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Societal Health and Urban Sustainability Indicators

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**Societal Health and
Urban Sustainability Indicators**

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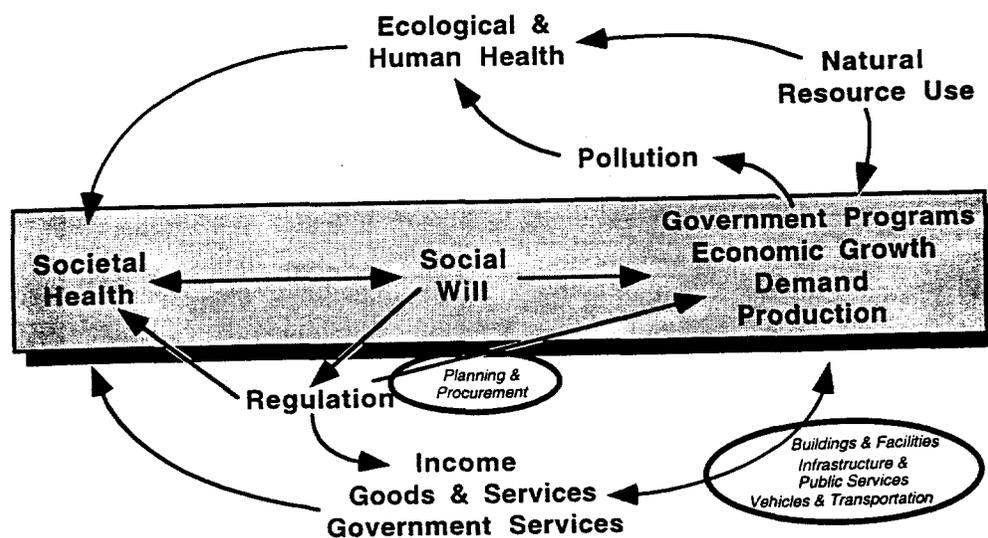
Societal Health and Urban Sustainability Indicators

Abstract

Without the social will, no city can successfully undertake the planning and programs necessary for meaningful progress toward sustainability. Social will derives from wellsprings of vital societal health. This paper presents an approach to helping cities in APEC member economies initiate a program for developing indicators of sustainability. Representative indicators of social capital and other aspects of civic engagement, as proxies for societal health, are presented.

Introduction

This workshop outlines actions that the Asia Pacific Economic Cooperation (APEC) member economies can take to foster energy efficiency and renewable energy use. Creating sustainable cities is a goal of such energy policies. This paper takes a broad view of programs, forces, and structures that make any city sustainable. The accompanying figure displays how working sessions scheduled for this workshop may be seen to fit into a larger social, environmental, and political context. We argue that unhealthy communities lack the social will to undertake the planning, investment, and commitment to implement programs that would contribute to their becoming—and remaining—sustainable.



Relationship of APEC workshop working session topics (in italics) to broader considerations of societal health and sustainability.

Assuming that communities create and maintain vital levels of *societal health* (those aspects of society that indicate willingness to strive for common objectives and the enjoyment of the economic, social, and physical benefits of a community), how might a strengthened *social will* (the collective determination to seek programs, projects, and investments that provide for the long-term common good) be expressed in the area of energy efficiency and renewables? Residents might likely change their consumption habits, demand new product designs that are more resource- and energy-conserving, and promote similar innovations in local production processes. Thus, developing the social will to create programs targeting sustainability goals could, additionally, capture benefits accruing from cascading, synergistic changes in societal behavior both coming from and leading to an accumulation of individual behavioral changes.

We begin by examining rough indicators of economic and livability progress in major APEC cities. These indicators suggest that until we know more about how cities actually function, sustainability may be a much more elusive concept than generally recognized. We also consider the problems of liberal democratic economies in their various states of development as they balance the demands of a citizenry pulled in many directions beyond building local democratic institutions. The necessity of building *social capital* (those informal, unspoken human networks of accumulated trust that enable people to more efficiently and effectively pursue mutual objectives) and an active level of civic engagement as a foundation for sustainable cities is examined. We then discuss several United States cities' experience with developing indicators of sustainability, in particular those that focus on issues of societal health. This APEC workshop could include in its action steps a model indicator development approach for use by member economies. At the end of the paper we offer some sustainability indicators that an APEC city might use to initiate a planning and monitoring program.

Singapore, an APEC economy whose unique history provides authoritative perspective, has been a model economic city-state. Its information minister posits that the city will be the most relevant unit of economic production, social organization, and knowledge-generation in the next century (*The Economist* 1995). Cities are at the nexus of wealth creation and democracy. After all, citizenship originally meant being a member of a city. To confer a competitive advantage to the businesses operating within cities, we must understand how cities work and how to solve urban problems. Yet, as authors of a recent *Economist* (1995) special supplement on cities underscore, "We do not know much about what makes cities tick." Their conclusions set the stage for considering the role of sustainable cities in fostering the prosperity of APEC-member economies:

Getting cities right is of more than academic interest. It seems reasonable to assume that the cities that work best will generate the most wealth. And a vocal constituency will emerge to demand improvements: the firms that gain competitive advantage from where they are located. So finding out what policies affect cities' productivity and how to improve them is becoming more important.

