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Linked Indicators of Sustainability Build Bridges of Trust

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Summary

An important practical step has been taken to build new urban partnerships to address environmental concerns and prevent pollution. This pioneering work emerged from the Urban Ecology Coalition's Neighborhood Sustainability Indicators Project (UEC-NSIP) in Minneapolis, the first U.S. effort to engage residents directly in defining indicators of neighborhood sustainability for their own communities. By defining linkages among issues that have previously been seen as independent, NSIP has built a more coherent understanding of the links between society, environment and economy in two locales that front the Mississippi River. At the same time, this integrative approach helped bring together more than 100 residents, technical experts and professional researchers to work in a collaborative, synergistic manner. Three kinds of sustainability indicators have been developed: (1) "Data Poetry" indicators address very local concerns defined by the residents, and have the quality of transforming the discussion of the neighborhood's future into a more long-term perspective. (2) "Core" indicators address highly linked issues of sustainability, offering both residents and external partners useful information. A third type, (3) "Background" indicators, offer data that is useful in evaluating local sustainability initiatives. This approach has applicability in urban environments worldwide.

Linked Indicators of Sustainability Build Bridges of Trust

Each region of the globe, it seems, has its own environmental affliction, typical to its troubled urban areas. Residents of many Southeast Asian cities cover their mouths against thickening clouds of diesel exhaust that hover over eternal traffic jams. Central Europeans move through dense hazes from sulfured coal and acid rain, pondering the health of their water supplies. Urban poor in the United States industrial belt gaze through chain link fences at hollow factory shells and expanses of land rendered toxic by a previous generation's pollutants.

Common to all of these environmental danger zones is a set of assumptions that were inherent, and often unstated, in the way former generations interacted with local ecosystems. Fortunately, these assumptions are now being overturned by a new generation. Each calamity manifests short-term planning that has encrusted itself into long-term devastation. Each is an example of technology imposed with little forethought, and insufficient attention to *local* conditions or *local* capacities. Each is an outgrowth of segmented thinking, treating "transportation" or "fuel" or "industrial growth" as isolated, reified concepts separate from the limitations of the local ecosystem. Each pollution arises from consumerist patterns of behavior run amok. Finally, each reflects a lack of investment or political engagement by nearby residents.

Building new linkages, new bridges of trust

I am pleased to report that resident initiatives in two Minneapolis neighborhoods fronting the Mississippi River have taken solid, practical steps toward a more integrative approach. As partners in the first U.S. effort to engage residents in creating sustainability indicators for their own locales, the Urban Ecology Coalition's Neighborhood Sustainability Indicators Project

(UEC-NSIP), residents of Seward and Longfellow neighborhoods have built new bridges of trust, linked issues that had been fragmented, and connected people who once saw themselves as antagonists.

This pioneering effort is sponsored by the state of Minnesota Office of Environmental Assistance, the Dayton Hudson Foundation, and the City of Minneapolis Neighborhood Revitalization Program. Under NSIP's umbrella, Seward residents addressed their concerns over water quality, brownfield development and the impact of auto traffic, producing a creative and practical set of indicators to measure their progress toward long-term sustainability. More than 100 residents, technical experts and professional researchers contributed to this broad mission in a magnificent cross-sector collaboration. Moreover, this effort defined a new frontier for research: specifying the linkages among the diverse issues that are addressed in community revitalization.

NSIP asserts that there is an "ecology" of complex social and economic forces that interact with the environment, adding that new ways of thinking are needed if these complex interactions are to be effectively addressed. Drawing upon cutting-edge scientific monitoring practices, world-class professional expertise and native wisdom, NSIP brought diverse people together, in a spirit of learning from each other, to address this complexity. This integrative approach can be adapted to urban environments worldwide. Important to environmental protection efforts in all cities, lessons from this process will also be critical to addressing the chasms of wealth that divide North and South -- especially if the economic woes now plaguing Asia, Russia and Latin America were to become widespread.

