

# Peri- Urban Infrastructure Development through Community Participation: A Case Study of Yasore, Ghana

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## Abstract

*The rate at which peri-urban development is growing makes it difficult for governments to keep pace with the provision of infrastructure in peri-urban areas, particularly in Ghana (Akrofi, 2006). The other reason for lack of infrastructure provision in some peri-urban areas is due to the poor or lack of spatial planning in those areas. Property owners in peri-urban areas have to live with this predicament or wait for services and infrastructure to be installed before they take occupation of their houses. There are many incomplete and/or unoccupied houses in some peri-urban areas in Kumasi, a sprawling Ghanaian city. Owners of such houses are not in haste to complete them since there is little or no infrastructural development in those areas. It is common to see some mansions in peri-urban Kumasi without constructed access roads.*

*Residents of some peri-urban areas in Kumasi have taken the initiative to support their communities in the provision of some infrastructure. In Yasore, the Yasore Development Committee<sup>1</sup> and the Yasore Resident Association<sup>2</sup> have agreed to contribute money towards the construction of the main road in the town. This paper seeks to investigate the structures that have been established in Yasore to manage the fund for the construction of the access*

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<sup>1</sup> The Yasore Development Committee is made up of ten members (who are all property owners in Yasore). The Committee is chaired by a member of the royal family.

<sup>2</sup> The Yasore Resident Association is made up of all the residents of Yasore. This includes property owners and people who rent properties in the area.

*road. These are contrasted with the experience of a Special Rating Area in South Africa as a means of community funding for local benefit.*

*The findings of this study suggest that effective structures and community participation are pre-requisite for innovative and self motivated approach towards the provision of basic infrastructure in peri-urban areas.*

## **1 Introduction**

Peri-urban areas are of prime importance. New developments are concentrated in peri-urban areas where land is generally more available and less costly. They are areas of change that goes beyond land use and development. Rapid social transformation is commonplace as communities, families and individuals transition from subsistence and rural ways of life to urban lifestyles. This is invariably associated with change in economic activities (Organisation for Economic Cooperation and Development, 1979: 1).

Peri-urban development around Kumasi tends to be largely organic, informal and not state-managed. This results in poor living conditions due to lack of basic urban infrastructure and services (Lamba, 2005). Economic development is also limited by the lack of infrastructure. There is a need for a process of upgrading to provide basic infrastructure and services as well as to formalize the areas through physical planning (Mundia, 2007). The provision of infrastructure in peri-urban areas is likely to encourage investment and income-generating initiatives in a more equitable, fair and just manner, so as to allow for community development, local employment, and further construction of necessary infrastructure (Knight, 2010).

The peri-urban interface exhibits a duality of rural and urban environmental characteristics. Urban and rural influences are juxtaposed and are not always happy bedfellows. Decentralization is promoted by the easy access to markets, services and other rights as well as ready supplies of labour for industries (Baryeh, 1997). Peri-urban populations increase due to the myriad of drivers of urbanisation as well as organic city growth, while long-standing residential communities have to contend with rapid change to their ways of life and livelihoods. Competition for land for non-agricultural uses such as residential and business uses increases, putting pressure on customary land administration system in peri-urban Kumasi (Baryeh, 1997). Customary landowners are overwhelmed with the incessant requests received from prospective developers to acquire land for residential and other developments. Baryeh (1997) argues that chiefs are motivated to *sell* their land by the desire to fund local projects from the sale proceeds. Because the decision to convert land from agricultural land to urban use is taken at the local level (by chiefs and other customary landowners) and not by the government, supporting infrastructural developments are always

absent in these areas, despite the fact that surveyors and planners may be appointed to assist in the process.