Major APEC cities exhibit extensive diversity in selected indicators of the status of their economic progress and livability (see table). While topography and climate certainly account for some of this variety, the types of policies followed and the degree of success in their implementation likely are more largely responsible. While Jakarta and Manila are comparably-sized cities with roughly comparable per-capita incomes, the same-size house would cost about 2.5 times as much in Manila, and getting through the permitting process would take about one-third longer. In Hong Kong and Singapore, models of efficiency and policies that facilitate rapid growth, the same permitting process would take only about 6 percent of that time. Why these

Selected economic progress and livability indicators of major APEC cities. *Source:* unpublished 1990 World Bank data as reported in *The Economist*, "Cities," July 29, 1995, Survey supplement, pp. 1-18.

City	House price to income ratio*	Squatter housing (% of total)**	Com-mute to work (minutes)	Residential mobility‡	Construc-tion cost (\$ per m ²)	Construc-tion time (months)	Permit delays (months)
Bangkok	4.1	3	91	16.1	156	5	11
Beijing	14.8	3	25	13.0	90	17	24
Hong Kong	7.4	3	45	6.9	641	30	2
Jakarta	3.5	3	40	11.9	65	2	28
Manila	2.6	6	30	4.1	148	3	36
Melbourne	3.9	0	25	15.2	383	3	36
Seoul	9.3	5	37	24.3	617	18	20
Singapore	2.8	1	30	6.1	749	9	2
Tokyo	11.6	0	40	7.2	2604	12	8
Toronto	4.2	0	26	20.9	608	6	30
Washington, D.C.	3.9	0	29	26.5	500	4	36

* median price of house as a multiple of median annual household income.

** percentage of total housing stock occupying land illegally

‡ percentage of total households which have moved in previous year

extreme disparities exist is uncertain. In Washington, D.C. and Melbourne, in highly developed APEC economies, the red tape appears as dense as in Manila. Yet, building the house in Washington would take only four months versus 30 months in Hong Kong or nine in Singapore but only two months in Jakarta or three in Manila. Particular knowledge of these data and their contexts can explain some disparities. For example, high-rise construction in Hong Kong is certainly more difficult and time-consuming than urban sprawl construction in Jakarta. The overall conclusion, though, is that there is much to understand better about how urban systems function before we can tie down relevant indicators of sustainability in a specific, let alone, general sense.

We now look at the role that democratic processes and social capital play in rendering cities more or less sustainable, with an eye on the effects on overall, long-term prosperity.

Elements of Societal Change

Healthy Democracies and Political Discourse: The issues of civic participation raised in this paper are not unique to Western democracies, although that model is most familiar to the authors. Carothers (1996) notes that North Americans choose to see problems within their borders as symptomatic of "mature democracies," as if there was some past "long, golden period in which democracy bore its fruits painlessly, when its citizens were uniformly engaged and contented." The prevailing suggestion is that newly democratic countries will follow a similar phylogeny in their ontogeny:

First these countries will build the basic institutions of democracy, then they will live out their own golden periods, and only after they are far down the democratic road will the various elements of the Western malaise touch them. ... They must learn to walk, in other words, before they need worry about stumbling.

Of course, such a phylogeny for Western democracies is mythical. There was no golden period in American or any other democracy. All have fought challenges unique to their circumstances and times. Carothers goes on to debunk another related myth:

[A] deeper flaw lies with the perception that our own dissatisfaction with and alienation from the political process is unique to us, bred of the particular experience of life in developed Western democracies. In fact, many of the countries that have made democratic transitions in recent years—particularly in Latin America, Eastern Europe, and the former Soviet Union—have come to the process suffused with a sense of political history and well versed in the problems of governance. They are, in short, learning to walk while they already know something about stumbling. We need not shield them from the complex problems of "mature democracies."

Discussions between one of the authors and a group of visiting Chilean scholars earlier this month suggest that the problems discussed in this paper are commonplace in "maturing" democracies. Treitler (1992), for example, documented evidence of a similar, gradual erosion of the social integration process on the Caribbean island of Antigua. The tempering that should accompany the ideas of sustainability of civic processes that we raise here involve the recognition that in conducting their experiments with democracy, people around the world are casting their highest hopes simply for a political process that works, where the state behaves professionally. Dreams of establishing a new participatory, civic-oriented relationship between the state and its citizens, however, rank well below the hopes for media-heightened images of Western prosperity under a government model of improved competence and honesty that offers freedom at the personal level coupled with state-sponsored social and economic safety nets.

