

CHAPTER FOUR: NETWORK ANALYSIS FOR SELF-HELP HOUSING IN NAIROBI, KENYA AND JOHANNESBURG, SOUTH AFRICA

4.1. Introduction

While ‘centralisation/decentralisation’ approaches have dominated self-help housing debates, the transformation and fragmentation of interests in the current states in developing countries, make the ‘hierarchies versus network’ concepts all the more relevant. The ‘sector approach’ towards understanding of the relationships amongst the state, the market and civil society, though important, does not adequately capture the complex relationships amongst different players in self-help housing, from the local to the international arena. This makes it difficult to discern the way resources are used in self-help housing initiatives. It also makes it unclear what blockages may exist to housing production through self-help. I will argue that individuals tend to operate either in one, two or all sectors, at different times or simultaneously; they are not confined within each sector. In fact there are many individuals operating in what Simone and Abouhani (2005) have referred to as the ‘dynamic intersections’ of these sectors. From these arguments I will restate that there is need to consider both physical analysis and abstract relationships and principles while analysing self-help housing production. In all these I will show how “a loose federation of approaches referenced as network analysis” (Burt, 1983: 209, in Ritzer, 1996: 423) are relevant in enriching sector-based analysis of self-help housing. The dual objective of this chapter is to develop a case for network analysis of self-help housing and to outline key aspects of the analytical framework employed in the study.

The chapter is divided into six sections. The first is the introduction. This is followed by a section that deals with the changing nature of neo-liberalism and its impacts on the state and the market. The third section deals with a network view of households and communities and the interrelationships between their social and economic interests. The fourth section deals with the need for both sector and network understanding of the state, the market and civil society. The fifth section explains the outline of key network concepts applied in analysing the field data. The sixth section

gives an explanation of key relational attributes described in the data collection sheets. It is followed by the conclusions.

4.2. Implications of transformation of the neo-liberal state for self-help housing

This section highlights some of the current issues around the state and the market, in neo-liberal political economies, that make it necessary to reconsider the roles of the two sectors in self-help housing production. There is need to refocus debate from ‘centralised versus decentralised’ approaches of production of housing to ‘networked versus hierarchical’ ones. In developing my positions in this section, I will argue that the tendency to consider the state as a monolithic entity is not wholly accurate given the ties that exist amongst the actors within and outside of the state. This is important in understanding the way networks weave in and out of bureaucracies and how this relates to self-help housing. With regard to the market, informational capitalism and a shift towards consumption (see Castells, 2000) have implications for local self-help housing processes that need to be explored. I argue that because of the various manifestations of self-help housing in practice, there is need to shift analysis from modes of production to systems of production, as the latter captures the differences that are espoused in various approaches to self-help housing (the former tended to assume homogeneity in the various approaches to self-help housing production).

4.2.1. Transformations of the state in developing countries and their implications for self-help housing

The shifts in policies for low-income housing in many developing countries, following what is promoted by international development agencies, have affected self-help housing negatively. These are reflected in reduction of support for sites and services, slum upgrading and other initiatives. The indirect support favoured by the development agencies does not seem to be helping improve housing conditions of the poor. Organisations such as the World Bank clearly are of the position that the state leaves development to the private sector. Structural Adjustment Programmes (SAPs) that were aimed at leaner and more efficient civil service, together with the belief that the private sector would deliver housing and infrastructure better resulted in state

withdrawal from undertaking direct development projects, including assisted self-help housing. In many countries this has been reflected in lack of direct housing policies.

But this shrinking state involvement in development, and indeed the reduction of the size and sphere of influence of the state is not the only transformation that affected governments' involvement in housing. Malecki (2002) highlights the continuously blurred divide between the public and private sectors, when economic competitiveness becomes a public sector objective. This is exemplified in the emergence of the 'corporatised state'. Corporatised state refers to those organs of the public sector whose operations and functions are conducted similarly to private sector, market-based corporations. Elements of corporatised state include private companies that are owned mainly by the state to provide basic services. They are driven by such values as efficiency and profitability, which are associated with the market, rather than values of equity, social justice, redistribution, etc. that would be associated with the state. This mode of delivery of services has implications for self-help housing and does generate some contradictions within the neo-liberal development orthodoxy. In South Africa, an example of these contradictions has been cases where individuals risked losing the 'free housing' (received from the state) because of unpaid water and power bills.

More important for this study is the tendency to view state as monolithic. Apart from conflicting interests amongst different sectors and individuals within the state, several researchers have found that networks sustain relationships within and outside of the state (see Mathiessen, Schwarz & Find, 2002; Malecki, 2002). These networks operate at global, national, regional and local levels. To 'problematise' the state further, Pedersen (1991) in *Regime Theory*, argues that government structures are enmeshed with social networks, a fact evident both in Kenya and South Africa. This is not necessarily negative. Healey (1997), looking at social networks in government institutions, suggested that they could form the basis for government and community collaborations and a normative principle for working in local authorities. My research shows that these social networks within government and other sectors are used to either frustrate or support self-help initiatives.

4.2.2. Informational capitalism and consumption

It is not only the state that has transformed, but also the market. Castells (2000) presents the emergence of cottage industry with ‘complex linkages’ and ‘web like strategic alliances of suppliers, producers, and consumers, locally and globally’ as one of the major changes in the market. This is further accompanied by continuous shifts in the market, especially at supra-national level, from production to service. Figure 4.1 captures some of the arguments that Castells (2000) puts forward on the subject of transformation of capitalism and what it means for the three sectors of the state, the market and civil society.

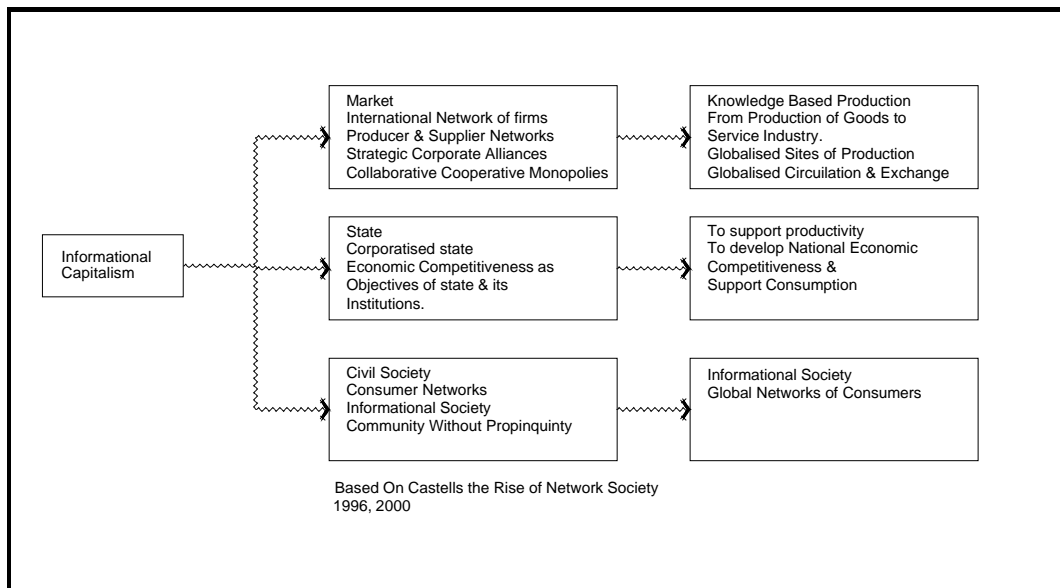


Figure 4.1. Implications of transformation of capitalism to the market, the state and civil society

In a nutshell, he, Castells, brings to the fore globalised production of goods and services and globalised exchanges, driven by financial capitalism, as some of the major changes in the market. He argues that the state’s role in this shift is to support productivity, develop national economic competitiveness and put in place mechanisms to support consumption. Citizens in this context are viewed as a pool of consumers. What do these shifts mean for self-help housing and networks? In relation to consumption, if the policies that governments have towards self-help are likely to impact negatively on the market, even though they might benefit communities, they

are likely to be ignored. This is reflected in the new comprehensive human settlements plan for South Africa, “*Breaking New Ground*” (Department of Housing, 2004) where there is a very strong emphasis on housing as an asset.

