was imported to the STDM, as well as the layer with digitized plots/houses, the attribute data was then linked to the spatial unit to form the social tenure relationship within the STDM framework.

Findings show that the following elements need to be present for a successful pilot to be rolled out to other communities and countries: 1) there is societal acceptance and adoption of the process; 2) there is institutional acceptance and adoption of the process; 3) there is state acknowledgement of and interest in opportunities provided by the use of the system in land administration and land management; 4) there are solutions to technical challenges that arose in the pilot; and 5) that the resource requirements for rollout are not insurmountable.

Recording of land rights is essential to land governance. The STDM is a model that describes the relationship between people and land, and the STDM software program gives practical expression to capturing different forms of social tenure relationships between people and land. These relationships may be rights that are documented as well as undocumented, formal as well as informal, for individuals as well as groups, including pastoralists and residents of slums and other settlements, which may be legal or not legal. The OECS countries should be encouraged to use a methodology, such as STDM, that would ensure a quick and efficient documentation of land rights.

PART I

OVERVIEW

PART I OVERVIEW

1 INTRODUCTION

During the period 2012 to 2014, the Organisation of Eastern Caribbean States (OECS) developed regional land policy guidelines to address the most critical land issues being faced by countries in the region. The organization was assisted by the Australian Government's aid agency, AusAID, and UN-Habitat, with input from the University of the West Indies, St. Augustine. It was recognised that establishing a land policy requires land administration which provides comprehensive and current land information so that policies reflect and address existing land issues gleaned from, and evidenced by, the land information. Land information is also necessary in order to monitor changes in land status and thereby determine the effectiveness of any initiatives proposed and implemented through the land policy. One component of this umbrella project was the piloting of the Social Tenure Domain Model (STDM) software in Saint Lucia, and St. Vincent. The STDM is an example of a land tool that can help to create and maintain a land administration that supports the implementation of economic, social and environmental land policy goals.

This report documents the experiences of piloting the STDM in Saint Lucia, and St. Vincent. The technical aspects of the software, its ease of use, speed of implementation and perceptions of its applicability to the environments, are examined. It is important to determine if the concept of STDM, as well as the practical aspects of its application and the use of the software, is feasible and acceptable to the societies in which it may be implemented. The experiences and perceptions of the stakeholder groups as well as other external factors, such as institutional capacity and project or programme funding capacity, can determine whether the process of recording informal tenure is adopted and continued to completion in pilot countries and other countries of the OECS subregion. These experiences can also provide information on whether other small island developing states (SIDS) with similar social characteristics and land tenure issues will be able to adopt the concept as well as the software process in their own countries or in relevant communities within their countries.

2 BACKGROUND

Land administration is defined as the acquisition, maintenance and dissemination of information on the ownership, value and use of land. This information is necessary to support land policy implementation. Besides being complete and current, land administration systems - including the information contained within the systems and the processes used for their establishment and maintenance - should ideally be transparent, accessible, simple and low-cost to efficiently and effectively allocate land fairly to citizens. The Social Tenure Domain Model (STDM) software is a pro-poor tool for land administration. It may be used to record the interests of people who occupy and use land but who do not have formal freehold title and who would therefore be left out of official databases. The STDM has been designed to record these interests simply, quickly and cheaply in a digital database, which therefore increases the flexibility, accessibility and usefulness of the data. The software has been tested in a number of areas around the world (Lemmen et al. 2015). Examples of its use include the piloting in Ethiopia amongst the rural agricultural lands, and its use in Uganda for supporting slum upgrading initiatives

in housing, land acquisition, water and sanitation, and health programs. The major benefits were that large areas in these countries were mapped without costly, lengthy fieldwork, that community participation and acceptance were encouraged by the process, that transparency was improved and that the data could be integrated with existing geographic information systems (GIS). These tests have demonstrated its ability in recording land rights; it can be used in the same way that deeds and cadastral plans are used to support an individual's rights over land. Instead of a deed and the expense that must be incurred to formally register land, however, the STDM records any form of evidence that the occupant of the land has to support his or her occupation on the land. This may be tax receipts, rent receipts or deeds of predecessors who died intestate. Instead of cadastral plans and the expense of having a professional land surveyor perform precise surveys, the STDM can be used to record any description of the parcel that could be evidence of the extent that is occupied. This may be a photograph, a sketch, a verbal description or an aerial photograph. Instead of a lawyer attesting to the validity of an occupant's claim by performing an expensive adjudication process, the acknowledgement of the surrounding community members can be recorded to attest to the person's legitimacy. There are therefore benefits of cost, simplicity, speed and security for informal occupants who use the STDM software to record relevant tenure information. There are also several benefits to the state in using the STDM in instances where people have squatted on land for a long time, where family members have occupied family land, or where people have purchased land for which a deed has never been registered previously. Some of the benefits to the state include:

State provided housing in St. Vincent. Photo © Sunil Lalloo.

- The state acquires information on all parcels of land for land administration and management purposes.
- A complete land information system can be obtained by the state at less expense and in a shorter time than formal titling and registration programmes.
- The state can then use the geospatial data for innovative and incremental approaches to improve tenure security and clarify rights, and even to promote optimal spatial planning.
- The information can be used to minimise or adjudicate on conflict over overlapping or contested land use and occupation.

3 STDM THEORY

The concept behind the STDM is that the model describes what exists and does not necessarily determine what should or should not exist. The STDM records the accepted status quo without altering the people-land relationships (ISO, 2012). The model breaks down the relationship between occupant, land parcel and land rights to a simple one between the three entities called "LA_Party", "LA_BA Unit" and "Social Tenure Relationship" respectively. Despite

the fact that different terminology may be used in different countries, different legal systems and different situations, the relationships can be described using the same three entities with some elaboration of the differences in the particular context.

The STDM is a subset of the Land Administration Domain Model (LADM), which similarly describes the formal or legal relationship between the land rights holder, the land parcel and the legally sanctioned land rights. Despite the benefits derived from the flexibility of the STDM, the STDM cannot replace the LADM as there is a place for more precisely defined land units, more legally prescribed rights and more specifically identified land rights owners, especially where the precision of the information provides the confidence required for a dynamic and efficient land market. The value of the STDM is highest in instances where the perception of security of tenure is beneficial to the wellbeing of the community as opposed to a need for documentary security of tenure for supporting land transactions.

