Evaluating and Measuring Community Sustainability

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Why measurement and indicators?

What we measure is what we do

Well-Chosen Indicators Facilitate

- **Continuous improvement**
- **Creation of learning communities**
- **Building strong partnerships**



Whose behavior do you want to change?
Who will benefit by those changes?



Purpose of Indicators

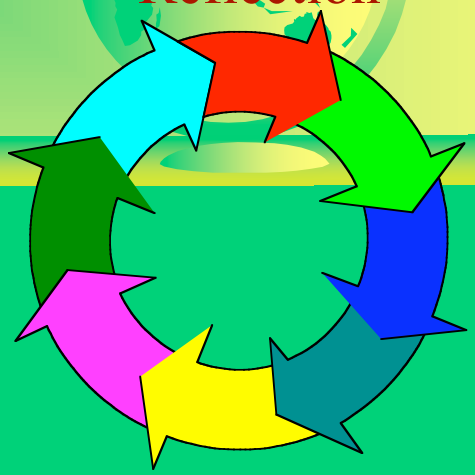
Show progress toward achieving identifiable goals

Enable key participants to improve the system from their own level

Support communication of effectiveness and performance

Continuous Learning

Reflection



Action

Common Pitfalls in Selecting Indicators

- Unclear relationships between outcomes and process activities
- Default to readily available information
- Selecting unmeasurable as indicators
- Irrelevant to goals/activities
- Demanding to be comprehensive



Process Framework for Identifying Indicators

- Inputs: Resources applied to meet process objectives
- Activity Measures: meeting, time, cost, quality, participation
- Outputs: Immediate direct results
- Outcomes -- longer term results mediated through process outputs and other systems activities



The Conundrum of Causality

Time Order

Covariation

Elimination of Rival Causal Factors



Mapping Outcomes

Who are the partners?

What are the shared goals/outcomes?

What are the inputs of each partner?

What are the activities/processes involved in bringing together the inputs?

What were the outputs?

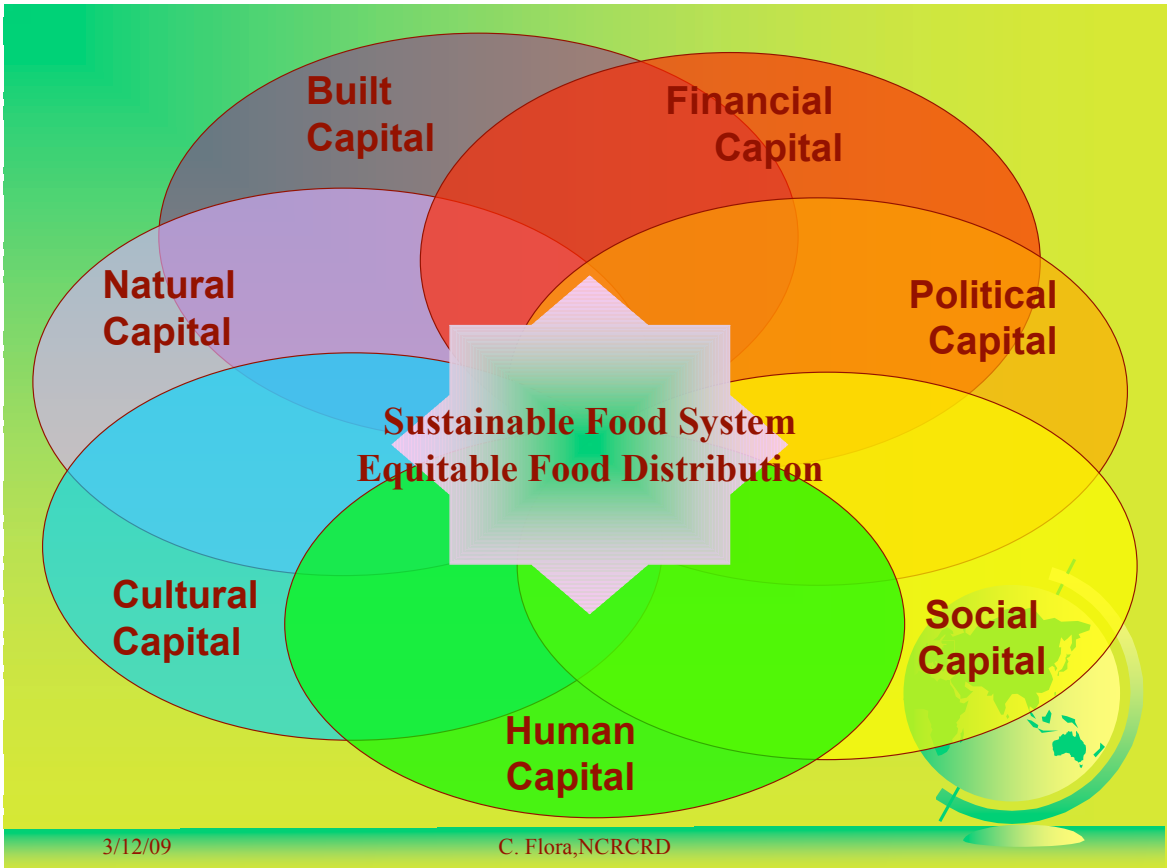
What outcomes were achieved?