Ownership of particular types of housing encourages increased consumption of particular goods, e.g. cars, fridges, TVs, etc. More directly, Castells (2000) links informational capitalism with seduction into consumption, where the intention, through the mass media, is to develop and sustain a global network of consumers. These networks of consumption are maintained through information. Information is also central in self-help housing networks. This is because information and finance are the two resources that tend to flow through networks. They are used in accessing the other resources, e.g. land, labour, materials and technology.

4.2.3. ‘Modes’ versus ‘systems of production’ in self-help housing

According to Castells modes of production have evolved from industrialism (theoretically founded on modernism), through cottage industry (based on post modern thought) to international capitalism (based on ‘network society’) (see Figure 4.1). While this linear differentiation helps illuminate these modes of production, the different modes of production have not phased out one another, in fact what we experience are different ways in which they all express themselves (see Ward and Macoloo’s, 1992, articulation theory). Pre-industrial, industrial and post-industrial modes of production overlap and are ‘articulated’ by politics, economy and ideology. However this study does not deal with different modes of production, it only explores one mode, self-help. Within self-help, as a mode of production, I take the position that it is useful to consider the different systems of production manifested therein.

While the categorisation of modes of production into ‘industrial’, ‘petty commodity’ and ‘self-help’ by neo-Marxist thinkers in the context of low-income housing is useful in defining the scope of self-help housing, it has tended to generalise the different nuances, even within the state-assisted self-help housing. For example, in South Africa there are different forms of state assisted self-help housing, e.g. transit camps, site and services, ‘*mayibuye*’-rapid land release, core housing, cooperative driven People’s Housing Process, state-supported People’s Housing Process (PHP),

consolidation housing and *in-situ* upgrading. These ‘systems of production’ all within the self-help housing genre, differ substantially. They would be better understood from the perspective of ‘systems of housing production’, akin to Turner’s (1972) postulate, as shown in the figure 4.2 below.

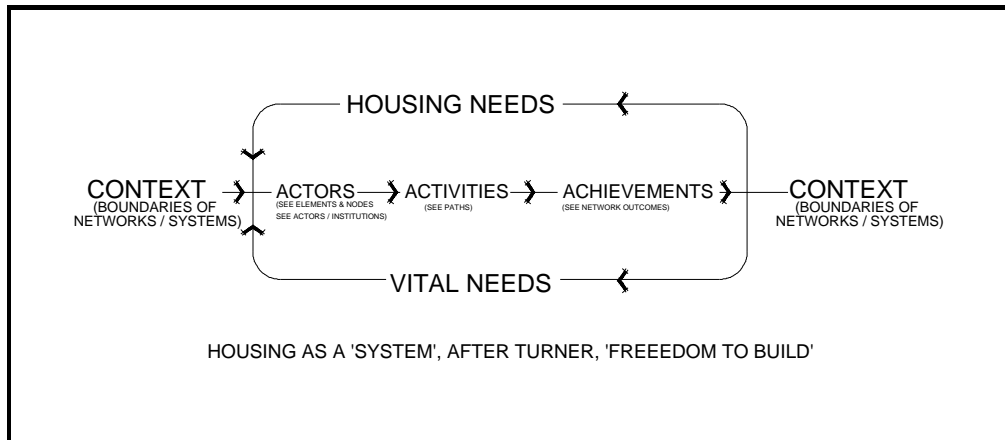


Figure 4.2. Housing as a system, after Turner, 1972

Though Turner considered self-help housing just as one system of production, his definition of ‘a system’ has potential for capturing the different types of self-help housing. He defined a ‘self-help housing system’ as a ‘system’ in which government, the market and civil society interact to enable people achieve their own housing objectives through different levels of self-help and support mechanisms (Turner, 1972). A system presupposes a ‘group of actors’ involved in some specifically defined ‘activities’ towards ‘clearly defined housing outcomes’ or what he called ‘housing achievements’ (*ibid.*). Turner (1972) suggests that the boundary within which the three elements, namely actors, activities and outcomes operate, is defined by ‘housing needs’ and ‘other vital needs’ that affect housing. In my example of South Africa earlier, each ‘type’ of self-help housing has very ‘different actors’ who are involved in very ‘different activities’ towards ‘different outcomes.’ This is why I argue that, contrary to Turner’s position, although self-help housing is one mode of production, distinct from ‘industrial’ and ‘petty-commodity,’ it actually encompasses different ‘systems of housing production’.

Restatement and reinterpretation of the concept ‘systems of production’ is particularly important to me because of the various types of self-help housing that I encountered

in Nairobi and Johannesburg, differentiated through the actors, the activities, the processes and indeed the outcomes. The actors ranged from individual local players, working with the government and the market, through quasi-recognised land invaders building temporary developments on government/private land, through organised groups supported by international and local donors to church and NGO-supported players. The processes varied from predetermined processes drawn out by the state and managed by technical persons, through community based and NGO supported processes, to various processes followed by individuals. The outcomes ranged from products that resemble housing delivered through the market, to products that resemble government's contractor-supplied housing to informal and irregular developments marked by temporary construction. The soft outcomes also vary: from entrepreneurial slum rentals and other forms of economic benefits, through disappearance of communities' assets to capacity building within the communities.

4.3. A network view of households, communities and their social and economic interests

After considering a few factors that shape the state/market context of the self-help housing networks, in this section I explore some current issues on households and communities, their transformations, and the linkages between social and economic interests, which affect self-help housing. The household has been transformed in several ways, resulting for example, in new household types, e.g. the child-headed households. The household could be considered as the smallest unit of production and consumption. In urban areas, there is an increasing influence of the non-geographical, often interest-based, community. This has been referred to as 'community without propinquity' (see investigation of the concept in Webber, 1964; Little, 2000: 1814; Walmsley, 2000). The impact of this dispersed community on development is not clearly understood. This is coupled in many instances with fragmentation of the geographically bound community, along ethnic, class and religious lines, or even previous location of residence. This fragmentation limits the organisational capacities of urban communities towards self-help housing and has implications on the extent to which social capital can be drawn on towards development. Further, this fragmentation gives rise to mobilised, issue based, civil society that impact

development in various ways; positive and negative and which urban authorities tend not to recognise. While looking at households and communities of the urban poor from a network perspective, I also I argue that in the spaces they occupy there continues to remain an overlap of social and economic interests, despite the continuous and intense commodification of transactions.

4.3.1. Looking at households and community from a network perspective

Van Vliet (1998) defines a 'household' as all persons who occupy the same housing unit, including non-family members. Though this definition seems to be geographically rooted, it does not take into cognisance diurnal or periodical movements of household members, within the same local region, within a city or a country. To 'problematise' this further, one would argue that a policy that focuses on allocating permanent houses to 'household members' tends to take it for granted that the household composition would remain constant over time and that household members are likely to remain together, in spite of evidence to the contrary. It assumes that households' housing needs remain constant over time. The question that is being raised here is that in light of changing definitions and compositions of the household, could low-income housing policy be a lot more responsive to this fluidity? How would one respond to the housing needs of geographically shifting and numerically changing households?

Within the same household there might be various housing needs arising from different individuals' circumstances. Generalisation of households in a globalised economy is problematic. Autonomy and sovereignty within the household and the community, within a globalised economy, is unlikely. Different household members are capable of developing independent 'ego-centric networks' through which they access various resources towards improvement of their living environment. Take the example where a mother belongs to a Rotating Savings and Credit Scheme (ROSCA), a father belongs to a church-based organisation and their son/daughter belongs to an environmental youth group, as was often the case in my Nairobi case studies. The flip side to the argument is that different family members may be exposed individually to very different exploitation through the networks they are connected to (see Mitchell, 1969a, b). The concept of household gets even more complex when the definition of

the housing unit is 'blown out of the roof', e.g. amongst the urban homeless (see Mitchell, 1986). I would posit that in housing network analysis, focusing on relational attributes would be a more useful point of departure rather than focusing on 'atomistic' studies of idealised households.