Learning from previous initiatives

After studying a number of previous indicator projects, UEC concluded that a wealth of solid technical material was available through both the academic literature and the internet. Several communities or regions had developed impressive slates of indicators, but UEC found that few of these projects had engaged people at the neighborhood level in strategic planning. In some cases, professional experts had defined indicators externally, carrying on no

conversation with local residents concerning local goals, and making no effort to tap local wisdom from the history of local sustainability efforts. In other cities, regional indicators had been selected by a core of thoughtful and well-informed civic leaders, representing a far-sighted vision for the ecological health of the region, but the indicators selected were at such a large scale that citizens, who often can intervene most effectively at a local level, had difficulty translating regional goals into local action. Often, in fact, local people were unaware of that regional vision, nor had they been involved in framing it. Other indicator projects failed to recognize the linkages among issues that residents groups faced: for example, the fact that a given economic development effort might increase transportation and housing costs for local residents did not appear to be taken into account.

Rooted in long-term neighborhood action

UEC set a course rooted in long-term neighborhood action, blending the experience of local residents with the technical expertise of professional staff. After 18 months, fruitful research and analysis has unified diverse stakeholders. An innovative and practical set of indicators has been defined that offers new tools to both internal and external stakeholders.

The UEC defined "sustainability" to mean that people of our era can live well without asking future generations to pick up the tab. Consistent with the definition of the World Commission on Environment and Development (also known as the Brundtland Commission¹), this definition nevertheless raised some consternation in local practice. Typically, neighborhood planning in Minneapolis has at best focused on short term goals. Exploring long-term visions challenged neighborhood partners to venture into scary new terrain.

As Seward residents imagined a 50- or 100-year future, it became obvious that one of the obstacles to long-term planning was the success of short-term action. With 39 years experience as a resident-run neighborhood organization, Seward Neighborhood Group was highly effective at accomplishing its objectives, and expert at involving local residents in framing strategic goals. So successful, in fact, that the local housing committee worked more than full time accomplishing housing goals, while

the economic development committee focused intensely upon commercial revitalization, and still other committees tackled issues of public safety, transportation, youth involvement, and so forth. However, never did these diverse committees work together to reflect on the interactions of their implementation efforts: no one knew how to answer questions such as, how do our economic development investments help or hinder our housing programs?

Reflecting on local experiences

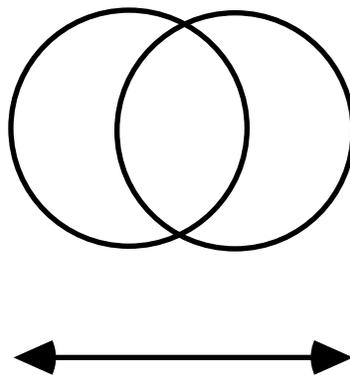
NSIP became the crucible in which such issues were addressed. Delegates from diverse interest areas in Seward compared experiences and asked each other what made their work effective in promoting long-term stability. The discussions resembled those of a graduate field study seminar, with high quality reflections on how to effectively intervene in a complex system, how to understand linkages among diverse issues, and how to produce data that would be useful for residents in shaping their future plans. Residents said they greatly enjoyed having this rare chance to reflect together and build a more lasting vision for their community. "Even if we never use a single indicator the process has given us so much," concluded Diann Anders, Seward board member."²

Local action in Seward was also aided by city-wide reflection, as 65 residents, civic leaders and technical experts engaged in a far-ranging Roundtable discussion in February, 1998, that shaped the research and action strategy.³ This Roundtable reviewed relevant academic literature and concluded that sustainability indicators need to be different from other types of indicators that are commonly devised. (1) *Quality-of-life Indicators* tend to ignore the linkages among the varied issues neighborhoods face, focusing more on single-dimensional counts. (2) *Performance Evaluation Indicators* are less about looking forward, and more about assessing past efforts of a community or organization.⁴ Hence, following the lead of Maureen Hart, consultant to the U.S. Environmental Protection Agency, UEC defined *Sustainability Indicators* as linked, forward looking indicators.⁵

The Roundtable also highlighted the fact that neighborhoods could not simply draw a wall around themselves, but had to ensure accountability to outside investors, in turn inviting external partners to hold themselves accountable to neighborhood-defined goals.

