

Social capital: a necessary and sufficient condition for sustainable community development?

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Abstract Research in Canada and Australia has shown that social capital is a necessary condition for sustainable community development as it enhances linking ties that increase access to resources outside the community. Social capital in and of itself, however, is not always sufficient to sustain and develop local community initiatives, as infusions of economic and human capital are often necessary; the larger 'social safety net' can play a critical role in local community development initiatives. More importantly, government policy alignment may be critical to establish a stable environment within which organizations can sustain and increase the scale of their operations. Governments have a critical leadership role to play by re-aligning policies and incentives to complement the existing social capital network formation by strategically targeting their interventions at pivotal points in the evolution of local organizations to optimize their access to outside economic and human resources. The role of government is explored in a case study outlining the actions of a local community initiative in a marginalized neighbourhood of Vancouver, Canada.

Introduction

What makes the distinction between a community 'getting by' and 'getting ahead'? Is the presence of social capital, specifically network formation, in and of itself sufficient or are there other necessary conditions that contribute to this distinction? Many communities are struggling with their development in an increasingly interconnected global world, never mind the

implementation of sustainable community development. Many modern issues are beyond the capacity of any one community or sector to solve, as they span multiple jurisdictions, are often beyond the geographical boundaries of any community to resolve in isolation. Specific challenges include public health (water, air, and land quality); access to and long-term maintenance of natural resources; infrastructure (sewage, transportation, and policing); fear of change; fragmentation; and economic disparities. Marginalized communities, those defined by poverty, homelessness, drug addiction, and mental health issues, are even more at a disadvantage because of their seemingly entrenched economic disparities mainly resulting from multiple individual health issues.

Sustainable community development

Sustainable development can be regarded as a process of reconciliation of three imperatives: (i) the ecological imperative to live within global biophysical carrying capacity and maintain biodiversity; (ii) the social imperative to ensure the development of democratic systems of governance that can effectively propagate and sustain the values that people wish to live by; and (iii) the economic imperative to ensure that basic needs are met worldwide. And equitable access to resources – ecological, social, and economic – is fundamental to its implementation (Robinson and Tinker, 1997; Dale, 2001). In this research, we look to case studies that consider all three ‘legs’ of the sustainable development ‘stool’, as without all three, long-term stability is not possible.

It has been argued that the ‘three-legged stool’ model is flawed as the environment should take primacy (Dawe and Ryan, 2003), but it is difficult in an age of deep interconnection between ecologies and societies to argue that the environment can be treated separately from ecological and social concerns. The social dimension is likely the weakest pillar of sustainable development (Lehtonen, 2004), and key challenges exist where the social and economic imperatives intersect at the local level, as well as globally. Others have argued that the failure to implement sustainable development is primarily a social issue, resulting from our failure to learn from our boom and bust cycles of development (Norgaard, 1994; Wackernagel and Rees, 1996; Dale, 2001; Gunderson and Holling, 2002). Clearly, sustaining ecological systems will require diverse social systems supported and maintained by robust governance systems (Onyx *et al.*, 2004).

Sustainable community development is consequently defined as development that integrates ecological, social, and economic decision making. In addition, ‘community’ requires that members form a regularly interacting system of networks (Onyx *et al.*, 2004). The conceptual dialogue

surrounding sustainable development has been robust (Robinson, 2004), but implementation has been dilatory at all levels of society. One of the major reasons for this implementation gap is the gridlock in the planning and implementation processes for decision making. This gridlock is not because of lack of research, knowledge, and information residing in communities. It is multi-faceted and involves, among other things, a lack of coherent dialogue; congruence between political levels; political will, and a 'sustainable development' ethos among various government levels and community stakeholders. Many experts have identified that one of the major barriers to the implementation of sustainable community development is governance (Young and von Maltke, 1993; Dale, 2001; Sabel, 2001; Bradford, 2003; Dale and Newman, forthcoming), and the enlargement of public space to include the dynamic and vibrant 'third sector' (Dale and Onyx, 2005). Others have referred to real disconnections between federal, regional, and local governments, between rural and urban communities and, critically, between the business and research communities (Dale, 2001; Bradford, 2003). Some argue that the mobilization of social capital is necessary for realizing sustainable community development (Dale and Newman, 2005; Dale and Onyx, 2005).