Considering community from a network perspective raises another question: what happens to an interest based community, which is unlimited geographically, i.e. community without propinquity? Relationships in urban areas tend to transcend the local neighbourhoods, particularly where other factors, e.g. ethnic, political or religious groupings are involved. In Nairobi for instance, I found that there were rural based groups accessing land for the purposes of self-build housing for rental to others. In Johannesburg it was interesting to see individuals who had been relocated from one settlement to another keeping their links in the previous settlements for purposes of advocacy. The roles of individuals in, and the linkages they form within, mobilised or organised civil society impacts on self-help housing processes significantly (see Malecki, 2002).

Housing action dependent on local social, economic and other networks would require a level of local organisation, hence the centrality of community in self-help processes. The challenges that urban communities face, and sometimes the fragmentation in geographically bound communities, implies that the extent to which the community could be drawn upon in self-help housing processes is limited. In one of my case studies, Diepsloot, it was observed that community members did not attend any meetings that were planned to discuss their problems. Because of their various backgrounds, most members preferred to consult with leadership in their 'mother' settlements. In Dandora, Nairobi, in spite of many years of living in the same neighbourhood, several individuals still considered this settlement as a 'community of strangers.' These examples illustrate two issues about urban communities that are important for self-help housing. In the first case, interest-based communities, though taken for granted in many instances, impact on urban development processes in very specific ways. Secondly, there tends to be fragmentation even in a geographically bound community. Thus it would seem unwise to assume that there exist cohesive urban communities that could be used as a base for housing development, especially

through self-help processes. Such conclusions can only be arrived at on a case by case basis.

Lastly, there is the issue of organisational capacity of local communities, which tend to be taken for granted (Amin and Thrift, 1992: 94). This is one of the perpetual problems that bedevil decentralisation of housing delivery. However, the models for meeting this lack of capacity are in themselves problematic. This is mainly because they ignore linkages within the communities that could be used to meet some of the capacity gaps, thereby generating new conflicts. Most policies tend to assume that urban communities are not linked with other entities that could be used to bridge the capacity gap. Where this is recognised, starting with Turner's (1986) models, the sort of support that is suggested is usually fixed, i.e. 'support from the Third Sector' made up of NGOs. The varieties of support that may already be available to local communities tend to be hidden if it is only considered in this classic sense. Network analysis can expose useful linkages that local communities may have developed and which could be strengthened to serve this support function.

4.3.2. 'Community without propinquity'

'Community without propinquity' is seminal to the work of Melvin Webber, who in 1964 challenged the notion of community as central in urban analysis, demonstrating that non-geographic communities were emerging in certain social networks (Little, 2000: 1814). Weber argued that individuals were enmeshed in an overlapping range of groups, and that these social networks they formed were unlimited physically or geographically (*ibid.*). Weber's view was that metropolitan processes (verb view) needed to be matched with spatial forms (noun view) requiring a dynamic form in action (gerund view) (Webber, 1964: 80, in Little, 2000: 1814). This approach as discussed in Chapter One, switches emphasis from urban forms to an urbanity measured through the quality of interactions.

Weber argues that non-place communities are principally composed on interest groups. He argues that accessibility rather than propinquity (which is fundamental in place bound communities) is the prerequisite for these non-place communities (Little, 2000: 1815). He argues further that through such conceptualisation, specialised

international communities less specialised intra-national networks and metropolitan and neighbourhood networks can be envisaged (*ibid.*). Each level of conceptualisation implies spatial fields, which are shared by a number of interest groups (Webber, 1964: 114, in Little, 2000: 1815). These, often interacting spatial fields are interdependent and can be distinguished from specific notions of urban region by lack of and/or blurred spatial references (Little, 2000: 1815).

In what ways does this meta-geography, namely ‘community without propinquity,’ with its shifting boundaries, and individuals situated all over, affect housing interventions that tend to be location-based (see also Beaverstock, Smith & Taylor, 2000 on the new meta-geography)? What does it mean for policies that only consider geographical locations for their interventions as opposed to softer issues around people and communities, who are now more amorphous and extra-geographical? I would like to posit that there are housing interventions that must still have a geographical focus, but this does not exclude the need for housing policies and programmes to aim at impacts, which may not necessarily be geographical, given the nature of ‘communities without propinquity’.

4.3.3. Overlap of social and economic interests in the ‘self-help market’

Households and communities discussed in the previous two sections are characterised by their social networks. In neo-liberal political economies the spaces where households and communities interact are also occupied by intense forces of commodification. The intersection between these social networks and market operations is of particular significance to self-help housing.

It became clear from my fieldwork that in spite of continuous and intense commodification of relationships amongst the urban poor, there is still a great deal of interaction between social and economic interests in self-help housing. Bergman, Maier and Todtling (1991) and Simmie (1997) made similar conclusions after their studies of Small and Medium Micro-Enterprises (SMMEs) in the U.K. They argued that the operations of SMMEs link social relationships with business. Pedersen (1991) in explanation of the *Network Theory in Economics* posited that small enterprises are suspended between economic and social networks. The arguments here is that small

enterprises, often present in self-help housing, are not merely geared towards profit, but are also directly or indirectly involved in social good, necessitated by the social relationships that weave in and out of them. Again evidence from the field indicates that most of the small businesses are not considered principally as establishments for profit, but rather as means of improvement of socio-economic conditions of the various actors involved. Transaction costs in these networks tend to be low, which make them more resilient to market forces, yet their lack of rationalised market competitiveness somehow limits their growth as ‘for profit ventures’. The operations in this segment of the ‘market’ are relevant, because they reflect how low-income groups access some of their resources. It is interesting that a private hardware shop owner in one of my case study sites, in Diepsloot, Johannesburg, considered his shop as a ‘community investment’. Current practices of self-help housing still occupy this interface between social and economic interests.

The other means of interaction between social and economic interests is through individuals and organisations that are principally interested in broader social development for various reasons. They conceive projects that would result in social good, but which often involve economic engagement. Good examples of these are the churches and philanthropists, acting as ‘social entrepreneurs’ and through establishment of income generating activities (see Chapter Five and Six for examples). Some social entrepreneurs also act as ‘bridges’, linking their communities with external networks from which resources towards housing could be drawn. I encountered several examples in Nairobi and Johannesburg.

Malecki (2002: 932) suggests that the social entrepreneur or an *animateur* is critical in associational economies. He (Malecki, 2002: 932) defines associational economies as those economies which are neither dependent on the state nor on the market for their operations. They are based instead on ‘trust-based relationships, learning and networks’. *Animateurs*, who drive such economies may be individuals or groups. These community entrepreneurs have the development of the whole community as their goal (Johannisson and Nilsson, 1989 in Malecki, 2002: 932). Such people are gatekeepers in knowledge networks acting as bridges between the community and their extensive personal contacts. They also act as bridges across organisations and between sectors (see Kabiro Human Development, Chapter Five, Section 5.3.2 and

champions in the Johannesburg cases, Chapter Six, Section 6.3). They may use the information for their good but they act mainly to transfer this to the rest of the community, looking at this as a *quid pro quo* (Malecki, 2002: 933). In some cases the gatekeeper may be a coordinator, a broker or even a core actor. They form links with firms, politicians and sources of financial support (Malecki, 2002: 933).

4.4. From sector to network understanding of the state, market and civil society

In this section I discuss sector-based understanding of the roles of the state, the market and civil society. I argue that most analyses of sectors assume that they have fixed, non-overlapping boundaries. These analyses also tend to assume that the actors in each sector are homogenous, in action, power and intent. Failures of housing policies and programmes tend to be linked to sector failures. I argue that while sectors are important, there tend to be many linkages of actors within and across sectors that impact on self-help housing in particular ways. The boundaries of the sectors overlap. There are actors who operate in more than one sector. The impacts of various actors on self-help housing processes also differ.