Social Capital: Harvard University political scientist Robert Putnam, originally a scholar of Italian regional politics, has turned his focus recently to U.S. civic life. He has examined *social capital*, by which is meant "the features of social life—networks, norms, and trust—that enable participants to act together more effectively to pursue shared objectives" (Putnam 1996a). He also uses the term *civic engagement* to refer to people's connections with the life of their communities, not only with politics. Recent research on the sociology of economic development has focused attention on the role of social networks. The well-known "network capitalism" of East Asia is perhaps not that dissimilar from the networks of collaboration exhibited in Silicon Valley. Putnam (1995a) summarizes the meaning of social capital to vibrant communities:

For a variety of reasons, life is easier in a community blessed with a substantial stock of social capital. In the first place, networks of civic engagement foster sturdy norms of generalized reciprocity and encourage the emergence of social trust. Such networks facilitate coordination and communication, amplify reputations, and thus allow dilemmas of collective action to be resolved. When economic and political negotiation is embedded in dense networks of social interaction, incentives for opportunism are reduced. At the same time, networks of civic engagement embody past success at collaboration, which can serve as a cultural template for future collaboration.

Putnam (1993) explained that tackling the social and economic ills that confront American cities involves investments in physical capital, financial capital, human capital, and social capital in a complementary manner. They are not competing alternatives. Numerous research studies show that investments in jobs and education, for example, will prove to be more effective when coupled with reinvigoration of community organizations. The middle-class and working family flight from inner cities

largely eroded the social capital of those left behind. Putnam maintains that racial and class inequalities in access to social capital may be as devastating as inequalities in financial and human capital.

Putnam also argues that would-be citizens have taken on the mantle of "disgruntled claimant[s]" (i.e., frequently these are the people who call themselves "taxpayers")—as opposed to citizens working to define and enhance the public interest. Democratically, notes Putnam (1996b),

we are listening to each other less. We are shouting and pressuring and suing, but we are not reasoning together, not even in the attenuated sense that we once did, with people we know well and will meet again tomorrow. Financial capital grows in political importance, while social capital declines. To those Americans who have more money than time, this may seem a mere change in coinage, but the transformation is fundamentally debasing our society.

So, an indicator of urban sustainability might likely be targeted at measuring social capital. Potential candidate metrics might be participation in civic organizations like the League of Women Voters, Kiwanis Club, Lions Club, and parent-teacher organizations. Other possibly valid indicators might include, as Putnam's data employed, some activities as seemingly whimsical as participation rates in league bowling. He explains (1995b):

... my claim, partly but not entirely tongue-in-cheek, [is] that the fate of the republic hangs on the fact that Americans are no longer engaging in league bowling.

First, when you participate in a bowling league, interacting regularly with the same people week after week, you learn and practice what de Toqueville called "habits of the heart." You learn the personal virtues and skills that are the prerequisites for a democracy. Listening, for example. Taking notes. Keeping minutes. Taking responsibility for your views. That's what is different about league bowling versus bowling alone.

Second, bowling leagues ... and sports clubs and town bands, whatever ... provide settings in which people can talk about their shared interests.

Trust: Francis Fukuyama (1995) has written recently on the economic effects of the erosion of trust in societies. His research coincides with Putnam's (and others') understanding of the role of building social capital to sustain prosperous communities. He notes that the loss of social capital in the U.S. has more immediate consequences for American democracy than for the American economy. There is a lag before the latter becomes evident. He sees social capital as a ratchet that is "more easily turned in one direction than another; it can be dissipated by the actions of governments much more readily than those governments can build it up again." An implication of the art of association to urban sustainability is, according Fukuyama, that its inherent flexibility breeds economic benefits:

people who trust each other and are good at working with one another can adapt easily to new conditions and create appropriate new organizational forms ... Globalization of the world economy has created new modes of marketing and production that have very different organizational requirements. No one at this point knows what the corporation of the early twenty-first century will look like. Whatever that form or organization turns out to be, however, will be discovered most quickly by societies that have a strong tradition of social cooperation. Conversely, societies that are riven with barriers of distrust, based on class, ethnicity, kinship, or other factors, will face extra roadblocks in their adoption of new organizational forms.

Education: Prime responsibility for academic education in the United States lies with the public school systems, and increasingly they are being asked to take on socialization tasks previously reserved for families and religious institutions. A Seattle, Washington group working to create sustainability programs there (Hatcher 1995) recognizes that cities rely on their schools "to produce good citizens with the basic skills necessary to participate fully in the stewardship of our city and region." It is well established that those who are less literate are less likely to participate in public life. The Seattle group places great importance on developing an active, informed citizenry proficient with the written word as the "primary means of sharing information and exchanging knowledge among citizens, government, business, educational institutions, and organizations." Successful education systems, for people of all ages, might well be expected to have dynamic programs in the arts, recognizing that achieving sustainability will require fresh perspectives, creative minds, and a capacity to explore other points of view—all qualities developed by the arts.