4 JUSTIFICATION IN THE OECS CONTEXT

The member states of the OECS have a number of land tenure types, including customary tenures (called variously family land, minors' property, and occupation by indigenous groups) and informal land settlements (squatting and long-standing, unregistered occupation). Issues about these land tenure types impact on the ability of the state to manage land equitably and sustainably, while striving to optimise social, economic and environmental benefits of the land resource. The STDM can assist with resolving these issues by providing a land information system that helps to administer and manage land at state or community level. There are instances where many groups have traditionally occupied areas and the use needs to be recorded, managed and supported. Areas can be, for example, part of the coast, beach and sea that groups of fisherfolk are accustomed to using for their livelihood. These areas may overlap with areas used for water sports, yachting and tourist activities. Good governance on the part of the state should include managing these overlapping and interspersed rights in these areas by acquiring data on who is using the area and therefore who has, over time, attained a legitimate right to be there. While all the land tenure characteristics are significant, the issues of squatting on state land and family land tenure were selected for the pilot project as the most representative of the range of issues present and therefore the ones that would best test the applicability of the STDM programme to the OECS subregion. Other informal tenure situations, such as those described previously in the marine environment and squatting on private land, are also extant forms of tenure that were not tested in this STDM pilot. Assumptions can be made, however, as to the applicability and potential usefulness in these situations.

5 TECHNICAL DESCRIPTION OF THE SOFTWARE

The STDM software was developed by UN-Habitat and the Global Land Tool Network (GLTN) to reflect what was theoretically contained in the concept of the Social Tenure Domain Model envisaged in the ISO standard (ISO, 2012). This concept is based on describing, as simply as possible, the people-to-land relationship through the rights, restrictions and responsibilities that are agreed on tacitly or orally in informal communities. The software runs on an open source application called QGIS with an STDM-based application as an add-on. This particular application was originally developed

and refined to suit existing tenure structures in several African countries and some of the terminology in the menus reflects this focus. This pilot project allowed the testing of the application in the Caribbean region, where there are different tenure structures and different terminology. The software allows for including some specific terminology. It therefore provides an opportunity to assess the flexibility of this particular application to match these physical differences as well as to assess social acceptance of the ideas and concepts underlying the use of the model. It should be noted that STDM is not the only model of its kind nor is the STDM programme the only software developed to record land rights of different tenure types.

6 INITIATING THE PROCESS

To apply the STDM concept in the two countries, it was first necessary to determine what is considered to be legitimate tenure by the community and therefore of sufficient importance to be recorded. It follows that the society must first decide on the legitimacy of the occupation or use of the land prior to recording it in the STDM. States should look for guidance on the characteristics that constitute equitable governance in land tenure in documents such as the Food and Agriculture Organization's Voluntary Guidelines on the Responsible Governance of Tenure (VGGT)[1], and the World Bank's Land Governance Assessment Framework (LGAF)[2]. These documents suggest best international practice on addressing legitimate tenure and the characteristics of governance of tenure that are necessary for human rights, such as acknowledgement of all rights, participation and inclusion. Besides, these internationally accepted criteria, group size, influence or political power of the marginalised may play a part in the determination of what type of tenure is legitimate and thus recorded.

For the purpose of implementing the pilot project, meetings with stakeholders of the two countries selected for the application took place. Early discussions on land policy and the STDM sought to draw on as wide a cross-section of the society as possible to provide an opportunity for all to be part of building of awareness of the concepts and to be part of the decision-making on what is considered to be legitimate tenure. At these meetings, the difficulty of determining what would be considered as legitimate was highlighted. Participants who were new to the concept questioned the accuracy and the connotations of the terminology being used, for example "squatting", "land rights", and "legitimacy". This indicates that there is need for building awareness of the concepts of rights on a broader and more sustained level as well as for including a larger cross-section of voices on land rights. Discussions were also held specifically with the stakeholder institutions of St. Vincent and Saint Lucia where the pilot project would be implemented. Workshop attendees cautioned that accepting and recording squatting or adverse possession would jeopardise private, legal title that was not rigidly monitored by the owners, while recording family land may threaten the rights of family land members who were not resident on the land or who lived out of the country. Some were not reassured when told that recording the occupation may not necessarily lend legitimacy to occupants who do not yet possess significant rights and conversely, the information could be used for making land management decisions on regularisation, resettlement, or even eviction. The

1 The VGGT of Land, Fisheries and Forests in the Context of National Food Security promote secure tenure rights and equitable access to land, fisheries and forests as a means of eradicating hunger and poverty, supporting sustainable development and enhancing the environment.

2 The LGAF is a diagnostic instrument to assess the status of land governance at the country or sub-national level using a highly participatory and country-driven process that draws systematically on local expertise and existing evidence.

recording process, therefore, did not seek to only reduce the power of the state and increase the power of the illegal or legitimate occupant but instead could also empower the state to better manage equitable land allocation.

After determining what types of tenure were considered to be legitimate, in this case, family land and squatting of long duration, it was necessary to determine what evidence of occupation and rights exist to be recorded. This evidence can also be contextual since in instances where levels of education are low or language barriers exist, oral recordings or photographs may be required to evidence the identity of occupants. In the OECS countries, literacy levels are high and national identification cards are sufficient in the large majority of instances for evidencing occupant identities.

PART II

IMPLEMENTATION

PART II IMPLEMENTATION

7 PILOT PROJECT IMPLEMENTATION

Ideally, the pilot project would have been applied in different permutations of tenure and location to determine the applicability of the software in different situations. With time and human resources being a limiting factor, only two different tenure types and two different locations were used. Family land and squatting tenure were recorded and rural and peri-urban locations were selected. There was some coincidence between the spatial context and the tenure type, with family land being more prevalent in the rural areas and squatting more prevalent in urban areas. This reflected the historical development of the tenure types. There was also coincidence between the tenure type and land use, with squatting being associated primarily with housing in the peri-urban area and rural family land holdings being associated with agriculture. While much family land originated as agricultural holdings, the land use evolved to include residential use as families grew and housing became more necessary. Squatting would have taken place for both agricultural and housing purposes, with the land use largely determined by the urban or rural location. For practical purposes, the choice of the sites was based on the areas suggested by the technical agencies in Saint Lucia and St. Vincent as being most accessible, the willingness of the community to participate, the availability of human resources and an adequate database to effect the fieldwork within a reasonable timeframe. In both countries, the state agencies reported a reluctance to participate by family land groups. The family groups were more comfortable interacting with non-state researchers and this was the process eventually adopted to pilot the STDM on family land.