4.4.1. Mainstream understanding of the roles of the state, the market and civil society in self-help housing

Figure 4.3 shows the predominant understanding of the society in most theories applied to housing (see Nientied and van der Linden, 1988; Tait, 1997; Smith 1999). The neo-liberal paradigm, as reviewed in Chapter One, would consider actors in state-assisted self-help housing to be the state, the market and civil society. The central neo-liberal position is that the market would deliver housing to the low-income if the state does not overburden it with regulation and excessive taxation. Further, neo-liberalists are of the position that the state inhibits production of housing for the poor, by its failure to deliver infrastructure and services. They call for mechanisms by the state to enable the market to supply housing for the poor.

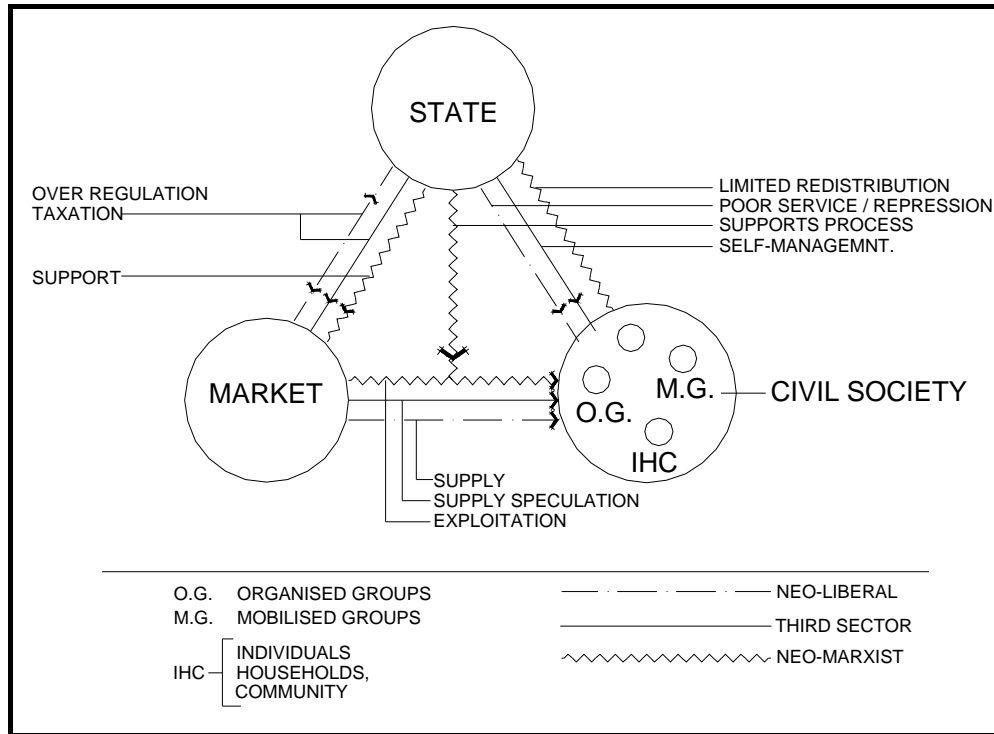


Figure 4.3. Relationships amongst the state, the market and civil society in mainstream theories

The ‘third sector’ protagonists, mainly Turner (1986), who do not challenge the larger neo-liberal continuum (see *van der Linden’s* 1988) argued that the poor could provide much better housing for themselves, if there were mechanisms to enable them do so. Speculation, over regulation, and failure of the state to supply infrastructure and services, would inevitably make both the state and the market unable to produce housing (Turner, 1972; 1976; 1986). Turner saw the role of government mainly as providing the ‘elements’, e.g. regulation and finance. The ‘third sector’, mainly NGOs, were to mediate between the state and the community, helping the state supply ‘components’ - infrastructure and services -and helping communities to provide ‘assemblies’ - individual housing units - for themselves.

The neo-Marxist position discussed in Chapter Two holds that in a neo-liberal political economy, housing is commodified. The main interest of the capitalists is expansion of their capital. Even self-help housing is commodified and subjected to the processes and expansion of capitalism resulting in exploitation of the poor. Neo-Marxists suggest that the neo-liberal state serves the interest of the capitalists,

allowing them to exploit labour. Further, they argue that construction through self-help keeps the costs of reproduction down, which in turn lowers the cost of labour; a situation only beneficial to the capitalists. Self-help exonerates the state from the responsibility of housing its citizenry (see for example Ward and Macoloo, 1992; Kerr and Kwelle, 2000; Tait, 1999). Neo-Marxists conclude that unless the whole of the capitalist system is overhauled, the housing problem would remain unsolved (see Burgess, 1978; 1985).

There are many convincing arguments to explain housing delivery failure from all various perspectives. However, these three theoretical positions (neo-liberal; neo-Marxist and the Third Sector) tend to be 'sectoral' assuming rigid boundaries, between the state, the market and civil society. Sector-based theories tend to ignore hybrid organisations, e.g. corporatised state departments that have many characteristics of the market and state-assisted cooperatives that operate as business establishments and draw members from civil society 'Services' and 'Utilities' in the City of Johannesburg are examples of the former, while cooperatives in Kenya are examples of the latter. I will argue that in addition to the strong points raised from the different theoretical perspectives, housing failure could also be considered as 'a housing network failure'. My key proposition here is that the key protagonists in self-help housing debates tend not to address complex webs of relationships amongst different actors and institutions involved in self-help housing. This leads to development of 'linear' policy responses to complex, 'multi-dimensional' housing problems. Housing policy failure can also emanate from failure to optimise positive relationships amongst actors, while minimising the negative ties, with a view to eliminating the latter.

4.4.2. Re-conceptualising the relationships among the state, the market and civil society

In most instances in my empirical work, it is the relationships amongst different individuals and groups (rather than mere relationships amongst the three sectors) that determine the outcomes of housing policies and programmes. The other point that I make is that although these relationships do not follow fixed patterns, e.g. an individual in the state could initiate relationships with an individual and an

organisation in the civil society, who in turn engages with individuals in one, two or all of the sectors to realise a programme (see the relationship in Figure 4.4. below), there are structural elements that limit their operations. Such relationships result in mobilisation of community and funds towards development of housing units, in the self-help arena, just like sector-based relationships.

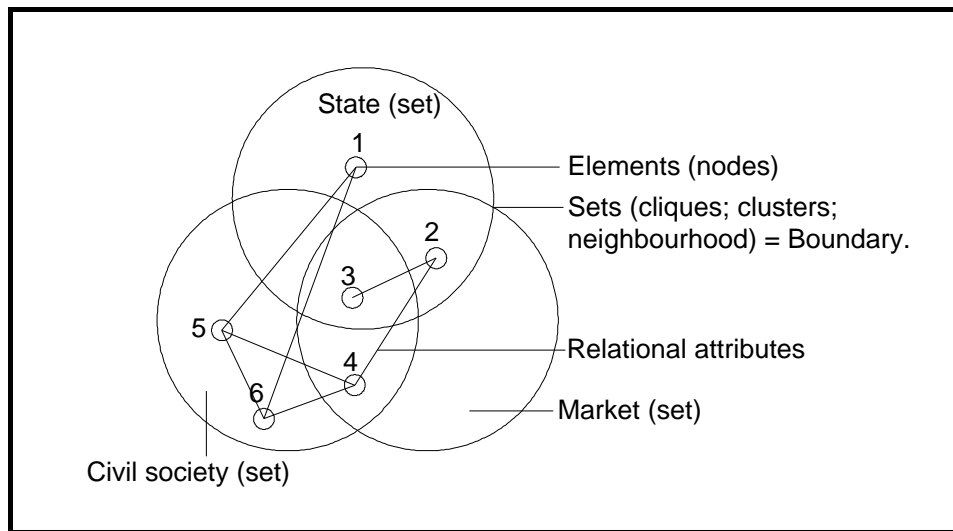


Figure 4.4. Sector/actor relational diagram

Further, there is a need to distinguish the individual actors, as different players have different impacts on the relational ties that enable development. In figure 4.5, I show the players in differently sized circles. The issue here, borrowing from Giddens' (1984) structuration theory and the concepts of 'actors' and 'agency', is that actors have different powers. Actors have unequal influence on relationships that may exist amongst them. It is these varied influences that affect the outcomes of self-help housing initiatives. Some 'agents' have power to change the structures that determine self-help housing processes and outcomes. As reflected in the case studies in subsequent chapters, this 'agency' tends to be associated with socio-political and economic positions, with the poorest of the population having the least impact on their ties. The rich and those with access to political power or aspects of social power, like the mainstream churches, also tend to have a great impact on these relationships. Analysis of networks and relational attributes, should take into consideration this desegregation of actors.

