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SOCIAL CAPITAL AND SUSTAINABLE DEVELOPMENT
Royal Roads University Research Proposal

Objectives
The goal of the proposed research is to investigate the network mechanisms by which social capital contributes to sustainable development at the local (or regional, national, global) level. Two explicit research objectives inform this goal:
1. to characterize the properties of networks that generate social capital and of network formation; and
2. to analyze the mechanisms by which social capital contributes to sustainable development.

One anticipated research outcome will be to determine at what levels, if any, governments should be intervening to enhance social capital development. Networks are one means to transfer and hold knowledge in both the formal and informal sector, often leading to a reconciliation of previously competing information, interests and agendas. Therefore, by developing a better understanding of the precise mechanisms and properties by which networks contribute to increased social capital, we can then also determine the best use of resources to achieve that end. One outcome of this research is, therefore, to identify the best policy opportunities for enhancing social capital in the context of sustainable development.

Context
Dale (2001) defines sustainable development 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 to 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. Meeting all three imperatives is both necessary and sufficient; it is counter-productive to debate which is more fundamental. Without satisfying ecological imperatives, we poison ourselves, deplete our resources, and destroy the basic life support systems essential to human and non-human survival. Without satisfying the economic imperative, we cannot provide the necessities of life, let alone meaningful work. And without satisfying the social imperative, our societies will collapse into chaos. Given the interconnected nature of sustainable development, failure in any one area will result in failure in the other two, particularly over the long term. If used correctly, the mobilization of one form of capital may multiply the effects of another in a positive, or virtuous cycle. Equally, the misuse, or overuse of one may reduce or destroy another.

Given the definition of sustainable development as a process of reconciliation of three imperatives (Dale 2001), there is considerable evidence that high levels of social capital may well be a prerequisite for the process of reconciliation between the ecological, the social and economic imperatives (Putnam 1993; World Bank, http://www.worldbank.org/poverty/scapital/index.htm). Social capital remains a somewhat contested concept, although a consensus is emerging concerning its parameters. Bourdieu (1985:248; 1980) first defined the concept as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more of less institutionalized relationships of mutual acquaintance or recognition". Further, he argued that social networks are not a natural given and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of benefits (Portes 1998). Coleman defines social capital by its function as "a variety of entities with two elements in common: they consist of some aspect of social structures, and they facilitate certain action of actors—whether persons or corporate actors—within the structure" (Coleman 1988). Putnam (1993: 167) defines social capital as "those features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions".

Nevertheless, the consensus is growing in the literature that social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures (Portes 1998). Many analysts have emphasized the centrality of two factors to social capital: trust and social networks (Portes 1998; Putnam 1993; Woolcock 1998; Fukuyama 1995; Misztral 1996). For the purposes of this research, social capital is defined as the norms and networks that facilitate collective action (Woolcock 2001), focusing on the relationships within and between them (Schuler 2001).

The evidence is mounting that social capital functions as a catalyst to the key imperatives that constitute sustainable development. Specifically, the social capital embodied in norms and networks of civic engagement seems to be a precondition for economic development as well as for political stability and effective government (Cox 1995; Putnam 1993b). Similarly, Onyx and Bullen (2000) have shown that the operation of networks and norms at the local level makes an empirically demonstrable difference to economic and social outcomes. Recently, a research team led by Simon Fraser's Centre for Innovation in Management and York University's Schulich School of Business, funded by the Canadian Institute of Chartered Accountants, has been testing the theory that trust, shared values, and strong stakeholder relationships can be key financial indicators. In addition, the Canadian context has clearly shown that dialogue—at the same time, in the same place, and with a continuity of stakeholders—leads to a deeper understanding of sustainable development issues than do traditional forms of expertise (Dale 2001).

The particular research focus will be at the level of networks, which are understood as the structural elements of social capital (Stone 2001). A whole new layer of networks and organizations has emerged, referred to internationally as global civil society. For example, in 1909, there were just 176 international NGOs, but by 1998, there were some 28,900 international organizations and 20,000 NGO networks—and these do not necessarily include all citizen associations with transnational membership and activity (Edwards 2000). Networks are normally embedded within a defined community, and indeed may serve to define that community. The community in question may be a community of place (for example, a geographically connected group) or a community of interest (for example, a cyberspace chat room). In either case, it includes the potential for periodic communication and shared activity between members of the community, as well as a common self defined identity. Communication between members may be direct or indirect, and may be mediated by a variety of media and formats. Of particular interest to this research are those networks that have formed in communities in response to a particular ecological or social problem(s) and the properties of the network have contributed to increased social capital and sustainable community development.