Since these challenges are beyond the capacity of any single organization, community, or discipline to meet (Trist, 1983), networks become even more critical to bridge cross-boundary issues. Since the greatest challenge is not necessarily one of scientific or managed origin, rather 'it is about dealing with people and their diverse cultures, interests, visions, priorities, and needs' (Norgaard, 1994), these networks become even more integral to sustain community development. Surely, the need to understand diversity is true for 'doing business' in the global marketplace. Thus, the mobilization of social capital for building diverse network formation is a necessary condition for sustainable community development, but is it sufficient?

Social capital

Social capital is an interesting quality and is one of the biggest growth areas in network research (Borgatti and Foster, 2003), albeit in many ways its specific dynamics are still being studied. Bourdieu (1980) defined social capital as 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition', and he argued that social networks are not a given and must be constructed through investment strategies (Portes, 1998). Putnam (2000) defines social capital as 'social networks and the norms of reciprocity and trustworthiness that

arise from them', and was one of the first researchers to suggest that social capital plays a critical role in civic life.

Although its dynamics are still actively being debated, some feel that social capital bridges 'structural holes' within the society (Burt, 1992; Borgatti and Foster, 2003), allowing more efficient networking, and some argue that social capital works by overcoming collective action problems and reducing the cost of social transactions (Rydin and Holman, 2004). There is a general intuitive sense that social capital strengthens communities and specifically that is a necessary ingredient for sustainable community development (Dale and Onyx, 2005). It has been argued that social capital formation must be a central strategy for development planners (Wilson, 1997).

Dale and Onyx (2005) have argued that there are key links between how stakeholder, voice, diversity, and leadership are exercised at the community level for the reconciliation of the three imperatives that lead to augmented sustainable community development. More important, however, are the policy implications of government interventions in social capital formation at the community level; if not strategically targeted, interventions may actually destroy the existing social capital within the community. One example is gentrification of lower income communities, whereby government incentives to redevelop decaying downtown cores, often results in the leaving of the very diversity that first attracted the redevelopment, i.e., artists, small retail stores, and lower income residents (Dale and Newman, forthcoming). Communities are based on networks, both personal and professional, and the density and diversity of network formation vary tremendously within and between communities. As well, networks appear to be crucial in any one community's ability to access more diverse kinds of capital, particularly social capital linking ties.

Social capital and network formation

Why is network formation so critical to sustainable community development? The answer lies in the nature of sustainable development issues, for example, local communities might well be able to address land use matters, but have no capacity to inform decisions related to land fragmentation. Sustainable development issues, therefore, implicate multiple scales (micro, meso, and macro), multiple levels of governance (local, regional, national, and global), and multiple and diverse societal actors. Since they involve complex, dynamic, and interactive living systems, the science is always uncertain, and information is incomplete (Holling, 2003). The dynamic co-evolution of natural and human systems means that they are inherently capricious, requiring multiple expertise and multi-sectoral

involvement in any potential solutions. No one community has the capacity to implement sustainable community development in isolation from other communities, as communities are a nested system of embedded community networks at increasingly larger scales. Thus, traditional hierarchical decision-making models are inadequate to deal with the highly interdependent nature of community development in an increasingly global economy.

Locally, networks are composed of social ties which are often grouped into two main types: 'bonding' and 'bridging' ties (Narayan, 1999; Onyx and Bullen, 2000; Putnam, 2000), though others continue to use the terms 'strong' and 'weak' following the lead of Granovetter (1973). Bonding ties are connections between people who know each other very well, such as family connections and connections between close friends. Bridging ties are connections to people outside one's own local groups. Leonard and Onyx (2003) have made a finer discrimination between bonding, bridging, and linking social capital. Since we contemplate bridging to be a form of linking social capital, we use the terms, bonding, and linking ties, that encompasses bridging and vertical ties for clarity, where the latter refers to links to power and decision-making authority such as government.

