The Use of QOL Theories in the Development of QOL National and Community Indicators Projects

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Most of the theoretically-based QOL indicators projects can be classified in terms of six major theoretical concepts: (a) socio-economic development, (b) personal utility, (c) just society, (d) human development, (e) sustainability, and (f) capability/functioning. I explain the core aspects of these six theoretical paradigms and show how they help guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct. Thus, a taxonomy of QOL indicators guided by a given theoretical concept is likely to be very different from others taxonomies guided by different theoretical concepts. Thus, the objective of this paper to explain these theoretical paradigms and show how they guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct.
Many community planners believe that their basic mission is essentially **economic development**. This is because economic development is the foundation for social development. When a community achieves satisfactory levels of economic development, social development follows.

Therefore, community indicators projects guided by the opulence concept collect data on economic indicators such as household income, unemployment, type of jobs, quality of jobs, cost of living, poverty, and homelessness.
Socio-economic development → QOL

SOCIO-ECONOMIC DEVELOPMENT
Socio-Economic indicators of a community, state, or nation

- Household income
- Unemployment
- Type of jobs
- Quality of jobs
- Cost of living
- Poverty
- Homelessness
A More Liberal View of Socio-Economic Development

Socio-economic development can be viewed broadly in terms of:

- Financial or economic capital
- Human capital,
- Social capital,
- Built capital, and
- Natural capital (Anielski, 2007).
Human Capital
Social Capital
Economic Capital
Built Capital
Nature Capital

QOL

CAPITAL
### Human capital

- **Health and wellness**: life expectancy, mortality rate, infant mortality, low birth weight babies, teen birth rate, tobacco use, suicide rate, auto crash mortality rate, etc.
- **Recreation and leisure**: physical activity, affordable recreational activities, etc.
- **Work**: labor force participation rate, employment rate, unemployment rate, etc.
- **Time use**: unpaid work, unpaid household work, unpaid parenting, unpaid eldercare, etc.
- **Education & learning**: educational attainment, high school drop out rate, average class sizes, etc.

### Economic & financial capital

- **Economic vitality**: GDP per capita, GDP annual growth rate, housing starts, building permit value per capita, etc.
- **Living standards**: median income, average household expenditures as % of income, incidence of low income households, dependency on entitlement programs, etc.
- **Affordable housing**: average value of dwelling, property taxes per person, demand for subsidized housing, etc.
- **Affordable & efficient gov’t**: municipal gov’t expenditures per citizen, municipal tax rates, etc.

### Social Capital

- **Diversity**: ethnic diversity, population that is foreign-born, etc.
- **Trust and sense of belonging**: trust of neighbors, neighborhood, community organizations, etc.
- **Safety & crime**: violent crime, property crime, drug crime, motor vehicle collision rate, etc.
- **Equity & fairness**: income gap between top and bottom income households, ratio of female earnings to male earnings, etc.
- **Community vitality**: number of cultural community events, attendance of public forums, etc.
- **Citizenship**: voter turnout on elections, etc.

### Built Capital

- **Public & private infrastructure**: private dwellings, growth in # of dwellings per 100 people, % of dwellings requiring major repairs, municipal gov’t spending on transportation infrastructure, recreation facility venues, bike and walking trails, public transit expenditures by municipal gov’t per capita, etc.

### Natural Capital

- **Ecological footprint**: demand on natural capital vs. nature’s supplies, ratio of ecological footprint to land, etc.
- **Population density**: people per sq km, etc.
- **Sustainable food production**: % of food grown and sourced locally, prime agricultural land per person, etc.
- **Natural environment**: green space, forest cover, water quality, air quality, greenhouse gas emissions, etc.
- **Consumption & conservation**: water consumption, water storage per citizen, residential waste per capita, etc.
Headey (1993) development the concept of stocks and flows in QOL studies. In financial terms, stocks constitute capital account whereas flows make up the current account.

- **Stocks** reflect the strength of one’s personality (high on extraversion and low on neuroticism), health (positive versus negative health status), social networks (partnered, availability of intimate attachments and friendships), leisure skills and equipment, work skills and equipment, education and general knowledge, and socio-economic status.