There are several aspects of networks likely to be important in generating social capital—scope, density and centrality, as well as the location and activation of key nodes, defined as critical places of intersection between networks. Recent research has also distinguished between 'bonding' 'bridging' and 'linking' social capital (Putnam 2000; Narayan 1999; Onyx and Bullen 2000; Woolcock 2002). Bonding capital refers to relations among family members, close friends and neighbours in closed networks. Bonding social capital appears to be characterized by dense, multifunctional ties and strong but localized trust. Meanwhile, bridging connects people (or bonded groups) who share similar demographic characteristics. Bridging social capital involves multiplex networks which may facilitate access to resources and opportunities that exist in one network to a member of another, and is charterized by weak ties described by Granovetter (1986), as well as a thin, impersonal trust of strangers (Uslaner 1999). 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 bridging networks. Woolcock maintains that social capital occurs through bonding, bridging and linking,

where linkages refers to alliances with individuals in positions of power, such as formal institutions (Woolcock 2001). Further, linking social capital involves social relations with those in authority, which might be used to garner resources of power (Stone 2001). It may be that the most effective role for governments to play is at the bridging or linking level. Furthermore, bridging and linking may well be critical to reconciliation for sustainable development as the degree to which networks are 'dense', that is, the extent to which network memberships overlap affects the ability of persons in one context to call on assistance to solve a problem in another.

This research rccognizes that social capital can be both cause and effect, so that its use can also generate effects that further increase its future availability. Successful deployment of social capital for the purposes of improved economic or social infrastructure (for example, fighting bush fires or floods) 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 as a core property of social capital by researchers such as Putnam, Fukyama and Onyx, but identified as a consequence of social capital rather than a defining element, by researchers such as Woolcock.

However, if social capital is to have any explanatory power, it cannot in itself be defined in terms of a positive outcome. Social capital does indeed have the characteristics of a public good and, as a form of capital, is highly desirable, and indeed essential if further desirable outcomes, such as sustainable development are to be achieved. Nonetheless, the use to which social capital is put is quite separate from its accumulation. Virtually all studies have been able to identify both the light and dark sides of social capital (Ostrum 1997; Portes 1998; Putzel 1997; Woolcock 1998; Granovetter 1995 and Weber 1922). Others (most notably Cox 1997; Cox and Caldwell 2000) suggest that the outcomes of social relations rich in norms of trust and mutuality which do not lead to a 'positive' public good do not constitute social capital, but rather, may be simply described as collective action or solidarity. For the purposes of this research, social capital is treated as a by-product of organizations; in other words, 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 for increased access to resources.

Research Methodology

It is the overall intent of this research to clarify contested concepts relating to social capital, to operationalize their measure, and to assess their impacts. Qualitative research methods will be used, with a multiple case study approach, in which each case both reflects and measures the common elements of networks, mechanisms and their impacts, but also identifies the specific and unique context of each case.

The specific indicators of social capital that will be examined within each case study network are: diversity, stakeholders, commitment (trust), leadership and voice. The research will explore in depth with each target community the following research questions:
1. How are decisions made? Which stakeholders are included/excluded?
2. Do decisions take into consideration ecological, social and economic imperatives?
3. Which stakeholders are committed to sustainable development decisions? How is this commitment generalized?
4. How are knowledges accessed and mobilized?
5. What are the patterns of leadership and at what point do they become crucial?
6. Do overlapping networks facilitate the mobilization of collective action beyond the community?
7. What resources are critical and where do they come from? Do pooled resources form a "commons"?

8. What were, if any, the precipitating factors for the formation of the network? Was there a precipitation crisis? How did this occur, and identified by which stakeholders?
9. Does existing diversity within the community contribute to creative responses to identified crises?
10. Which, if any, discourses dominate?
11. How does the identification of place and space contribute to individual and collective action?
12. What role is played by government at the local, provincial and national level?

The following model underpins the proposed research. In this model, sustainable development, defined as the reconciliation of three imperatives: the social, economic and natural (or ecological), is the goal and outcome. Social capital, identified by the following indicators: diversity, stakeholders, commitment, leadership and voice, facilitates key decision-making and action that will provide for the reconciliation of the three imperatives, and, hence, contribute to sustainable development.

A comparative case approach will be used (Lawler 1985), focusing on five communities (three in British Columbia, one in Ontario and one in Australia) in which networks have formed in response to precipitating factors, and, through forming networks, are engaging in the process of sustainable development. The cases have been chosen on the following basis: four communities where networks were formed in response to environmental precipitating factors, including one community that offers a distinct variation - where a provincial government was invited to be a partner, and one community that demonstrates an urban response to a social precipitating factor. A multidimensional approach will involve mapping each community, with special reference to the mechanisms of social capital mobilization through network formation. The internationally recognized Onyx and Bullen scale (2000) for measuring social capital—as used and adapted by the World Bank—will be used as part of the community mapping process.

