

Educational
Quality
and
Achievement

The Southwestern Pennsylvania

Percent of
Waste that is
Recycled

Community Indicators Handbook

*Number of acres of
open space*

DRAFT Version 1.5

published by

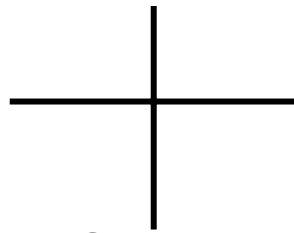
Sustainable Pittsburgh

Diversity
of the
Local Job
Market

Infant
Mortality and
Low
Birthweight
Infants

WELL-BEING

NATURE



ECONOMY

SOCIETY

Voting Rates in
Local Elections

Access to Arts and Culture

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Introduction

SETTING A NEW DIRECTION FOR OUR REGION ... AND OUR COMMUNITIES

This workbook is designed to help you and your community to participate in a long-term, hopeful, and visionary undertaking: steering the Pittsburgh region in the direction of sustainability.

"Sustainability" simply means the future we all want for ourselves and our children -- a future of prosperity, clean air and water, strong and vibrant communities, healthy and happy people.

Sustainable Pittsburgh is a coalition effort whose purpose is to help our region to aim itself more clearly in that direction, and to track our progress along the way. We hope that you'll join us.

As one of our first major initiatives, we are developing a set of *indicators* of the region -- measurements of critical trends that can tell us whether we're heading in the right direction or not. These trends are being grouped into four categories: Nature, Economy, Society, and Well-Being.

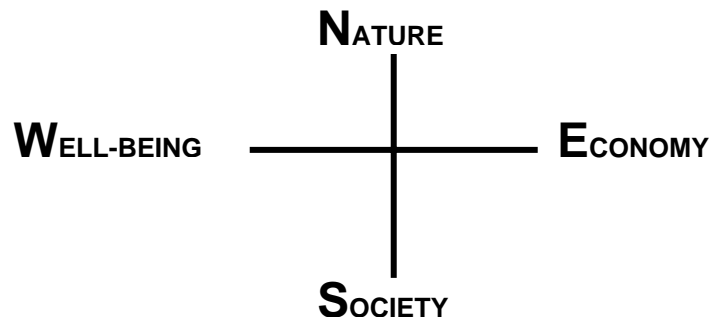
Nature refers, of course, to our environment and our ecological heritage. Blessed as we are with so many wonderful natural amenities, we must nevertheless take greater strides to safeguard and improve these resources for the future. We also have an obligation to do our part to take care of the global environment as well.

Economy is the vitality, prosperity, and wealth in our region, generated in great measure by the business sector, but also by the work all of our citizens, in all walks of life. Our region has undergone tremendous economic changes in recent decades and we are still redeveloping our local economy to participate in the global economy.

Society is the sum total of all the social institutions and relationships that make our communities strong, from government to education to volunteer groups of all kinds. Without a strong society in our region, we cannot hope to sustain our progress.

Well-Being is what we all hope for as individuals, for ourselves and our families -- health, long life, and a sense of satisfaction and fulfillment of one's potential.

Together, these four dimensions of sustainability comprise the "Compass of Sustainability," a symbol for our efforts to steer a new and more sustainable course for our region. We have been developing a "report card" for our region that monitors trends in each of these "Compass points," and we invite you to be a part of the process.



This "Community Indicators Handbook" for Southwestern Pennsylvania introduces you to the concepts of *sustainability*, *sustainable development*, and *sustainability indicators*. Foremost, it provides you with guidance on how to develop indicators for your own community. Our hope is that over time, more and more regional communities will use indicators like these to track their progress, stimulate action, solve existing problems, and create new opportunities.

This project is part of an ambitious citizen-based program to stimulate local

sustainability initiatives all over our region. While we do hope for harmony among all the sustainability initiatives that result, we don't expect uniformity. We invite you to adapt this to your specific needs, in addition to harmonizing your effort with ours as much as possible.

HOW TO USE THIS HANDBOOK

This handbook is meant to be used. You are welcome to copy it, to distribute it, and to make use of it in any way that will help you and your group create a successful project.

This handbook is brief. While the concepts of sustainability and indicators can often be complex, we have kept this handbook relatively simple so that it can be used by a wide variety of people, from students to community planning professionals. You will find a large number of pointers to other references if you want to go deeper into the subject.

This handbook walks you through the process. The information included here should be sufficient to get you started on designing, and facilitating, a sustainability indicator project for your neighborhood or community. If you get stuck, call us, and we'll help you in any way we can.

This handbook includes many examples. We are fortunate in our region to have the experience of the Friendship neighborhood to draw upon. This East-End neighborhood of Pittsburgh produced an excellent set of neighborhood indicators, and we include stories from that project to help you. We also include examples from projects around the U.S., and from "Around the Compass" -- indicators and examples having to do with Nature, Economy, Society, and Well-Being.

This handbook will be improved over time. We expect to update this handbook in the future as we learn more about how to work together, what support you need, what aspects of this work are specific to our region's community, and what lessons can be drawn from our work at the regional level. Please give us your feedback and input!

BUILDING YOUR OWN COMPASS

Sustainable Pittsburgh, in its regional indicators of sustainability, uses the "Compass Index of Sustainability" to cluster and summarize trends. The Compass, designed by AtKisson, Inc., is a way of seeing our region's progress at a glance. It combines the trends into overall performance scores for Nature, Economy, Society, and Well-Being, as well as one Overall Sustainability Index.

We invite local groups to develop a Compass Index for their own communities and neighborhoods. Basic instructions are included here, and technical help is available from Sustainable Pittsburgh. Our goal is that within the next five years, 50% of local communities will develop their own indicators of sustainability.

But of course, a set of numbers is not really the final product, for the region or for your community. The final product will be, we sincerely hope, a better future for all of us -- a cleaner environment, a more prosperous economy, stronger communities, and a good life for all our people. We look forward to working with you to make that vision a reality.

Section 1

DEFINING SUSTAINABILITY: FOR THE WORLD, AND FOR THE PITTSBURGH REGION

Summary

This section explains where the concept of "sustainability" came from, and how it applies to the globe, the region, and local communities. Understanding sustainability provides you with a foundation for understanding indicators.

THE GLOBAL PERSPECTIVE

Over the last ten years, throughout the world, *sustainability* has been growing in popularity as a new way of thinking about the future. The term has now been adopted by thousands of cities, towns, companies, foundations, and even entire nations as a better and more comprehensive way of thinking about development.

Development means the process of change -- hopefully for the better -- that humanity is pursuing worldwide. Development as we use it here refers to both revolutionary and "evolutionary" changes in technology, building, social institutions, human knowledge, health, and the full range of factors that make up a civilization. And civilizations are made up of communities.

Increasingly, development of all kinds -- from new housing complexes to new factories, from new land-conservation initiatives to new community health initiatives -- is being planned with the "big picture" in mind. How can cleaning up this piece of land and turning it into a park also improve our economy? What are the social benefits of putting this new factory in a part of town that has suffered neglect in recent years? What new projects and programs, volunteer or sponsored, will help spur innovation to solve our problems? How can we get citizens more involved?

When neighborhoods, cities, regions and countries think this way, they are thinking about *sustainable development*. Some of the places that have embraced sustainable

development as a core planning concept include nations like Great Britain and the Netherlands; states like New Jersey and Oregon; and cities like Seattle, Boston, and Austin, Texas. The United Nations has endorsed it, and even the OECD -- a high-level association of the world's most developed countries -- has embraced it and urged member states (including the United States) to adopt sustainable development strategies.

In simple terms, sustainability maximizes benefits to environment, economy, and equity simultaneously, and seeking "win-win-win" solutions. The core of sustainability thinking is that it brings together large goals that previously were considered separate. That separation, in turn, created large problems.

For example, traditional economic development often neglected to consider environmental impacts (as we know all too well from Pittsburgh's early history). Factories were built in ways that caused considerable pollution, which in turn caused health problems. Poor working conditions contributed to social unrest. This was "unsustainable development" -- because it simply could not last very long without the costs becoming too great.

One of the most widely used definitions of sustainable development first appeared in 1987, in a book called *Our Common Future*, published by the U.N.'s World Commission on Environment and Development (also known as the "Brundtland Commission"):

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The Brundtland definition has made its way into a host of local planning documents and international agreements, but it is far from being the last word on the subject.