This research finds that most peri-urban areas in Kumasi have very little or no infrastructure and chiefs are, in general, not accountable in terms of the usage of the proceeds from the land sales. Even in areas where chiefs have appointed committees to oversee the allocation of land, there are still no infrastructural developments. For instance, Baryeh (1997) found that, in Esereso, the Land Allocation Committee had been established to oversee the customary land delivery processes. Even though the Committee was made up of both customary and non-customary actors (Asiama, 2004), there was still no provision of infrastructure to support residential development in the area. There are no proper access roads within Esereso, except for the main road that passes through the town to Kuntense, the district capital (ES1, pers. com, 2013).

Neo-customary land administration system may have contributed greatly to ensure zoning compliance, supervision of land sales and resolving disputes arising from land allocations (Baryeh, 1997, Asiama, 2004). However, their contribution towards the provision of peri-urban infrastructure is not ensured. The Land Allocation Committees (that form part of the neo-customary system) has no legislative power to dictate to the chiefs as to how to use the proceeds from the *sale* of land. In most cases, they only serve as advisory committees to the chiefs. Few cases have been recorded where community initiatives have led to the provision of infrastructure in peri-urban areas (Akrofi and Whittal, 2011).

The challenge of infrastructural development in peri-urban areas (Nkwae, 2006) is not enough reason to conclude that customary land administration systems in those areas are neither effective nor suitable as postulated by Bornegrim and Collin (2010). Peters (2009) posits that changes in customary land administration are a popular progress tool for countries in development. This change however, should not be revolutionary, but rather incremental. Formal structures can be introduced to make customary land administration systems more resilient and self-sustaining in peri-urban areas. This initiative could encourage infrastructural development in peri-urban areas (Clover and Eriksen, 2008).

In Yasore, a proposal has been put forward to the residents by the traditional leadership to contribute towards the construction of the main road in the town. Most residents have commenced with their monthly contributions towards this project (YE 1, pers. Comm., 2013). This paper investigates the processes and structures established to oversee the management of the fund. It contrasts these with an experience of a Special Rating Area in South Africa as a means of community funding for local benefit.

## 2 Theoretical paradigm

Effective community participation is critical to the provision of basic infrastructure in peri-urban areas. The involvement of individuals and groups that are either positively or negatively affected by a proposed infrastructural development (Andre' *et al.*, 2006) should remain utmost concern to decision makers. Community participation has become a buzzword in community development (Dube, 2009). Practitioners in development believe that in order for projects to succeed, communities need to actively take part in designing, implementing and shaping the projects that affect them (Mansuri and Rao, 2004; Simanowitz, 1997; Dube, 2009).

A key objective of community participation is the incorporation of local knowledge into the project decision making process (Mansuri and Rao, 2004). Mansuri and Rao (2004) assert that community participation leads to better project design, better targeted benefits and are more cost effective. It is essential for good governance and can empower local communities, promoting community ownership in the project (Laverack, 2001, Marais *et al.*, 2007, Whittal, 2008). Inputs should be sought from all affected parties on the planned intervention, including its scale, timing and ways to reduce its negative impacts, to increase its positive outcomes or compensate impacts which may not be mitigated (Andre' *et al.*, 2006).

Everatt (2001) insists that local communities should participate from the project initiation stage. Community participation is still important even when a project or programme is externally initiated (Simanowitz, 1997; Oakley *et al.*, 1991). Finsterbusch and van Wicklin III (1989) however, see community involvement as variable over time, progressing from project initiation and design in which beneficiaries are not substantially involved to substantial involvement during project maintenance. Everatt (2001) however, observed that some projects experienced problems where communities did not want to participate at a later stage because the community felt left out during the planning and design stage. Effective participation is when communities are involved in designing key components of a project (Dube, 2009).

Strategies for community participation should be adaptable to the context. In the case of peri-urban land in Kumasi, Ghana, communication is characterised by customs and tradition. The social institutions, values, and culture must be understood and appreciated. Communication methods, both in understanding role players and also in conveying the project design and process, are critical. Methods from the social sciences can be employed in this process. Community participation should be informative, proactive, inclusive and equitable. All interests, including those of indigenous people, women, children, elderly and poor people should be encouraged in the participation process. Community participation should be imputable. The inputs from public participation should influence and improve the

proposed intervention and stakeholders must be informed on how their inputs have contributed to decision making.

