

Sustainable Community: Topics and Indicators

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A sustainable community is one which strives, over time, to become more environmentally sound, economically viable, socially just, and democratic. These terms -- or other comparable ones -- are difficult to understand and even more complicated to put into practice. Although it is possible to gather information about each of these aspects separately, they are inter-related. Actions taken in one realm have consequences elsewhere. Moreover, topics which some community practitioners list under one of these headings may be included under a different one by other people because of the multiple dimensions and complexities of issues.

The importance is not to worry about how to categorize a topic or how to define precisely each of the four broad headings. Rather, search for information which fits your situation knowing that you may start and end up with different definitions than the ones used in these reference documents.

This collection of information and data is organized under four broad headings: Environment, Economy, Society, and Governance & Politics. [Note: These headings and their subcategories are derived from SAIC's review of literature and from the community indicator project topics collected and analyzed by staff at Redefining Progress in San Francisco, CA].

ENVIRONMENT

ENVIRONMENT includes information about the natural resources themselves (i.e., wetlands, air, forests, water); human impacts which affect their health (i.e., waste disposal, growth and development, energy); and consequences to humans from their use and enjoyment (i.e., environmental awareness and aesthetics; environmental equity and justice).

Although these distinctions are useful in collecting and presenting information and data, realize that in real life it important to understand how they influence one another. For example, the ecological integrity or health of wetlands (listed under "Ecological Resources") can be impaired or restored by natural forces and impacts from the use and disposal of hazardous materials (listed under "Waste Management"). Therefore, it is useful to identify all the topics within each of these headings which are relevant to your own circumstances in deciding what and how you want to measure results.

Ecological Resources

Natural resources are comprised of water and land forms. Often, they are inter-connected, such as vegetated wetlands and floodplains adjacent to rivers. Their scale varies from a single

site such as a pond to a corridor, such as a river or open space corridor connecting many towns and cities.

The richness or biodiversity of these resources is evident in the number and variety of species of birds, fish, animals, marine life, insects, and other living creatures. Estuaries, for example, are extremely productive providing habitats for many species which translates into economic, scenic, educational, recreational, and aesthetic value to humans.

In order for these natural ecosystems to become and remain healthy, people need to live in harmony with them. This concept means understanding and respecting their capacities and their thresholds beyond which they weaken and, ultimately, die. It also means development which not only reduces waste and pollution, but which aims at converting residues into beneficial uses either as recycled, reused, or new products.

Given the past and current patterns of development, many ecological resources are impaired and, therefore, need to be restored. Others need to be preserved, conserved, and carefully managed over time.

Indicators measure their ecological health (i.e., number of native plants, biodiversity of species) and the ability of people to sustain their value and uses (i.e., number of conservation acres purchased).

Air Resources

All living creatures, including humans, need air to survive. The health of “airsheds” depends on natural conditions as well as impacts from human activities. For example, indoor air problems can come from naturally occurring radon in the ground or from chemicals used in carpets or in paints.

Air quality problems arise when exposure to pollutants -- whether through intense, short-term releases or through chronic, long-term ones -- lead to health, safety, and quality of life risks and consequences. It is, therefore, important to identify the range of possible air-related concerns for people living, working, and visiting your community. Especially sensitive populations, such as young children and the elderly, are particularly susceptible to respiratory illnesses. In addition, certain physical places may be more susceptible to air quality risks. For example, urban areas are reporting an increase in cases of asthma. Sometimes, damages from air pollution appear miles away from its sources. Acid deposition or acid rain is an example where the chemicals released from factories, facilities, and institutions are carried by wind currents far from their generating sources. Therefore, it is important to measure not only local, but also long-term transport impacts from air-borne pollutants. Acid rain is also an example of a problem which appears in air as well as in water (e.g. lakes and ponds) and on the land (e.g. forests).

Air resources indicators measure the health of this natural system. Some evaluate a community’s ability to live within governmental standards, such as the number of days that a clean air standard is met or exceeded. Other indicators measure exposure to air pollutants, such as the amount or concentration of specified pollutants.

Land Use

The choice, development, and impacts from uses of land affect the viability of natural resources, people’s quality of life, and the economy of communities. Changes occur over time even in places where population totals remain the same. The type, location, scale, density, age,

maintenance, and aesthetics of individual sites as well as of linked or clustered structures and spaces can either enhance or undermine the character and livability of a street, neighborhood, municipality, or region. For example, more intensive development near public transit facilities can enable people to forgo the use of cars, thereby improving air quality. Preservation and productive use of farmlands can provide scenic views for local people and visitors, local grown produce for healthier diets and improved local economies, and (if carefully managed) protect sensitive environmental resources like streams, wetlands, and wildlife habitats. On the other hand, poor zoning and subdivision regulations, inadequate building requirements, and lack of long-range planning can lead to wet basements, loss of historic buildings, and traffic congestion.