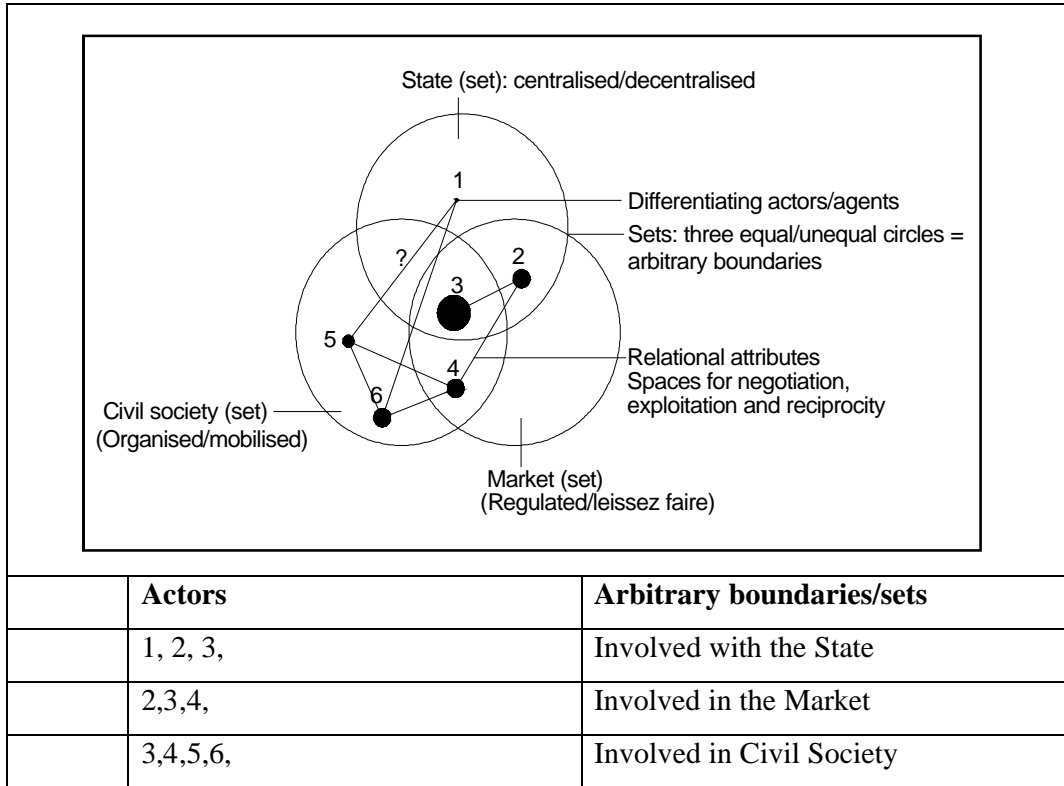


Figure 4.5. Sector/actor/agent relational diagram

4.4.3. Actors, sectors and networks

Figure 4.5 above shows seven actors who are involved in four different areas of operations (sets). The 'set' is some sort of a boundary defining limits of operation of particular groups. Alexander (1988) would argue that a city is not merely made up of simple, independent sets, but that different actors belong to different sets, which are themselves subsets of other sets. A *set* is different from a network, in that it lacks purposive contents (Meyer, 1977: 295). *Sets* are essentially classificatory categories (*ibid.*). Different actors belong to different *sets* within the city that form a semi-lattice structure. Alexander refers to the individual actors as the *elements*, and the groups they belong to as *sets*. When the elements are working together they form a *system* (see my discussion on the housing system in Section 4.2.3).

Extending the argument to self-help housing, different actors, both individuals and institutions, are normally categorised into three predominant 'sets' - the state, the market and civil society. In Figure 4.5, 'Actor 1' operates in one set only - the state;

‘Actor 2’ and ‘Actor 4’ belong to two sets simultaneously - the state and the market. While ‘Actor 3’, belongs to all of the sets - the state, the market and civil society. If traditional sectors are applied, without realising their arbitrariness, one is tempted to classify actors into rigid sectors, ignoring the reality of the ‘semi-lattice’ interactions of actors and overlap of categories of activities. Figure 4.6 illustrates this alternative understanding of the relationships of the different sectors, linking these with the roles of actors and institutions, towards housing provision. As argued earlier, housing failure could additionally be understood as relational failure, of the different actors, agents and institutions. I reiterate that the dominant theoretical understanding of housing failures in developing countries tends to focus on sector failures, e.g. failures of the market, the state and/or the civil society.

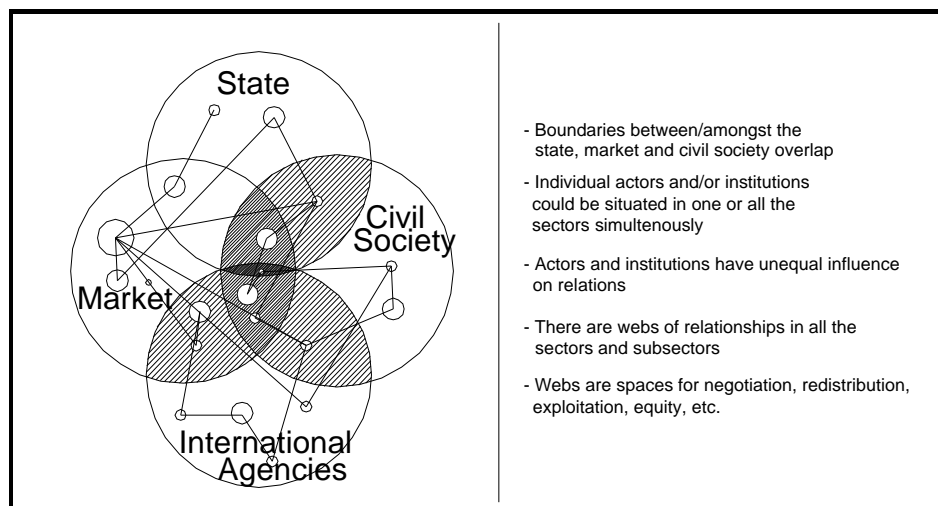


Figure 4.6. Integrated sector-actor analysis of housing from a network perspective

While sector-based analysis of housing is important, my research has shown that in many contexts, ‘pure sectors’ hardly exist. As discussed earlier, one finds a lot of overlaps in the boundaries of the state, the market and civil society - including the so-called ‘third sector’. While sector-based relationships are still existent, with diminishing state control in many countries, the relationships expressed in Figure 4.6 tend to be more dominant. It shows that the boundaries amongst the state, the market and civil society overlap and that individual actors and or institutions are situated in one, two, three or all the four sectors either simultaneously or alternatively. These intersections, particularly in Africa, have been identified as ephemeral spaces, themselves needing new forms of regulation (Simone & Abouhany, 2005: 6). Ostrom

(1996) agrees that ‘the great divide between the Market and the State or between Government and Civil Society is a conceptual trap arising from overly rigid disciplinary walls surrounding the study of human institutions’.

The diagram also reflects the webs of relationships that tend to exist amongst actors in different sectors and sub-sectors. The linkages tend to be amongst individuals and institutions rather than the sectors *per se*. The diagram also reflects the unequal impact of actors and unequal influence on the relationships, as hitherto explained from the perspective of ‘agency’. Negotiation, redistribution, exploitation, etc. do not merely happen amongst the sectors, but also amongst the actors.