Criteria for Measures

- Likely to change because of what we do
- Responsive to what we do
- Resistant to "noise"
- Easy to measure at different points in time





National Level Good Food Measures, built on work by Molly Anderson for the Kellogg Foundation

Healthy

Fair

Affordable

Green



Healthy Food

(after Anderson, 2008)

Diet-related disease prevalence is decreasing.

Obesity prevalence is decreasing

Fruit and vegetable consumption meets current US dietary guidelines

The prevalence and cost of food contamination are decreasing

Direct farmer-to-consumer sales are growing in value

The number of farm-to-school programs that bring fresh local foods from farms to school cafeterias is growing

Public policy promotes substitution of healthier foods into diets

Public policy promotes substitution of healthier foods into diets

Cost to society of overweight and obesity



Fair

- **Farmworkers receive wages sufficient to support a household for full-time work**
- **The percentage of farmworkers hired through labor contractors is declining**
- **Food system workers have safe, healthy working conditions**
- **Farmers receive market prices consistently above costs of production**
- **Farmers receive market prices consistently above costs of production**
- **Concentration of market held by top 4 companies within a sector**
- **Percentages of farmworkers, food-processing workers, fast-food restaurant workers or food retail workers who belong to unions are increasing**
- **Agricultural pollution does not have disproportionate effects on any group of people distinguished by race, color, class, income, educational level or other characteristics.**



Affordable

- **The prevalence of household and childhood food security is increasing**
- **The prevalence of household food security is increasing**
- **The prevalence of household food security is increasing**
- **The number of people affected by food deserts is declining.**



Green

Farmland is remaining in production

The amount of land under Integrated Pest Management (IPM) is increasing

The amount of acreage enrolled in federal conservation programs is increasing.

- **Biodiversity in non-farmed areas within farms and in natural areas adjacent to farms is increasing.**
- **Fossil fuel use in food systems is declining**
- **Use of renewable energy on farms is increasing**



Farm Level

Own some of the land farmed

Has a succession plan to carry the covenant

Eats directly some of what is produced

Community members eat directly some of what is produced

Drinks local water, rather than bottled water



Human Capital

education

skills

health

values

leadership



Increased use of the knowledge, skills, and abilities of local people

Identify capacities

Enhance capacities

Recombine capacities



Percentage of residents in the foodshed who consume local foods on a regular basis

Measure: Consumption of local food decreases food miles and encourages local food system diversity. Awareness of eating local food increases the salience of sustainable food systems for quality of life

Source: Households in the foodshed

Method: Survey by phone or mail



Social Capital

mutual trust

reciprocity

groups

collective identity

sense of shared future

working together



Strengthened relationships and communication

increased interactions among unlikely groups within the community

increased interactions among unlikely groups outside the community

increased availability of information and knowledge



1.A. Number of newcomers or minority citizens participating in CSAs.