Water Resources

Like Air Resources and Land Use, this subcategory deals with a fundamental necessity of life. Water can be fresh (e.g. inland wetlands), salt (e.g. oceans), or brackish (e.g. estuaries). Water can be found in surface water bodies (e.g. lakes, ponds, rivers, oceans) or underground (e.g. aquifers).

Water resources are ecosystems which include not only the water contained, such as in reservoirs or wells, but also by their catchment areas (e.g. their watersheds, zones of contribution around groundwater wells). This means that activities on lands linked hydrogeologically to water affect the quantity and quality of the water. For example, cutting trees in a watershed may increase the yield to a reservoir and also cause siltation problems. Changing the vegetation in a wetland from certain vegetated wetland plant species to wet meadow wetland plants can affect wildlife habitat, flood control absorption, water quality purification, storm damage control, and other wetland values.

Indicators measure the health (i.e, the functioning capacity) of water resources and their resilience in responding to impacts (i.e, pollution loading, ability to meet environmental standards, results from too much contamination).

Climate and Weather

Long-term climatic patterns and local and regional weather conditions influence the nature of a community's economy, the diversity of its environment, and its quality of life. An abundance of snow or sunny days, for example, can draw or discourage tourists, workers, and long-time residents. Coastal and low-lying inland communities benefit from access to productive estuaries, ponds, lakes, and recreational waterbodies; yet, they also experience greater flood damages.

Indicators measure the frequency, variations, and damages from precipitation (i.e., rain, snow, fog), temperatures, and natural disasters (i.e., floods, hurricanes, tornadoes, snowstorms, earthquakes).

Energy Use and Supply

Energy sources can be from nature, such as the sun (i.e., solar), water (i.e., hydropower), or plants and minerals (i.e., petroleum, gas, wood, and coal). Use of these nature-based sources can cause environmental, economical, and social impacts. For example, some hydropower projects are developed by filling in extensive wetlands and diverting river flows. Extracting

energy through open and underground mines and distributing energy through pipelines can pollute water bodies, destroy wildlife habitats, and disrupt people's lives.

Some of these sources are renewable, if used within their replenishing capacities, and others are eventually used up. Energy self-sufficiency depends on minimizing energy needs, relying on renewable energy sources, and converting residues into beneficial uses (i.e., industrial ecology).

There are many opportunities to apply the concept of greater self-sufficiency in decisions relating to commercial and industrial enterprises, residential living, transportation infrastructure, food production, waste disposal, and many other facets of human life.

Indicators can measure sources of energy, location of sources, and impacts from use of sources.

Land Quality/Contamination

"Pollution" is a broad term which applies literally to harmful substances from manufacturing, processing, distributing, cleaning, using, and disposing of products. However, it also can refer to other negative consequences, such as ugliness, loud sounds, and terrible smells. Inadequate land use controls can cause soil erosion, for example, which brings sediments into streams harming fish habitats and making swimming, boating, and fishing undesirable or, at times, not feasible.

The cause of these activities can be deliberate, albeit unintentional consequences of some other decision, such as the heated water released as a by-product; accidental, such as an oil spill; or the result of an illegal act, such as dumping of garbage in the woods.

Indicators can measure the number of times different activities occur, their frequency, their location, and their impacts to humans and the natural environment.

Waste Management

Waste management is, essentially, the residue from other activities. As people become more conscious of how much we throw away and the harmful environmental, social, and economic costs of producing and disposing of wastes, there is greater interest and investment in reducing and converting residues into beneficial purposes. Recycling, for example, reduces the need for and use of raw materials. However, eventually the productive life of the product, such as a glass bottle or aluminum can, is over and more energy is needed to re-process it.

The emerging concepts of Design for Environment, life-cycle costing, and industrial ecology promote the imitation of nature by ensuring that nothing is wasted, that all aspects of products/firms/communities are viewed as systems which inter-relate, that human activities respect ecological limits, and that equity and fairness prevail in societies.

Given the current predominance of waste management and the evolutionary encouragement of industrial ecology, indicators can range from effective disposal techniques to the ability to produce no "waste" and instead measure the extent residues are converted into beneficial uses.