In his groundbreaking book, *Toward Sustainable Communities*, Mark Roseland noted that while people often agree with the need for sustainable development, they often disagree over what it means in practice. Roseland suggested three elements that comprise the core of sustainable development:

- ***Environmental considerations must be tied to economic policy-making.*** This means considering environmental and economic objectives together and seeking ways of meeting both sets of goals simultaneously. (Environment plays a central role because it was virtually left out of development thinking for so long.) Today we've come to appreciate that environmental protection and good business decisions go hand in hand.
- ***Sustainable development also incorporates a commitment to social equity.*** It's not just about the creation of wealth and the conservation of resources, but also greater fairness in the *distribution* of that wealth and of those resources -- between countries, between neighbors, and between generations.
- Finally, ***sustainability includes a distinction between "growth" and "development."*** Growth, in the sense of physical increase in the amount of space humanity takes up and how much stuff we use up and throw away, cannot go on forever. There are always limits to growth, either in biological or spatial terms. But *development*, meaning the continuous improvement of our

economy, society, our natural environment, and ourselves, can indeed go on practically forever. To achieve sustainability, we must shift more and more away from a "growth" perspective and toward a "development" perspective.

THE REGIONAL PERSPECTIVE

In a series of community gatherings beginning in 1998, Sustainable Pittsburgh participants affirmed the more global principles described above. But while Sustainable Pittsburgh's vision of a sustainable future includes features that are common to sustainability visions everywhere, ours is also unique to us. And every community and neighborhood in the Pittsburgh region can also create its own unique vision of a sustainable future.

In developing the Goals and Indicators Project for the greater Pittsburgh area, the working teams of Sustainable Pittsburgh largely adopted the following description of what "doing sustainable development" means in practice, which we invite you to share:

Sustainable development ... considers any development action as part of a complex set of goals that must be balanced to create a community that will serve the current and future needs of its residents. Getting local citizens involved in the development process is essential to creating sustainable communities.

The working teams also endorsed a list of characteristics to expand on that description. They agreed that a sustainable community values ...

- ***A long-range outlook in planning and policy*** – and a participatory planning process that balances economic development with natural resource conservation.

- *Equity for all citizens* and the involvement of the community in determining their future.
- *Cooperation among neighboring communities* for vision, civic engagement, and sustaining quality of life.
- *Stewardship of the natural environment* – which includes living within its carrying capacity, building toward renewables, phasing out non-renewables, stressing efficiency, and recognizing vital natural systems.
- *Diversity* in economy, humanity, culture, and biological life.
- *Interdependence* of social, environmental, and economic values with accountability to measures of sustainability.
- *Education* that supports diversity, creates respect for and understanding of social and physical interdependence, and develops skills for managing the transition to sustainability.
- *Preserving and valuing heritage* as important assets – natural, cultural, historic.

We invite you adopt these principles, definitions, and descriptions as you create your own goals and indicators for a sustainable community.

THE COMMUNITY PERSPECTIVE

At the community level, sustainable development means building partnerships between business, government, not-for-profit, and citizen groups to develop a shared vision of the future. It means working together to provide jobs while at the same time managing resources responsibly. It also means providing all citizens the opportunity to live in a healthy, clean and safe community.

– U.S. Department of Commerce

The community level is where sustainability becomes the most concrete. After all, it is in communities that houses get built, parks get created, businesses get started. And often it is *action* at the community level that can determine whether such new developments grow in a sustainable direction or not.

It has to be acknowledged that sustainability can be very challenging. According to Sustainable Seattle -- a pioneering civic initiative that was one of the inspirations for Sustainable Pittsburgh -- "Sustainability refers to something specific and critically important, albeit complex: our long-term cultural, economic and environmental health and vitality. It links these issues together rather than thinking of them as separate."

Sustainability *is* complex. But at the same time, it is very intuitive. Sustainability is another name for the future most of us want, especially for our children.

To get an intuitive grasp of what sustainability means at the community level, it helps to spend some time considering your picture of the future. What sort of community do you want to pass on to the next generation? What will it look like in thirty years? What kinds of buildings do you see? What kinds of schools? What kind of transportation systems? What is the quality of the air and water, the local government, the business climate? What is the community's equity profile?

When you have that picture of a preferred future relatively clear in your own mind, then you can begin to think backwards towards the present. (This is called "backcasting.") What kinds of things will have to happen in order to make that future possible? What should we start thinking and doing today, in order to plan and accomplish steps toward the future we want? How do we measure our progress?

This is the core of sustainability thinking at the community level: a picture of the future we want, a long-term strategy to get there, and a good way to measure progress towards those goals and be accountable to our plans.

Here are a few useful sustainability concepts to focus your plans for creating community sustainability indicators:

- **Think *Linkages*.** Linkages are the connections between the economy, environment, society, and human well-being. Rather than a fixation on trying to simply increase the number of jobs, imagine a community that will attract employers who pay good wages, treat their workers fairly, get involved in the community and have no negative impacts to the local environment.
- **Think *Redefining Progress*.** Our ideas of progress have often been defined purely in financial and material consumption terms. Consider development ideas that help to create the good life, instead of just the "stuff" life.
- **Think *Carrying Capacity*.** How many people can your community sustain, at current levels of consumption, using today's technology? How long before sprawl takes over too much of the countryside, before car exhaust overwhelms air quality (or has that happened already)?

"Carrying Capacity" refers to the limits every community must face as it tackles development questions.

- **Think *Community Capital*.** A community's "capital" -- its store of assets -- includes "natural capital" such as parks, gardens, fields, forests and streams; "economic capital" such as existing businesses and infrastructure; "social capital" such as religious and educational institutions and social services; and "human capital," which means healthy and happy people. Building sustainability means building natural, economic, social, and human capital, all at the same time.
- **Think *Good Business Strategies*.** Effective businesses set long range goals and plan steps to achieve them. Likewise, they continually measure progress. Indicators are simply a way to bring good business management-by-objectives to community.

Once you have a picture of sustainability, and some thoughts about how this increasingly global idea is meaningful in your local circumstances, you are ready to start developing your first navigational tool for getting there: sustainability indicators.

Section 2

AN INTRODUCTION TO SUSTAINABILITY INDICATORS

Summary

This section explains what indicators are, where they came from, and how to use them.

Indicators of sustainability are clear and compelling measures of key trends in the economy, environment, social systems, and human well-being. Indicators take data -- sometimes rather complex data, gathered by sophisticated research methods -- and turn it into something simple that a non-technical person can easily understand.

Indicators often take the form of a chart or a graph, together with some text to explain what the graph means. Many indicators can also be combined together into a "Dashboard" or a "Compass" (the method we recommend) to make a collection of trends more understandable. For indicators to work, they have to be technically sound; but they also have to *communicate* effectively, on both the intellectual *and* the emotional level.

The primary purpose of indicators is to guide and stimulate action. Just as a fuel gauge on "E" nudges you to pull into the nearest gas station, or a child's rising temperature convinces you to see a doctor, indicators of sustainability help guide community action to address critical problems and to take long-term care of important assets.

Indicators are not a new invention. Consider the traditional indicators that dominate our news reporting: the Dow Jones Industrial Average, the NASDAQ, the Gross Domestic Product. These are important economic measures, but they leave many important things out. (See box.)

Sustainability indicators, developed over the last ten years, attempt to bring all the

The Shortcomings of a Big Indicator

Robert F. Kennedy once made a landmark speech in which he commented on the Gross National Product, and its shortcomings. We more often hear about the "Gross Domestic Product" or "GDP" these days, because globalization has made it more difficult to understand the meaning of "national" when a nation's companies work all over the world. "Domestic" refers to the economic activity within a nation's borders. Said Kennedy:

"The gross national product includes air pollution and advertising for cigarettes, and ambulances to clear our highways of carnage. It counts special locks for our doors, and jails for the people who break them.

"The gross national product includes the destruction of the redwoods and the death of Lake Superior. It grows with the production of napalm and missiles with nuclear warheads....

"And if the gross national product includes all this, there is much that it does not comprehend. It does not allow for the health of our families, the quality of their education, or the joy of their play. It is indifferent to the decency of our factories and the safety of streets alike. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials....

"The gross national product measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to country. It measures everything, in short, except that which makes life worthwhile; and it can tell us everything about America -- except whether we are proud to be Americans."

important trends together, in one place, so they can all be considered together. They alert people to the existence of a problem in time to prevent it from becoming a disaster. And they can tell people, over time, whether their response is making a positive difference or not.

In practice, sustainability indicators are tools for education, accountability, and strategic planning. They provide feedback to both decision-makers and the public at large about past trends that are shaping the future. They help us understand the complex systems of our society, and they often reveal systemic linkages that may previously have been overlooked. They sound alarms and reflect success. They make better and smarter decisions possible.

That's why sustainability indicators have emerged as a "best practice," used for understanding and managing improvement at every level, from neighborhoods to nations

A BRIEF HISTORY OF SUSTAINABILITY INDICATORS

Indicators have been around for a long time, but have only recently caught on in a long-lasting way. The 1960s and early 70s saw the rise and fall of the "Urban Quality Indicators" movement in the United States. The movement came and went because (1) it was too difficult and too expensive to manage the necessary data with the technology available at the time, and (2) the practice was too closely identified with the party politics of the time, rather than with more objective assessment.