In the case of family land, the legitimate interests required to be recorded were deemed to include people occupying the lands as well as the interests of many family members who may not have been present. In the case of squatters, the critical legitimate interests required to be recorded were deemed to be those in actual occupation. Ascertaining the interests to be recorded on family land should ideally involve comprehensive notification mechanisms over a lengthy period so as not to depend completely on second-hand information from occupants who may seize the opportunity to elevate their claims. In both cases, formal cadastral records may, in some instances, reveal the head title or lease for the parcel to support evidence of long-standing existence of rights. In both cases, the records should not be finalised until they are publicised for a considerable length of time to allow counterclaims and the submission of alternative evidence of rights. Delaying the finalisation of the process may not resolve conflicting claims but serves to capture comprehensive information on these claims to facilitate eventual adjudication of rights using reformed legislation and policy.

Questionnaires were drawn up that would capture the necessary information from the occupants on squatted and family land. A determination was made on what would be the minimum information required to be acquired to demonstrate the usefulness of the application while ensuring that the data could be captured in as short and efficient a process as possible. Refer to the questionnaires used in Appendix 1.

8 DATA CAPTURE OF SQUATTING COMMUNITIES

The fieldwork for the studies on squatting was done by the state land administration institutions of St. Lucia, and St. Vincent. In St. Lucia, the La Panse area was chosen, in which 31 households were visited (See Figure 1); and in Saint Vincent, two areas were studied - Pole Yard (31 households) and Point Village (32 households).

Figure 1: Settlements studied in Saint Lucia

Figure 2: Settlements studied in St. Vincent

8.1 SAINT LUCIA - SQUATTING

La Panse is a linear settlement within the city of Castries, along the Millennium Highway, on the periphery of Castries proper. It has mixed land-use and land tenure in which some parts are private freehold, state lands and a squatting settlement. Its proximity to the city centre has made this settlement very visible and controversial and several successive governments have tried to regularise the squatters but with little success.

The cost of surveying and upgrading the infrastructure usually hampers the completion of these regularisation exercises. Consequently, this made La Panse an ideal settlement for the pilot as the state agencies and the occupants of the squatting settlement were eager to provide information in the hope that the pilot would lead to the eventual regularisation of the settlement.

La Panse is well serviced with water and electricity provided by the local agencies. It could be argued that the state's provision of utilities is an acknowledgement of land rights and thus leads to the concomitant benefit of improving the security of tenure of the occupants without formal documentation. Sewage disposal is facilitated by on-site septic tanks that are built and maintained by the occupiers. This is common throughout the Caribbean, even on formally owned and developed land. Garbage collection is by the local government corporation, however, only garbage along the main roadways is collected and squatters who live far along unpaved access routes have to trek to the main road to deposit their rubbish. The parcel enumeration is shown in Figure 3. The graphic used is from a previous state survey to support regularisation initiatives.

Figure 3: Enumeration of the La Panse case study, Saint Lucia

8.2 ST. VINCENT AND THE GRENADINES - SQUATTING

In St. Vincent, the application was tested in the squatter area of Pole Yard, where people had occupied a state parcel used to store utility poles, hence the settlement's name. The area is characterised by temporary and semi-permanent housing structures erected by the squatters. Pole Yard is a well-known squatting site in which some of the poorest people in the country live. Although most housing units in the area is serviced with electricity, access to water and sewerage facilities is difficult. The majority of households use pit-latrines that are sometimes shared among households. Garbage collection is by the local solid-waste management corporation and, due to the proximity of this settlement to the airport, that service is generally good. A typical house structure is shown in Figure 4. In this case, as in Saint Lucia, the individual structure and the settlement do not conform to planning regulations, which restricts regularisation even while the occupation and construction continue to exist.

Typical house in Pole Yard. Photo © Sunil Lalloo.

9 DATA CAPTURE OF FAMILY LAND COMMUNITIES

In Saint Lucia, 32 households were studied from the Julien and Francis families in Praslin, which is between the administrative districts of Dennery and Micoud. In Saint Vincent, two studies were done: in Layou (17 households, mainly the Robertson family's land) and in La Croix (14 households in the Diamond family). These family land studies had to be performed by non-state actors to gain the trust of the communities.

9.1 SAINT LUCIA – FAMILY LAND

Dennery is on the east (windward) coast of the island and is characterized by rural development and agriculture. The landscape shows signs of a once-flourishing banana industry that is now diminishing under the impact of natural disasters and fluctuating global economics. Praslin is a small community in which small-scale and subsistence farming is carried out alongside fishing. The registry data indicates that the original estates remain amalgamated for the most part, with large, extended families retaining interest in the land. The current occupiers are fifth to seventh generation heirs of the original purchasers with one family boasting of occupancy for 160 years. The land is still titled in the name of the ancient antecedent, with few records of subsequent transactions in the Land Registry. In one scenario, the only update to the registry was a judicial administration of the estate from the original antecedent to his 10 children. Those children are also long dead.

9.2 ST. VINCENT AND THE GRENADINES – FAMILY LAND

The Layou and La Croix areas are on steep land inaccessible by vehicles. While most people who were given questionnaires freely gave information, one

occupant refused to give any personal information. It was estimated in 1987 that one third of the town of Layou was under family land tenure (Isaacs, 2013). A lack of detailed land information in the land administration means it is not known whether this figure has reduced or increased since then. This also holds true for the statistics for tenure group "owned land" with "owner-like possession", or land that has been occupied for many years without challenge.

10 DATA INPUT TO STDM SOFTWARE

Figure 4 shows the use of aerial photography in the QGIS software, on which the STDM add-on sits, to identify the structures occupied by the households. After attribute information was entered into the STDM database, the houses related to each record were digitized to represent the spatial unit. The software links the attribute data to the graphics.