Environmental Equity and Justice

The location and level of risk from polluting facilities has become an environmental equity and justice issue as studies reveal that people with limited income and power are more

likely to live near and be harmed by these structures. Occupational and neighborhood health, safety, and well-being are affected by the number, proximity, intensity, longevity, and nature of incinerators, chemical factories, landfills, nuclear power plants, and other such facilities that generate toxic wastes into the air, water, and land. Poverty is compounded because property values are lower and economic investments are less than in healthier communities.

Indicators can measure the type, number, location of specific kinds of facilities and sites (i.e., superfund sites); the level of environmental and public health risks; the extent of illnesses (i.e., hospitalization records); and the degree of participation and control in political decisions.

Environmental Awareness and Aesthetics

Environmental literacy and appreciation of environmental resources are shared by people living in urban as well as suburban and rural places. Realizing that you live in a watershed, in a valley, or adjacent to a bay can affect the way you think and act with other people sharing the same “ecological address” and how you treat the resources themselves and the non-human creatures that also depend on them.

Participation in activities and programs, political support, and perception are ways to measure awareness and aesthetic enjoyment of the natural, productive (i.e., cranberry bogs, farmlands), and built (i.e., historical structures, cultural monuments) environment.

ECONOMY

ECONOMY measures individual and community wealth (i.e., income trends, poverty, personal consumption); economic opportunities (i.e., jobs, tourism, environmental businesses); and economic performance (i.e., productivity, cost-effective government infrastructure).

Many of these categories link with those under Environment, Society, and Governance & Politics. For example, the extent of poverty (under “Income”) is affected by social problems such as nutrition (under “Health” in SOCIETY), literacy (under “Education” in SOCIETY), and hazardous waste (under “Waste Management” in ENVIRONMENT). Therefore, it is important to consider carefully what kind of an economy you want to encourage and for which constituents.

Local Business

By keeping more money and non-financial wealth within a community rather than allowing these flows to “leak” to other places, people can help improve the quality of their lives, reduce environmental damages, have more satisfying life-styles, and gain more control over the choices affecting where and how they live. For example, if businesses are locally-owned, buy products from each other, hire local people, use environmentally-sound practices, and provide community-wide benefits, then people are more likely to stay there, drive less to get what they need or want, feel happier, and be more productive.

Economically viable businesses, industries, and other commercial enterprises need to respond to their customers’ needs, be able to adjust as demands change, meet professional obligations (such as developing and implementing market strategies, short and long term budgets, work plans, paying debts, meeting payroll requirements), and be profitable.

Collectively, businesses in a downtown district, office park, or residential subdivision need to respond to the needs of their local (or regional) customers, fit in with the character of the neighborhood and community as a whole, and provide more benefits than their costs.

Progress can be measured by both “positive” and “negative” indicators. For example, you can quantify the number of locally-owned businesses, or the number of employees who live in town, tax revenues as compared with cost of services, or the diversity of employment opportunities. Or, you can measure the number of vacant storefronts, bankruptcies, or the number of defaulted loans.

Community Investments/Expenditures

Public investments reduce risks for and provide incentives to developers. For example, by providing water and sewer infrastructure, road curb-cuts and highway access, environmental technology loans, and training for potential workers, tax payers reduce costs to private sector and non-profit developers and managers and signal encouragement for their contributions. Public-private partnerships are the hallmark of livable communities.

Indicators can measure quantitative financial investments, such as dollars spent on programs and/or projects, or qualitative resources, such as the number of people trained to meet current employment needs or the perception of a “business friendly” place. They can address direct resources, such as the number of miles of sewer pipe maintained or indirect ones, such as the number of farmers’ markets advertised.

Employment

The availability, access, and desirability of jobs depend on the readiness of a community (e.g. skills, education); needs of people (e.g. full time versus part-time work, year round versus seasonal, benefits, flexible time; opportunities for personal and career growth); the diversity of options (e.g. the range of employers by size, sector, skill requirements); commitment and accountability (e.g. long-term interest in staying in a community versus competitive short-term strategy; out-sourcing versus hiring staff); working conditions (e.g. environmental, health, and safety conditions, employee participation in decisions and profits, rewards and recognition); and proximity (e.g. access to public transit, walking, or bicycling, reasonable commuting time, availability of child and family care benefits/facilities).