Networks, therefore, are one critical way of bridging some of the barriers to sustainable community development. They, however, are simply relationships between people, where trust and reciprocity play a big part and can be closed or open, homophilic or diverse (Newman and Dale 2005). We argue that the network structure that is necessary for sustainable community development is one that is open, diverse, and involves social capital ties at the bridging and vertical levels. 'Bridging' ties lead out of the local organization to outside resources and 'vertical' ties lead to decision makers and authority figures. These ties are particularly crucial for bridging structural holes within a community as well as inter- and intra-institutional solitudes, silos, and stovepipes (Dale, 2001) outside a particular community. Solitudes delineate the cleavages that exist in a country, language, ethnic, or gender. Silos are the divisions between sectors, one of the most unproductive being the division between the research and the business sector. Stovepipes are the separations that exist within an organization, for example, the disciplines in a university or departments in government.

Linking ties, including vertical ties, are critical to enabling social capital as they link together clusters of tightly bonded individuals (Granovetter, 1973). Clustering is a web of diverse interconnections that enable community resilience. Aside from enhancing community resilience, a condition for sustainable community development, a mix of bonding and linking ties creates both safety and adaptability (Gargiulo and Benassi, 2000). Adaptability is also a necessary condition for sustainable community development given its dynamics.

For example, in a disadvantaged community, civic society organizations bridge rich donors and poor clients, networks augment access to greater density of social capital leading to greater capacity for linking ties, and ultimately, clustering creates greater critical mass for social change. Disadvantaged community leaders, however, must maintain ties in both worlds to be effective (Ashman *et al.*, 1998), as their efficacy for change in their own community will be compromised in the longer term (Dale, forthcoming).

Woolcock and Narayan (2000) argue that while localized, bonding social capital operates as effective defensive strategies against poverty, the necessary condition for real development entails a shift to other, looser networks. Thus, a shift from 'getting by' to 'getting ahead' entails a shift from bonding to linking social capital, through bridging networks, and we maintain that government policies are also a critical, necessary condition for sustaining the momentum for getting ahead, as the case study in this paper, United We Can, demonstrates.

United We Can: a case study

This research recognizes that social capital can be both cause and effect, so that its use can also generate effects that further increase its future availability. Equally, social capital can have very negative effects, if bonding capital is so tight and little evidence of linking social capital can actually affect a community's response to diversity and openness to others, thus affecting its ability to innovate and adapt (Newman and Dale, 2007). On the other hand, positive deployment of social capital for ameliorated economic or social infrastructure (e.g. fighting social injustice, or floods) through linking social capital is likely to also improve the existing stock of social capital. Social capital in that sense is iterative in its effect. It is for this reason that trust, for example, may be identified by researchers such as Putnam, Fukuyama, and Onyx as a core property of social capital but identified as a consequence of social capital instead of a defining element, by researchers such as Woolcock. In this case study, social capital is treated as a by-product of organizations; individuals join organizations or networks in response to incentives, and social capital is generated by their ensuing membership (Jackman and Miller, 1998). The motivation for joining a group or network is not trust, but a need to form a collective to achieve a social end.

This case study is the result of a three-year research program that involved intensive, iterative in-depth interviews over three years with three key members involved in its formation – the founder of United We Can, two of its Board Members and the former premier of the province who was also a mayor of the city in which this community is nested, and

a national public policy leader in sustainable cities. In addition, interviews were conducted with key public official who were also involved in setting policies at critical points in its ten-year evolution. The interview protocol specifically examined the relationships, if any, between stakeholder interests, voice, diversity of network contacts, and leadership, and their relationship to linking social capital for augmenting access to outside resources.