Three types of indicators defined

To address this blend of internal and external needs, the UEC defined three kinds of indicators: Data Poetry, Core, and Background. As the diagram below shows, these fall along a spectrum. Data Poetry indicators do the best at expressing linkages among local issues, and are primarily for internal use. Core indicators are highly linked, and seem appropriate for careful cross-neighborhood comparisons. Background indicators are less adept at defining linkages, and may serve external partners the best. All three seem useful in advancing neighborhood sustainability.



(1) "**Data Poetry**" Indicators are those that capture the imagination of local residents, express in a concise way the linkages among several issues important to sustainability, and have the quality of transforming the discussion of the future of the neighborhood into a longer-term perspective. UEC believes these indicators are best defined by neighborhood residents.

One example of "data poetry" (we are once again indebted to Maureen Hart for this term) is a Native American tribe in Maine that says their core indicator is the moose population. Since local hunters depend on moose as a meat source, local leaders say that if the moose population is in balance with its predators, then they know the ecosystem is in balance, and indigenous people will survive.⁶

Another example is Sustainable Seattle's count of the salmon run. Since a healthy salmon run indicates that environment in the local watershed is relatively healthy, and implies that a substantial fish harvest will help fuel the local economy.⁷

During the Neighborhood Sustainability Indicators Roundtable in February, there was a consensus that neighborhoods' most obvious role was to identify "data poetry" indicators, based upon their own local goals. Each of the participating neighborhoods were invited to select 5-10 "data poetry" indicators. Focused on inner concerns, these may not necessarily be useful for comparisons across different communities.

(2) "**Core indicators**" -- those in the middle of the two circles -- reflect a need for more data-intensive measures that may require special study or surveys. While core indicators are central to local sustainability, they also suggest questions that could be raised on a city-wide or regional level. Further, core indicators may help measure concerns not easily expressed as "data poetry."

UEC defined 25 "core indicators" that measure important relationships important in moving toward sustainability. At the same time, UEC specified that any neighborhood should feel free to reject any of these indicators that is not useful to them, and should refine this list in any way they require - keeping in mind that there may be reason to adopt standard measures that make cross-neighborhood comparisons more precise.

(3) The third type of indicator proposed by UEC were "**background indicators**." One useful analogy here is to imagine actors in a play. If "data poetry" are the star actors of a play and the "core indicators" are the other

characters, then "background indicators" are the scenery. Not as central to the action involved in making the neighborhood more sustainable, they are nevertheless useful, especially for external use. Funders who want to compare conditions or results across neighborhoods, researchers who want to know when a strategy may work best in a certain kind of neighborhood, public officials who want to compare impacts in one part of the city with those elsewhere, all may rely heavily upon "background indicators." The neighborhood itself may find it is useful to communicate with their external audience using such indicators.

"Background indicators" may not be as adept at expressing linkages among various issues, and may not be as concise in expressing sustainability concerns, but they still help fill in the picture - much as scenery helps an audience gain a better feel for the context in which stage action takes place. UEC consultants defined 45 "background indicators."

Original local data required

Careful combing of local data bases showed that existing data sources were not sufficient for assessing neighborhood sustainability. So, UEC created a resident survey so Seward could compile demographic information, profile neighborhood concerns, and ascertain consumer preferences. Results from a random sample of ten percent of neighborhood households is still being analyzed. Initial statistical work indicates that results are broadly representative of the neighborhood.

Assumptions made by the residents

A list of the "data poetry" indicators chosen by the Seward neighborhood follows as an Attachment to this paper. Reviewing this list shows that neighborhood residents based their selection on several assumptions:

- (1) As a neighborhood becomes more cohesive -- as residents begin to know each other better and gain more trust -- local action will be increasingly effective in addressing issues like pollution, public safety, and economic development. Thus,

several of the most key measures assess progress toward making sure that individual residents and families develop stronger bonds with each other and develop more commitment to the community. The "Friendly Spaces" indicator, an original indicator devised by this group of Seward residents, measures the capacity of physical spaces in the neighborhood to facilitate resident connections, and a second indicator assesses how many local residents shop at local businesses.