This definition is not the traditional description of a job, any job offered by any employer. Communities are becoming more discriminating, even when faced with economic hardships. People have experienced the bust-and-boom cycles and are realizing that expensive incentives and catering to outsiders prove less rewarding over the longer term than “growing” jobs built on the community’s “assets” (e.g. natural and human capital).

Indicators may be individual measures, such as the unemployment rate or combined measures, such as the number of people employed in jobs who live in the community and receive sufficient benefits to provide for their quality of life needs.

Income

The amount of money people need or want varies according to their culture, class, geographical location, dreams, family upbringing, access to borrow or receive gifts, inheritance, savings, expenses, personal investments, ability to barter or exchange through non-monetary

transactions, and a host of other factors. Therefore, measuring wealth or poverty is difficult. Many indicators are traditional economic numbers, such as the number or percentage of people falling below the government's definition of poverty, the number of homeless people, the percentage of the population receiving food stamps, and the percentage of pupils eligible for school lunches.

It is also possible to measure disparities which provide information about the range of income distribution or the gap between the economic classes. Sometimes, useful insights are gained by linking income with other concerns, such as the hours of paid employment by household at an average wage to support basic services. Although finding these numbers may be difficult, the answers will reveal not only information about how much a person makes, but also whether or not this amount is adequate to pay for housing, health care, food, etc.

Measuring non-financial transactions may also be challenging, but will provide a more complete picture of a person or household's ability to have some economic security. In many communities, even in city neighborhoods, people have informal ways of getting services, such as baby-sitting, legal or tax assistance, sharing produce from gardens, and house-sitting while caring for pets. These exchanges are important to capture in evaluating sufficiency of "income".

Natural Resource Use

Economic benefits are derived when people use natural resources and when they indirectly gain from the contributions which these resources offer. Resources, such as minerals, water, energy sources, are extracted and used for fuel, drinking water, products, and transportation. Other resources, such as farmlands, cranberry bogs, oceans, ponds, rivers, and forests, are used for agriculture, silviculture, aquaculture, and forestry. These direct uses are, in some communities, the primary economic base. Preserving and wisely managing these natural resources is an integral component of people's economic vitality. The importance of these resources can extend far beyond their economic value; they are also linked to people's heritage, sense of themselves, culture, and social fabric.

Many natural ecosystems also provide substantial economic value because of how they function in their healthy, natural state. Wetlands, for example, act like sponges and may substitute for flood control structures. They are also being used in some innovative wastewater treatment systems as natural filterers.

Indicators can measure extraction rates, consumption rates, equivalent costs for alternative solutions, revenues, number of related jobs. Economists use various techniques to calculate the economic value of natural resources, including asking people how much they think a park experience or scenic vista is worth, or finding out how much revenue was received at public facilities (e.g. national parks), or how many people or how many dollars were collected for fees (e.g. fishing or hunting licenses), or weighing the benefits of not being flooded (i.e., damages which did not accrue). Some people argue that even trying to create an economic value to a natural resource is not appropriate since its spiritual, emotional, and psychological value is incalculable and cannot be estimated for future generations of beneficiaries.

Taxation

Personal and community wealth are closely tied with property and income tax revenues and disbursements. Analyzing where the funds come from and where they go reveals how many

dollars are captured, used, and reused within a community versus are “leaked” or sent outside of the community. In evaluating these dollar flows, it is also important to consider who is benefiting or losing and how. For example, a state may be receiving more federal dollars for roads than it receives for public education. A community in that state which has relatively few school age children or has many in private schools then the impacts are different from one which has few major roads but many children in public schools.

It is important to review all the relevant figures over a time period, to discover trends and identify relative strengths and weaknesses. For example, older, long-time residents may pay a relatively high property tax and feel underserved because those taxes are disproportionately allocated for educational purposes. However, those residents once had school aged children and were “subsidized” by the older, wealthier property owners at that time. In addition, these older people may now be receiving significant financial benefits in pensions and health care services. A total accounting is needed to understand the complex links across governmental levels (e.g. local, regional, state, and federal), across age groups, and across other categories (e.g. special needs, sensitive populations, targeted groups).

Tourism

An increasingly significant economic strategy is to promote tourism and encourage tourists to spend time and money in a community or region. Depending on the characteristics of a place, the form of tourism may be eco-tourism (i.e, related to environmental resources, such as fishing, hiking, boating, riding); cultural and historic visits (i.e, museums, cultural tours, fairs, artists’ studios and markets); and/or economic magnets (i.e, malls, downtown stores, discount places).