If part of the role of schools is to socialize students, a society built on mutual respect needs at its foundation opportunities for students to interact with people who are different—racially, religiously, ethnically, culturally, and by gender. A rough mirroring of these student body characteristics between by the faculty might foster overall growth and tolerance.

The public school system should be one of the highest priority places to which citizens offer their time. The Sustainable Seattle program states, "The 'public' in public schools means not just paid for by the public, but procreative of the very idea of public; the schools are a forum in which students develop civic identity and democratic responsibility. Pivotal to young people learning citizenry is regular interaction with adults and 'the real world.'" Adults personally benefit from school volunteerism, creating a dynamic environment in which students' learning is enhanced from one-on-one attention and community atmosphere. Volunteering models citizenship for both students and other adults, thereby increasing the connection participants feel with the community while building an active citizenry. The U.S. has had notable

success with its private schools. James Coleman's research illuminated that the reasons for this success are not so much what happens in the classroom nor the talents, gifts, or industriousness of individual students, but rather the greater engagement of parents and community members in private school activities (Putnam 1993).

Great Good Places: Social capital is built in geographic-specific places. These are community gathering places, "homes away from home" where unrelated people interact, with sufficient frequency that participants know one another. Sociologist Ray Oldenburg (1991) has studied the functions of these places—bars, cafés, beauty and barber shops, coffee shops, general stores—and calls them Great Good Places, or Third Places: neither home nor work. His research helped him to understand that

when the good citizens of a community find places to spend pleasurable hours with one another for no specific or obvious purpose, there *is* purpose to such association. Further, the most important of the purposes or functions served by informal public gathering places cannot be supplied by any other agencies in the society.

... In cities blessed with their own characteristic form of these Great Good Places, the stranger feels at home—*nay, is at home*—whereas in cities without them, even the native does not feel at home. Where urban growth proceeds with no indigenous version of a public gathering place proliferated along the way and integral in the lives of the people, the promise of the city is denied. Without such places, the urban area fails to nourish the kinds of relationships and the diversity of human contact that are the essence of the city. Deprived of these settings, people remain lonely within their crowds.

... America does not rank well on the dimension of her informal public life and less well now than in the past. Increasingly, her citizens are encouraged to find their relaxation, entertainment, companionship, even safety, almost entirely within the privacy of homes that have become more a retreat from society than a connection to it.

In their kind and number, there has been a marked decline in gathering places near enough to people's homes to afford the easy access and familiar faces necessary to a vital informal public life. The course of urban development in America is pushing the individual toward that line separating proud independence from pitiable isolation, for it affords insufficient opportunity and encouragement to voluntary human contact. Daily life amid the new urban sprawl is like a grammar school without its recess periods, like incurring the aches and pains of a softball game without the fun of getting together for a few beers afterward. Both the joys of relaxing with people and the social solidarity that results from it are disappearing for want of settings that make them possible.

Any community could create a rough indicator(s) of this place-based dimension of social capital by documenting the changes in its inventory of Great Good Places: their number; distribution; proximity to residential centers; quality; income, status, gender, and ethnic diversity of their frequenters; and their hours open.

Values: Values in society are held both individually and culturally. Erosion of civic life begins when individualistic values begin to overtake cultural values. Conditions of

affluence and modernity tend to provide fertile ground for this shift, and they also frequently tend to be the same forces that have begun to erode the rest of civil society (Blankenhorn 1995). The family—writ large—is the most significant institution in civil society, in part because it is the cradle of both value systems. If a culture's evolving family structure fails to integrate effectively with its broader evolving social structure, the nurturing and values development needed by children—future citizens—suffer. Non-traditional family models can function well in any culture if that nurturing, discipline, and moral and cultural teaching, modeling and training are still received. A weakened—or weakening—family system will almost certainly signal problems over time in the civil society (Blankenhorn 1995).

Very closely related to the family in the influence on children's values, and therefore ultimately on civic life, is the support given to families by the community in reinforcing desired values. David Popenoe (1995) comments:

For the moral development of children, no aspect of community support is more important than the community's ability to reinforce the social expectations of parents; that is, to express a *consensus of shared values*. Young people need to hear a consistent message about what is right and wrong from all the important adults in their lives; they need not only a social community but a *moral* community.

... Therein lies a childrearing problem of enormous magnitude in America today.

... The United States has become the most multi-tribal society of all time. In the sense of trying to blend together multiple ethnic, racial, and religious groupings, our diversity and cultural pluralism are legendary. This is both our strength and our weakness. It is a strength because diversity can be stimulating, generating creativity and achievement. It is a weakness because diversity can be psychologically and morally overwhelming, generating moral relativism, hyper-individualism, and, ultimately, community and social decline.