(2) Second, Seward looked more at *linkage* than at specific issues. In fact, one of the recurrent themes as this slate of indicators was reviewed by various technical experts was that each person felt some key indicator was missing. One felt there were not enough measures of health, another expressed concern about the lack of education indicators. Still others complained that environmental issues were not thoroughly addressed, and so forth, with each reviewer having a specific pet issue that had not been covered. Time and again, Seward decided that these "single-issue" indicators did not express the *linkages* among issues that the residents had labored to define. Reviewers were reminded that these single issues *were linked* to Seward's chosen indicators. The purpose of the "data poetry" indicators is not to be a complete list of all possible neighborhood indicators, but to define linkages and focus strategic action that would most promote neighborhood sustainability.

(3) Residents were also clear that this is simply an initial effort. Decades of future research are proposed by this slate. For instance, one can envision a day when it is possible to know how much fossil fuel energy would be saved if ten percent more residents began to shop regularly at local stores. Over time, more precise measures of the interaction of commercial development and housing costs may be devised by professional researchers. In this sense, the residents view this very much as a living document that will need to change as more expertise is gained, and as conditions and issues change.

Indicators Reflect Local Goals

Further it should be kept in mind that the indicators reflect Seward's existing goals, which are: (1) All structures will be placed in decent condition; (2) Crime rates will steadily decline; (3) Positive community attributes will be enhanced; (4) Residential buildings will be rehabilitated; (5) A more cohesive social environment will be built; (6) A stronger local economy will be developed; (7) Impacts of neighborhood life on the natural environment will be reduced; and (8) Alternative forms of transportation will be promoted. One outcome of this project was that Seward leaders expressed interest in revisiting neighborhood goals to see if more "linked" goals can be defined that better express what residents have learned about sustainability in this project.

Longfellow Community gets less attention in this paper because their process of defining indicators has taken a longer time. Importantly, the resident council is a coalition of four separate neighborhoods, which creates more complex conversations. Longfellow neighbors also realized, after drafting their first slate of proposed indicators, that their neighborhood goals may require refinement so they express a longer-term view. The importance of each neighborhood working at its own pace is underscored by their example.

Conclusion

One wishes to be able to say these initial steps in building linked indicators of sustainability had dramatically reduced pollution or resulted in magically healthier eco-systems. Of course this is not the case. Even near the relatively clean waters of Minnesota, significant and complex issues remain. Still, the history of this fledgling effort shows that local residents can define sustainability goals for their own locale, by linking together issues and activities that were formerly seen as independent, and developing specific indicators to measure progress. Moreover, this documents the story of a large cluster of individuals working for a vision beyond their immediate short-term interest to produce tools useful to grassroots citizens in democratic action.

The child who will overturn the assumptions of the past generations -- clearing the debts she was saddled with, if you will -- is taking her first proud steps, and NSIP is pleased to part of that effort.

Kenneth A. Meter, President of Crossroads Resource Center in Minneapolis, Minnesota, and a community faculty member at Metropolitan State University, directed the Urban Ecology Coalition's Neighborhood Sustainability Indicators Program. Meter is also creator of the groundbreaking Neighborhood Income Statement and Balance Sheet studies of local economies.

Endnotes:

¹ World Commission on Environment and Development (WCED). *Our Common Future*. Oxford University Press, 1987 (Also called the Brundtland report).

² Comments to University of Manitoba urban design graduate student team visiting community development sites in the Twin Cities, October 14, 1998.

³ Minutes of the two Roundtables (1998 and 1999) are available from Crossroads Resource Center, P.O. Box 7423, Minneapolis, Minnesota 55407 USA <xrc@igc.apc.org>.

⁴ *See* Besleme, Kate and Megan Mullin, "Community Indicators and Healthy Communities," *National Civic Review* 86 (Spring, 1997): pp. 43-53.

⁵ Maureen Hart (Hart Environmental Indicators) can be reached at mhart@tiac.net. *See also* her excellent web site <www.subjectmatters.com>.

⁶ Henry Lickers, director of environmental affairs of the Mohawk Council Akwesasne, speaking at the October, 1996, Sustainable Communities conference sponsored by the Minnesota Office of Environmental Assistance (OEA).

⁷ *See Sustainable Seattle* reports, available from Metrocenter YMCA, 909 Fourth Avenue, Seattle, Washington, USA, 98104, <sustsea@halcyon.com>, or <www.scn.org/sustainable/susthome.html>.