Measure Diversity and openness of participation have been shown to be critical for sustainable food systems. Sustainable food systems depends on active participation of a large cross-section of stakeholders.

Source CSA member lists and discussion of CSA managers as to length of residence and ethnicity of the members.

Method Annual meeting with each CSA manager to identify newcomer and minority members of their CSA



1.B. Age distribution of community members at sustainable food events.

Measure Building new community connections depends on bringing together individuals who feel more comfortable with people like themselves. Cross-group participation--particularly across generations--strengthens community participation.

Source Sustainable food events

Method: Sign in with age categories; count by general age categories



2.A. Number and diversity of volunteers participating in actions related to sustainable food systems.

Measure Sustainable food systems depend on active, voluntary participation of a large cross-section of stakeholders. When a small number of people who are very similar to one another do everything related to increasing food system sustainability, they get burned out and, as a result, the community may lack alternative ways of reaching food system sustainability

Source Community organizations and local government bodies

Method Document review, survey, interviews



Indicator 1. Participation

1.A. Number of organized public opportunities for discussion of the food system.

Measure Good community decisions are based on listening to

and valuing diverse ideas and speakers. Several opportunities for

discussion at different locales, times, and dates facilitate this

inclusive communication. Chances for discussion of alternatives

help in choosing and modifying actions.

Source Newspapers and public notices

Method Content analysis



2.B. Number of inches of newspaper space devoted to sustainable food systems

Measure Newspapers have been shown to be critical in generating community success by laying out issues and alternatives over time.
Diverse participation in community actions in part is a function of the level of media publicity to increase awareness of sustainable food systems.
Source Newspapers
Method Count total column inches of print devoted to sustainable food systems



Improved community initiative, responsibility, and adaptability

- Shared vision
- Building first on internal resources
- Looking for alternative ways to respond to constant changes
- Loss of the victim mentality
- Letting go of the cargo cult mentality



1.B. Percentage of community initiatives that are linked to building a sustainable food systems

Measure The more community initiatives that are linked to sustainable food system, the greater the chances that the vision will be realized.

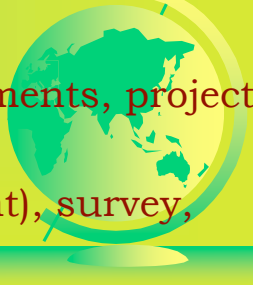
Often there will be many actions, but, because they are not linked to a vision or goals, they do not necessarily move the community

closer to its goals for a sustainable food system.

Source Community organizations and local government bodies

Method Documentation review (mission statements, project plans

and existing community-wide vision statement), survey, interviews.



3.B. Ratio of number of alternatives to number of issues

raised for public consideration.

Measure The ability to separate problems from solutions is a major factor in adaptability and responsibility.

Source Newspaper, county and city government minutes, broadcasts of county and city government meetings

Method Document review/counting alternatives per issue



Natural Capital

Air

Water

Soil

Biodiversity

Landscape



Sustainable, healthy ecosystems with multiple community benefits

human communities plan and act in concert with natural systems

ecosystems are used for multiple community benefits

those with alternative uses of the ecosystem seek common ground



Financial Capital

debt capital

investment capital

tax revenue

savings

tax abatement

reallocation

grants



Built capital

housing

sewers

water systems

factories

day care centers

roads

manufacturing plants



Appropriately diverse and healthy economies

reduced poverty

increased business efficiency

increased business diversity

increased community residents' assets



1.B. Number of children on free or reduced school lunches.