In the 1990s, the rise of the information age, coupled with a rising (and non-partisan) concern for sustainable development, gave birth to the more successful "sustainability indicators movement." Personal computers, desktop publishing, and the web made it possible to manage complex data and present it in a compelling and readable format. The focus on objective performance

assessment, in the context of sustainable development, depoliticized indicators and placed them firmly in the realm of standard management practice.

A volunteer civic project called "Sustainable Seattle" introduced the concept of sustainability indicators for a metropolitan region with a pioneering report in 1993. They were inspired by Jacksonville, Florida's "Quality of Life" measures and the State of Oregon's growth-oriented "Benchmarks." The volunteers of Sustainable Seattle were seeking to do something different: measure progress towards true sustainability, or "long-term cultural, economic, and environmental health and vitality."

Over the next several years, an explosion of indicator activity followed, with many projects (including the White House Sustainable Development Indicators Group) modeling themselves on the Seattle effort as well as a few other early pioneers.

Today, there are sustainability indicator projects -- sometimes using other words, such as "legacy" or "livability" or "healthy community" -- all over the world, in hundreds of towns, cities, counties, regions and states, as well as many large corporations. International standards are being developed, and techniques for communicating indicators continue to improve. Indicators have truly arrived.

WHAT MAKES A GOOD INDICATOR?

In recent times, there has been an enormous amount of work to refine the practice of doing sustainability indicators.

International experts on the subject, as well as project leaders in many local communities, have come together in many different forums to define criteria and set standards. References to some of their work is noted at the end of this section.

But for introduction purposes we offer just a few tried-and-true guidelines to help you

think about choosing good indicators, combined from a number of sources. Good measures of sustainability are ...

Relevant. An indicator set needs to relate to the community -- to its successes and concerns, its assets and problems, its worries today and its vision of a better future tomorrow.

Reliable. There needs to be good, trustworthy data available, and some assurance that the data will be collected regularly over time. Often a community doing indicators for the first time will discover things that *should* be measured but that *are not yet* being measured. In those cases, the community must make a commitment to make such measures itself.

Understandable. If an indicator is not understandable to the average person, it is generally not useful except to specialists and experts. Sometimes more complicated measures can be converted or combined into something simpler (the way that thousands of economic measurements are combined into the Gross Domestic Product); but it is generally best to choose a simpler alternative whenever one is available.

Clear in Direction. Since an indicator must help us steer our course, it should be obvious, when you look at the graph and other information, which direction constitutes "improvement" and which direction "decline." Whenever possible, it's good to frame the indicator in positive terms -- for example, "Percentage of Solid Waste Recycled" rather than "Percentage of Solid Waste Discarded."

Reflective of Change over Time. Part of an indicator's purpose is to expand our sense of time, and help us understand processes that happen slowly, over years. The human mind is biologically programmed to notice immediate threats and sudden changes. Indicators need to show us clearly those slower, long-term trends that are "sneaking up on us" because they happen more slowly and escape our attention.

Systemic. This word simply means that the indicator helps us understand something about the whole system. For example, it is impossible to measure the entire performance of a school system, or an ecosystem, or a governmental system. We have to choose one measurement (or a few measures) that gives us a *sense* of the whole, such as how well our children perform on standardized tests, or how well certain key animal species are doing, or what voting rates say about people's perception of government. One indicator never tells us everything -- but a well-chosen indicator alerts us when something is going wrong, so we can dig deeper into the details.

Responsive. An indicator should go up when things are getting better, and go down when things are getting worse. It should register change with as small a time-delay as possible, to ensure that the actions we take will be reflected quickly so we can know whether our strategies for sustainability are working.

In addition to the characteristics above, it is important to note that indicators, in local practice, often come in two "flavors":

Public Awareness. These are the indicators that tell an entire community (or an entire nation, for that matter) what the current situation is, what's positive or negative or in between. Public Awareness indicators are, of course, meant for the public in general. They send a message that sustainability is everybody's concern, and everybody's responsibility. They measure *how things are*, rather than *what we're doing about it*. Public Awareness indicators, by reflecting a frank and honest assessment of current conditions, are what give everybody a sense of accountability. *This is the type of indicator set that a community indicator group is most likely to develop.*

Performance Evaluation. The use of Public Awareness indicators for sustainability often leads to the development of specific strategies for improvement -- to government

programs or business strategies or voluntary civic initiatives. These entities can then develop Performance Evaluation indicators that reflect whether they are, in fact, achieving the sustainability goals they have set for themselves.

For example, a Public Awareness indicator on mobility might be "Number of Hours Spent Commuting, per Person, per Year." In response, a new initiative to increase transit ridership might be created. A set of Performance Evaluation indicators, used by transit authorities, might include "Percent Increase in Ridership" or -- to draw on a recent initiative in the city of Pittsburgh -- "Number of Passengers Making Use of the Bike Racks on the Busses."

Initiatives often get started because of people's reactions to a Public Awareness indicator, but then the initiatives must be evaluated, in terms of how well they work, in terms of their own performance measures. Ultimately, the impact of a very successful initiative causes a change in the original Public Awareness numbers ... though it's always hard to tell for sure.

Special Section:

INDICATORS AND PLANNING

This guidebook provides instructions for developing community indicators of sustainability, *in general*. But many communities do indicators in conjunction with a formal land-use or comprehensive planning process.

In such cases, the distinction between "Public Awareness" and "Performance Evaluation" measures becomes especially important. In the course of doing indicators connected to planning process, you may discover that you need both kinds.

The process of developing these two types of indicator systems is quite different, and they cannot really substitute for one another. Performance Evaluation indicators are generally more technical; they provide

direct feedback on whether specific planning objectives are being met, specific projects effectively executed. It is often unnecessary to involve the public directly in creating them -- though the public might very well be interested in the results.

It is, however, almost impossible to create a good set of Public Awareness indicators *without* involving the public. Getting the target audience involved ensures that your final product will be meaningful to them.

In practice, Public Awareness indicators also act as a kind of "final accountability" mechanism. If they don't improve as a result of government's best efforts -- as reflected in a set of very positive Performance Evaluation measures -- it might not be the government's fault; it may be time for *citizens* to take a hard look at their own behavior.

For more information on using indicators in conjunction with a formal planning process, see the resources at the end of this section.

HOW ARE INDICATORS ULTIMATELY USED?

The final, most visible product of any sustainability indicator initiative is generally a report -- on paper, on the web, in a community newsletter, sometimes even translated into other formats such as instructional videos or games. Sustainability goals, indicators, targets and trends are brought together in a compelling format. They are presented to decision-makers and community members in as many ways as possible: through formal presentations, community meetings, newspaper articles, and of course publications and reports.

In the case of Public Awareness indicators, what happens next is entirely up to the community itself. Indicators like these do not "cause" change, any more than our car's

dashboard "causes" us to speed up, slow down, or pull in to fuel up. We are, each of us, individually responsible for responding to the message of a sustainability indicator set. We can act, or not, as we choose.

However, indicators nearly always stimulate people to reflect, to reassess, and often to redirect their energies in new ways.

In practice, Public Awareness indicators of sustainability have led to ...

- A county investing more in its school system to successfully turn around falling graduation rates.
- A major community foundation reorganizing its giving strategy to address new priorities identified by the indicator report, and suggesting that other local foundations do the same.
- The immediate creation of a new civic initiative to monitor water quality, inviting school children to take the measurements and report on conditions to the public.
- A business association developing a new initiative to diversify the community's economic development strategy.
- The addition of sustainability language, goals, and strategies in to a city's comprehensive plan.
- The initiation of a dialogue series bringing adults in leadership and youth leaders together to frankly discuss youth problems and co-develop new strategies for addressing them.
- The creation of a new system for assessing a city's capital investments according to sustainability criteria.

- A neighborhood finding new and creative ways to involve residents in planning and setting goals.

These are just a few among hundreds of examples of what Public Awareness indicators do in practice. Some of their impacts are harder to see: often just the process of *developing* the indicators brings people together in new ways, building new trust, new alliances, and new friendships that lead even more immediately -- though seemingly more indirectly -- to new actions for sustainability.

Performance Evaluation indicators are, in contrast, used to monitor how well a community, a government, or a planning agency actually executes its plans. For example, if the Public Awareness indicator is air quality, the Performance Evaluation measures might include enforcement actions against polluters and the successful execution of a public awareness campaign. Ultimately, however, any action needs to result in a change in *outcomes*, and these are what Public Awareness indicators focus on: the final result. And that makes everyone accountable.

Indicators can be an amazingly powerful tool. And once in place, and if maintained over time, they become a part of the community's infrastructure -- like a bridge or a public institution, something that continuously shapes community life in ways that make it hard to remember what life was like before that piece of infrastructure existed.

You'll learn more about what indicators do in Section 4, "Indicators in Practice." But here is the punchline to that section in advance: sustainability indicators do not themselves create sustainability; only people can do that.