The views and goals within a community are unlikely to be homogeneous. There may be competing goals between role players. For instance, the goal of land development for residential use may compete with the goal of maintaining the sustainable livelihoods of customary residents, while the goals of community leaders may differ from those of individuals. There may be factors that divide community members and breed mutual distrust (Oakley *et al.*, 1991).

There are some key challenges with community participation – how to communicate effectively, how to address power and competing goals and how to translate local knowledge into technical output. There seldom if ever a situation in land development where the role players have equal power (influence). In many community participation projects, local elites impose their views on the poor also, what may be described as the local voice may not represent the views of all community members (Raniga and Simpson, 2000; Mansuri and Rao, 2004). Project leaders and developers may be better educated and employ language and vocabulary which gives them a power advantage over others. Representative groups or community leaders may be consulted, but active steps need to be taken to include marginalized groups and ensure that all voices are heard, regardless of power differentials.

This paper emphasises the need for proactive approaches by the peri-urban communities in the provision of infrastructure through effective community participation. This has become imperative since given the current situation of informal development without state-led infrastructure development such as in peri-urban Kumasi, Ghana. Structures to ensure the planning, implementation and monitoring of this community-initiated infrastructural projects should be established in such peri-urban areas. The structures should be composed of the traditional leaders/customary landowners, relevant government institutions, residents, consultants, the business sector, and any other interested or affected persons or groups.

The concepts of community participation and good governance form part of the principles of the land management paradigm of Williamson *et al* (2010). The key objective of the paradigm is to ensure an integrated approach to land management. The paradigm explicitly discusses the four main functions of land administration: land tenure, land value, land use and land development. The rights, restrictions, risks and responsibilities (the 4 R's, or RRRR's) in land are managed by the land administration system, which should manage the humankind-to-land relationship, and include all stakeholders in land decisions (Williamson *et al.*, 2010).

Akrofi and Whittal (2011) emphasise the role of traditional authorities in land administration in customary environments. However, in many customary environments land

administration is dysfunctional (Akrofi, 2013). Even in areas in which the customary land administration system can be described as functional, inclusion of stakeholders in land decisions could be improved (Akrofi, 2013). In peri-urban Kumasi, for instance, customary landowners take most decisions relating to land, without consulting other stakeholders. The customary landowners can claim sole ownership of land, but can they assign it to the right uses and provide the necessary infrastructure? Involving all stakeholders in customary land management will go a long way to ensure that customary land is not only alienated, but is developed along the lines of sustainability and with regard to the needs of the community, especially the poor and marginalised, also making sure that the necessary infrastructure is provided.

In this paper, it is argued that effective community participation can facilitate community-initiated projects that seek to create the desired enabling environment in peri-urban areas in Kumasi, Ghana.

## **2.1 Case study research**

The case study approach was employed in this research. This approach is suitable since it investigates cases in their natural context (Yin, 2003) and has been demonstrated to be an effective method in assessing land development in peri-urban areas in Ghana (Akrofi and Whittal, 2011, Akrofi, 2013, Whittal, 2011).

The single case study of the Yasore Road Infrastructure Project in peri-urban Kumasi is investigated with the aim of ascertaining how money is collected (from community members) and managed for the purpose of road infrastructure provision in the community. A range of data sources and data collection techniques was used to understand the case. These included observation, in-depth interviews with key informants (traditional authorities and government officials) and secondary documentation. Four (4) key informants were interviewed consisting of the chief of Yasore, the district town planner, the district engineer and the regional director: Mapping and Surveying Division (of Lands Commission, Ghana). Observation of the Yasore case study area was conducted from 5 November 2013 to 25 November 2013. Community members were identified through a process of snowball sampling and twenty (20) residents were interviewed using a questionnaire/open-ended interview style. Two (2) additional residents were interviewed in Esereso and Weija (in Ghana), which were used as supplementary cases in this study. In addition, the Chief Executive Officer of the Mandela Bay Development Agency (South Africa), and Fifteen (15) residents (ratepayers) of Richmond Hill were interviewed to understand the processes for the establishment of the Richmond Hill Special Rating Area.