Measure **These data, which can be gathered from local sources, allow for measures in changes of household income among the portion of the population with school-age children.**

Source **Local schools**

Method **Written or phone request to the school**



Amount of local food in the school lunch program

Measure: Often school lunch programs provide calorie dense food sourced nationally. Sourcing more food locally provides fresher ingredients and fewer additives and is particularly important for children from low-income households, for whom this may be the major meal of the day

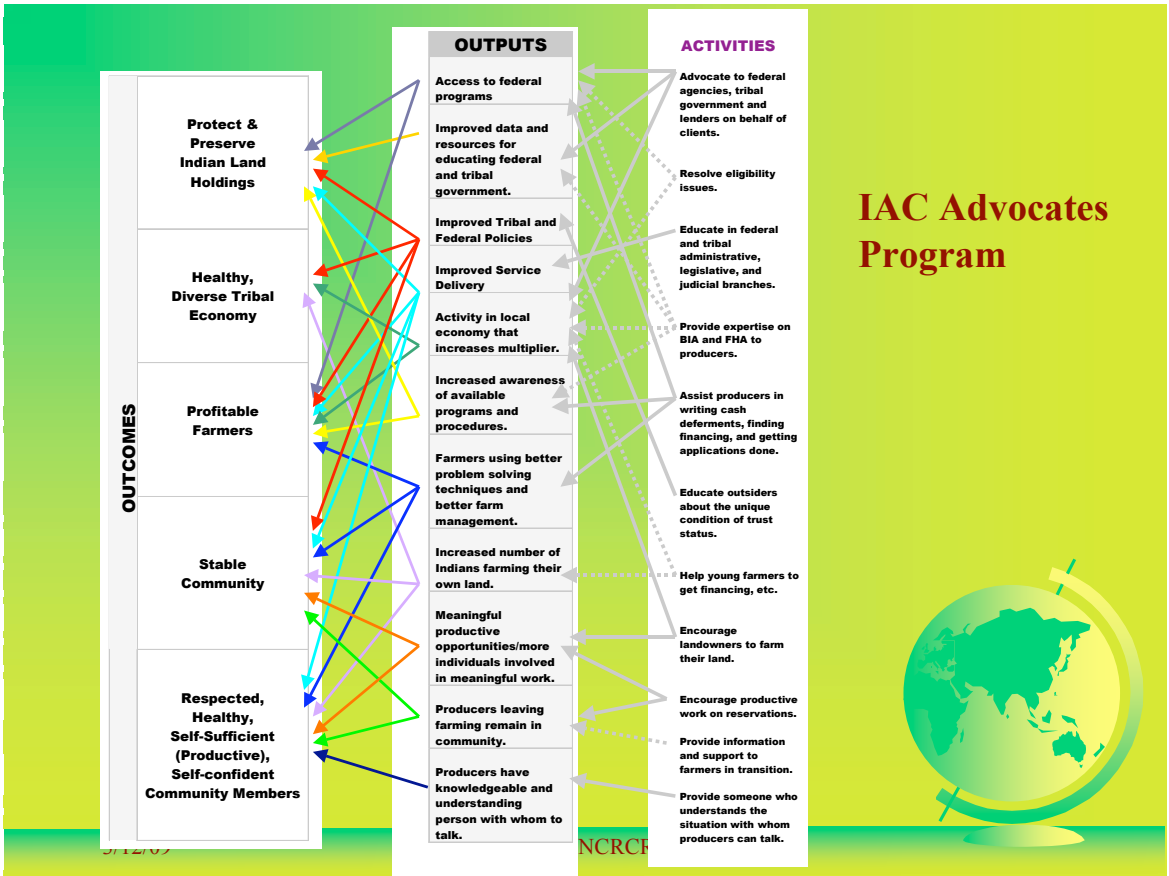
Source: Local school meal supervisors

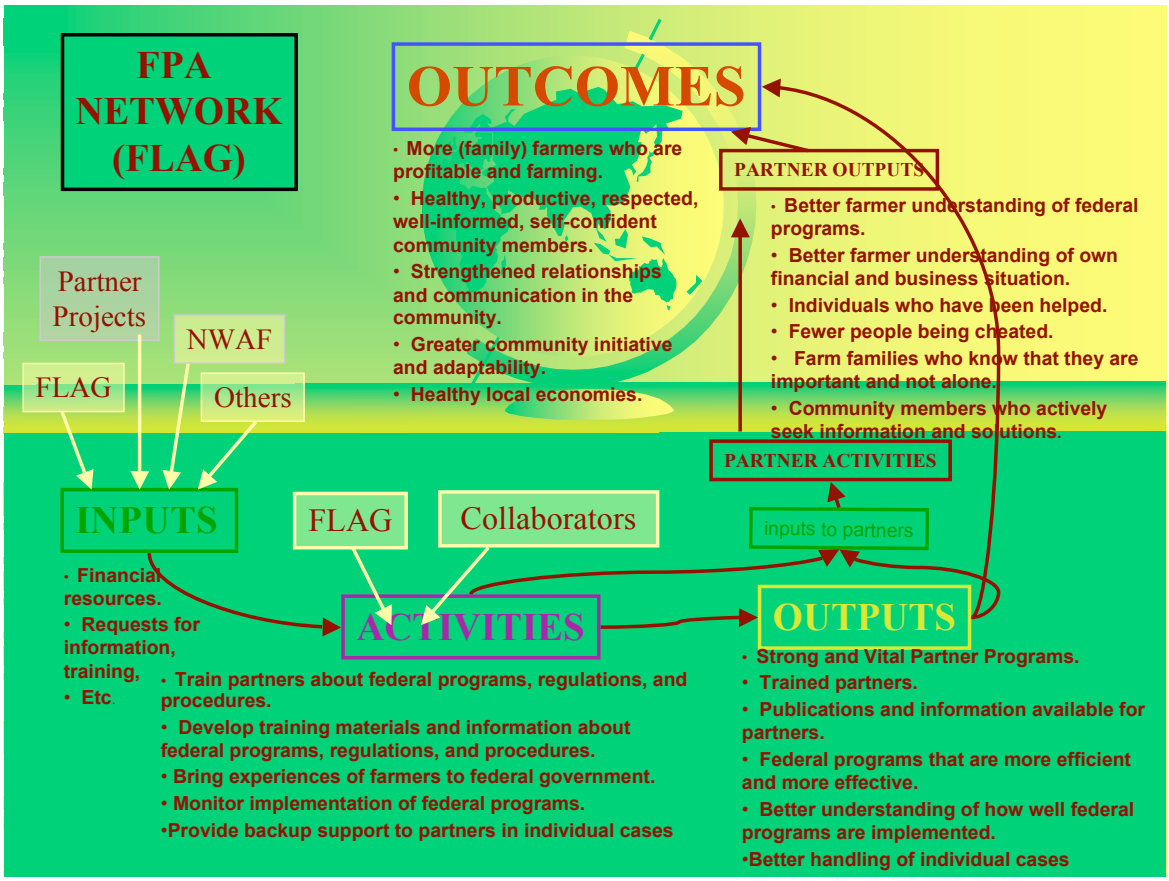
Method: For the baseline data, it is good to have a meeting with those responsible for provisioning the school lunches to devise a method for measurement -- $$ spent or pounds purchased – and work with them on ways to acquire local foods. In future years, they can be given a form to fill out that they have participated in creating.