This community was selected because of the intractable nature of its problems of drug addiction and mental health issues, and persistent poverty and homelessness and the reported success of this one local organization in addressing these issues in the Downtown Eastside of Vancouver, British Columbia. We were particularly interested in if, and how social capital contributed to its success and could this be replicated in other similar communities. The first author determined at the end of the research project, however, that social capital, albeit a necessary condition did not guarantee the long-term viability of the organization, rather enlightened government policy, at multiple entry points and levels, is also a sufficient condition to make the difference from getting by to getting ahead.

Marginalized communities seldom have the same access to ecological, social, and economic resources as other wealthier communities. For example, in the Downtown Eastside, the area continues to be the centre of the injection drug use epidemic in Vancouver and disparities of health status of residents compared with Vancouver and the rest of British Columbia persist, despite the millions of dollars poured into the community by outside agencies (Buxton, 2003). Compared with the province of British Columbia as a whole, and taking into account the age of the population, this neighbourhood has significantly more observed than expected deaths from all causes (*Ibid*).

Such communities also have very few networks, individuals are often isolated by their disease from one another, and social capital, specifically, the ability to form networks, is often compromised. By creating networks that build critical social capital initially at the bonding level, and subsequently developing the means to access bridging and vertical social capital, it might be possible for marginalized communities to develop the collective agency to help themselves. The capacity of more marginalized communities to create change is limited by their decreased access to social and economic capital, much of which are necessarily expended on day-to-day survival.

United We Can was founded on the belief of one of its founders that in a capitalist economy, access to economic capital is a necessary first condition to sustainable development. Other researchers from Vancouver (CS/RESORS, 1989) have concluded that employment services for homeless people need to contemplate helping their clients find housing, emotional counseling, health care, and recreational opportunities. United We Can,

however, believes that engendering economic agency in the Downtown Eastside community is the imperative first step to other necessary resources. Its primary objective is to provide a livelihood to people who normally would be unemployable, and with flexible working conditions to accommodate a variety of mental and physical conditions.

United We Can was started by Ken Lyotier and a fellow binner, part of a cadre of individuals known in the community as 'dumpster divers' or 'binners' who dive into the large blue garbage bins hidden in the back alleys of downtown Vancouver for recyclables to return to retailers for cash. Often, the binners were denied the full value of their recoverables, as retailers discouraged street people from coming into their stores, they did not have the storage space for recoverables, they often resented taking back items they did not sell, and some bartered chewing gum in lieu of cash (Lyotier personal Communication). Although Vancouver, British Columbia, has been billed as one of the most livable cities in the world, there is a dark underbelly of despair that is hidden away and ghettoized and concentrated in the Downtown Eastside (Dale and Newman, forthcoming).

Given this unfairness, in 1992, Ken Lyotier and a fellow binner decided to do something about their resentment and convinced a local church, First United, from the Dendorff-Morris Trust Fund, to donate \$150.00 to organize a one-day bottle depot in a local park, Victoria Square. Their objective was to pay street people to bring in empty cans and bottles which at that time were non-refundable. By organizing around a basic issue affecting all dumpster divers, they hoped to make their issues public, highlighting what was until then, a hidden and covert activity, seen by even people in their community as distasteful. The initial one-day part depot attracted divers who lined up along the park and spilled onto the street with their shopping carts, each of whom were paid a maximum of \$10.00 for their non-refundables. The event was hugely successful in its outreach to the 'diver' community and the volume collected, even though the organizers had to pay a truck to come and haul away the 'garbage' in the end, all of which were picked up by the media. With a subsequent change of government, the Harcourt administration in 1991 expanded the deposit refund system for beverage containers, although little changed for the divers' particular economic circumstances.

One unanticipated result of the Victoria Park depot was that bonding social capital began to manifest itself, as all the people previously 'hidden away' working individually in alleyways started to connect on the streets. The government, through the Human Resources Ministry, approached the organizers to learn more about what had happened, and proposed bringing in consultants to organize community workshops. The organizers counter-

proposed that the divers themselves could directly inform the Ministry, and be paid consultants for their time. Again, street people lined up for the workshops at local community centres, but more critically for their community, the binners realized from these workshops that they could create their own deposit system, and take some control over economic capital. Roughly fifteen people continued to meet, led by Ken Lyotier, and over a period of five years, the initial core network evolved to become a legal non-profit organization.