The case of Yasore is contrasted with the establishment of a Special Rating Area in South Africa since this exhibits many characteristics of good governance. This case forms part of a

broader study on integrating land administration systems to ensure effective land management in peri-urban areas.

### **3 The case study of the Yasore Road Infrastructure Project**

#### **3.1 Introduction**

Yasore is a small town along the main Kumasi – Mampong road. It is located between Asenua and Fawoade, within the Kwabre district. It is about 9 km from the city centre. Yasore used to be a farming community with most of the community members being subsistence farmers. Demand for residential development in peri-urban areas has however, caused valuable agricultural land in Yasore to be developed in line with urban demands for housing and business (YE 2, pers. comm., 2013).

A customary land administration system is practiced in Yasore under the traditional leadership of the chief of Yasore. The chief, together with the Yasore Development Committee, oversee land delivery in Yasore. All the land in Yasore has been *sold* for development except for a portion that the chief has instructed his elders not to *sell*. The chief wants to use that portion for industrial development in the area (YE 3, pers., 2013). Some residents however, insinuate that he has intentionally reserved that portion for future profit once land prices rise further (YE 4; YE 6 and YE 7, pers. Comm., 2013).

A main road connects the Yasore town to the main Kumasi-Mampong road, but there are no access roads to the houses in Yasore. This connection road is in a deplorable state being covered with bushes and potholes. In the rainy seasons, it becomes impassable by car or foot (YE 5, pers. comm., 2013).

#### **3.2 The Yasore Road Infrastructure Project**

In 2012, the Yasore Development Committee appointed a consultant to assess the road and estimate the cost of constructing a hard road surface. An amount of GHC 200 000 (USD 93 023) was estimated for the construction of the main road (YE 2, pers. Comm., 2013). In 2013, the Yasore traditional leadership decided to charge each property owner an amount of GHC 240 (equivalent to USD 111) towards this project (YE 8, pers. Comm., 2013). This amount is to be paid on monthly basis over a period of 2 years (YE 7, pers. Comm., 2013). With about 1000 property owners in Yasore, the traditional leadership is expected to raise a total amount of GHC 240 000 (USD 111 630) for this project.

What divides the community in respect of this project is how the fund will be managed and why the chief did not use some of the money collected from the *sale* of the land to undertake the construction of the road (YE 4; YE 6; YE 8; pers. comm., 2013). Some think that this is a way of further enriching the chief, to the detriment of the community members

(YE 6 and YE 8, pers. comm., 2013). They are distrustful of the management of the money collected from the community and hence whether the project will come to fruition. Despite this unresolved issue, some property owners have commenced with their monthly payments (YE 5, pers. comm., 2013).

### **3.3 Analysis of the structures for managing the road development fund**

The Yasore Development Committee is responsible for managing the road development fund. The Committee is chaired by a member from the royal family. Members of the community have to walk to the palace to make their monthly contributions. This is the reason why some community members allege that this initiative is clandestinely planned to extort money from the already deprived members of the community (YE 6 and YE 8, pers. comm., 2013).

The primary problem with the fund management is lack of transparency. The funds are not held in a separate trust account, the Committee has no proper reporting mechanism in place, and there is no mechanism for the community members to track inefficiencies in fund management. Sixteen (16) out of the twenty (20) community members interviewed (Interviews YE 6; YE 8; YE 9 etc., pers. comm., 2013 ) indicated that they are not aware of how much money has been received so far in respect of the project. They are aware of the total amount that they have individually contributed since the inception of the programme.