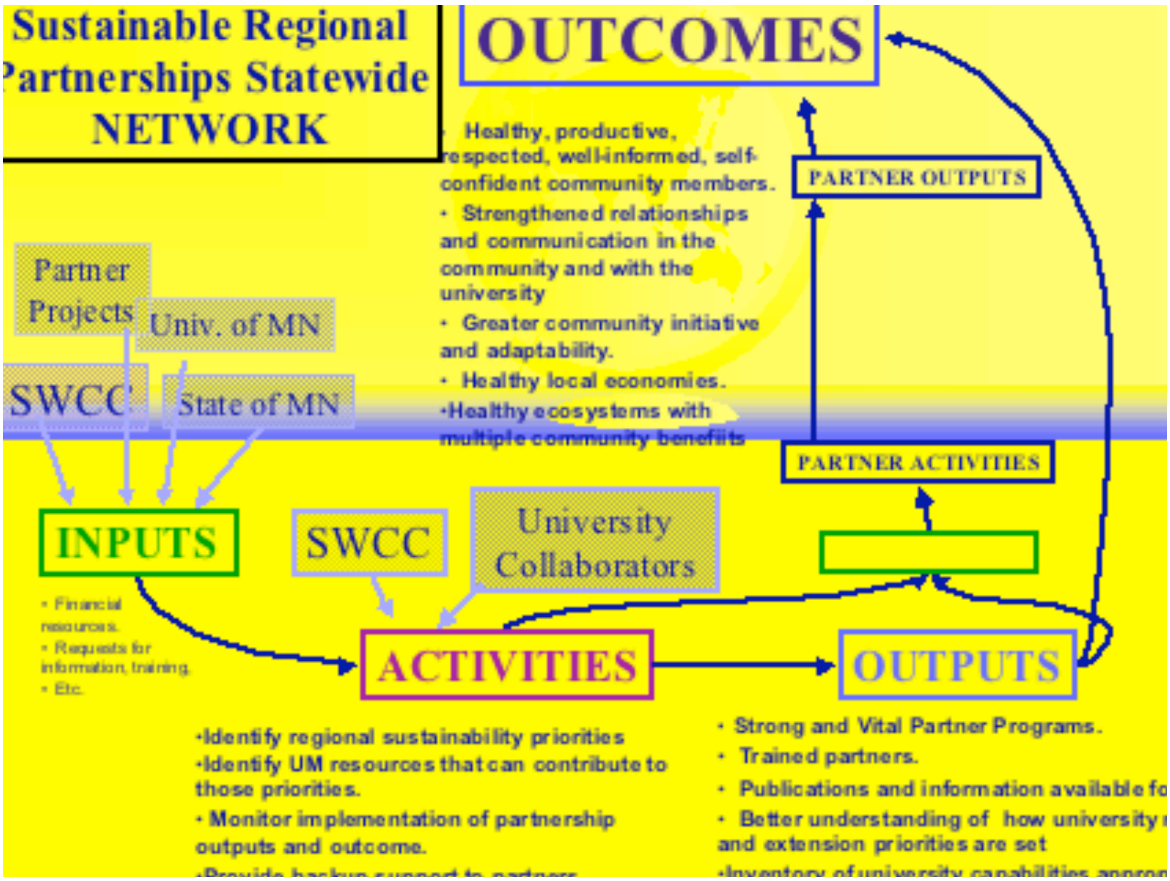


Caution!

Privileging any form of capital over another can deplete all forms of capital in the long run.




FPA NETWORK (FLAG)
OUTCOMES
· More (family) farmers who are profitable and farming.
• Healthy, productive, respected, well-informed, self-confident community members.
• Strengthened relationships and communication in the community.
• Greater community initiative and adaptability.
• Healthy local economies.
PARTNER OUTPUTS
· Better farmer understanding of federal programs.
• Better farmer understanding of own financial and business situation.
• Individuals who have been helped.
• Fewer people being cheated.
• Farm families who know that they are important and not alone.
• Community members who actively seek information and solutions.
Partner Projects
NWAF
FLAG
Others
PARTNER ACTIVITIES
INPUTS
FLAG
Collaborators
inputs to partners
· Financial resources.
• Requests for information, training,
• Etc.
ACTIVITIES
OUTPUTS
· Train partners about federal programs, regulations, and procedures.
• Develop training materials and information about federal programs, regulations, and procedures.
• Bring experiences of farmers to federal government.
• Monitor implementation of federal programs.
•Provide backup support to partners in individual cases
· Strong and Vital Partner Programs.
• Trained partners.
• Publications and information available for partners.
• Federal programs that are more efficient and more effective.
• Better understanding of how well federal programs are implemented.
•Better handling of individual cases


Sustainable Regional Partnerships Statewide NETWORK
OUTCOMES
Healthy, productive, respected, well-informed, self-confident community members.
• Strengthened relationships and communication in the community and with the university
• Greater community initiative and adaptability.
• Healthy local economies.
•Healthy ecosystems with multiple community benefits
PARTNER OUTPUTS
Partner Projects
Univ. of MN
SWCC
State of MN
PARTNER ACTIVITIES
INPUTS
SWCC
University Collaborators
· Financial resources.
• Requests for information, training.
• Etc.
ACTIVITIES
OUTPUTS
•Identify regional sustainability priorities
•Identify UM resources that can contribute to those priorities.
• Monitor implementation of partnership outputs and outcome.
• Strong and Vital Partner Programs.
• Trained partners.
• Publications and information available fo
• Better understanding of how university
and extension priorities are set

Measurement Plan for Outcome 3

1. What is an important indicator of improved community initiative, responsibility and adaptability?

Greater community involvement in developing, implementing and monitoring long-term planning for a sustainable food system.