Following their incorporation, the group approached VanCity Community Loan Fund (a community savings co-operative) for a line of credit, which was eventually secured; \$12,500 from VanCity itself and \$12,500 from a benefactor. United We Can was established as a formal depot in 1995, and Ken Lyotier became its first Executive Director and Manager. In that first year, a staggering 4.7 million containers were recycled – putting \$360,000 back into the community through handling fees. Over this time, the provincial government paid for the rent and the initial wages for the men and women.

The operating principle behind the organization was only less-advantaged hire people who would never get hired by anyone else were hired, and there would be no exclusions because of active addiction or health issues. There were several operational difficulties in the first years, particularly in encouraging members of the community to become involved. To overcome this, Ken Lyotier actively knocked on doors and convinced people to leave their rooms. As well, all businesses in this area were losing money, since the bigger volumes became the more money was lost as the handling fees did not cover costs of collection. Since the group banked all revenues, they became self-sustaining, which proved to be a key strategy, when government funding was no longer available in 1999. The bank account also served to demonstrate the group's legitimacy when trying to persuade other funders to support the organization through some lean times. In 1998, the provincial government brought in new regulations to cover containers not earlier covered, to include juice and water, and in 1999, poly-coated containers were added. United We Can and other recycling entities began to make money, although the former continued to bank as much money as possible. The charitable side was created in 1996 and United We Can has evolved into a social enterprise, since this time.

Today, United We Can employs thirty-three people full-time, most of whom had not been previously employable. The enterprise's annual revenue is 1.6 million dollars, and they recycle 50,000 bottles a day, roughly 100 bottles are sorted each minute. On average, 700–750 street people come through every day, with 300 of these being core binners every day. United We Can processes over 20 million cans and bottles a

year. These figures reflect only beverage containers, non-alcohol, and some alcohol, and do not include beer bottles or beer cans, which are also collected by the United We Can bottle depot.

There are currently four other business streams in development. The Collection Services, with the use of truck and tricycle hauling, is now offering container collection directly from larger volume commercial and residential consumers in the downtown area. The Bike Works provides qualified instruction, sales, and repair tools for low-income residents and depot users who need to maintain their bicycles. The Works also maintains a fleet of bicycles for small-scale local pickups. The Bintek Computer Lab involves the recycling of computer equipment, which helps to alleviate the impact of computer obsolescence in the waste stream. By acquiring computer parts salvaged out of dumpsters by Binners, and combining these with outdated components received by donation, the Lab currently rebuilds consumer-ready systems which are then sold at affordable prices to low-income residents. A retail plant offering has also been established; Happy Plants, where plant cuttings are taken from the garbage grown into larger plants, and essentially 'recycled' for sale to the wider public. A fourth business stream, the Crossroads & Lanes Community Clean Up Campaign, is a public space environmental clean up campaign designed to reclaim city lanes and make them vital links in the urban landscape.

Although the recovery rate for recyclables has increased dramatically in Greater Vancouver from 25% in 1994 to 45% in 2004, excluding demolition and landclearing waste (Braman, personal Communication), there is no direct cause and effect evidence that this can be attributed solely to United We Can. The organization, regardless, has made a significant contribution to reducing the waste stream through the recovery of recyclables that would not be recovered even with a conventional deposit system in place. As stated earlier, these figures deal only with beverage containers, non-alcohol, and some alcohol. They do not include beer bottles or beer cans, which United We Can also recovers from the blue bins.