With the advent of computer technology, marketing and selling can be handled without traveling. Catalogues, home-page advertisements, and purchase orders are available through the Internet. Some are designed specifically to appeal to people seeking “local” products, such as Vermont maple sugar, Appalachian quilts, or Native American jewelry. Some advertisers are creating identities around their natural boundaries, such as Lake Champlain chocolates.

Measuring the impacts from tourism can be as simple as the dollars spent in a place, the number of visits, occupancy rates, or the number of antique shops. Or, it can be more complicated, such as the diversity of products sold or the number of new micro-businesses started. Impacts can also be negative, such as the amount of traffic congestion along commercial strips or the number of local people who can no longer afford to leave in the community during the height of the tourist season. Sometimes, indicators can be used to discover opportunities for improvement or expansion. For example, the number of tourists who visit during the day but do not stay overnight can help develop strategies for enticing longer visits and more expansive spending.

SOCIETY

SOCIETY encompasses a range of concerns dealing with people’s quality of life. Some are quantitative, such as “literacy” and “birthrates”. Others, however, seek to measure qualitative aspects such as “level of stress”, “community spirit”, “civic involvement”, and “spirituality”.

Qualitative indicators can be somewhat difficult to measure because they depend on information gathered from surveys, interviews, and other means of finding out how people think, what they care about, and how they feel. Yet, they are as important as are those which are more easily extracted from statistical data. For example, decisions about public safety depend on knowing the number of violent crimes in a place as well as whether parents feel comfortable allowing their child to play in a nearby park.

Arts/Entertainment

Participation and appreciation of visual and audio arts and entertainment are not luxuries of an economically well-off society, but are essential components of a healthy one. Children and adults who listen to music, play instruments, act in plays, paint, go to museums, dance, take photographs, and other forms of learning about and enjoying the arts gain skills and perspectives which cannot be achieved through academic or intellectual activities.

Attendance at various arts and entertainment events or facilities is one way to measure participation. However, it may be more useful to find whether or not such involvement helps develop an appreciation for other cultures, or (as some recent studies indicate) helps improve academic learning, or improves people's mental and physical health.

Civic Involvement

Much has been written recently about civic involvement or "social or human capital". Some trends, such as participation in group activities (e.g., bowling leagues, parent-teacher associations, unions), indicate that civic involvement in the United States is declining. Other articles and books provide stories of how people are joining together out of a yearning for "community", "neighborliness", and mutual support. These tales describe block parties, barn raisings, bartered exchanges, volunteers who help flood victims, grandparents who "parent" their grandchildren, and a host of traditional and non-traditional activities which demonstrate togetherness and helping out others in times of need.

An interesting indicator of civic involvement is to measure the extent to which people help others who are in problem circumstances similar to what the mentors themselves once experienced. For example, are there in your community successful business executives who mentor start-up entrepreneurs or drug-free young adults who help drug addicts and, if so, are they able to make a constructive difference in those peoples lives? Measuring human impact results, rather than the number of programs, is more useful since there may be significant numbers of dollars allocated or programs in effect, but these resources may not be producing more trained workers who are gainfully employed or addicts who overcome their addictions.

Community/Neighborhood Sense of Place

Whether a community is defined as a "family", a "neighborhood", a "municipality", an "eco-region", or by some other configuration, the people who fall within that boundary need to feel a sense of belonging -- an attachment to a place. This "place" may be geographical (e.g., Mid-Cambridge or southern California), cultural/historical (e.g., Midwesterner, Irish, Latina), group affiliation (e.g., gay/lesbian, "soccer mom", white man, teenager), or some other sense of personal identity.

Perceptions and beliefs can be measured mostly through surveys and observations, although there are some statistical data. For example, do people know their neighbors or their “ecological address” (e.g., the watershed they live in)? Questionnaires probe for people’s sense of themselves -- how would they describe where they live, what groups they belong to, or where they don’t feel welcomed. Numbers can be collected from Census data and other government inventories describing, for example, the number of people of color, the number and range of ages in a community, and the number of defined neighborhood districts.

Education and Training

People’s access to jobs, their standard of living, their resiliency in these turbulent times of global economies and changing markets have a lot to do with their education and training over their lifetimes. No longer can most people go through a certain level of schooling and expect to work in a singular profession or job for the rest of their lives. Instead, learning new skills and knowledge will be a life-long necessity. The distinctions between academic and vocational type educational training are becoming blurred as “experiential learning” curricula and schools-to-work programs are taking hold.