Section 3

BUILDING AN INDICATOR SYSTEM

Summary

This section walks you through the process of developing an indicator system, in some detail, and catalogues the people and resources you will need to be successful.

There are six principal steps in the construction of a community indicator system, and each step requires a different set of skills:

1. **Gather** the people who will do the work, and begin developing the resources to finance and support the project.
2. **Create** a vision of sustainability for your community with public input, with specific goals for getting there, as well as a vision of a successful indicators project.
3. **Develop** the indicators that match your vision and the available data, guided by the principles of sustainability and the input of the community.
4. **Publish** the indicators in a compelling format, tailored to the style and taste of the local community.
5. **Promote** the indicators through as many different channels as possible, so that they start to become a lasting part of public consciousness.
6. **Institutionalize** the indicators with solid organizational and financial support so that they can be revised, updated and reissued on a regular basis (usually every one to two years).

In practice, some of these steps overlap; but they are distinct phases in the life of the project, and we will look at each of them in more detail.

STEP 1: **GATHER** People and Resources

Engaging a core of committed people -- an "indicators working group" -- is the key to a successful sustainability indicators project. That group needs to be inspired, skilled, and dedicated to the vision of a sustainable future for the community. And that means the leadership of the group needs to be all of those things as well!

It's easy to get people excited about sustainability, and even about indicators, if you present the vision in the right way. The previous sections will give you some language and some ideas about how to convey that excitement to other people. Sustainable Pittsburgh can also help you with materials, guest speakers, and other resources.

It's important to bear in mind that doing sustainability indicators is a long-term project. Building the system the first time will take months (by comparison, major cities require a year at least). Maintaining the system will take much less time and energy, but regular updates to a published report are never a minor matter, and indicator reports only really "work" if they are updated and reissued on a regular basis. So let us be frank and note that it is better *not* to start such a project unless you are relatively sure (1) that you can marshal the resources to build the system (people, not money, is the most important item here, as you'll see below), and (2) that you can sustain it over time.

With that one important caveat out of the way, let's consider what's involved in the people dimension of an indicator project. You will need ...

1. *Facilitators.* These are people skilled at organizing people and running meetings, especially meetings that involve people working together in small groups to produce results. Good facilitation is perhaps the most important in a process as multi-faceted as an indicator project. You'll most often find good facilitators among the ranks of community organizers, community health workers, coalition-builders, consultants and planners; but anyone with good people, presentation, and organizational skills can learn to facilitate effectively.

2. *A Diverse Working Group.* Your core group (from five to twenty-five people, depending on the size of your community) should be representative of key interests in the community, and include people who are comfortable working with data and numbers, as well as those who are skilled at public communication. They must be willing to make a primarily volunteer commitment. The most likely source of working group members will from the leadership or senior staff of:

- Local Government
- Local Business Associations
- Social and Environmental Interest Groups
- Community Development Corporations
- Civic Groups
- Foundations and Funders (e.g., United Way)
- Hospitals and Public Health Initiatives
- Colleges, Universities, or Technical Institutes
- Consultancies and Service Firms
- School Board members and PTAs
- Local Elected Officials
- Planning Commissions

- Emergency Services

The critical ingredients are an ability to work well with other people, to cross disciplines, to make careful compromises between technical considerations and public communications needs, and to engage other people in dialogue about the project. The Working Group is, of course, the primary "recruiter" of community participation in the indicator process.

Each member of the Working Group needs to become familiar with the contents of this handbook, and able to explain it to other community participants.

3. *Community Participation.* It is customary, in indicator projects, to involve the community in the selection and refinement of the indicator set. This helps to ensure that the community feels a sense of ownership, and that the indicators are meaningful to the community members. We'll describe the role of Community Participation in more detail below.

4. *Staffing.* While quite a number of indicator projects -- including the pioneering Sustainable Seattle initiative -- were developed using entirely volunteer support, you will probably need at least one paid staff person, based in an organization seen as relatively objective and neutral, to keep the project well-coordinated.

In addition to these people needs, you'll need a budget, and it needs to cover the following expenses (in addition to the coordinator's salary, if necessary):

- Meeting costs (room rental and refreshments at community meetings)
- Technical support (professional research, facilitation, or communications support, if you need it)
- Graphic design and printing (for the final report)

- Web support (if you decide to do an interactive, web-version of the report)
- Supplies and miscellaneous expenses (photocopies, postage, etc.)

Often funding for such a project can be developed from local foundations, but hospitals (which often have public health initiative budgets, and which more and more see sustainability as an expression of public health) are also a potential source of funds, as are local government, business associations, and federal agencies.

Our recommendation is to marshal as much in-kind (donated, volunteered) support as possible from the actual participants in your process. This will increase everybody's sense of investment in the project, and add to its legitimacy in the eyes of the public as a largely voluntary initiative. But if volunteer energy is short, don't hesitate to pay for those services that you really need, if you have the resources to so.

STEP 2: CREATE a Vision of Sustainability

In an early section, we described the technique of "backcasting": imagining a preferred future, and thinking backward through the steps of development that would be required to make that vision real.

We recommend that your Working Group go through a similar process -- if not a formal "backcasting" exercise, at least a good conversation about what kind of future you hope for. Alternatively, there may already be a community vision in place, developed in a planning process or civic exercise, that you can adapt and revise to be a sustainability vision as well. This will set a foundation for your future work.

For Sustainable Pittsburgh, at the regional level, it was important to us to create a set of clear *goals* that described the conditions we hoped to see created in the future (or maintained from the present). We

encourage you to follow that model, as represented in the Regional Indicators Report.

Setting goals will allow you to focus your search for appropriate indicators. And later, you can set *targets* for improvement in the key indicators you ultimately select.

Of course, a community vision is an evolving thing, and no small group should presume to speak for everyone, once and for all. But the Working Group can put forth a draft that a community process can later comment on, and amend.

Some tips for creating a compelling community vision:

Be specific. Don't just say, "We want a better downtown." Say, "We want trees, and a park, and safe streets, and some inspiring public art together with a thriving retail and entertainment center."

Be brief. Try to end up with something that can be communicated on a page or less, so that it can be quickly and easily absorbed by all who get involved with the project.

Be inclusive. Find ways to include something of everyone's contribution to the visioning process. Pull in young people, and seniors, and the people who don't usually come to community meetings.

Be sustainable. Don't forget to think in terms of all your community's systems, and all four "directions": Nature, Economy, Society, and Well-Being. Create a vision that you know will meet the full range of criteria for long-term success.

Don't be "realistic." Visioning is about imagining your community exactly as you would like it to be. When thinking a generation into the future, don't restrict yourself to modest changes that you think might be "feasible." Imagine the community that you would feel excited to build over the course of years, and hand on to your children and grandchildren.

STEP 3: *DEVELOP* the Indicators

Developing actual indicators for your community is the most complex part of the process, involving much research and discussion – but fortunately, there are many examples and resources to draw upon.

Here's a "special recipe" within our cookbook for creating indicators: a step-by-step mini-course in doing actual indicator selection, data research, and preparation for presentation. This part of the work is where the rubber meets the road for your Working Group, and where the inclusion of community participation -- managed by your Group, and your Facilitator(s) -- makes all the difference.

1. **Write goal statements.** From your community vision, you can develop a list of goals (as in the Sustainable Pittsburgh Regional Indicators Report).
2. **Brainstorm possible measures.** If a beautiful, thriving downtown is what you want, how would measure success? Draw up a list of "Candidate Indicators," like "Number of Trees," "Sales Tax Revenues from Downtown Businesses," or "Number of Public Art Installations" that you think would be possible to find data for, or to start tracking yourself.
3. **Use indicator criteria to narrow the list.** See list of criteria from Section 2 ("What Makes a Good Indicator"), and compare your list of Candidate Indicators against the criteria. For each candidate, ask yourselves if this is the best possible measure. Come up with a final list of nominees.
4. **Find data.** Two simple words, but often the most difficult step! Some data will be easy to find, even previously published in a planning document or government report. But for some of the indicators you've identified, you are likely to discover that no data exist ... or that it has been gathered irregularly or inconsistently ... or that the

available measure is in fact not as relevant as you hoped ... or that you will have to do a survey. Still, pull all the numbers together, so you can reconsider your options.

5. **Finalize the indicator set based on best available options.** Here's where you make a commitment: choose your indicators, and live with them ... for now. You can, and will, modify your indicator set over time. Often the mere act of looking for nonexistent data will spur somebody into doing some research, so that the data becomes, well, existent! Do your best to fill out a reasonable set of indicators for all four Compass points -- say, anywhere from four to ten indicators per quadrant. Accept that not all your measures will be what you'd like them to be. Indicators are not always an exact science; eventually, you have to stop pondering your options and difficulties, and move on toward publishing what you know, however imperfect.