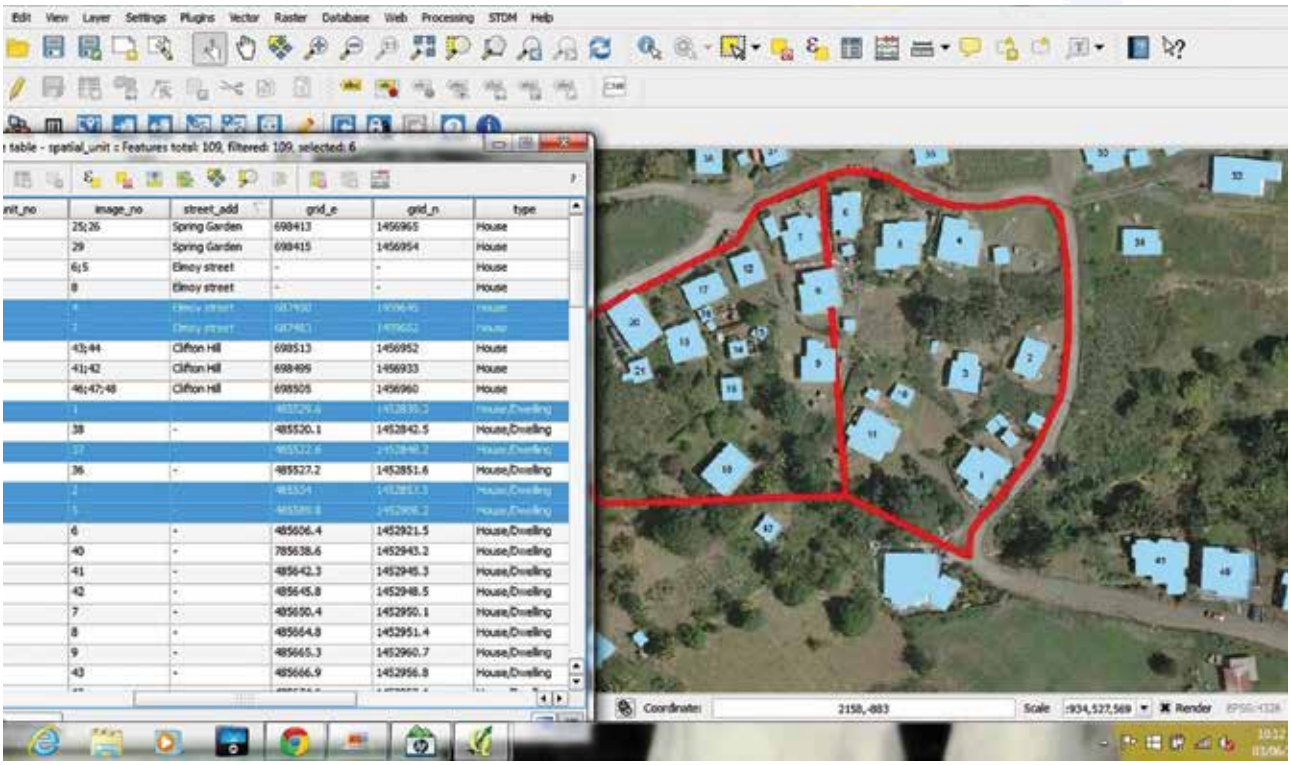

Figure 4: Identification of structures in the software

Figure 5 shows an example of the data acquired in the field as it is uploaded to the STDM add-on, including a picture taken in the field to record an on-site view of the structure occupied by the respondent. Once the records were entered into the STDM software, social relationships were included. For case studies of squatting, such as Pole Yard, the main form of individual rights is residency/occupancy rights. The classes of rights holders defined in the records included structure owner, structure co-owner, spouse/partner of structure owner, and child/dependent of structure owner.