Education begins with parents and guardians. Reading to infants, playing with toddlers, and exposing pre-schoolers to physical and mental exercises are activities which influence children’s abilities to learn and become productive adults and responsible citizens. Libraries contain more than books; they provide access to the Internet as well as many programs for children and adults. Schools offer classes to adults in a wide range of topics, from English-as-a-Second-Language to financial advice. Seniors do aerobics in school gyms and meet their friends walking around the malls. Education is often found in places without walls, via computer technology and cable television. Work places are educational centers, offering training classes or paying employees to learn elsewhere. Education, itself, is becoming broadly defined to include personal as well as professional improvements. Some employers are even paying for time for employees to volunteer in community service activities.

Indicators can measure the quality of education and training, such as teacher-student ratios, or the impacts on students, such as drop-out rates or numbers of graduates from high school who enter secondary educational systems, or the outcomes from such educational and training experiences, such as the number of people working in well-paying jobs.

Family Solidarity

The definition of a “family unit” and its stability are subjects of great debate. How does the number of teenage parents, the number of divorces, the number of single heads of households, the number of people in their 80’s and 90’s affect health care, housing, education, economic development, and public safety? There are, certainly, links but the positive and negative impacts depend on a community’s institutional infrastructure (e.g., the effectiveness of delivery of services), its financial resources (e.g., ability to provide programs, activities, services), its attitude (e.g., support groups, mentor programs, crime prevention through education), and on its people (e.g., volunteerism, moral values).

Health

Health used to be viewed as treating diseases, illnesses. Now, the approach emphasizes helping people become and stay well, i.e, prevention. Health care programs provide information and activities on nutrition, exercise, self-analysis, and a host of other aspects related to feeling and being physically and psychologically healthy. School cafeterias offer more nutritious meals, fresher produce, and (sometimes) vegetarian meals than they did several decades ago. Smoking and drunk driving campaigns use education and legal strategies to discourage people from becoming addicted and from operating in risky situations. Health care costs are directly tied to people's behavior, including even secondary consequences from smoking.

Indicators can measure numbers, such as dollars spent, patients admitted, number of pounds overweight, birth and mortality rates, or doctor to population ratios. They can also measure results from actions, such as the amount of locally grown produce sold in stores and cafeterias, the effectiveness of educational campaigns to help asthmatics and their families monitor and prevent crises, or the quality of care in health care centers.

Housing

Like health care, housing has broadened and changed in scope over the years. Housing is more than a shelter; it is also a place where people can live safely (away from crime and environmental hazards), can work in home offices and create micro-enterprises in garages, can express people's lifestyles, and can connect with families and friends. For some people, having a place to live is the most critical concern. Homelessness can stem from many reasons, including mental health problems, lack of money, or change in economic circumstances. In some expensive communities, people are unable to afford to live in their apartment during a particular season (such as a summer tourist time) or after a change in a law (such as the loss of rental control). For other people, housing difficulties are more related to choice -- they want to live in the town or city in which they grew up but cannot afford the prices (as young adults or as older people on fixed incomes).

Housing, therefore, deals with availability, affordability, safety, environmental quality. Government laws and regulations as well as market conditions greatly influence people's choices and circumstances. Indicators can measure both actual conditions (such as the number of homeless people, number of renters, number of people living in substandard housing dwellings, or the number of housing starts) and the consequences to communities (such as the loss in economic diversity as rent control subsidies disappear or the change in character as larger homes are built on lots in wealthy neighborhoods).

Public Safety

People feel unsafe or safe in so many different circumstances -- ranging from crossing their neighborhood intersection, to placing their infants and toddlers into day care centers, to worrying about their aging parents, to letting their teenagers drive the family car. Public safety is tied to education, such as the campaigns against drunk driving, and against drug use and for safe sex. It is linked to economic development, such as providing jobs to people who, otherwise, might end up stealing or loitering near tourist attractions. Safety is also connected to environmental issues, such as reducing risks to people with respiratory problems by improving air quality or reducing greenhouse gas emissions which threaten the Earth's environmental security.

Measuring safety can, like many of these societal concerns, be both quantitative and qualitative. You can measure the number of violent crimes in a community or the number of accidents at a particular intersection. You can also evaluate qualitative aspects, such as people's perception of fear by asking them questions in surveys or conducting observational investigations. Can a child play alone in a nearby playground? Will someone wait for a bus after dark in their neighborhood? Sometimes people's sense of fear is more influential in what they choose to do or not do than are crime statistics.