6. **Make charts and graphs.** Turn the numbers into quantitative pictures that any reasonably educated person can quickly understand. These charts and graphs can be very straightforward, or very creative (as in the daily charts that *USA Today* publishes on its front page). If you're using the "Compass Index of Sustainability," now is the time to make those calculations and graphs as well. (The next section provides you with the computational details). Make sure the graphs are in a form that any basic word processing program or page layout software can easily handle. Your graphic artist will appreciate that.

7. **Document your work.** It is *very* -- no, make that *critically* -- important that you keep excellent records of where your data came from. Both for publication, and for updating in future years, you need to know the full data source (including how to find that unabridged catalog of Census data from which you pulled out those few interesting tid-bits that were relevant to your community). You need to document where those numbers were published, in

detail: which web site, which report, what page number, even which person you talked to. The more thorough you are, the more your successors in producing the report will thank you.

So, where does public involvement come in? In addition to getting people involved in the vision process, you can best involve citizens and civic leaders in steps 1, 2, and 5 above: Setting goals, brainstorming indicators, and helping to choose a final set based on available data and criteria. Some groups just do the public involvement part for Steps 1 and 2, and ask the public for their blessing in making a final choice that is guided, as much as possible, by the spirit and intent of the public process.

Here quick how-to on involving the public in the process, see the next special section.

Special Section:

INVOLVING THE PUBLIC

As we wrote earlier, good facilitation is an important key to successful indicator projects, and good facilitators know how to organize and plan for a successful meeting. But anyone with good people and organizing skills can facilitate a small public meeting. Here are few tips for making yours successful:

1. *Invite a representative group of engaged people.* For any meeting you want to host, make sure you've diversified your invitation list as thoughtfully as possible.
2. *Set the room up for giving a presentation and working in small groups.* This usually means an overhead projector or computer video projector, and round tables for 8 to 10 people.
3. *Give people the big picture, then present the task.* Not everybody will know about what your doing, and some people will be beginners. So give everyone a sense of the *story* you're creating. Include basic, and inspiring, introductions to the community

vision, sustainability, the Compass, and indicators before you ask for the input you want (such an indicator brainstorm).

4. *Be specific about the input you want.* Ask your small groups -- often facilitated at each table by a member of your Working Groups -- to do something very clear and concrete. Example: "For the next half an hour, please take a look at the Goals for your Compass Point, and brainstorm a list of potential measures for those goals, things *you'd* like to know in the future."
5. *Take good notes, make good reports.* Whether you're using big flip-charts, small note-pads, electronic instant-polling techniques, or having people "vote" with colored dots for their "favorite" indicators, turn it into a good summary report that you can share with all who came. This becomes your record of the community's thoughts and ideas.
6. *Stay in touch after the meeting.* Acknowledge everyone, and keep them informed of what you did with their input. You won't use everything you get from a community participation process, but you'll use a lot ... and you will benefit from every bit of goodwill you generate with the process. Afterwards, the people who were involved become your best allies for creating strategies that will move the indicators in the right direction.

Okay ... that's it for the hard part ... and here come the fun parts.

STEP 4: PUBLISH the Indicators

All the hard work you've put into framing the vision and goals, developing the indicators, and researching the data deserves to be published in as compelling a format as possible.

Fortunately again, you have many examples to draw on. Indicator reports don't need to be dry and technical; in fact, they need *not* to be, if they are to be read by a large number of people.

The key ingredients here are excellent writing, excellent presentation of the data, and excellent graphics. If you have a budget, this is your most important line-item: don't scrimp on making your report really stand out.

Here are a few guidelines for producing a professional and engaging indicator report:

1. **Turn the indicators into a story.** All the charts and graphs you've just developed tell the *story* of your community: how things are today, and how they came to be that way. Write a compelling introduction that *tells* that story, and allows everyone in the community to relate to the data on a personal level.

2. **Provide an overview.** In practice, this is often two pages: one written, one graphic. The "Compass Index" format can help you graphically, by allowing you to summarize the trends in Nature, Economy, Society, and Well-Being, as well as the Overall Sustainability Index (see next section). A one-page "Executive Summary" can be written that is organized around the same categories.

3. **One page per indicator.** As much as possible, keep your writing crisp and brief. Most indicator reports adopt a "one-page-per-indicator" rule. On each page, provide a quick headline summary of what the indicator says about that trend. Use subheads and short paragraphs to break up the text, and don't be afraid to make it lively – even as you strive to make it objective.

4. **Make the direction of change and recent trend clear.** In a summary table and on each indicator page, make sure it's obvious to the reader whether the indicator is getting better or worse, and what that "better or worse" consists of.

5. **Provide all your sources and technical details.** These can be gathered together at the back of the report, but don't make the "fine print" so fine that people can't easily check where your information came from.

Notice that all of the above can be applied to designing a web-site as well ... and on the web, your report can become a gateway with links into the original data, news stories about relevant trends, school art projects that deal with the same issues, or whatever else you can think to do that will make the indicators come to life.

But all of the above will be for naught if your report isn't noticed.

STEP 5: PROMOTE the Indicators

... A new report published by a coalition of business, environment, and social action groups has taken our community temperature ... and apparently, we have a bad case of flu! ...

... in a new report released today, researchers note that there are signs of a turnaround in local schools and improvements in local recreational amenities in recent years – potential signs of an upturn in our economic fortunes as well ...

... a study called the "Community Compass" suggests that overall, our local environment has suffered during the recent economic boom times, but suggests that there's hope to turn those trends around ...

Launching an indicators report takes a certain amount of skill and imagination. When one of the first sustainable community reports, the Sustainable Seattle report, was first launched in 1993, no news media would report on its results. Why? The editors said that "long-term trends are not news."

But two years later, the newly updated Sustainable Seattle report was *front-page* news. The difference? Good promotion.

If handled well, the release of your report can be the occasion not just for a few good news stories about local trends, but for some intensive reporting on key issues, and a real awareness-raising about the challenges facing your community -- and the vision you're hoping to achieve. (For an example of some very successful promotion around an indicator report see the special section, "Is the Good Life Melting Away?")

Special Section:

IS THE "GOOD LIFE" MELTING AWAY?

Date: July 5, 2000, 9:55 am.

Scene: Outdoor Stage, Lake Eola, Orlando, Florida.

Temperature: 96 degrees F.

For a week, the anticipation has been building. Finally, after a flurry of press releases over ten days ("New Index will Answer the Question: Is the 'Good Life' Slipping Away?"), the Healthy Community Initiative of Greater Orlando (HCI) is about to reveal the Overall Sustainability Index score for the Orlando and Orange County area.

A large block of ice sits by the stage, the words "The Good Life" carved artfully into its surface. As it melts in the hot Florida sun, TV cameras -- still waiting for the big moment -- focus on the dripping water. They'll use the images later in the nightly newscast.

Interest in Orlando's "Compass Index of Sustainability" score (renamed "the Good Life Index" for local PR purposes) has run surprisingly high. A TV reporter even showed up at the HCI executive director's house last night, hoping for an early exclusive.

Finally the appointed time arrives. A local political leader and candidate for Congress opens the proceedings, explaining that the report, along with its summaries of recent

critical trends affecting the region, sets a new baseline to measure future progress.

Then the executive director reveals the score: 60, out of a possible 100. Low enough to be "cause for genuine concern," though there are some good news stories as well. The report's co-authors highlight the most critical trends, such as the extraordinary amount of mobility in the community (nearly 50% of elementary school children change schools in mid-year) and the region's dangerous and growing dependence on fossil fuels (Florida is particularly vulnerable to global warming's intensified hurricanes). But there is good news, too, such as improved air quality and an improving perception of government's performance on the part of citizens.

That day, the report will be the lead story on every TV newscast (despite a burning tanker truck on the expressway), be a front-page news story, and be the subject of the lead editorial in the paper, which declares that "no local candidate for political office can be taken seriously" if they have not studied the report.

Particularly pleasing, to the organizers, will be the fact that the reporters will go into detail on the indicators, investigating such things as how full the local landfills are getting, why the schools are having trouble, and how the local job mix is getting less diverse.

The promotional efforts have paid off, and HCI's "Legacy 2000" report is well on its way to contributing to a new legacy for Central Florida's future residents.

Here are tips for a successful PR effort to launch your report:

1. ***Develop your lead story.*** Every indicator report usually brings to the surface one or a few trends that are surprising -- trends that may, in fact, be the key to understanding

recent events in the region. Spend some time "framing" your lead story, the "hook" that will get people interested in the big picture as well as the details.

2. *Work the press.* Build anticipation with press releases. Ask to meet with the editorial board of the local paper, and brief them in advance on the main points of the report. Talk to any friends you might have in the media. You might need some professional help to write good releases, and some coaching on how to talk to press ... but that's worth it. The press is the doorway to the public.

3. *Designate a credible spokesperson.* Your report needs to be introduced to the public by someone who has instant trust and credibility. Then that person can introduce the report's author's giving them instant credibility as well.