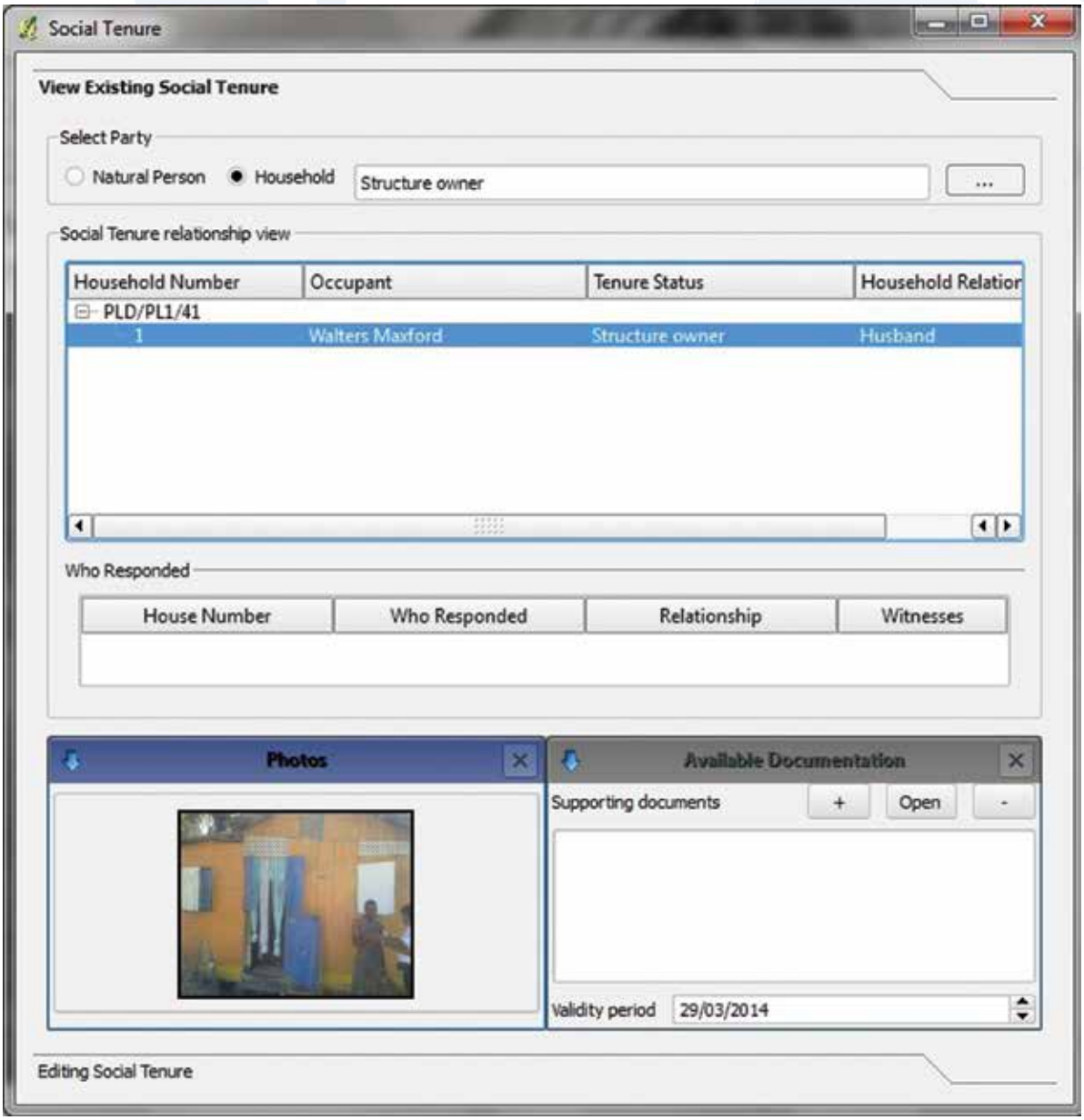

Figure 5: STDM software with individual household data inserted

PART III

OUTCOME

11 OUTCOME ANALYSIS

The pilot project can only be considered to be successful for rollout to other communities and countries if: 1) there is societal acceptance and adoption of the process; 2) there is institutional acceptance and adoption of the process; 3) there is state acknowledgement of and interest in opportunities provided by the use of the system in land administration and land management; 4) there are solutions to technical challenges that arose in the pilot; and 5) that the resource requirements for rollout are not insurmountable. Meetings were held with stakeholders in Saint Lucia and St. Vincent before and after the pilot projects to glean their perceptions of the process. These perceptions, along with analyses of previous project outcomes from the literature, were used to determine whether it is feasible to expand the project nationally and regionally.

11.1 SOCIETAL ACCEPTANCE

A process of recording tenure data that was not previously recorded requires acceptance by a majority of the entire society for the process to be adopted and implemented until completion. Participants of the process from both squatting and family land types of communities were enthusiastic about the idea of their rights being recorded.

A more difficult issue may be that of achieving acceptance from the wider society, where people with formal tenure may perceive it as being under threat if the state was to widely adopt the STDM. Stakeholders expressed this view strongly with respect to the land that they believed that they had worked hard to attain while obeying all national, legal and regulatory obligations. Some were even in favour of removing existing adverse possession laws, which they deemed to be unfair to landowners who could not constantly monitor the occupation of their land or who were away for lengthy periods. Some people were also fearful that an acceptance of this "illegality" would lead to the flouting of other, unrelated laws. If the government perceives that there is widespread resistance from the majority of the population then it may be reluctant to support the initiative. Taken together, the squatting and family land population is significantly large and presents an ongoing problem that needs to be addressed. A programme of public awareness could assure private landowners that recording informal tenure will assist in land management and, together with enforcement of existing anti-squatting laws, could reduce the incidence of new squatting.

In contrast to the enthusiasm of squatting households for the recording process, family land members were amenable but less convinced that the recording process could protect them from those in the family who had the power to control the use of the land. A tearful family land respondent spoke of the need for more security of tenure within the family group. Insecurity of tenure can arise when there is internal conflict and contestation over use and occupation within the family group. Without specific legislative or land policy reform, recording within the STDM is less beneficial for providing security of tenure within the family group than it is within squatter communities. The state can provide mechanisms such as dispute resolution or mediation support for family groups that can reduce instances of conflict and thus the tenure insecurity that is felt within some family groups. The youngest adult occupants of family land are well aware that the oldest living descendants of the original landowners are the ones who would be considered to have the strongest

claims to the land if formal legislation were to be applied to a conflict situation. Strict application of the law as opposed to the acceptance of social practices may not be ideal for the maintenance of responsible governance and management of family land.

While family land members were uncertain and sceptical that the recording of their occupation would have any weight in the face of existing legislation, they generally felt that recording their occupation would be harmless even if it were not beneficial. The one instance where the occupant of family land refused to divulge information represented a small percentage of the sample; there was no significant resistance to the process on the part of the beneficiaries. If the programme were to be rolled out nationally, a sustained publicity and awareness campaign could increase the level of acceptance of the process and allay any fears that occupants have of being disadvantaged or harmed by engaging in the recording of information.

Some family members were also uncertain about supporting the option of community managed acquisition and maintenance of land tenure data. Some were distrustful of this unless they personally had access to and control of the dataset. The publication and visibility of the data could help to allay a fear that information in the community managed data could be altered by unscrupulous people for their advantage. There should be a period of verification and acceptance of all revised tenure data submitted by the community prior to the data being added to the national information systems. There should also be state oversight of the community-managed process so that powerful people within the communities do not affect the integrity of the data or prevent individuals from being able or willing to submit their land tenure claims.

Publication of the personal land tenure information was not an attractive aspect of the process for some of the family land community representatives and ability to access the information via the internet was an even more sensitive issue. While personal data should still be acquired and form part of the land tenure database, there could be restricted access to some of these information to protect the confidentiality of individuals. The use of technology, including the internet, to provide access to data may marginalise the less sophisticated and lower-income, informal land occupants. Alternative forms of access to the same data need to be provided, such as state-sponsored mobile internet cafes or other forms of decentralised access points, as well as hardcopy certificates and printouts.

11.2 INSTITUTIONAL ACCEPTANCE

The acceptance of the government and state institutions is required so that a full-scale programme of recording using the STDM would be fully completed. The benefits need to be considerable and easily demonstrable for this acceptance to occur. State institutions felt that they first needed to overcome the lack of resources and to do this they needed to have a political champion to ensure that they were provided with the requirements to develop and maintain the system. The institutions also believed that the process of recording could encourage squatting and lead to an increase in the activity, citing an instance where, after the state performed a reconnaissance to plan a regularization process, 10 new homes were built over the next weekend by people hoping to be beneficiaries of the regularization.

Beyond legitimising informal tenure, the institutions were of the view that the process could also legitimise and encourage informal development and construction,

even among private landowners. Informal and non-conforming construction and subdivision are already a problem for planning authorities. This is especially so within family land as the definition of who should be sanctioned for breaches of the planning regulations is unclear in a situation where nobody holds legal title.

There would be difficulty in locating, recording and verifying rights holders who live abroad and are not present at data acquisition. As with other land titling exercises in the Caribbean, there may never be the sense of conclusion because rights holders tend to emerge from abroad long after the end of the titling exercise to seek their land rights.