The development of the comparative case studies will be conducted with data gathered using the following instruments:

1. Soft system methodology
   Each community will be mapped using a soft systems methodology (Checkland 1981; Checkland and Scholes 1990), which will describe the community in terms off its overall context as well as identify community leaders. Community mapping is important to determine the degree to which there is any convergence or divergence between the cases. Where appropriate, census data will be

used for traditional social and economic descriptions. In addition, the Onyx and Bullen scale will be used to measure social capital formation within that particular community, also identifying key actors. The social capital scale developed by Onyx and Bullen, like all empirically derived scales, is simplistic. That is both its strength and its weakness. Its weakness lies in the fact that no scale can deal adequately with the subtleties and complexities of human life, and what basically refers to the quality of life. However, some form of quantitative indicator of social capital is essential. The social capital scale is but one simple indicator, and needs to be fleshed out with other, more qualitative methods such as the use of case studies and "thick descriptions" and reference to macro-social indicators such as crime or morbidity rates.

2. Social stakeholder analysis

   Direct participant observation of network meetings and discourse analysis of written records, where available, will define a representative sample of stakeholders and leaders in the network(s) as well as contribute to an analysis of the network process.

3. In-depth interviews

   Key network leaders and stakeholders will be interviewed using the following chart as an interview guide:

Indicator	Descriptor	Measure
Diversity	New and different people, e.g. in-migration, bringing new and different ideas and capitals	Measure numbers of recent migrants and their capitals
	Existing diversity within the community. Extent of participation of various stakeholders and extent to which this participation is valued	Measure diversity of those engaged in community decision-making/activities in terms of gender, age, ethnicity, education, income levels
Stakeholders	Engagement of people from diverse sectors	Measure representation from business, third sector organizations, government, informal sector
	Engagement of those at the margins	Measure engagement of those in the mainstream of community life and those at the margins (e.g. poverty, disability)
	Knowledge, expertise and experience of each stakeholder has influenced decision-making	Track the source of ideas of major decisions Identify process of information sharing
Voice	Engagement of diverse demographic sections	Measure involvement of members by age, gender, ethnicity
	Act of participation in decision-making. Voice at the table	Measure number of diverse voices leading to network decisions
Commitment	The number of people who attend meetings over time	Measure the number actively engaged in meetings
	Being part of the action that flows from decisions	Measure number and diversity of those engaged in collective action
Leadership	Leadership as defined by the community in question	Measure whether leadership is exercised by one person or several Identify what leadership qualities are valued by the community
	Diversity of leadership	Measure dispersion of leadership functions throughout the network Identify demographic characteristics of the identified leaders
	Types of leadership	Measure hierarchical leadership, lateral (peer) influences, covert leadership, expert, positional and facilitative leadership
	Bridging leadership	Identify those who provide access to external resources

Indicator	Descriptor	Measure
Knowledges and Resources	Ecological knowledge concerning the local context. Knowledge of degradation	Identify whether ecologists (how many) are included as formal stakeholders Identify whether ecological values (e.g. place, space, scale, interdependency) are part of the community discourse
	Technical, economic knowledge	Identify whether business people (how many) are included as formal stakeholders Identify whether business values (e.g. efficiency, effectiveness) are part of the community discourse
	Artistic knowledge	Identify whether artists (how many) are included as formal stakeholders Identify whether aesthetic values (e.g. beauty, spirituality) are part of the community discourse
	Intuitive and practical knowledge of place	Identify whether early settlers and those who have lived off the land are included as formal stakeholders Identify whether local values (e.g. belonging, continuity) are part of the community discourse

4. Participatory action research
   a. Workshops will be conducted in each community with identified leaders and stakeholders to explain research results as well as to explore the network densitites with respect to bridging and linking, and resource constraints.
   b. An on-line network will be developed to both engage interested researchers and the communities under study as well as to disseminate the research. Specifically, this on-line network will serve the following objectives: 1) to provide an on-going forum for the communities under study and the researchers to reflect on the research underway; 2) to link experts to these communities to address issues that may be raised through the research; 3) to facilitate networking between the communities to share lessons learned and best practices; 4) to provide an access point for other communities interested in similar social capital development; and 5) to serve as an on-going space for reflection, dialogue and analysis for interested researchers and members of the public.

An Advisory Committee will be established to ensure the policy relevance of the research. The committee will serve as co-researchers (Reason and Rowan 1981), and will also contribute their expertise through the on-line forum (Appendix A).

Communication of Results
In addition to sharing the research results in traditional forums such as conferences, community workshops, refereed journals, an electronic research forum will be built in partnership with byDesign eLab. One purpose of the research forum is to disseminate research results more widely and topically with students at all levels, and to create structured dialogues with the research team, members of the advisory committee, and other researchers across the country. Another objectives is to involve the policy development community by inviting them to be one of the key audiences in the forum. Royal Roads University and the principal investigator have demonstrated expertise and experience in creating these electronic forums through the recently successful e-Dialogue on climate change (www.e-dialogues.ca). As well, an electronic library will be created for public use of the most seminal works in both social capital and sustainable development literatures.

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