4. *Add some local seasoning.* This report is *your* report, telling the story of your local community, its history, its vision. Add elements to the report, and to the release strategy, that "feel like" your community – its culture, its history, its special features.

5. *Have a little fun.* As the Orlando story suggests, it's possible to add some playful elements to your release strategy (e.g., the melting block of ice) while still retaining the seriousness that such reports deserve. Again, find something that ties into your community's specific identity.

STEP 6: INSTITUTIONALIZE the Indicators

Once finished, your work is not done. For indicators to make a difference, they need to appear again and again, like clockwork. That dependable regularity is what makes a chart, a graph, or a number into an *indicator*, into something that people actually check to determine the state of things. (Would you pay attention to the Dow Jones Industrial Average if they just published it once in a while?)

The last and most important step in the process is to develop the *infrastructure* to insure future reports. This means finding ...

1. *An organizational home.* Your indicators need to live somewhere, over the long-term -- preferably in an institution that is known, trusted, and likely to be around for decades. Government offices make good candidates, as do universities and certain civic institutions. (For example, Sustainable Seattle helped give birth to indicator initiatives for the County, City, and Region.)

2. *Long-term funding.* There needs to be a reasonable assurance that the funding necessary to update the report will be there next year and the year after. This should cost much less than the first time around, but there will still be costs -- for research, for meetings, for republication.

3. *Custodians of the data ... and the process.* In addition to a physical home and money, there needs to be a group of *people* willing to take on the task in future years. Think of an indicator report as a kind of time capsule, one that gets dug up and added to every year. Someone needs to know where it is, what's in it, and what's involved in updating it.

If you've followed these not-so-simple, but quite manageable steps, you now have an indicator system for your town, community, or neighborhood. Congratulations!

Does this mean your community is now sustainable? Probably not. Will the indicators instantly change your community? Probably not. Indicators don't change anything by themselves, any more than a compass physically takes you where you want to go. But they do make the journey to sustainability more possible, and easier to navigate. The rest is up to your community....

Section 4

INDICATORS IN PRACTICE

Summary

This section describes how Indicators have been put to use around the U.S. and the world, including a detailed look at the example of the Friendship (a neighborhood in Pittsburgh) Community Plan, which makes extensive use of indicators at the neighborhood level.

What do indicators actually *do*?

The answer is complicated by the fact that indicators (1) don't actually "do" anything by themselves, except provide feedback to people, and (2) the results of using indicators are so varied. Also, indicators are a relatively new phenomenon; we're still learning how to use them, and even how to *see* the results of their use.

Even at the national and international level, indicators are mostly less than a century old. The main indicators we use today to keep tabs on the national economy or the global climate -- measures like the Gross Domestic Product (GDP), the unemployment rate, or concentrations of carbon dioxide in the atmosphere -- were only "invented" and began to be tracked in the middle of the 20th century.

At the national level, the idea of bringing together all the available national indicators into one set of "sustainability indicators" is still relatively new. (You can see an experimental set of sustainability indicators for the U.S. at www.sdi.gov.) At the state level, there are a number of indicators reports that have been very influential in setting state policy and even affecting the budget (New Jersey, Minnesota, and Oregon have been the leaders). Sustainable Pittsburgh's indicators report is one of a new wave of regional scale reports, covering six counties and designed to help people think more regionally. You can find many more examples of community and city-level indicator projects on the web; see the links in the "Resources" section.

But do indicators do locally? At the community level, the indicator movement got its real start in the late 1980s and 1990s, with a few pioneering projects that helped set the template for the future. Here are short descriptions of what these projects did, and a little bit about what has been the result:

WHERE: *Jacksonville, Florida*

PROJECT: *Quality Indicators for Progress*

A community coalition has been tracking a set of over 70 quality-of-life indicators since 1985. These indicators form a common ground for community forums and discussion about current issues, and have been the model for many other communities.

RESULT: The organization behind the indicators has become a key player in hosting community dialogues and forums on issues of importance to the community. In a number of cases, concern about specific indicators has led to the creation of specific initiatives designed to turn those indicators around.

WHERE: *Seattle, Washington*

PROJECT: *Sustainable Seattle*

This initially all-volunteer effort to define 40 sustainability indicators for an urban area (distinct from "quality of life" indicators by the focus on long-term trends, linkages, and a systemic, sustainability perspective) became the most broadly copied example, winning a United Nations award for "Best Practices." Produced three reports between 1990 and 1998. Local government has since taken on the role of indicator development and reporting.

RESULT: Indicators have been adopted by several local government agencies, including the government of King County, which hired Sustainable Seattle to manage a county-wide indicator process. The City of Seattle now has an "Office of Sustainability," sustainability has become a significant theme in local politics, and new sustainability initiatives are planned for the future.

WHERE: *Pasadena, California*

PROJECT: *Healthy Community Initiative*
City government-led effort to track "healthy community" indicators that include social, economic, and environmental measures.

RESULT: Pasadena developed a public communications plan built around the indicators and raising awareness of what it took to be a healthy community.

In just those three projects, we see very different direct results ... but all positive. Indicators serve as the basis of community discussion and initiative design in Jacksonville; they had political impacts in the area around Seattle; and they served as a public communications tool in Pasadena. Those are the three oldest projects in the nation, but none of them would claim that they have been around long enough to know, in detail, what using indicators has done for them. And all can tell stories about the unexpected "spin-off" effects having done these projects.

But indicators can be done at every scale, including the level of neighborhood. One of the best examples comes from our own area. We're going to look at that example in some detail.

THE FRIENDSHIP NEIGHBORHOOD, PITTSBURGH

Friendship is in many ways a typical working class neighborhood in Pittsburgh, Pennsylvania. Its story parallels that of the region as a whole. Friendship started off as a well-to-do bedroom community for industrial executives, but has fared less well economically since suburbanization began in the 50s and 60s, and the economy

changed in the 70s and 80s. Its once-grand houses had fallen into disrepair.

In response, two groups -- the Friendship Preservation Group (FPG) and Friendship Development Associates (FDA) -- jointly initiated and carried out a community plan for the neighborhood in 1994, with goals and objectives for community improvement. When they updated this plan in 1999, they decided to introduce the concept of indicators of *neighborhood* sustainability.

To give you the full flavor of how the Friendship group thought about sustainability, here are many of the actual goals and indicators they used at the neighborhood level. (We've left out the goals and actions for which they did not identify an indicator.)

Special Section:

EXCERPT FROM THE FRIENDSHIP COMMUNITY PLAN, 1999

Neighborhood Goal: Leadership

Action: Recruitment and Training

- Number of FPG renter members
- Number of Friendship residents in leadership roles in neighborhood organizations

Action: Neighborhood Participation

- Number of different people serving on committees
- Attendance at FPG community meetings
- Total FPG current membership
- Number of people who know four or more of their neighbors by name
- Number of joint activities (projects, meetings, etc... with other organizations)

Neighborhood Goal: Housing

Action: Improve the physical condition of the houses in the neighborhood

- Number of problem properties

Action: Improve the legal protection of the quality of the neighborhood environment

- Percentage of zoning and code enforcement cases won

Action: Increase home ownership in the neighborhood

- Percentage of owner-occupied houses

Action: Improve demand for houses in neighborhood

- Average length of time of for-sale property on market

Neighborhood Goal: Neighborhood Environment

Action: Green Space: Maintain and improve the green space we have in the neighborhood

- Number of street trees (key indicator)
- Quality of public green space

Action: Neighborhood Upkeep

- Resident satisfaction with cleanliness of neighborhood

Action: Resource conservation: reduce resource consumption in the neighborhood

- Energy use in buildings and quantity of goods recycled in neighborhood
- Domestic water usage

Neighborhood Goal: Youth, Families, and Education

Action: Sustainable households: Improve access to employment, health care, education, and social support.

- Educational attainment of neighborhood residents (key indicator)

- Percentage of households below poverty level
- Length of residency at same address

Action: Friendship Academy: Improve local elementary school by building a relationship with the faculty and volunteering there.

- Academic performance of children in Friendship School (key indicator)
- Participation of children in organized activities
- Neighborhood volunteer participation at Friendship School
- Satisfaction of neighborhood residents with day care and after school options

Neighborhood Goal: Business Borders

Action: Penn Avenue: Develop and carry through the plans for the Penn Avenue Arts Institute.

- Percentage of business buildings in good or better condition (key indicator)
- Maintenance of public space quality
- Average price per square foot for commercial space on Penn Avenue
- Number of vacant properties

Neighborhood Goal: Public Safety

Actions: make it known that crime and violence will not be tolerated in our neighborhood.