Recreation

Access, use, and visibility of parks, ponds, lakes, mountains, urban gardens, beaches, and other public and private recreational places are valuable to communities not only in terms of their benefits directly to residents and visitors. Studies indicate that attractive and well-maintained open spaces can result in improved economic values of adjacent properties, improved public health, safer neighborhoods, and emotional satisfaction. Some urban gardens are even magnets for cross-cultural exchanges and improved community relations.

Once again, indicators can measure quantitative changes, such as acres of parklands, numbers of urban gardens or gardeners, or attendance figures at recreational facilities. They can also try to measure outcomes, such as the degree to which cultural barriers are broken down or the extent of comfort achieved by "taking back" parks from drug addicts and prostitutes. These types of measures are difficult to identify and challenging to document. However, surveys, focused interviews, and observational studies can provide findings which help orient policies and investment decisions.

Social Equity & Justice

Discrimination and prejudice by race, sex, sexual orientation, age, ethnicity, religion, disability, or other such distinction are common in our society. Often, inequities are subtle masked by good intentions, such as the desirability to protect certain people or to allow the market to determine land use decisions. Regardless of the motivations, the results are that some communities and some groups of people are more at risk to environmental pollution, more likely to experience economic hardships, and are less likely to receive as high quality health care, education, or housing as are other segments of society.

Given the hidden and complicated nature of discrimination, indicators need to link inequities with power and control. For example, the number of people of color on a legislative body does not reveal the extent to which certain groups's interests and values are addressed. Rather, a more useful indicator might be the degree to which poor people are involved in devising community schools-to-work programs or welfare reform programs.

Spirituality

In many communities the anchor points are the religious institutions -- places where people come to share in worship, join in communal activities, hear uplifting messages, enjoy themselves through music, gain some solace and quiet time, meet friends and neighbors, and perform community service. People don't need to go to any specific place to celebrate, to honor traditions, to look inwards, or to connect with their gods/goddesses/spirits. Spirituality is very

meaningful to many people and emotional outlets within community settings can strengthen individuals and their sense of belonging to their community.

Indicators, such as the number of religious institutions or their attendance rates, can provide some clues about the importance of spirituality in people's lives. However, that kind of priority importance is better revealed in finding indicators which measure the *value* of such institutions to a community. For example, where do people turn to in times of personal crisis? Who are the respected leaders in a community (often these are the religious figures)?

Telecommunications/Media

Information and communication are increasingly critical components of our computerized and global economies. Educators and politicians are seeking to place computers in every classroom and in public libraries. Advertisers recognize the importance of attracting consumers through television, radio, movies, and the Internet.

Community dialogues, networks, bulletin boards and other forms of democracy-building techniques are becoming more common as people in far distant places connect via telecommunication technologies. Businesses, non-profit organizations, consulting firms, and educational institutions are investing in using technologies to share information, perform work tasks, and solve problems. The access and use of these media devices can further disenfranchise people or help create a fairer "playing field". Equipment, training, time, accessibility, and use are all essential aspects. Having many computers in a school does not mean that school children learn how to use them. Teachers need to be comfortable with computers and integrate their use as part of the curriculum.

Local newspapers can play a critical role in providing visibility and legitimacy to community organizations. Cable television, with its local area access programs, can be a useful tool for not only telling stories and covering local events, but also for providing community bulletin boards -- posting jobs, for example.

Indicators can measure the breath of communication outlets -- the number and diversity of sources, for example. They can evaluate their usefulness to target audiences -- are messages getting across to people who do not attend community meetings, for example.

Transportation Usage and Accessibility

Most people think of transportation as an end in itself -- roads, airplanes, trains, bicycles, walking paths. However, people really want to get somewhere for some reason/s and use transportation vehicles to travel there. They commute to jobs, drive to shops, bicycle to sports activities, and walk, jog, rollerblade for recreation and enjoyment. Transportation, therefore, is tied to costs, safety, convenience, access, environmental quality, and pleasure.

Given the nature of transportation routes, many modes of transportation cut across political jurisdictions. Some, such as airports and airplanes, have regional, national, and international connections. River and open space corridors can provide inter-community transportation access for humans, wildlife, fish, and other creatures.

Selecting indicators of transportation depends on what you want to measure. For example, accessibility means measuring costs, physical locations, and design. It means evaluating the ability of transportation to meet community needs and priorities -- for example, can people who do not own cars get to the new jobs which are being created.

GOVERNANCE & POLITICS

GOVERNANCE & POLITICS deals with people's sense of empowerment, responsibility, and accountability.