Evolving from getting by to getting ahead

What were the conditions that enabled a group of homeless men and women to evolve from an *ad hoc* network to a successful social enterprise that now employs over thirty-three men and women, with annual revenues of over 1.6 million dollars? While the case study researched the relationships between social capital, particularly linking through network formation with sustainable community development, this article focuses on the exogenous factors that the first author discovered also contributed to the success of the organization and its longer term viability. The evidence

was clear that leadership, particularly that of Ken Lyotier and his ability to augment his community's linking social capital, particularly bridging and vertical ties, was critical to the success to his organization, which ironically is one of the most studied organizations in Canada, by researchers from New Zealand, France, and other countries. In addition, his outstanding communications skills and his ability to communicate to diverse stakeholders from multiple sectors are also contributing factors. The principal author's research demonstrated that while social capital was a necessary condition for the formation of United We Can, specifically bonding and linking social capital, it was not sufficient to move the organization from getting by to getting ahead? What then were these other variables?

Necessary and sufficient conditions

This case highlights how individual agency connects to network formation that then builds social capital leading to sustainable community development. In this community, this was achieved by initiating a series of self-organizing meetings, and workshops that built bonding social capital, as well as the leadership of its founding Executive Director. However, the success of the organization in evolving from a loose *ad hoc* network to a not-for-profit social enterprise was dependent upon an infusion of key external resources at critical points. First, was access to critical financial capital, from initial seed money to build local capacity from a local church and individual benefactor; secondly, a line of credit from Vancity,¹ Canada's largest credit union, and thirdly, the provincial government waiving its rent and paying salaries in the initial years. Fourthly, its development was facilitated by progressive provincial and municipal policy development, and fifthly, by government regulatory changes to expand the bottle deposit system at critical junctures; hence, augmenting the economic viability for all recycling depots. Sixthly, in-kind support from quasi-government agencies such as Encorp Pacific (Canada), a federally incorporated stewardship corporation was essential, as well as its relationship to one of the province's largest universities, Simon Fraser University. Seventhly, timing was also critical to their evolution not just with access to financial capital, but also for meeting industry objectives to increase their recoverables from the waste stream, thus, the building of strategic alliances external to the community, and finally, the ability to communicate

¹ Vancity, Canada's largest credit union's vision is to work with people and communities to help them thrive and prosper. It currently has 14.1 billion in assets, more than 390,000 members, and 59 branches throughout Greater Vancouver, the Fraser Valley and Victoria. It also has a community leadership strategy in place. www.vancity.com.

externally with diverse stakeholders and sectors about the organization beyond the community itself. Thus, in addition to critical access to financial capital given directly to the organizers, social capital, particularly linking ties, and stakeholder relationships, changing government policies was also a necessary and sufficient condition for the organization's capacity to realize its long-term viability over the longer term. In fact, if one uses the definition of governance as the sum of many ways of individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated, and cooperative actions may be taken. It includes formal institutions, and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions have agreed to as perceived to be in their interest (Commission on Global Governance, 1995), then governance is also a necessary and sufficient condition for sustainable community development, in conjunction with linking social capital.

Governance: a future approach

The case study community also illustrates that success in human endeavors is often dependent upon the right place, space, and time. The time is right for both United We Can and for the City of Vancouver and the regional level of government, the Greater Vancouver Regional District (GVRD), to contemplate a more integrative approach to waste diversion. If both levels of government commit to investment strategies oriented to the institutionalization of agencies like United We Can into their waste management strategies, potentially the costs/benefits of the new waste management strategy would ameliorate multiple bottom lines across government delivery services in the Downtown Eastside community. As one example, health, and social service costs would decrease as more and more members of the Downtown Eastside Community gain at least economic agency, possibly leading to greater agency in other areas of their day-to-day living. By actively integrating the binner sub-economy into mainstream waste management strategies, environmental, social, and economic transactions costs will be reduced and sustainable community development will be enhanced.

United We Can is now at another critical juncture in its evolution, critically dependent upon its ability to access linking social capital, specifically vertical ties from the City of Vancouver and the Greater Vancouver Regional District to maintain their current operations, and its external communications. Vancouver is now locking some of the garbage bins in the alleyways, and the two largest commercial waste collectors who own the large bins (Waste Management and BPI) are complying with the city directive.