4.5. Outline of key network concepts applied in analysing the field data

There has been much discussion on the units of analysis in networks studies. Networks are fundamentally about the individual (also referred to as the ‘ego’) and the ‘egos’ links with other individuals (Mitchell, 1973: 31-33). The ego was the initial focus for network analysis. For example Mitchell (1969a: 54) discussed networks of personal links that individuals had built around themselves in towns. However, even then, scholars like Adrian Meyer (1977: 119) were beginning to explore other entities such as ‘action-sets’ and ‘quasi groups’, where the units could range from individuals, through families and communities, to social aggregates. Boissevain (1968, in Banck 1973: 38) suggested need for a continuum, especially when larger networks were to be studied. This continuum would have the individual on one pole and on the other end, the corporate. Banck (1973: 39) preferred to avoid the concept of ‘corporate group’ and yet he observed that the continuum was useful for analysis of data, as it gave the visual projection of the levels of abstraction that would be able to help in the explanation of empirical data (Banck, 1973: 39). He found it expedient to maintain the concept of ‘group’, since at empirical levels there are groups, which have boundaries and members (and non-members) (*ibid.*, 40). He also observed that when analysing a personal network the action of the ego may be circumscribed into the group membership (Banck, 1973: 40). Clarification of the differences between the networks of the ego (ego-centric networks) from those of the group (networks of collaborative action), and later, networks of exchange and hierarchies, was central in

analysis of empirical data in this study. My overall approach is diagrammatised in Figure 4.7.

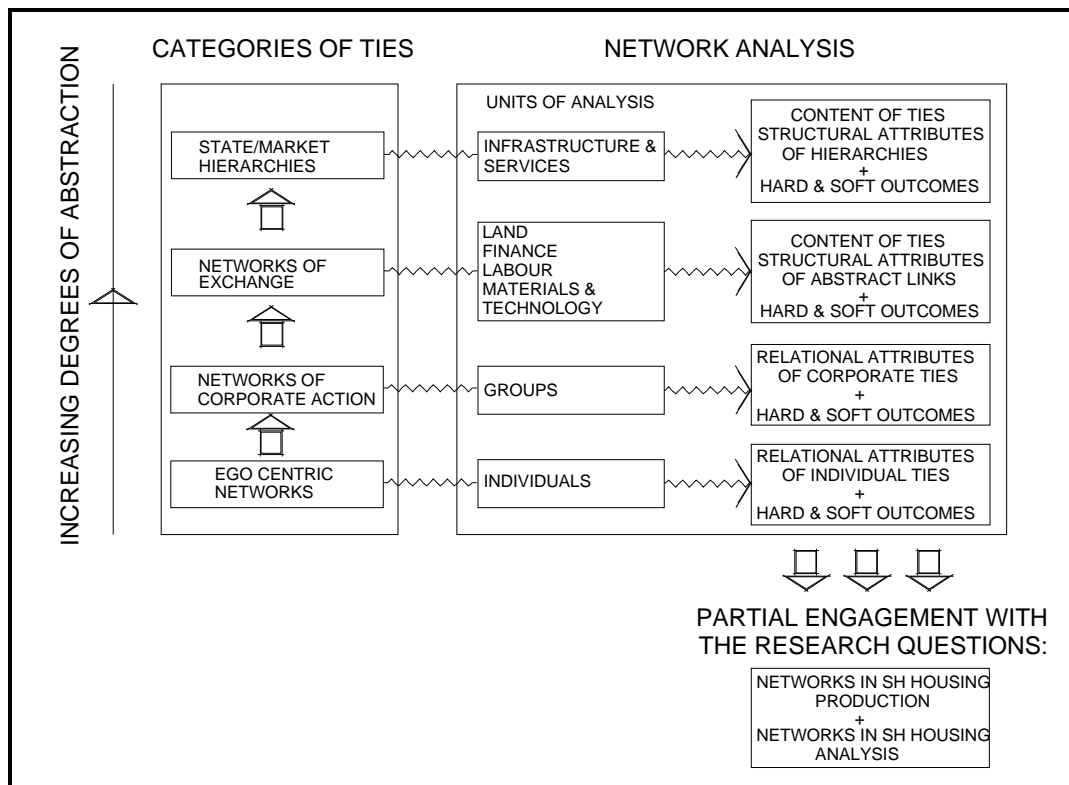


Figure 4.7. Outline of analytical framework for field data

My analysis of empirical data on self-help housing networks in Nairobi and Johannesburg, in Chapters Five and Six, has been organised, loosely, on the basis of the levels of abstraction of the networks in question. At the first level are ego-centric networks; these are followed by networks of collaborative action. Third are networks of exchange and lastly, are hierarchies. I explain every level below.

4.5.1. Ego-centric networks

The first level is composed of ego-centric networks, made up of atomistic ties centred on the individual (ego). Group membership, institutional membership/structure and the actual resources exchanged have been made subordinate to the ego and its ties. The focus, at this level, is on individual's ties and links with immediately discernable

others, who are themselves linked to less immediate others. These are partial networks. The content of these ties is diffuse and multiplex.¹

Networks are endless, spreading over and linking the whole society (Mitchell, 1986: 74). However, it is analytically expedient to anchor networks on specific points of reference (*ibid*). Ego-centric networks are those networks composed of ties around particular agents (Scott, 1994: 75), although some network theorists, e.g. Barnes (Mitchell, 1973: 31-33) argue that all networks are essentially ego-centric. Barnes is of the position that networks have to do with individuals, rather than groups (*ibid*). I revert to this issue when I start analysing networks for corporate action, which are predominantly built around groups and institutions, in Section 4.5.2. The ego has relationships with other individuals who in turn have other relations with others linked directly to the ego or not (Banck, 1973: 37). In ego-centric networks, the individual is assumed to manipulate his/her links, to a certain degree, for his/her own benefit (Banck, 1973: 37). The ego is entangled in a network of relationships, the structure of which influences the behaviour of the ego (Banck, 1973: 37). The ego establishes links to command over actions of others and over existing resources (Nadel, 1957: 115). The extent of manipulation of networks by the ego is dependent on his or her bargaining power in transactional processes (Banck, 1973: 43) and the spaces for negotiation.

There are also ego-centred groups, depending for their existence on an individual around which the whole group is organised, ‘unlike a group in which organisation may be diffuse’ (Meyer, A. 1977: 293/294). In ego-centric groups the actions of individual group members are only relevant so long as they are interactions with the specific ego around which the group is organised or with the ego’s intermediaries. Ego-centred groups also refer to those networks where linkages are bounded by the ego’s vision or by ties of which the ego is aware (Meyer, 1977: 297).

One point on which there is no general agreement is whether the ego’s network should be treated as composed only of those to whom he/she is directly linked, or

¹ Multiplexity is a situation where the links between actors involve more than one content (Mitchell, 1986: 75), i.e. ties may be conduits of finances, information, labour, etc. simultaneously. Put another way, contents of ties have been made subordinate to the subjects of the ties.

should include the contacts of his/her contacts, and others (see Granovetter, 1977: 357). This study stresses the latter position, its focus being on how the ego manipulates his/her ties to access various resources. Weak ties tend to have more contacts not known to the ego. These indirect contacts are very useful in access to resources by the ego. There is a link between the networks of the ego and the broader social, economic and political environment (Mitchell, 1986: 74). Analysis of specific ego-centric networks in isolation of the wider context is merely an act of 'bracketing off' the network to enable greater focus, rather than assuming that the ties have their own independent existence and definite limits (Mitchell, 1986: 74). What is being done here is to become temporarily inattentive to the wider environment for the sake of focus (*ibid*).

4.5.2. Networks of collaborative action

The second level of abstraction focuses on the ties present because of, and limited by, need for collaborative action. These are networks of collaborative action. They are predominantly present in organised groups and institutions. Atomistic, concrete relationships that the ego develops are subsumed by and subordinate to relatively abstract relationships that are developed for or are driven by collective action. In this particular section, both the actual content of the networks and the individuals' links are subordinated to corporate/collective action. These are networks defined by formalism, i.e. spaces for prescription.