Because of the critical linkages among families, immediate community, civic life, societal health, social will and sustainability goals (see above figure), the protection and enhancement of a citizens' values are critical to a city ever becoming and maintaining itself as sustainable.

Adaptive Work: Making real progress on difficult problems in a community requires hard work on the behalf of a broad mixture of affected and concerned citizens willing, first of all, to face problems and their underlying contexts. Harvard psychiatrist Ronald Heifetz has studied the relationship between leadership and what he terms *adaptive work* (1994):

Adaptive work consists of the learning required to address conflicts in the values people hold, or to diminish the gap between the values people stand for and the reality they face. Adaptive work requires a change in values, beliefs, or behavior. The exposure and orchestration of conflict—internal contradictions—within

individuals and constituencies provide the leverage for mobilizing people to learn new ways.

In this view, getting people to clarify what matters most, in what balance, with what trade-offs, becomes a central task. ... Values are shaped and refined by rubbing against real problems, and people interpret their problems according to the values they hold. Different values shed light on the different opportunities and facets of a situation. The implication is important: the inclusion of competing value perspectives may be essential to adaptive success.

Indicators of a community's capacity to face real problems and do the requisite adaptive work could be developed to reflect the community's commitment to its future. As in human psychoses or other dysfunctional behavior, a community that chooses not to face its problems and not do the adaptive work of moving through and beyond them cannot long remain flexible, creative, and resilient. Its sustainability would be threatened at the core.

Creating Urban Sustainability Indicators

The title of this workshop suggests that we are talking about the *state* of maintaining the state of conditions that support sustainability over time, not those *processes* necessary to *develop* into a sustainable city. We need to consider both. Indicators are simplifications of complex phenomena. Indicators provide only—literally—indications of conditions or problems. An important challenge lies in finding a pragmatic balance between a sufficiently wide and diverse set of indicators to characterize a city's progress toward sustainability (or, in the future, success at maintaining sustainable footholds) and limiting the number of indicators to facilitate decisionmaking and avoid double-counting phenomena.

A tempting question is whether there is a core set of indicators that might allow municipalities to compare their progress with others'. Different cities will define urban sustainability differently, depending on their particular current economic, environmental, and social circumstances, as influenced by community value judgments (Maclaren 1996). It is unlikely that any one common set will work across such broad variance. Fundamental properties of urban sustainability indicators are distinguishable from simple environmental, economic, and social indicators, and include being more integrating, more forward-looking, more distributional (inter-and intragenerational), and are typically developed via inputs and collaboration from multiple community stakeholders (Maclaren 1996).

Maclaren and Zachary (1992) point out that the last characteristic is most influential, valid, and reliable when those multiple inputs represent a broad range of participants from the policy process and form the foundation from which indicators can be

identified, refined, established, and monitored. Without community involvement, an indicators project may not receive wide acceptance and neglect to identify issues that are important to the vision of sustainability for certain segments of the community.

Why should a community choose to undertake a sustainability indicators program? Results from U.S. experience in Cambridge, Massachusetts, Santa Monica, California, and Seattle, Washington (Zachary 1992) suggest that:

1. *Indicators can assist in diagnosing what is not working well and what improvements can be made, as well as encourage community members to take more active responsibility and not rely solely on government.*
2. *Indicators can assist efforts to ensure the quality of life in the community over an extended period of time.*
3. *Indicators may lead to redistribution of community staff and financial resources to better meet community needs.*
4. *Community-based efforts to develop indicators can build trust and develop relationships among different sectors.*

Individual communities, of course, need to identify their own particular methods to build support for indicators as a community planning tool appropriate for their political, economic, and social structure and climate (Zachary 1992). It is the idea of a planning tool that must drive the undertaking; i.e., the process must go forward with an eye to ultimate implementation followed by monitoring, evaluation, analysis, and course-correction.

The City of Santa Monica differed from Seattle and Cambridge in that it initiated its urban sustainability indicator project at the government level, seeking community participation only after it had prepared a draft program. Santa Monica officials discovered that community engagement in program development was greatest when specific programs rather than abstract ideas of sustainability were under discussion (Zachary 1992). Community members were more inclined to respond to activities in their neighborhoods than to abstract concepts of sustainability.

The U.S. experience described by Zachary highlights three critical components of a successful sustainable community indicators project:

- 1) the identification of specific goals and objectives,
- 2) the development of indicators as methods to communicate those goals and objectives, and
- 3) mechanisms to implement indicators on a practical level.

Because community values and goals can change as new information is learned and applied to solving problems or enhancing existing activities, flexibility is a critical attribute of all indicator programs. Democratic approaches increase the inevitability that some indicators may conflict due to competing goals. Selecting multiple indicators and forging careful definition of the overall goals can provide guidance through the process.