Ostensibly, they are being locked to prevent fires or people sleeping in them and then getting caught when they are emptied in the morning. There is anecdotal evidence that some Vancouver residents object to the binners scavenging through the garbage in what is essentially their urban backyard. It is hoped that through the creation of the Binners Association, with an accountable membership, binners will be able to forge relationships with the buildings they service and further improve their public image. As well, the Crossroads & Lanes Community Clean Up Campaign has been designed to reclaim the back lanes of the city into vital links in the urban landscape. Besides picking up litter and sweeping, cleaners are removing posters and graffiti from buildings and public spaces in downtown Vancouver.

This will require, however, unprecedented co-operation across government departments at the municipal level, and between the cities, and GVRD, and strategic partnerships with the private sector bin owners and product manufacturers. For example, the Crossroads and Lanes Clean-Up Campaign could be incorporated into the city's municipal services planning, and ideally in the long run, maybe the Binners' Association might be able to provide front-line help to people on the street either through first-aid training or by working with social services to identify needs and provide services directly to the community by members of the community. Public policy integration and implementation could also in the long-run contemplate the aesthetic needs of the community and help in its ecological restoration.

Conclusions

United We Can is a concrete example that integrating the three imperatives, by doing something good for the environment, reducing waste through recycling (the ecological imperative), creates jobs (the economic imperative), thereby augmenting agency (the social imperative) can benefit a community. This was made possible, however, by building social capital through first, coming together in a self-organizing network through bonding social capital, and second, leadership by a few key individuals was critical to this network moving from 'getting by' to 'getting ahead' by augmenting access to linking ties, initially bridging and later, vertical social capital.

Clearly, collaborative networks designed to bridge the political boundaries and traditional power and conflict dynamics of different levels of government are basic to resolution of broad horizontal, cross-cutting issues such as sustainable development. From the case study, it is also clear that social capital can make a difference at the local community level. As well, networks provide the means for a community to access resources within

and outside its boundaries. But, it is not sufficient as climate change happens everywhere and anywhere, dynamically connecting all communities.

Sustainable development, therefore, needs to occur on many scales to address the many scaled problems it faces. Central governments can be badly out of touch with local conditions (Roy and Tisdell, 1998), and often nation states are too large to tackle large local problems and too small to tackle global ones (Columbo, 2001). There needs to be larger scale international action, but local community action as well.

As community approaches to sustainable development initiatives grow in popularity, it can be observed that many such initiatives begin with high hopes and large commitments of social capital only to slowly fall apart in the face of individual long-term stress, a lack of access to external resources, and sometimes conflicting government policies and incentives that actually hinder or destroy the existing social capital at the community level. The success of networks, over time, appears to be dependent upon external enabling conditions often outside the resources of the community, hence, the criticality of networks to create bridging and vertical ties, especially important for marginalized communities to gain a measure of autonomy and control over their future. Vertical ties may be the most crucial for access to enabling government policies and incentives for all communities.

Is social capital a necessary and sufficient condition for sustainable community development? No, because of the dynamic interaction of the three imperatives coupled with the nature of the issues means that no one community can respond on their own initiative; it requires unprecedented levels of cooperation and partnership, it means working both locally and globally simultaneously through networks of collaboration.

Collaboration for sustainable community development means that increasingly local community organizations, leaders, and governments must form partnerships with other levels of government, with the private sector, and with civil society organizations. This imperative creates both dangers and opportunities. The danger (according to some skeptics) is that governments will fail to recognize their distinct obligations within such partnerships; or will choose this approach even when it is inappropriate. The opportunity is to extend the commitment to sustainable development through strategies other than the use of law and regulation that is strategically working with local communities, enhancing their existing social capital for the reconciliation of ecological, social, and economic imperatives.

Most especially, sustainable development implies a new perspective on choices and decisions. If we hope to 'bend the curve' toward sustainability, both individuals and organizations in all three sectors need to make 'inte-

grated' decisions and choices that take into account economic, social, and environmental costs and benefits; they also need to contemplate the long-term as well as immediate effects of these choices. We conjecture that strategic, integrated government policy direction is the complementing necessary condition for the optimization of the existing community social capital and the implementation of sustainable community development.

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