- Resident perception of safety (key indicator)
- Number of automobile break-ins and thefts in a year
- Number of residential burglaries in a year

Neighborhood Goal: Transportation and Parking

Actions: improve accessibility to the wider community with reducing the cost, frustration, and resources necessary to get from place to place

- Resident satisfaction with on-street parking
- Resident satisfaction with public transportation
- Number of people who commute to work by non-auto means

Neighborhood Goal: Marketing and Public Perception

Action: Promote the good things in the neighborhood and combat the lingering negative image of our neighborhood

- Resident satisfaction (key indicator) (to be based on surveys)
- Name recognition in the city
- Number of positive vs. negative news stories
- Positive attitude by real estate agents

HOW FRIENDSHIP CHOSE ITS INDICATORS

In 1994, at the start of the project, the organizers conducted a survey of residents to determine what people were most concerned about. The most common answers became the Goal categories and helped frame the Actions.

Over the next five years they worked in small groups, refining their understanding and developing the action plans before finally developing indicators. Here's how they described the process in their own words:

"To select a set of indicators we first researched what other communities have chosen as indicators. We looked at how well they related to our long-term goals. A broad range of indicators were presented to both the planning committee and the leadership. From that list, we narrowed our choices. We hope these indicators will inform us about the current conditions in

the neighborhood as well as show our progress toward our long-term goals."

For some of the Friendship indicators, there is no data. That is actually quite common in indicators reports: you may know what you want to measure, but not have the means to measure it yet. It's a good idea to *keep* such indicators on your list, because eventually, data may be developed -- often stimulated by the fact that your report highlights the need for it!

Data for such reports comes from many different sources, and Friendship was no different. Some came from neighborhood surveys performed by interns. Some came from interviews with school officials, residents, and business people. Other sources included a local real estate development company; annual reports from the neighborhood's one public school; The City of Pittsburgh water and sewer department; and the local newspaper.

By focusing on indicators, project organizers in Friendship can now measure their progress toward achieving their goals. But more importantly, by developing the indicators, they have trained themselves, and their whole community, how to see what's happening in their community in more detail. This, they believe, will accelerate the process of change.

As an anonymous writer once said, "In order to *do* things differently, you must first learn to *see* things differently."

PUTTING INDICATORS TO WORK IN YOUR COMMUNITY

To put *indicators* to work, you need to put *people* to work.

Indicators are measuring tools. They provide feedback about the state of things, usually in the form of charts and graphs and other interpretations of data. Generally, just doing indicators and getting them widely will make some kind of change in your

community more likely, because some people will respond to them.

But doing indicators certainly doesn't guarantee that change will occur.

If you want to be more strategic, and increase the chances that someone -- or some group of people -- will take it on themselves to improve the trends that need improving, here are some things you can do:

Convene Community Forums. These are meetings, and they can go under many names, but the essential features include participatory dialogue about what is happening in the community, as well as brainstorming about what can be done to improve things. If you convene a Forum, your job is to create a neutral space where people can speak and listen to each other with respect.

Develop an "Adopt-an-Indicator" Strategy. Some communities have gotten every individual indicator "adopted" by some local group. That group, in turn, takes responsibility for developing strategies and actions that could improve that indicator in the long run. (Often the group also pledges financial support to sustain the regular updates to the indicator itself.)

Build Indicators into Policy and Planning Systems. This is easier to do if you are, in fact, the government. However, past examples prove that even a non-governmental community group can successfully lobby to have its indicator set adopted by local authorities, so that they will hold themselves (and the rest of the community) accountable for addressing the pressing issues that the indicators reveal.

Do Creative Communications. Indicators can be the information heart of a broader public communications campaign, to raise awareness about what is happening in your community. Use creative advertising techniques, children's drawings, local artists, awards and contests, whatever will

make it more likely that people will pay attention, and then take action.

Do Presentations and Workshops. An indicator set can also be the heart of a more professional presentation, using overhead slides and pointing out those key issues deserving the attention of the audience. Often you can plant seeds that way for others to adjust their action programs to focus on new priorities, revealed by the indicators.

Create a Broad-Based Community Improvement Program. You yourself, once you've finished the indicator report, can then develop a larger program ... or perhaps indicators are *already* part of your larger program. The classic elements of such a program are visioning, goal setting, and action planning, with plenty of relationship and trust-building among a broad cross-section of the community to make it meaningful. Indicators can serve as the touchstone for such a program, making it clear what needs to be improved, and how you'll know it when you achieve success.

Be Patient. While it is possible to do quite a number of things to stimulate people to action, based on an indicator report, the key ingredient is always patience. Change takes time. Indicators take time -- and repeated exposures, usually over years -- to be really absorbed into the minds and hearts of the community. But one day you'll look back, see lots of good things that have happened to make things better, and if you're lucky, you'll know that you had something to do with it.

Section 5

CONSTRUCTING — AND USING — A COMPASS INDEX OF SUSTAINABILITY

Summary

This section provides general introductory guidance on how to convert an indicator system into a Compass Index of Sustainability, and includes the conditions of use for the Compass (which is copyrighted by AtKisson, Inc., but licensed to Sustainable Pittsburgh for use in the Southwestern Pennsylvania region.)

The "Compass Index of Sustainability" is a way of presenting your indicators in a way that makes them very engaging, intuitive, and easy to understand. It also helps turn the indicators into a real scorecard of community progress. After some important information about licensing this methodology, this section will walk you through the process of taking your data and constructing a Compass Index, to enhance the usability -- and the media-friendliness -- of your indicator system. This is meant only as a basic instructional guide; more detailed examples and documentation is available through the sources mentioned below.

CONDITIONS FOR USE

The methodology for constructing the Compass Index of Sustainability, and the Compass display itself, were developed by AtKisson, Inc. -- advisors to Sustainable Pittsburgh since its inception -- and are protected by copyright.

Sustainable Pittsburgh has developed a licensing agreement with AtKisson, Inc. that allows local community initiatives in Southwestern Pennsylvania to use the Compass array without paying an additional licensing fee.

However, the agreement does require that your use of the Compass be accompanied by the appropriate copyright notification. On any page or website displaying the website, please include the following.

The Compass Index of Sustainability is owned and licensed by AtKisson, Inc. © 1997, 2000, All Rights Reserved. Used by special agreement. See www.AtKisson.com for more information.

BASIC INSTRUCTIONS

First, we start with a glossary:

An *index* is a number of indicators combined together. The process of combining them is called *aggregation*. And when you convert them from raw numbers into another set of common numbers that allows you to rate their performance compared against each other, that's called *scaling*.

Scaling, aggregating, and indexing are the three basic ingredients for constructing a Compass Index.

Step 1. Scaling. The first step in constructing a Compass Index is to convert your raw data into a performance scale -- to translate it from, say, "Number of Good Air Quality Days" into a 0-100 scale, where "0" represents the worst conditions you care to imagine, and "100" represents the ideal: sustainability.

To scale each of your indicators, do the following (with your Working Group):

1. Consider the raw data, and consider your vision of sustainability. What would be "ideal" for this indicator? Example: In one small neighborhood with problems around real estate values and public safety, the "Number of broken windows" was considered an useful measure of overall quality in the housing stock. The ideal in that case would be no broken windows. Call that "100" on the scale.

2. Then consider your "worst case scenario." What are the conditions that would signify a collapse in your community, or a truly dangerous situation? In this example of broken windows, you would have to make a decision: what number of broken windows constitutes a signal that conditions in the neighborhood have gotten very, very dangerous? Often, this will require a somewhat intuitive decision, a "judgment call." But once you make that decision, call that level "0" on the scale. Anything worse than that will just register as 0 (and you never want to see those kinds of conditions in your community!).

3. Once you've decided on your 100 and your 0, it's just a math problem to convert all your data points to numbers on the 0-100 scale. Now you have your performance scale for that indicator. Note: For some very common indicators, it is possible, and often advisable, to use the same scaling standards as other communities. These standards are generally based, themselves, on various national or international standards and goals. But at the local community level, there are often many indicators that are specific to that place, and you'll need to create the scale for that measure yourself.)

4. Repeat this process for every indicator, until all of them (for which you have sufficient data) have been converted to a 0-100 scale. This will occasionally be quite a difficult decision, as you balance out true sustainability considerations (such as physical limits to sprawl) with political considerations (such as what level of new

land development is the lowest that is politically defensible in your community).

5. Graph the results of all your scaling conversions, and compare them to each other. How do they look? Do the problems that now rank low actually *feel* worse than the problems that currently rank higher? Are the proportions "right"? Remember, the process of scaling the indicator is in large measure a judgment call; this is you and your group *deciding* how "bad" certain problems are, compared to other problems, and compared to your standards of sustainability. As much possible, these standards should be determined by science and good common sense about what *sustainability* -- the long-term well-being of that issue -- really means in that context, and not on politics or personal preference.