Residents of Seattle pioneered development of urban sustainability indicators in the U.S. They identified seven principles that may serve as examples of a method and framework other communities can use in considering development of their own indicators:

1. *Use existing data:* Existing data are useful because they can provide immediate information on methods to quantify sustainability indicators. However, existing data may not have been gathered or presented in a manner useful for sustainability issues.
2. *Re-evaluate underlying assumptions:* Existing data carry assumptions that may be contrary to sustainability. Understanding these assumptions and the way they influence data collection can reveal alternative methods to define and quantify sustainability indicators.
3. *Integrate long-term focus with short-term change:* Identify indicators that are sensitive enough to show change within a one-year period so that progress can easily be monitored, but also pursue indicators that require longer-term data gathering and monitoring.
4. *Relate Indicators to the individual:* Identify indicators that can be measured on a per-capita basis, can bring large numbers down to earth, are easy for individuals to identify with, and can be extrapolated out to the entire population.
5. *Identify the direction of sustainability:* Without a model of sustainability, predicting a particular level of sustainability is impossible. Avoid setting targets and instead identify each indicator's direction of change—either moving toward or away from sustainability.
6. *Present indicators as a whole system:* Indicators presented in isolation fail to depict the health of the whole community.
7. *Determine linkages:* Identifying and evaluating the links between indicators is key to presenting a broad measure of community sustainability. Linkages show that a change in one indicator is usually accompanied by changes in others.

The Seattle task team developed the following criteria to define "good" indicators of a sustainable community:

1. They reflect something basic and fundamental to the long-term economic, social, or environmental health of a community over generations;
2. They can be understood and accepted by the community as a valid sign of sustainability or symptom of distress;
3. They have interest and appeal for use by local media in monitoring, reporting and analyzing general trends toward or away from sustainable community practices; and
4. They are statistically and practically measurable in a geographic area, preferably comparable to other cities/communities, and yield valid data.

Indicators must be developed with the appreciation that they are need to function as more than just targets; they are also needed to guide both planning and implementation of projects. Sustainable cities are built through planning and through projects. Such projects do not exist in isolation. To be called sustainable, a project must reinforce the design and function of the sustainable community as a whole. Additionally, it must be integrated with local, state, and federal laws and policies that

are supportive of sustainability. Because U.S. society generally lacks such strong integration or consensus on specific agreements on planning issues on all levels, opportunities to enhance prosperity diminish. The situation shows few signs of changing. Accordingly, developers are burdened with excessive delays, legal fees, and other costs of getting projects approved. When they do undertake projects in such high-risk situations, they pass the extra costs on to the consumer. These all work to undercut sustainability goals.

In most APEC economies, special interest groups—developers, environmentalists, businesses, and minorities—tend to dominate the planning process. Their chief agenda is a muscling for veto power. A U.S. urban sustainability workshop generated ideas about how a message of sustainability might be communicated, given the roles of special interests: "Sustainability cannot be purveyed as a divine vision on the unlearned masses," an architect said. "This form of hucksterism takes away from the essential effort to come up with a common and shared goal. It is part of an 'us versus them' mentality" (Dominski et al. 1992). Because of the competing political agendas, however, it is important that people choosing to participate in the development and planning process be politically astute. A public policy analyst at the above-mentioned sustainability workshop said, "Legislation is incremental. The idea of sustainability must be broken down into pieces and passed incrementally. People not involved in politics may lose heart when projects are defeated. It is important to form a political coalition crossing geographical barriers to sustain momentum."

While sustainable projects ultimately offer local governments lower environmental, economic, and social impacts as well as lower demands on urban infrastructure, communities have far to go in comparing the long-term costs of sustainable development with the costs of traditional development patterns. For example, few have investigated the use of financial incentives—beyond direct travel cost disincentives—to influence how near people live to their work. Those choosing to live within walking distance of work could receive tax relief or, alternatively, a long commute might be taxed through an employment-based income tax.

Urban Sustainability Indicators of Societal Health

Examples of potential sustainability indicators that address this paper's central themes of enhancing democratic processes and building social capital come, in part, from the Sustainable Seattle experience (Hatcher 1995):

Distribution of Personal Income: The presence of large numbers of people in poverty (as measured by the aggregate money income earned by households in different income

groups) is inherently unsustainable. Social tension is inevitable with severe income disequilibrium and its accompanying inequitable distribution of necessities and other goods and services. It is part of the American dream that those at the bottom of the income rankings are drawn from poverty into the ranks of the middle class.

Sustainable communities will work to minimize poverty and be wary of extremes of wealth; they will prosper with a strong middle class and a reasonably fair distribution of income. In the U.S., those in the relatively lower income levels exhibit lower levels of civic participation.