2. What is a measure related to this indicator?

Frequency of use of food system planning by regional organizations, industry and businesses.

Number and diversity of people and organizations participating in regional food system planning.



3. What is the base line measure?

Number of regional projects, organizations, industries and businesses that worked from a plan at the time of the SPARCs conference.

Number and diversity of people and organizations involved in regional planning efforts at the time of the SPARCs conference.

4. What is the unit of measure?

Organizations.

People and/or organizations.



5. Where will we get the information we need?

Community/regional organizations.
Local newspapers.

6. How will we get the information we need?

Participating in local and regional meetings, networking with other regional organizations, and reading local and regional newspapers.



7. Who will collect the information we need?
A list of important organizations that impact the future of the area was made at a Food Forum meeting. Different members agree to attend each meeting to gather data on participants and use of planning, or to make sure someone else did it. At each meeting they would pass around a sign-up sheet with the name, address and occupation of each person attending. Those collecting the lists could note such aspects as age, gender, ethnicity and whether or not the individual is a newcomer to the area. Members of the Food Forum who participate regularly in such meetings and are willing to take the responsibility to document participation and agendas on an ongoing bases will collect the information. The information will be compiled at the Forum offices.

8. Will they be paid?
No

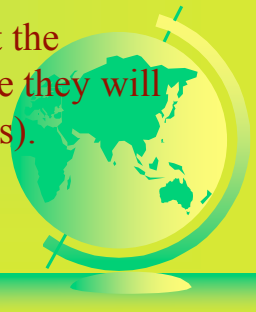


9. How many hours will it take?

A few minutes at each meeting and extra attention while reading the papers and an hour at the end of the year to compile the data on numbers attending, number of time plans were made or referred to, and the age, ethnic, gender, occupational and newcomer status distribution of the attendees.

10. When will the information be collected?

On an ongoing basis. Each volunteer will report the information at the annual Forum meeting (where they will also collect basic information from the attendees).



11. How will we measure progress from the base line?

Change in frequency of planning.

Change in number and diversity of participants or organizations.

12. How else can we use this information to achieve our community's goals?

Articles can be written in local newspapers about new developments or about new partnerships with special emphases on reasons the system is successful. At the same time, understanding what is happening on a regional basis can allow relevant information to be shared and good ideas to be disseminated. The signup lists can be used to keep mailing lists updated. Missing ages or ethnic groups can be invited to attend the meetings, or meetings changed so it is more convenient for them to attend. For example, Moving the meeting from a lunch meeting to an early evening meeting allowed teenagers and timber workers to attend.



What you think is important to measure is based on your theory of change

You need to be clear on where you are going collectively before you can measure your progress in getting there

Mental models of what causes what may mean lead to very different alternatives and strategies

Is is easier to focus on strategies and activities than make explicit our goals and our mental models.



Components of Sustainable Food Systems

Economically feasible

Diverse distribution channels

Conserves and enhances natural resources

Balanced nutrition for consumers

Efficiency based on full costs and careful consideration of output that is most important and what inputs are included in costs

Production resources, climate (temperature, water), knowledge base, technology, labor – linkages between components and components themselves.

Capacity to deliver an adequate, healthy diet to the population now and in the future



Components of Change

- Countering intuitive (educating to accepts alternatives)
- Critical thinking for discovering alternatives
- Experimentation on the ground as a guide to constant change
- Public engagement
- Dynamic characteristic for modeling change – do not monitor something that will not change
- Agriculture systems should not degrade our ecosystem to decrease possibilities of future food production.
- Balance of internal and external, among the capitals which are highly contextual