From a network perspective, many authors argue that networks are essentially ego-centric (Noble, 1973). However, there has been need to distinguish networks which individuals use to access their personal resources from those that are used by groups. Mitchell (1973: 33) observes that any distinction between individual networks *vis-à-vis* networks of corporate groups is primarily a matter of the level of abstraction at which we are able to operate in summarising regularities that we can discern in relationships. He argues that opposition of networks and corporate groups is a false dichotomy, since both are the same phenomena at different levels of abstraction (*ibid*). He argues that networks of relationships are the starting point for analysis of group behaviour. They are analytical constructs, which the researcher erects partly by

taking into account the participants and fitting together observations/abstractions that may not be available to the participants (Mitchell, 1973: 33).

Mitchell (1973: 32) defines a group as ‘an abstract construct of both the participants and the observer [researcher], the former in terms of appreciation of symbols, values and cues which align their social action, the latter in terms of the interrelationships of role expectations and role behaviour’. In other words the networks that I discern and represent in this study are a subjective consequence of ties of the actors, which I choose to represent and those that I choose to ignore. The common interests and aims of a set of people and their incorporation into norms and values form the basis of links manifest in group-networks. Mitchell (1973: 32) outlines the key characteristic of groups as listed below:

- A criterion of membership recognised by members and non-members;
- Common aims and interests of group members;
- Norms and rules commonly accepted by members;
- Capability of joint action by members;
- A division of labour amongst members in terms of common aims and interests; and
- Persistence of relationships of positions beyond the incumbency of individual occupants of these positions.

Networks of collective action are imbued with formalism. However, formalism and/or prescription of rules and regulations governing the conduct of the actors are not necessary prerequisites for the establishment of ties. In addition, formalism helps coordinate collective efforts in the networks (Murdoch, 1998: 363). Unlike action prescribed by the state and market, local uniqueness is useful in establishment of the links in these networks; formalism being imposed later to direct and guide collective action. Unlike hierarchies where relationships are prescribed, these networks depend on spaces for negotiation (Murdoch, 1998: 363). These spaces can and are manipulated by individuals to help them access resources (Mitchell, 1973: 31/32). Group networks also have strong normative content, in terms of individuals’ expectations of one another (Mitchell, 1973: 26). In this study, such expectations were very pronounced in church-based networks in Nairobi.

4.5.3. Networks of exchange

At the third level of abstraction, relationships amongst individuals and collective action become diffuse; and the ties are many, layered and generalised. The boundaries of the networks are defined by the content of the ties, and by the material/and or information, which is exchanged (Mitchell, 1973: 25). The spatial limits of the partial networks could be the settlement, the city, the country, and/or the globalised space. These limits are defined purely on the basis of the content of the ties, where for example ties of labour tend to be limited within the settlements and cities, while ties of finance tend to spread into global spaces. In networks of exchange, a number of actors are involved in a number of transactions which bind them to one another in a series of expectations and obligations. They perform services for each other (Mitchell, 1973: 26).

Nadel (1957: 12, in Meyer, 1977: 297) equates the term network to a system. It is through abstracting from the concrete population and its behaviour that the pattern, or network, or system of relationships existing between role-playing actors is arrived at (*ibid*). The focus in this case is on the systematic nature of the linkages of the actors who form a network (Meyer 1977: 297). This calls for more abstraction and generalisation. The analysis is of macro-level ties, not atomistic relationships amongst individuals.

Latour (1994: 792) observes that it is the mixing of non-human materials and human actions, which enables networks to remain stable across space. Materials solidify relations and enable them to remain stable through space and time (Murdoch, 1998: 360). Therefore, networks consist of subjects and objects; the subjects in this study being individuals and groups; while the objects are: finance, land, labour, materials and technology, and infrastructure and services. The latter are also the resources accessed through and/or conveyed by the various ties.

Content of ties in networks of exchange can also be considered as actions-sets. Action-sets are specific actions in specific contexts, which provide the purpose for the

ego to form linkages (Meyer, 1977: 298; 311). Access to land, or winning a political election are two examples of actions that could make individuals to form links

4.5.4. Hierarchies

The last analytical category that I use is the hierarchies. I had initially not intended to use hierarchies as an analytical category in this study. However, there was overwhelming evidence that infrastructure and services, both in Nairobi and Johannesburg, are accessed predominantly through hierarchies. In addition, there seemed to be many impacts of the state/market hierarchies for provision of housing through self-help in Johannesburg on networks that individuals and communities were using to access housing. I reintroduced the concept into my study to help capture some of these nuances.

4.6. Explanation of key relational attributes described in data collection sheets

Ritzer (1996: 425) summarises basic principles of *Network Theory* in Sociology. Actors supply each other with different things in content and intensity. Ties amongst individuals are dependent on the structuring context of larger networks. The structuring of social ties leads to non-random networks. Networks are transitive, e.g. if there is a relationship between A and B, and between B and C, there is likely to be a relationship and a network involving A, B and C. There is a limit to how many links can exist and how intense these can be. This is likely to result in network clusters separated by distinct boundaries. Existence of clusters shows that there can be cross linkages among clusters and amongst individuals. There is asymmetry in distribution of scarce resources through different ties. The unequal distribution leads to collaboration and competition. Some groups band together to acquire resources collaboratively, whereas others compete and conflict over resources. Network theory is dynamic, with the structure of the system changing with shifting patterns of coalition and conflict (*ibid.*).

The linkages amongst individuals and between individuals and institutions enable exchange of various resources towards self-help housing. The relational attributes

among individuals themselves, and between individuals and institutions, determine what resources are exchanged, where and how. They also determine the outcomes of self-help housing networks. Relational attributes are at the core of *Graph Theory*, which provides the analytical bases for networks. As Wellman (1983: 156-157, in Ritzer, 1996: 424) puts it:

‘Network analysts start with the simple, but powerful, notion that the primary business of Sociologists is to study social structure...The most direct way to study a social structure is to analyse the pattern of ties linking its members. Network analysts search for deep structures-regular network patterns beneath the often complex surface of social systems...Actors and their behaviour are seen as constrained by these structures. Thus the focus is not on voluntaristic actors, but on structural constraint’.

In this section, I discuss specific concepts, which are used to interpret relational attributes. The concepts explained in this section are used to discuss self-help housing networks in Nairobi and Johannesburg, generally, but they are also crucial in understanding the contents of my data collection sheets and the network diagrams used in the subsequent chapters. Figure 4.8 illustrates some of the concepts that I have deciphered from network studies in Sociology, some of which are applied to explain relational attributes amongst actors in self-help housing in Nairobi and Johannesburg. The choice of the concepts to apply was refined after the fieldwork; those concepts that seemed relevant in explaining the relational attributes that I had mapped in Nairobi and Johannesburg were prioritized in my analysis. Most of these concepts are based on explications of *Graph Theory* in Scott (1994). I outline the ones I have used in the thesis next.