A measure such as household income disparities can take on a richer meaning when interpreted as a threshold based on experience. In the U.S., income distribution differences between the suburbs and the downtown centers can warn when the tax base of city governments is collapsing. Using Chicago and Philadelphia as examples, the average income in the city centers is about two-thirds that in the surrounding suburbs. David Rusk, a former mayor of Albuquerque, identifies this as the "point of no return." He says, "At this point, city-suburb economic disparities become so severe that the city, in a broad sense, no longer is a place to invest or create jobs." The localized poverty overwhelms urban governments, and ends up depressing the vitality of the suburbs as well, clearly demarcating an unsustainable situation (Rusk 1994). The political expression of what should be a mutual city-suburb interest in sustaining economic vitality gets lost in the social dynamics of the situation. People—predominantly white, middle class in the U.S.—have chosen to live in the suburbs to escape the city. City governments get chosen by the people left behind, mostly black and poor. With separate governments, city and suburban politics become trapped in issues of race and income instead of creating municipal boundaries that reflect mutual responsibility for depressed urban cores (*The Economist* 1995). Successful cities where more jobs have been created through this tactic and where racial discord has been diminished include San Diego, Houston, Las Vegas, and Memphis; regional economies that have not yet made this transition include the less successful New York, Chicago, Los Angeles, and Miami.

Youth Involvement in Community Service: Engagement of youth in community service helps build the basis for community activity as a lifelong pattern, activates youthful idealism, and contributes positively to civic and social life. Seattle's program also believes that it helps youth develop positive self-concepts, proven skills, and social commitments that help build a sense of personal well-being and a sense of place in the community. Adult community service, as well as high voter participation rates, and

other indications of community strength and a healthy social environment, are likely to reflect indices of youth community service involvement.

Voter Participation: Voter turnout (as measured by the rate of off-year local or primary voting) reflects both the commitment that people have to the political system and the extent to which all segments of society can and do participate in crucial decision-making. It is also a measure of citizen confidence in social and political institutions. Seattlites believe that in a sustainable society, "citizens engage thoughtfully in key decisions about governance, and have confidence that their voices will be heard. ... Participation must be seen as an affirmation of the belief that the democratic system can and will work. Decreasing turnout indicates either that the system is organized to discourage civic participation, or that people feel disempowered and have become cynical about change."

In 1992, six percent of Americans had incomes less than \$10,000; only forty percent of this subgroup voted. Of those with incomes greater than \$50,000 (comprising ten percent of the total population), 80 percent voted (Clymer 1996). A local primary election in Detroit in early August of this year attracted only 17 percent of its registered voters. One of their representatives in the U.S. Congress, John Conyers, commented on this self-chosen disenfranchisement, "I'll tell you what surprised me. I have never heard any more complaints about the government's insensitivity to what people need in this country than there have been under the Gingrich leadership. Yet at the same time, instead of that translating into a remarkable turnout, an angry protest at the polls, it turns into a whimper" (Clymer 1996).

Other Representative Social Capital Sustainability Indicators:

- mobility of population (see table)
- time spent in community organizations
- published indices of freedom¹
- parks: distribution, use, accessibility
- treatment of elderly
- measures of civil tolerance
- social science research activity
- unemployment
- adult literacy rate
- volunteer involvement in schools
- library and community center usage
- households headed by only one parent
- ethnic diversity of teachers vis-à-vis students
- telephone traffic
- newspaper readership
- parade/festival frequency and quality
- corporate ethics programs
- human rights indices
- religious participation
- social science data collection
- juvenile justice
- high school graduation rate
- arts instruction
- adaptive work propensity measure
- divorce rate

Some sustainability indicators claim their power through their selection and interpretation, as in the decline in league bowling in the U.S., discussed above. Such measures have intuitive appeal and attraction. They get people's attention and catalyze thinking about other potentially potent indications of the direction of modern society. Care must be used in drafting such indicators. The amount of television watching, for example, could be pregnant with meaning and implications, but the data also might be corrupted with simple escapist behavior by hard working people too tired to initiate another activity.

Conclusions

Use of sustainability indicators and linked periodic reporting functions can give cities a basis to evaluate whether local and nonlocal sustainability initiatives are creating beneficial effects. It is too early in the U.S. experience to determine whether such activities are effective in detecting progress toward sustainability or the influence they are having on government and individual decisionmaking (Maclaren 1992). The development of examples of structured processes for identifying, implementing, and reporting on the progress of urban sustainability indicators provides firm ground for new and evolving techniques and indicators themselves.

¹ The Comparative Survey of Freedom (Freedom House 1995), for example, contains freedom ratings for over 190 countries that are developed using a nine-point political rights index and a 13-point civil liberties index.