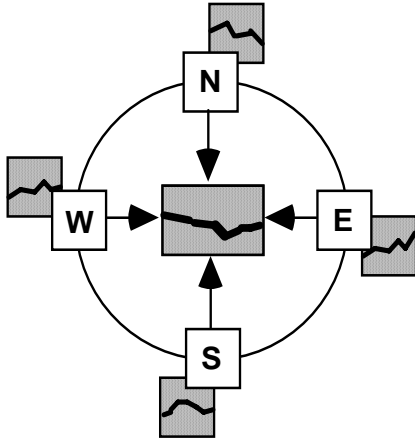
6. Make any final adjustments to the scaling of each indicator, and stop. Not everyone will agree on where you scaled the current readings on the 0-100 meter ... but from here forward, improvements will head up toward 100, and worsening conditions will take you down toward 0. You can now use the scales to see just where you are, on the spectrum of performance between "ideal sustainability conditions" and "social collapse."

Step 2. Aggregating and Indexing.

Once you've scaled all your indicators, you are now ready to combine them into indices. For each cluster of indicators -- Nature, Economy, Society, and Well-Being -- simply take the scale readings for every year for which you have reasonable data, and average them together. Simple averaging ensures that every indicator gets equal weight, and it keeps the process simple so that others can understand it.

When you have all four Compass Point Indices prepared, it an even simpler matter to create your Overall Sustainability Index: just average the four Compass Point Indices together.

You can now take these graphs and display them in the Compass Index of Sustainability array. Your final product will, in general terms, look something like this:



Caution: An index can help to get your message across, as the Legacy 2000 experience in Orlando, Florida, strongly demonstrated. But at the same time, an index can “hide” the details of your data; and while the Compass method is relatively easy to understand and transparent, there will still be many people who might place more emphasis on the “big numbers” than on the important details behind them. Make sure, if you use the Compass, to give the detailed trends behind the index as much attention as the Index itself!

To see an example of a fully developed Compass, go to www.AtKisson.com, click “Start Here,” then find the “Compass” button. That will lead you to where you can download the Orlando “Legacy 2000” report. From there you can find resources that will help you further.

TECHNICAL NOTES

Missing Data

There is almost always missing data for an indicator report, and sometimes there is enough missing data that doing a Compass Index is impossible. However, it is often possible to construct a working Compass

Index under less-than-perfect conditions, by filling in the blanks in your trend lines. If you have data from last year, and from five years, it is acceptable to interpolate or extrapolate for the years in between.

The purpose of the Compass is primarily to set a baseline for assessing *future* performance. As long as you acknowledge clearly in your documentation that you have extrapolated and interpolated to fill out missing years, and are thoughtful about the extent to which you must do that to have a working Index, the Compass can still do what it is designed to do: point you in the right direction. The Compass can still tell you, in the future, whether an issue has gotten better or worse, and by how much, compared with other issues -- and whether your Overall Sustainability has improved, together with the Compass Point Indices. Data should only improve over time.

Assessing Confidence Level

The Compass index methodology includes a very informal (non-statistical) way of gauging your own confidence in the index. For each indicator, make an estimate of how confident you are in the whole data series you are using, from 0% to 100%. For example, if you're using data from a respected government agency, and you had solid numbers from that agency for every year in the index, you might register that as 90-100% confidence. However, if you have only two or three years out of ten, and one of those data points is an “official estimate” (as is often the case with U.S. Census data), you might gauge your confidence at only 20%. Averaging together all these confidence ratings will give you an overall “Informal Confidence Assessment” score that you can also publish with your index. Then one of your additional goals for future years becomes to increase that number as well.

Documentation

If you use the Compass Index, be sure to include information in your final report on

how you arrived at the various scales. What was your collective reasoning behind where you set the 0- and 100-levels? What special mathematical functions, if any, did you use to perform the conversion? This allows interested people with a knack for numbers to "look under the hood" and understand this new tool in more detail. They may also question your reasoning; you can take in their input and consider any modifications in a future edition.

Help is Available

If you would like to create a Compass Index, but you find the technical details daunting, help is available from AtKisson, Inc. through Sustainable Pittsburgh. Please call Sustainable Pittsburgh for further information.

Section 6

RESOURCES

These days, there is a wealth of resources on the web that can help you in working on indicators, in addition to a growing number of books and other handbooks. We've provided a few of these below, grouped by category.

Technical Help on Community Indicators

Checklists, Training Materials, and More

<http://www.sustainablemeasures.com>

This consultancy on sustainability indicators makes a great variety of very helpful tools available for free on the web.

Indicator Database

<http://www.sustainablemeasures.com/Database/index>.

The indicator database provided by Sustainable Measures allows the user to search by categories or keywords. Sustainable Measures has a system for ranking indicators based on criteria that it uses.

Inventories & Indicators

<http://www.sustainable.org/creating/indicators.html>

An annotated list of related resources, related reading, case studies and links to related topics.

Sustainability Community Resources

International Institute for Sustainable Development (IISD)

<http://iisd.ca>

This independent Canadian research institute maintains excellent resources on sustainability, and links the community issues to the global. See the "Communities" section especially.

Toward Sustainable Communities - Resources for Citizens and Their Governments

<http://www.newsociety.com/>

By Mark Roseland, New Society Publishers, 1998 (256 pages) - Cost: **\$19.95**

A classic in the field, and a thorough overview of sustainability, from a somewhat more environmental perspective.

Tools for a Sustainable Community

<http://www.iclei.org/la21/onestop.htm#inet>

From International Council for Local Environmental Initiatives (ICLEI), a web guide to technical assistance, funding sources, publications and links for creating a sustainable community.

Knowing Your Community, Showing Your Community: A Handbook for Community Leaders and Organizers.

<http://www.communityresources.org/pubs.htm#kyc>

Community Resources, 1997 (28 Pages)

This user-friendly, 28 page guide provides a step-by-step method for residents to use to collect, present and control information about their neighborhoods.

APA Policy Guide on Planning for Sustainability

<http://www.planning.org/govt/sustdvpj.htm>

American Planning Association

An important policy paper on sustainability and community planning, by the leading professional organization in the field.

Green Plans: working strategies for a sustainable future

<http://www.rri.org/bestpractices/primer.pdf>

From: Resource Renewal Institute (44 Pages)

"Green Plans" are sustainability plans, used worldwide to promote better futures for cities and countries.

Seward Neighborhood Group

<http://freenet.msp.mn.us/org/sng/>

With nearly four decades of community experience, the Seward Neighborhood Group formed a Sustainability Indicators Task Force that consisted of staff and resident leaders from the neighborhood's working committees. This site documents the group's current work, and includes all the available census data on the neighborhood.

Examples of Other Projects

A Compendium of Indicator Projects

<http://iisd.ca/measure/compindex.asp>

This is a comprehensive database of hundreds of indicator projects from around the world.

Community Indicator Projects on the Web

<http://www.rprogress.org/resources/cip/links/cips>

Redefining Progress provides an extensive list of direct links to other community indicator projects.

A Community Indicators Case Study: Addressing the Quality of Life in Two Communities

http://www.rprogress.org/pubs/pdf/CI_CaseStudy1.pdf

By Kate Besleme, Elisa Erquiaga, and Judith Silverstein, 1999

Analyzes what worked, and what didn't, in two communities.

Santa Monica Sustainable City Program – Sustainability Indicators

<http://www.ci.santa-monica.ca.us/environment/policy/indicators.htm>

From City of Santa Monica Environmental Programs Division

Sustainability Indicators Task Force Report. Santa Monica has one of the oldest indicators projects in the country.

Three Views On The Success Of The Indicators Program In Jacksonville, Fl

<http://sustainable.state.fl.us/fdi/fscc/news/local/jcci1.htm>

From Florida Sustainable Communities Center, a review of the oldest continuous community indicator effort in the U.S., dating to 1985.

Central Texas Indicators 2000 Sustainability Indicators Project of Hays, Travis and Williamson Counties

<http://www.centex-indicators.org/report.html>

A Report on the Economic, Environmental, and Social Health of the Central Texas Region.

Community Indicator Projects That Work

http://www.state.fl.us/fdi/fsc/news/world/9901/kate_ind.htm

By Kate Besleme, Redefining Progress

A short summary documenting a number of projects that have had good results.

Toward Sustainable Communities - Resources for Citizens and Their Governments

<http://www.newsociety.com/>By Mark Roseland, New Society Publishers, 1998 (256 pages) -

Cost: \$19.95

Other Indicators Handbooks

Guide to Sustainable Community Indicators, Second Edition

<http://www.sustainablemeasures.com>

By Maureen Hart, 1999 (202 Pages) - **Cost:** \$19.95

Available here is an excellent overview to doing indicators, from a slightly different perspective than this handbook gives you, and with more technical details on actual indicators to be chosen.

The Community Indicators Handbook: Measuring Progress Toward Healthy and Sustainable Communities

http://www.rprogress.org/pubs/publist_program.html#cip

By Redefining Progress, Tyler Norris Associates, and Sustainable Seattle, August 1997 (155 Pages) - **Cost:** \$20.00

This handbook was co-written by several of the authors of this handbook as well, and while somewhat less up to date, it includes more details on finding data and managing a large process.