The institutions were somewhat disappointed that the STDM cannot resolve conflict issues. While the system can support decision making, a policy and its implementation are needed to find solutions to conflict. Some of the institutions were more comfortable with the STDM data being acquired and maintained by the state, even though there were limited human and financial resources to do so. Some, however, appreciated the assistance from the communities and were willing to accept periodic updates to the data every six months or at longer intervals, especially for family land over which the state has little access or control.

11.3 TECHNICAL CHALLENGES

The pilot project illustrated some of the technical aspects of the implementation of the STDM. The software requires training and experience to overcome some of the instability usually associated with software in developmental stages. Personnel within the state institutions were uncertain about being able to assign dedicated human resources to this capacity building as well as to implementation when other, routine land administration activities still had to be performed. There was a limited number of people who already possessed the requisite skills and capacities to become familiar with the use of the software and to integrate its use with existing GIS.

There are some design elements for the system that will adapt the application to the local environment that apparently could not be accommodated by the software. These design elements included having different profiles for family land and for squatter settlements. Some of the issues were the result of limitations in the software, while some were the result of software instability in the current version. Alternative ways of setting up the system that are within the capabilities of the software in its current version would need to be explored, while it is anticipated that subsequent versions of the software will address the instability issues. As an example of software instability, the default database in the software did not accept data entry. A new database had to be created for the modules to allow for data input. It was also difficult to save changes to the data, especially for non-text data; error messages indicated a problem with a line or lines in the code. This would have been easily rectified, however, if the Python code was opened up and the offending lines were deleted. This indicated a problem in the way the design module creates the pseudo-code. Users without basic programming skills may not be able to cope with these issues and this has implications for whether rural communities can set up and manage their own land tenure database.

The way in which links between tables are created is not clear from the user guide. Linking only seems to work with the default tables and is particularly difficult to accomplish when creating new spatial data tables.

The software only allows for one profile to be created and used at any time. If a new profile is created, the data already entered in another profile (even the default STDM profile) is apparently lost.

The social tenure wizard only comes up if the default profile is being used and if that default profile has not been edited. Also, in order for spatial data to be linked to attribute data, the STDM software in QGIS has to connect to the PostgreSQL server. This only works with the unedited default profile. If a new profile is created with a table that has geometric data types, the connection to the database does not occur. This can be resolved by going into the PostgreSQL server itself and manually connecting to the database. Even after that has been done and the STDM connection is successful, the software does not recognise the geometry layers in the new tables created. For changes in the database design to be effected, it was necessary to restart the software. However, in many instances, rebooting the software did not effect the changes and it was necessary to reboot the computer itself (sometimes several times). This indicates a problem with the way the STDM connects to the SQL server. It appears that the server itself has to completely shut down and reboot before any changes can be recognised. While this was successful, it resulted in the loss of all data already entered and it was imperative to have all the design edits correctly made initially. This made direct data entry very impractical.

Decisions on the final structure for the database can be made and refined based on the results of this study or after more testing and experimentation. For example, decisions must be made about the appropriate level of precision required for recording the location of structures and occupied boundaries. These technical decisions impact the length of time required for more widespread implementation and for the usefulness of the data acquired. Higher precision spatial and attribute data acquisition would allow the data to be integrated easily with cadastral data that already exists and would better support planning and infrastructure regularisation but would require more time and resources to perform. Because of resource issues in the state institutions responsible for data acquisition, it is advisable instead to attempt a comprehensive, low-precision capture of household location and attribute data rather than a complete and accurate spatial and tenure representation in the software. Approximate locations of structures using handheld GPS devices or estimated point positioning on Google Maps images could be sufficient to capture all features and link them to attribute information on land tenure. When all features are captured, a systematic upgrade of the precision of the location and boundary extents of the features could then be considered as well as more detailed information on occupation, tenure and other social indicators.

Ease of use of the technology and stability of the software are also important for encouraging their use. The functionality of the current version of the software has improved over the previous version but, as with most software, there are still stability and performance issues that require fixes and can affect its adoption.

11.4 OPPORTUNITIES

Both state and community stakeholder groups recognise the opportunities provided by recording data in the software. The community groups were amenable to having the data recorded and having the data publicly accessible, even though family land participants were

not certain that all the overseers would be in favour of this if it limited their control over the family group.

There are important reasons why the state should be interested in implementing an STDM for squatting and family land other than improving the security of title. In the case of squatting, the STDM can be a first step in any regularisation process. Both occupation interests and indications of areas occupied are important inputs in re-parcelling and infrastructure planning. Opportunities exist for the use of this mechanism for visualising planning laws such as land-use restrictions. This visualisation can support experimenting with revisions to the planning regulations to accommodate less restrictive standards in informal areas.

The state can also be assisted in the acquisition and maintenance of the data by the communities themselves. Some state representatives viewed the assistance from the communities as a positive step and as a way of working with scarce resources. Some state agency representatives did not wish to have the data recorded as they believed it rewarded illegality or that fraudulent information would be recorded. Some members of community groups, both squatting and family land, were not comfortable with a member of their community holding the information unless they themselves were the ones responsible for holding the data. Trust can be built over time with transparency and inclusion.

The opportunity for providing for disaster management was important in the OECS context where hurricanes are an annual occurrence and where climate change impacts are anticipated to increase. The comprehensive dataset would be invaluable for re-establishing land rights if a hurricane were to severely damage heavily occupied informal areas. The OECS Commission, for example, can be responsible for archiving the datasets periodically in offshore, digital storage servers.

The representatives of the state institutions could envisage the use of the software providing opportunities for pre-adjudication processes, assigning plots in a regularisation process and issuing letters of approval for electricity and water connection. These were possibilities that could significantly speed up and improve land administration and land management. While the institutions may resist changes to their current processes, if it is demonstrated that the use of the software improves the efficiency of these processes the changes will be embraced.

There was a lot of discussion on the various types of tenure that exist and which types could be considered to be social as opposed to formal but unregistered, or formal but not registerable. For example, would tenancies on informal land be recorded when tenancies or leases of less than specific durations are not registrable in titled land, but are possible to be registered on deed registered land? Terminology and legal requirements differ between titled land and deed recorded land. It is anticipated, therefore, that while there will be clear areas of squatting or informal occupation on both state and private lands, there are areas that need to be discussed and agreed on for the process of moving beyond the recording. Awareness needs to be built among the public officials and the community beneficiaries of the opportunities and limitations of recording of the tenure in the STDM. There are many opportunities offered by the process for supporting security of tenure as well as for encouraging economic growth, but the STDM cannot upgrade tenure.