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Societal Health and Urban Sustainability Indicators

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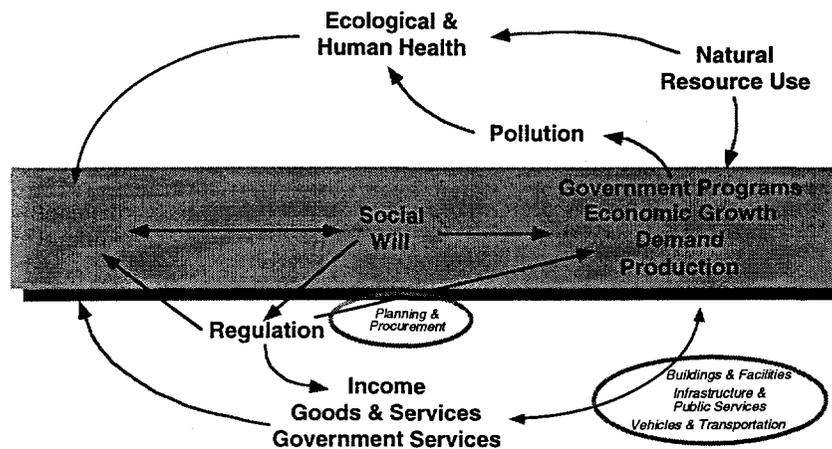
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Sustainable Communities Research Program

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Monterey, California

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APEC Workshop Working Sessions and Broader Considerations of Societal Health and Sustainability



Social Capital and Civic Engagement

- *Social Capital*—the networks, norms, and trust that enable participants to act together more effectively to pursue shared objectives
- *Civic Engagement*—people's connections with the life of their communities, not only with politics
- “Network capitalism” of East Asia or Silicon Valley

Loss of Social Capital Has More Immediate Effects on American Democracy than on the American Economy

- Democratic political institutions depend on trust for effective operation
- Reduced trust in society
 - a more intrusive, rule-making government to regulate social relations
- “Social capital is like a ratchet that is more easily turned in one direction than another... ”
 - from Francis Fukuyama, *Trust: The Social Virtues & the Creation of Prosperity*, 1995

Heifetz' *Leadership Without Easy Answers*

		<u>Conflict</u>	
		Low	High
<u>Confusion</u>	High		
	Low		

Heifetz' *Leadership Without Easy Answers*

		<u>Conflict</u>	
		Low	High
<u>Confusion</u>	High		
	Low	"Just Do It"	

Heifetz' *Leadership Without Easy Answers*

		<u>Conflict</u>	
		Low	High
<u>Confusion</u>	High		
	Low	"Just Do It"	Mediation- Conflict Resolution

Heifetz' *Leadership Without Easy Answers*

		<u>Conflict</u>	
		Low	High
<u>Confusion</u>	High	More Analysis	
	Low	"Just Do It"	Mediation- Conflict Resolution

Heifetz' *Leadership Without Easy Answers*

		Conflict	
		Low	High
<u>Confusion</u>	High	More Analysis	Adaptive Work
	Low	"Just Do It"	Mediation-Conflict Resolution

It May Matter Who Is or Is Not Participating

under simple probability theory,

$$P_{\geq 1} = [1 - (1-f)^N]$$

Assume:

in the overall population a fraction f meets some definition of scientific or economic literacy; then, what is:

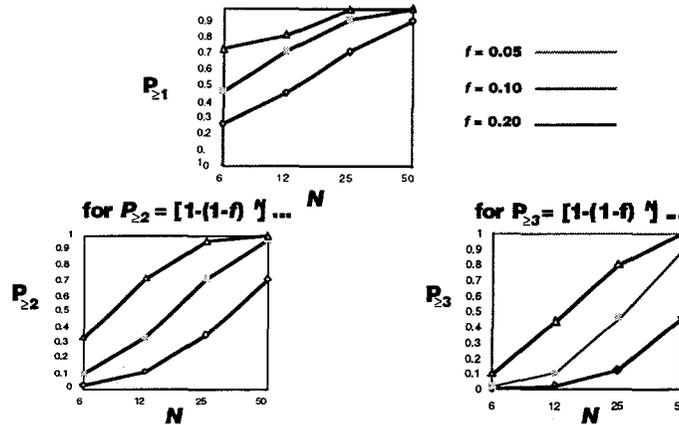
$P_{\geq 1}$ = probability that at least one person in a given subgroup of

N = individuals

will be "literate" in science or economics?

Potential Costs of Not Participating

Values of $P_{\geq 1} = [1-(1-f)^N]$ as a Function of Group Size (N) and Literacy Rates (f)



Why Should a Community Undertake a Sustainability Indicators Program?

- Indicators can assist in diagnosing what is not working well
- Indicators can assist efforts to ensure the quality of life in the community
- Indicators may lead to redistribution of community staff and financial resources
- Community-based efforts to develop indicators can build trust

Potential Urban Sustainability Indicators of Societal Health

- Income distribution
- Voter participation
- Youth involvement in community services
- Quality, distribution, use of Third Places
- Mobility of population
- Adult literacy rate
- Newspaper readership