It is broader than people's perceptions and expectations of government. It also measures people's ability to feel in charge of their lives and to hold themselves and others accountable for producing desired results. Again, information and data listed under this heading are linked to responses under the other ones. For example, the degree to which citizens participate may depend on their level of poverty (SOCIETY), their employment situation (ECONOMY), and/or their environmental health (ENVIRONMENT).

Voting/Public Participation

In a democratic society, people have rights and responsibilities. The extent of involvement depends on many factors including time, availability, skills, sense of empowerment (e.g. confidence, assertiveness), belief that the investment will pay off in desired results, and on other priorities. Although some trends indicate that public participation, involvement, "social capital" are decreasing in the United States, there are other indications that people are engaged in activities which may not be as easily measured, such as informal block parties, networking, or bartered exchanges.

Gaining control over our own individual and collective lives is at the heart of sustainable community-building efforts. People want more say in decisions which affect them, whether they are from government about how tax dollars should be allocated, from businesses about what and where jobs are created, from professionals about the nature of health care, education, or housing, from non-profit organizations about how services are delivered or positions advocated, or from "outside experts" who are hired to provide technical assistance in confronting complex community problems.

Indicators of public participation are often expressed as statistics, such as the number of people voting in an election or a town meeting, the number of volunteers participating in a project, or the number of dollars spent on a governmental program. It is more difficult to measure the results of people's engagement, such as the extent to which people's suggestions/positions are implemented by local officials, or the degree to which the full range of diverse "voices of a community" are heard, respected, and accommodated.

Representation & Leadership

Some people prefer to defer to others, either through an informal or formal mechanism bestowing representative status, or through their inaction. Others are more comfortable taking initiatives as leaders or participating followers. In any case, the important factors to identify and measure are the overtures for including all people and the results of these processes. Are there sufficient avenues which "reach out" as well as "reach into" a community to find out what people want, need, value, and recommend? The concept of "reaching in" is the extent to which the base of participation is broadened by relying on "bridge people" who communicate with more and more people who, otherwise, would not participate. In contrast, "reaching out" usually connotes a base of understanding from which the author/s seek support. For example, indicators of "reaching out" are the number of newcomers who join in a project, or the number of invitations sent out; whereas, indicators of "reaching in" are the use of facilitators at community

meetings (who encourage everyone to speak up) or the availability of translators at government meetings (which enable non-English speaking people to understand and be heard).

Representation is linked to equity concerns. Are the represented reflected in the make-up of the representatives bodies? For example are the ratios of the number of women, people of color, economic class, age, sexual persuasion, etc. in a community reflected in the actual numbers or in the viewpoints of elected and appointed representatives? Fair representation may be expressed in terms of the nature of decision-making institutions. Are they established to include or exclude certain people? Are meetings held at times and/or in places when and where certain people can or cannot attend?

Leadership also deals with openness, fairness, and power. Are there opportunities for emerging leaders to be trained, to be recognized, and to take over responsibilities? What are the qualities of effective “leadership” in building sustainable communities? Indicators of leadership measure the extent to which these people successfully engage others, network and gain the collaboration of others, facilitate behind-the-scenes linkages of ideas and people, and expand the cadre of volunteers.

Local Government Laws & Services

Accountability is a key ingredient in government and politics. People want to believe that they are getting what they want and pay for. Indicators determine the extent to which people and institutions are actively working to make their communities better places and to what extent they are meeting their obligations and held accountable for their actions. Sometimes, these measures are quantitative, such as the number of times garbage is picked up per week, or the number of laws enacted to deal with violent crimes. However, this type of indicator does not adequately evaluate either community results or people’s perceptions. For example, a neighborhood may be filled with litter, garbage, hazardous materials even though curbside pick-up comes by once a week. People may feel that the Police Department is not responsive enough because it took them more time to arrive at a scene of a crime than victims felt comfortable. So, indicators need to evaluate not only processes but also outcomes, and perceptions and not only facts.

Public Opinion

Freedom of expression is a basic right in a democracy. Information is useful in developing, implementing, and evaluating ideas, programs, and projects. People need encouragement to speak out in ways which they feel comfortable and are heard. Decision-makers need to ensure that evaluation is an integral component of any process so that affected persons can influence the directions and outcomes of decisions.

If people feel included and respected, they are more likely to participate and support the actions of others on their behalf. Surveys, break-out discussion groups, total quality management techniques are some of the mechanisms for drawing out people’s opinions and suggestions and for measuring their levels of satisfaction.