In contrast to the Yasore Road Development Project is the concept of Special Rating Areas that have been established successfully in South Africa.

### **3.4 Establishment of Special Rating Areas**

Special Rating Areas (SRAs) are established through formal processes by a consortium of local property owners and the local government. In these areas property owners pay periodic additional property taxes (called property rates in South Africa) towards special development or improvement projects within that area. The contributors generally see direct benefit from this additional tax. These funds are managed by Board of Trustees established by the policy directives of the SRA and thus meet the requirements of good governance (Whittal, 2011).

The processes followed towards the establishment of the Richmond Hill Special Rating Area provide a contrast to the Yasore Road Development Fund. This project was initiated by the Mandela Bay Development Agency, a municipal entity within the Nelson Mandela Bay Metropolitan Municipality in the vicinity of Port Elizabeth, South Africa (RH 1 pers. Comm., 2013).

The municipal entity first developed a policy to guide the establishment of the Special Rating Area. This policy was adopted by the Economic Development Standing Committee (a



political oversight committee responsible for economic development in the City of Port Elizabeth, South Africa) (RH1, pers. comm., 2013). The policy indicated the steps to be followed in the establishment of the SRA. Firstly, the municipal entity went through a voting process in securing the consent of all the property owners in Richmond Hill to institute the special rating (RH 1, pers. comm., 2013). A 51% vote in favour of the SRA was a prerequisite for its establishment. All property owners (both home and abroad) were contacted to cast their votes. This took a period of about two years due to the fact that most property owners were not in South Africa and it was important for each owner to have the opportunity to cast a vote (RH 1, pers. comm., 2013; RH 2, pers. Comm. 2014).

After the votes were counted and the required number of votes was secured, a Board of Trustees was established to manage the special rates to be paid by the property owners (RH 3, pers. comm. 2014). The Board is responsible in ensuring the growth of the fund through wise investments (RH 4, pers. Comm., 2014). The Board is also responsible to identify the development needs of the area and to make the resources available to meet those needs. The Board is answerable to the municipal entity which, in turn, reports to the oversight Economic Development Standing Committee (RH 1, pers. comm., 2013).

The voting process followed in the establishment of the SRA, and the fact that an oversight body approved the SRA policy, makes it mandatory for all property owners to pay the required special rate towards the development of Richmond Hill. The Board has the right to charge any property owner who fails to pay the rate (RH 3, pers. Comm., 2014). The formal process followed in the establishment of the SRA in Richmond Hill has contributed greatly to its effectiveness. Property owners understand their responsibilities and are aware of the repercussions, should they default on payment (RH 1, pers. comm., 2013).

Accountability and transparency are ensured through the processes established in the policy directive drawn up at the inception of the SRA (RH 2, pers. Comm., 2014). Monitoring and reporting mechanisms are in place and thus, mismanagement of the fund is less likely and could be easily detected. Trust in the structures and processes leads to greater compliance. This benefits SRA projects and the community (RH 1, pers. comm., 2013).

### **3.5 Comparison of the Yasore approach to that employed in the SRA**

There were no initial policy guidelines for the establishment of the Yasore Road Development Fund. It was not established in conjunction with the local authority, the Kwabre District Assembly. Those most affected by its establishment, the paying community members, were not formally consulted and there was no voting process to secure the consent of the members of the community. The use of a loud hailer to inform the community was the extent of the communication effort. This is wholly inadequate as there was no mechanism for community participation or feedback. The satisfaction or otherwise of the community was

irrelevant to those who had the power to establish the Fund. Furthermore, once funds are received the basic principles of good governance are not adhered to. The fund is managed by the members of the royal family and the Kwabre District Assembly is not involved in this process. The money in the fund is not invested and so fears that the fund will not keep up with expected inflation in construction costs is real. There is no instrument in place to enforce regular payment. This creates a two-fold problem in that equity in contribution cannot be ensured and is unlikely and failure to obtain the necessary funding in the due time is likely to delay the implementation of the road upgrading project.