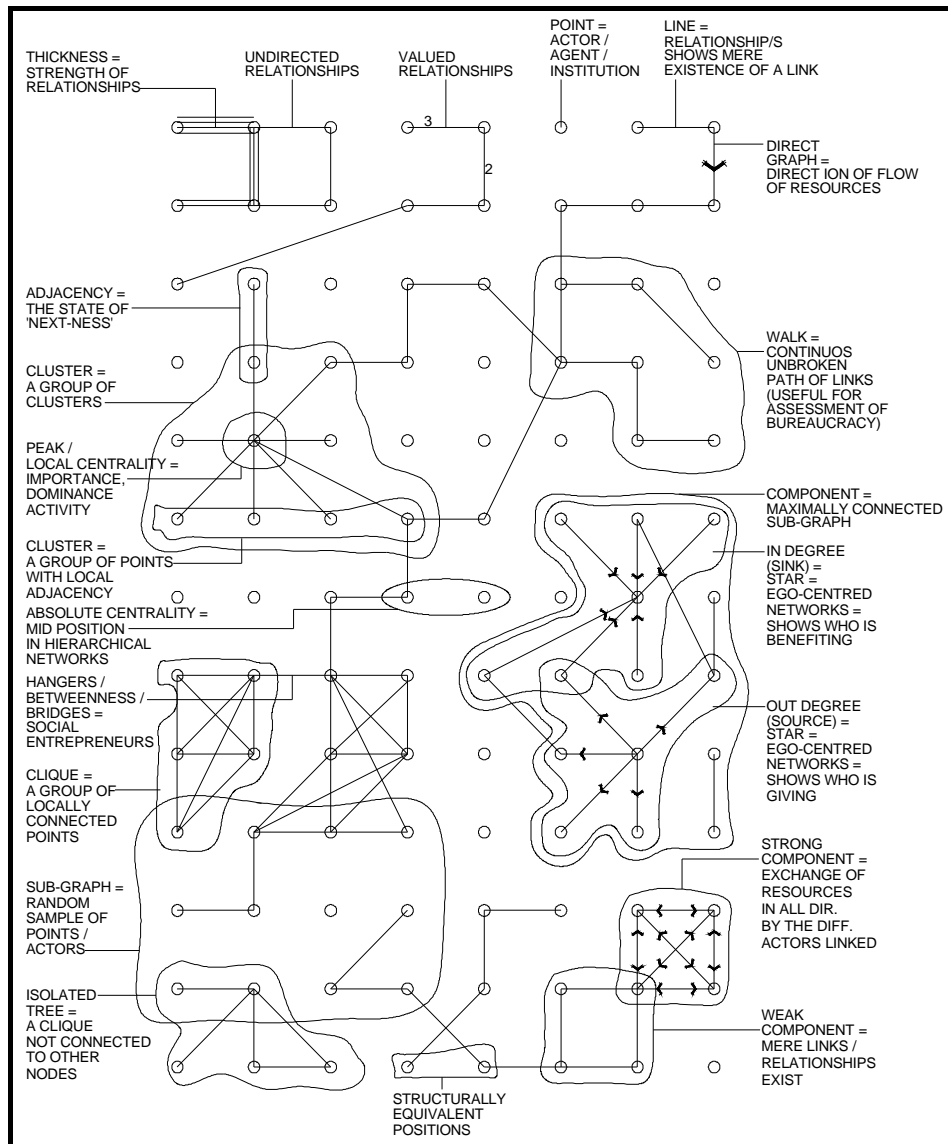


Figure 4.8. Diagrammatic representation of the relational attributes

Intensity and density of networks

‘Intensity/Density’ is the general level of linkages amongst points in a graph. It reflects the overall connectivity in a network (Scott, 1994: 72). The density of a network may be described as ‘close knit’ or ‘loose knit’ (Noble 1973: 10). Walker, Wasserman and Wellman (1994: 62) define density as the proportion of ties present out of all possible ties. Barnes (1969: 63, in Niemeijer, 1973: 47) defines density “as the proportion of theoretically possible direct links actually in existence”. Niemeijer

(1973: 53) suggests that depending on the research question, densities may be estimated from a qualitative perspective. However, if a precise question is asked, then sampling is inevitable. In my view, when one is making general comments about overall networks, the variation of data is such that even sampling will not give an accurate picture. The network densities talked about in this study should be understood only in general terms.

Value; relative amounts and variety of resources exchanged and strength of ties

‘Value’ shows the importance, hence reliability, of the tie. It is a reflection of the strength of a tie, which has in turn been defined as a combination of ‘the amount of time, the emotional intensity, the intimacy and the reciprocal services, which characterise a tie’ (Granovetter, 1977: 348; Briggs, 1998: 12, 13). In this study I have given a numeral value of ties ranging from 0 to 10. These are not exact values in mathematical sense. They are a reflection of the importance given to a tie by the various actors linked. It is possible that in similar situations various actors would give various values to their relationships, thus the figures of value used in Chapters Five and Six are only general. Qualitative measurements of these values are reflected in the data collection sheets in the appendix.

The stronger the tie between individuals the more similar they are likely to be in various ways (Granovetter, 1977: 349). An intensely networked field is often an indicator of strong ties. There is literature on ‘the strength of weak ties’ (see Granovetter, 1977). Granovetter (1977: 349) argues that sometimes many weak ties (several individuals who are only indirectly linked) may be more effective in spreading general information than one specific link (bridge).

Paths and their directions

‘Directed paths’ show which actor is receiving from or giving to which; ‘undirected paths’ do not indicate direction of flow of resources. In my analysis I use undirected paths, because of the levels of abstraction that I apply in this study. It is easier to show direction of paths in concrete ties of individuals and organisations, but it seemed more relevant to describe these only generally in abstract networks of exchange. However, I

discuss the directions of the paths in my data collection sheets, where both in-degree and out-degree are clearly indicated. 'In-degree' shows the degree to which one actor is receiving resources from the others to whom he/she is linked, while 'out-degree' is the opposite. 'A walk' is a continuous chain of unbroken linkages. A very long 'walk' for example could indicate an inefficient bureaucracy.

Centrality, adjacency and components

'Centrality' shows the level of connectivity of one actor to others. It could imply that the 'centralised actor' is an important or a controlling one, e.g. the state. 'Adjacency' shows immediacy, i.e. that two actors are directly linked. 'Components' are groups of actors in a particular region, who are linked, directly, with one another. Components could either be 'weak' or 'strong'. A 'weak component' merely shows that a relationship exists amongst the actors, while a 'strong component' shows that the actors are not merely connected but are actively exchanging many resources.

Bridges, champions and social entrepreneurs

'Bridges' are those actors who are between various actors. They link one network to another. Networks with many bridges show high levels of 'between-ness'. In terms of the entities that bridge, the most common are 'social entrepreneurs' or *animateurs*. They may be individuals or groups. These community entrepreneurs have the development of the whole community as their goal (Johannisson and Nilsson, 1989 in Malecki, 2002: 932). Such people are gatekeepers in knowledge networks acting as a bridge between the community and their extensive personal contacts. They also act as bridges across organisations and between sectors (see section on Kabiro Human Development Programme (KHDP), in Chapter Five, and champions in the Johannesburg cases, Chapter Six). My findings agree with Malecki (2002: 932) that the social entrepreneur or an *animateur* is critical in associational economies.

Time

Relationships of the ego or groups, and the contacts that they are able to make, take place over a period of time (Noble, 1973). Networks are defined at a particular time;

they are bounded and limited by time (Meyer, 1977: 297). In this research time is of significance in two ways: first, the ties mapped in the networks are/were linkages at a specific point or during a particular period of time; secondly, ties and relationships take time to develop. The latter has to be borne in mind when judging networks of recently formed groups.

Thickness and structural positions

The ‘thickness’ of a link shows how many different resources are exchanged through a particular tie. The thickness of a whole network would indicate the variety of different resources that could be accessed through the network. The concept is loosely related to institutional thickness as defined by Amin and Thrift (1994). The four pillars of institutional thickness are: presence of strong institutions at grassroots level; high degree of interaction amongst local institutions; collaborative action – awareness of local organisations that their mutual activities are part of a collaborative enterprise – and development of structures of domination and patterns of coalition.

Network analysis is structural. It takes the position that actors are constrained by the structural attributes of the networks they find themselves in (Ritzer, 1996: 424). Structurally-equivalent actors are therefore those actors whose agency can be considered to be similar, i.e. the impacts of their actions on their networks are not likely to be that variable in structural terms.

4.7. Conclusion

The arguments in this chapter show that the state and the market in neo-liberal political economies have transformed considerably. They also show that households and communities are getting more complex, fragmented and non-geographical. Given the importance of the state, the market and communities in self-help housing, this brings to question, how the self-help phenomenon may be studied. Earlier studies have tended to consider the subject from ‘sectoral’ perspectives, which have their merits. But this chapter shows that there are limits to the solutions to housing problems which the sectoral approaches can achieve. There are also limits in the

extent to which self-help housing can be explained sectorally. For these reasons these 'sectoral' approaches need to be complemented with other approaches with a view to engage with such complexities as explored in this chapter. It is in this vain that the chapter recommends and develops a network-based theoretical and analytical framework, network concepts and terminologies, and an overall approach through which the self-help housing phenomenon may be studied from network perspectives. These are applied in analysis of empirical data from Nairobi, Kenya and Johannesburg, South Africa, in the subsequent chapters.