11.5 RESOURCE REQUIREMENTS

Stakeholders of land administration and land management agencies were of the view that there would be little incentive or willingness on the part of government officials to divert scarce human and financial resources from necessary services to the acquisition and maintenance of the STDM data. The pilot studies were done within a short time frame of one or two weeks per settlement and with only two or three investigators. This demonstrates that cost and time savings were achieved which could be an incentive to continue the process.

12 WIDER APPLICATION

The STDM software can be considered for wider application within the land tenure types surveyed in the pilot project, within other informal land tenure types, within other countries of the OECS subregion and the wider Caribbean region, and even in other global contexts in SIDS countries. From the generally positive reactions of the stakeholders to the process within the pilot studies, it would appear that society is amenable to adopting the system with some adjustments to the process and some guarantees provided by the state. While the pilot project did not test for wider application of the STDM to other types of informal tenure, such as marine rights and squatting on private lands, these land tenure situations exist in the pilot countries as well as in the other OECS countries. Expanding the implementation of this programme to other tenure types can be scheduled on completion of this phase so that benefits can be analysed and conclusions drawn before going forward.

13 CONCLUSION

This report sets out the key land issues that would affect the implementation of the STDM in the OECS. These issues include family land communal tenure with various characteristics, and squatting on state land. The implementation of the concept using the STDM software developed by UN-Habitat and the GLTN was explored by the University of West Indies (UWI) team to determine its technical feasibility as well as the acceptability of the approach to stakeholders. Suitable imagery and computer aided drawings were the foundation for quick spatial unit definition and evidence of rights, thus demonstrating the versatility of the model and process. Limited institutional capacities and resources delayed the completion of the pilot project and would therefore delay a comprehensive adoption of the process. Societal resistance to the concept of recording informal rights and a perceived condoning of illegality may also restrict acceptance and adoption of the process at the institutional and state level. There are, however, sufficient economic and social benefits to the adoption of the STDM software that suggest that the procedure should be further implemented, not only on the islands in this study but more widely within the region.

Recording of land rights is essential for supporting equitable allocation and use of land as well as management of activities on land. These are important parts of land governance, irrespective of the method used for recording. The STDM is one of several models that describe the relationship between people and land, and the STDM software programme is one of several programmes designed to give practical expression to the theory. The OECS countries should be encouraged to use, if not this model or software, a methodology to ensure that land rights are quickly and efficiently documented.

PART IV

APPENDICES

14 APPENDICES

14.1 APPENDIX

1. List of attendees at meetings to discuss pilot project implementation and to get feedback

STDM Pilot Meeting
15 August 2013- Bay Gardens Hotel, Gros Islet, Saint Lucia

People in attendance:

1. Dr. Charisse Griffith-Charles, Lecturer in Cadastral Systems Surveying, Cartography, Land Administration, University of West Indies (UWI)
2. Ms. Jenny Daniel, Chief Housing and Urban Renewal Officer, Ministry of Physical Development, Housing and Urban Renewal, Saint Lucia
3. Mrs. Joanna Raynold-Arthurton, Acting Permanent Secretary, Ministry of Physical Development, Housing and Urban Renewal, Saint Lucia
4. Mr. David Desir, Acting Commissioner of Crown Lands, Saint Lucia
5. Mr. Bentley Browne, Director, Social and Sustainable Development Division (SSDD), Organisation of Eastern Caribbean States (OECS)
6. Dr. Asad Mohammed, Director- Caribbean Network for Urban Land Management (CNULM) Network
7. Mr. Cornelius Isaac, Project Coordinator
8. Mr. Hildreth Lewis, Deputy Permanent Secretary
9. Ms. Gemyma Norville, Registrar of lands
10. Ms. Bernella Charlemagne, Legal Officer
11. Ms. Shama Jn Baptiste, Project Secretary
12. Ms. Esther Lucien-Stephen, Valuations Officer (Survey and mapping)
13. Ms. Karen Augustin, Chief Physical Planning Officer

STDM Application in St. Lucia
March 12, 2015

Location: Conference Room, Ministry of Physical Development, Castries, St. Lucia

Name	Institution	Email	Mobile Contact
Dr. Asad Mohammed (AM)	Lecturer, UWI	Asad.Mohammed@sta.uwi.edu	868-735-9896
Dr. Charisse Griffith-Charles (CGC)	Lecturer, UWI	Charisse.Griffith-Charles@sta.uwi.edu	868-682-8730
Mr. Sunil Lalloo (SL)	Assistant Lecturer, UWI	sunil.lalloo@gmail.com	868-336-3245
Ms. Dyan Joseph (DJ)	Ministry of Physical Development St. Lucia	dyjoseph@gosl.gov.lc	758-468-4480
Mr. Celsus Baptiste (CB)	Crown Lands Division. MoPD, St. Lucia	cbaptiste@gosl.gov.lc	758-285-7183
Mr. Paul Popo (PP)	Land Registry, MoPD, St. Lucia	papopo@gosl.gov.lc	758-468-4496
Ms. Eldrama St. Lucia (ES)	Resident of Gabo Lands (Squatting)		758-452-3560
Mr. Curby Daniel (CD)	Surveys and Mapping Division	Curby.j.daniel@gmail.com	
David Desir (DD)	Deputy Chief Planning Officer	ddesir@gosl.gov.lc	

STDM Feedback Meeting
18 June 2015

Persons in Attendance:

1. Dr Charisse Griffith-Charles - Lecturer, UWI in Cadastral Systems Surveying, Cartography, Land Administration
2. Dr Asad Mohammed - Director- CNULM Network
3. Mr Sunil Lalloo – PhD student, UWI
4. Mr Corliss Murray – Land Surveyor, Lands and Surveys, St. Vincent and the Grenadines
5. Ms Dornet Hull – GIS officer
6. Ms Sharon Diamond – Resident and representative of family land pilot area in La Croix
7. Ms Paulina Charles – Resident and representative of family land pilot area in Layou
8. Ms Avon Campbell – Resident and representative of squatting settlement pilot area in Pole Yard