The structure and processes of the SRA show up the deficiencies in the establishment and operation of the Yasore Road Development Fund. These add weight to the conclusions from that case alone that community participation and other good governance principles are necessary prerequisites for effective and efficient projects which affect and potentially benefit communities.

#### **4 Recommendations**

Even though the initiative by the Yasore community to construct their own road is commended, it has been observed that proper processes have not been followed in the implementation of this project and a poor outcome can be expected. The following recommendations are made to make such initiative much more effective.

Firstly, an independent body (comprising a variety of stakeholders and professionals) should be established to spearhead the planning and implementation of this programme. A neutral and trusted individual or group of individuals should head the Yasore Development Committee to replace the royal family who are currently not supported in this position by most residents.

Secondly, a policy should be drafted to guide the implementation of this programme. This policy must be adopted by the local government structure to give a legal backing and the weight of government authority. This policy should direct the consultation processes to solicit the views of all stakeholders in the implementation of the programme in the community and to ensure buy-in, preferably through voting. Currently, only one person from the royal family (out of the ten members of the Yasore Development Committee) has been appointed by the chief to receive all payments and there is no transparency in the management of the fund. A Board of Trustees should be appointed to manage the fund. This recommendation can be tested in other peri-urban areas in Ghana. One such area is Weija, in Accra, where residents have proposed to their neighbours to contribute towards the construction of the streets in the community (WA 1, pers. comm., 2013).

## 5 Conclusions

The extent to which peri-urban areas in Ghana are gravely lacking infrastructural development necessitates the involvement of residents in driving and implementing infrastructural development projects. However, governments should play a role (or simply oversee and provide guidance) in the management of funds that community members contribute towards the infrastructural development. There should be proper structures involving the state and the local people in the management of funds raised for such purposes. There should be a clear national policy on how to establish such a fund to embark on infrastructural development in peri-urban areas. This will enhance trust by the paying community and mitigate against corrupt practices.

The implementation of these recommendations has the potential to improve project outcomes, peri-urban infrastructure development, and hence improvements in sustainable livelihoods of peri-urban residents.

## 6 References:

- Akrofi, E. O., 2006, Urbanisation and the urban poor in Africa, *5th Regional Conference for Africa: Promoting Land Administration and Good Governance*, 8-11 March 2006, Accra. Online accessible <http://www.oicrf.org/searchdocument.asp?p=12&e=32>. Date accessed 06/12/2013.
- Akrofi, E.O. 2013, *Assessing peri-urban customary land tenure and administration systems in Ghana*, PhD Thesis, University of Cape Town, South Africa.
- Akrofi, E.O., Whittal, J. 2011, Traditional governance and customary peri-urban land delivery: a case study of Asokore Mampong in Ghana, peer review paper at the *AfricaGEO conference* held in Cape Town, May 2011, [http://africageodownloads.info/africageo2011\\_proceedingscd.zip](http://africageodownloads.info/africageo2011_proceedingscd.zip).
- Andre', P., Enserink, B., Connor, D. and Croal, P. 2006, *Public Participation: International Best Practice Principles*. Special Publication Series No. 4. Fargi, USA; International Association for Impact Assessment.
- Asiama, S.O. 2004, *Current changes in customary/traditional land delivery systems in Sub-Saharan cities. Case study on Kumasi, Ghana*. Unpublished.
- Baryeh, H. I. 1997, *Land Management and Tenure Systems in Peri-Urban Areas of Kumasi, Ghana*. Kumasi Natural Resource Management Research Project, Inception Report Vol. 2, Part 3.
- Bornegrim, L. and Collin, L. 2010, *Administration of Tribal Land in Botswana*. Bachelor in Geomatics thesis, University of Gävle.
- Clover J. and Eriksen S. 2008, The effects of land tenure change on sustainability: human security and environmental change in southern African savannas, *Environmental science and Policy*, Vol. 12, Issue 1, February 2009, pp. 53-70.
- Dube, N. 2009, *Evaluating Community Participation in Development Projects*. Master of Philosophy Thesis, University of Stellenbosch.
- Everatt, D. 2001, *RAP – 85 Survey Report*. Commissioned by the Department of Public Works. Johannesburg, Strategy and Tactics.
- Finsterbusch, K. and van Wiklin III, W.A. 1989, Beneficiary Participation in Development Projects: Empirical Tests of Popular Theories. *Economic Development and Cultural Change*. University of Chicago.