14.2 APPENDIX 2. QUESTIONNAIRE – SQUATTING SITES

SECTION 1: Enumerator details	
Date questionnaire administered	(DD-MM-YYYY)
Name	
Telephone contact	
Gender	
Name of chief enumerator	
Date of verification	(DD-MM-YYYY)
Date entered (for data entry clerk)	(DD-MM-YYYY)

SECTION 2: Respondent information	
Surname:	
First Name:	
Contact number:	
Age:	Sex

Position in the household:

Head of household		Spouse/partner of head	
Child		Other: occupier	
Other relative:		Other:	

SECTION 3: Project area and spatial unit details		
Unit number (from map)		
Image (capture image and record image number)		
Supporting document (capture image and record image number):		
Type of document (deed, certificate etc):		
Street location, city or town:		
Name administrative district:		
Grid coordinates	E	N

Unit type: tick

Vacant land parcel		House/dwelling	
Other:			

Estimated area of land occupied (give units):
Any previous efforts to formalise tenure?
If yes, give brief details:

Who has title (owns) the land? *Tick*

Government (national)		Government (local)	
Private individual		Group/organization	
Family land		Unknown	
Respondent/current occupier		Other:_____	

SECTION 4: Members of household		
Total number of occupants in household		
Number of males who are	Adults:	Children (<18)
Number of females who are:	Adults:	Children
Structure owners:	Male	Female

SECTION 5: Education and Occupation of members of household		
Occupation	Number of males	Number of females
Casual worker		
Civil servant		
Private sector		
Self-employed		
Unemployed		
Education		
Pre-primary		
Primary		
Secondary		
Advanced/University		
N/A		

SECTION 6: SERVICES				
Electricity	Available? YES/NO			
Rate this service:	Good		Very Good	
	Bad		Very Bad	
Who operates this service?				
Water	Available? YES/NO			
Rate this service:	Good		Very Good	
	Bad		Very Bad	
Who operates this service?				
Proximity to service:	Near		Very near	
	Far		Very far	
Sewerage	Available? YES/NO			
Rate this service:	Good		Very Good	
	Bad		Very Bad	
Who operates this service?				
Proximity to service:	Near		Very near	
	Far		Very far	
Garbage collection	Available? YES/NO			
Rate this service:	Good		Very Good	
	Bad		Very Bad	
Who operates this service?				
Proximity to service:	Near		Very near	
	Far		Very far	

SECTION 7: Land use and tenure perception			
What percentage of land is used for:			
Residential		Commercial	
Agricultural (Livestock)		Industry	
Agricultural (Cultivated)		Unused	
Agricultural (tree crops)		Other:_____	

How secure are you that you will not be evicted from this land?

Very Insecure ☐ Insecure ☐ Neither insecure nor secure ☐ Secure ☐ Very Secure ☐

PART IV

Family land dwelling in La Croix, St. Vincent and the Grenadines with occupant. Photo © Sunil Lalloo.

Dwelling on family land in La Croix, St. Vincent and the Grenadines. Photo © Sunil Lalloo.

REFERENCES

Isaacs, Philmore A. B. (2013). St. Vincent and the Grenadines Land Policy Issues Paper. Report prepared for The Social and Sustainable Development Division of the Organization of Eastern Caribbean States (OECS), Morne Fortune, Castries, Saint Lucia.

ISO. (2012). 19152:2012(E): Geographic Information-Land Administration Domain Model. Switzerland.

Lemmen, C., P. van Oosterom and R. Bennett (2015). The Land Administration Domain Model. Land Use Policy. http://dx.doi.org/10.1016/j.landusepol.2015.01.014

ABOUT GLTN

THE GLOBAL LAND TOOL NETWORK

The main objective of the Global Land Tool Network (GLTN) is to contribute to poverty alleviation and the Millennium Development Goals through land reform, improved land management and security of tenure.

The Network has developed a global land partnership. Its members include international civil society organizations, grassroots, multi-lateral and bi-lateral organizations, international research and training institutions, and professional bodies. It aims to take a more holistic approach to land issues and improve global land coordination in various ways. These include the establishment of a continuum of land rights, rather than a narrow focus on individual land titling, the improvement and development of pro-poor land management, as well as land tenure tools. The new approach also entails unblocking existing initiatives, helping strengthen existing land networks, assisting in the development of affordable gendered land tools useful to poverty stricken communities, and spreading knowledge on how to improve security of tenure.

The GLTN partners, in their quest to attain the goals of poverty alleviation, better land management and security of tenure through land reform, have identified and agreed on 18 key land tools to deal with poverty and land issues at the country level across all regions. The Network partners argue that the existing lack of these tools, as well as land governance problems, are the main cause of failed implementation at scale of land policies world wide.

The GLTN is a demand driven network where many individuals and groups have come together to address this global problem. For further information, and registration, visit the GLTN web site at www.gltn.net.

ABOUT THIS PUBLICATION:

Land administration is defined as the acquisition, maintenance and dissemination of information on the ownership, value and use of land. This information is necessary to support land policy implementation. Besides being complete and current, land administration systems - including the information contained within the systems and the processes used for their establishment and maintenance - should ideally be transparent, accessible, simple and low-cost to efficiently and effectively allocate land fairly to citizens.

The Social Tenure Domain Model (STDM) software is a pro-poor tool for land administration. It may be used to record the interests of people who occupy and use land but who do not have formal freehold title and who would therefore be left out of conventional land information systems. The STDM has been designed to record these interests simply, quickly and cheaply in a digital database, which therefore increases the flexibility, accessibility and usefulness of the data.

This report documents the experiences of piloting the STDM in Saint Lucia, and St. Vincent and the Grenadines.

HS Number: HS/009/16E

UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME
UN-Habitat
P.O. 30030, Nairobi 00100, Kenya
Tel: +254 20 76 23120
Fax: +254 20 762 4266
Website: www.unhabitat.org

For more information please contact us:
GLTN Secretariat
Facilitated by UN-Habitat
P.O. 30030, Nairobai 00100, Kenya
Tel: +254 20 76 5199
Fax: +254 20 762 4256
E-mail: gltn@unhabitat.org

www.gltn.net

UN HABITAT
FOR A BETTER URBAN FUTURE

GLTN
GLOBAL LAND TOOL NETWORK