- Knight, R.S. 2010, *Statutory Recognition of Customary Land Rights in Africa: An investigation into best practices for lawmaking and implementation*. Food and Agriculture Organisation of the United Nations, Rome.
- Lamba, A. O. 2005, *Land Tenure Management Systems in Informal Settlements, A case study in Nairobi*. Master of Science in Geo-information Management thesis, International Institute for Geo-information Science and Earth Information (ITC).
- Laverack, G. 2001, An Identification and Interpretation of the Organisational Aspects of Community Empowerment. *Community Development Journal*, 36(1), p. 134-145.
- Mansuri, G. and Rao, V. 2004, Community-based and Driven Development: A Critical Review. *The World Bank Research Observer*, 19(1), p.1-39.
- Marais, H., Everatt, D. and Dube, N. 2007, *The Depth and Quality of Public Participation in the Integrated Development Planning Process in Gauteng*. Researched and Written for the Gauteng Provincial Department of Local Government, Johannesburg.
- Mundia C.S. 2007, *The Use of GIS in Flexible Land Tenure System (FLTS) at City of Windhoek – Namibia*. Master of Science in Geographical Information Systems thesis, Vrije Universiteit Amsterdam.
- Nkwae, B. 2006, *Conceptual Framework for Modelling and Analysing Periurban Land Problems in Southern Africa*. Ph.D. dissertation, Department of Geodesy and Geomatics Engineering, Technical Report No. 235, University of New Brunswick, Fredericton, New Brunswick, Canada, 363 pp.
- Oakley, P. et al., 1991, *Projects with People: The Practice of Participation in Rural Development*. International Labour Office, Geneva.
- Organisation for Economic Cooperation and Development 1979, *Agriculture in the Planning and Management of Peri-urban Areas*. Volume 1: Synthesis, Paris.
- Peters, P. E. 2009, Challenges in Land Tenure and Land Reform in Africa: Anthropological Contributions. *World Development*, Vol. 37:8, pp. 1317-1325.
- Raniga, T. and Simpson, B. 2002, Community Participation: Rhetoric or Reality? *Social Work: A Professional Journal for the Social Worker*, 38(2), p. 182-191.
- Simanowitz, A. 1997, Community Participation/Community-driven. Paper presented at a seminar on “Water and Sanitation for All: Partnerships and Innovations”, 23rd WEDC Conference, Durban, South Africa.
- Whittal, J. 2008, *Fiscal cadastral systems reform, a case study of the general valuation project 2000 in the City of Cape Town*, PhD Thesis, University of Calgary. (URL:<http://www.geomatics.ucalgary.ca/research/publication/gradtheses.html>). Last accessed: 06 – 12- 2013.
- Whittal, J. 2011, The potential use of cellular phone technology in maintaining an up-to-date register of land transactions for the urban poor. *Potchefstroom Electronic Law Journal (PER)*, 14(3), 162-194.
- Williamson, I., Enemark, S., Wallace, J. and Rajabifard, A. 2010, *Land Administration for Sustainable Development*. ESRI Press Academic, Redlands.

## **Interviews**

YE: Yasore Road Infrastructure Project Interviews

RH: Richmond Hill Interviews

WA: Weija Interviews

Sources are protected for reasons of confidentiality. In a number of cases more than one reference number is associated with one interview or confidential correspondence to prevent revelation of sources. A list of informants cross-referenced to these codes is retained in the possession of the principal researcher.