- **Flows** are satisfaction or dissatisfaction experienced in relation to daily activities in the context of various life domains such as finances, leisure, family, job, friendships, and health.
STOCKS AND FLOWS
<table>
<thead>
<tr>
<th>Stocks</th>
<th>Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personality indicators</strong> (e.g., extraversion, neuroticism, self-esteem)</td>
<td><strong>Work satisfaction</strong></td>
</tr>
<tr>
<td><strong>Health indicators</strong> (e.g., physical health, mental health, quality of healthcare)</td>
<td><strong>Family satisfaction</strong></td>
</tr>
<tr>
<td><strong>Social indicators</strong> (e.g., marriage, divorce, widowhood, co-habitation, number of friends, quality of friendship, quality of romantic relationship)</td>
<td><strong>Marital/love satisfaction</strong></td>
</tr>
<tr>
<td><strong>Socio-economic indicators</strong> (e.g., household income, source of income, occupational status, level of education, quality of housing and neighborhood)</td>
<td><strong>Leisure/recreation satisfaction</strong></td>
</tr>
<tr>
<td><strong>Leisure/recreation indicators</strong> (e.g., amount of leisure time, quality of leisure time, availability of resources for leisure, availability of leisure programs in the community, access to these programs)</td>
<td><strong>Financial satisfaction</strong></td>
</tr>
<tr>
<td><strong>Work/education indicators</strong> (e.g., level of education and training, work experience, availability of educational and training programs in the community, access to these programs)</td>
<td><strong>Spiritual satisfaction</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Intellectual satisfaction</strong></td>
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<td></td>
<td><strong>Housing satisfaction</strong></td>
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<td></td>
<td><strong>Neighborhood satisfaction</strong></td>
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<td></td>
<td><strong>Transportation satisfaction</strong></td>
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<td></td>
<td><strong>Community satisfaction</strong></td>
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<td><strong>Culinary satisfaction</strong></td>
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<td></td>
<td><strong>Satisfaction with body image</strong></td>
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<td></td>
<td><strong>Satisfaction with friends</strong></td>
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<td></td>
<td><strong>Health satisfaction</strong></td>
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<td></td>
<td>** Satisfaction with healthcare**</td>
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<td></td>
<td>** Satisfaction with childcare**</td>
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<td></td>
<td>** Satisfaction with elderly care**</td>
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</tbody>
</table>
The basic premise is that a community rated high on quality-of-life dimensions is a community that has **conditions** and **services** that satisfy the needs of community residents.
Evaluation of local/country conditions

Evaluation of local/national services

Perception of local/country QOL

QOL

PERSONAL UTILITY
<table>
<thead>
<tr>
<th>Local/National Conditions</th>
<th>Local/National Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic conditions</strong> (e.g., job opportunities, quality of jobs, income and wealth, cost of living)</td>
<td><strong>Government services</strong> (e.g., police, fire, refuse, water, transportation, healthcare, education, social services, job training)</td>
</tr>
<tr>
<td><strong>Social conditions</strong> (e.g., crime and public safety, racial/ethnic relations, social cohesion, education, leisure and recreation)</td>
<td><strong>Nonprofit services</strong> (e.g., religious, healthcare, social services, education)</td>
</tr>
<tr>
<td><strong>Physical conditions</strong> (e.g., incidence of disease, air pollution, noise pollution, land pollution, water pollution, population density, traffic and congestion)</td>
<td><strong>Business services</strong> (e.g., banking, shopping malls, department stores, drug stores, supermarkets, automotive)</td>
</tr>
</tbody>
</table>
Mini-theories of Personal Utility

Several mini-theories subsumed under the big umbrella of personal utility theory have gained much popularity in the last 30 years or so. These include:

- bottom-up spillover theory,
- hedonic psychology,
- social judgment theory,
- positive/negative affect,
- human flourishing,
- flow and engagement, and
- purpose and meaning in life.
The Concept of Bottom-up Spillover

**Bottom-up spillover theory** underscores the notion that overall global evaluations of life satisfaction are a function of evaluations made in various life domains such as family life, social life, leisure life, financial life, community life, spiritual life, and so on. In other words, evaluations of life domains influence the evaluation of life overall, especially important life domains. For example, if a person views work life as very important, overall evaluation of work life is likely to influence his/her overall evaluation of life at large (Andrews & Withey, 1976).
Bottom-up Spillover

Life satisfaction

- Work satisfaction
  - Satisfaction w/co-workers
  - Satisfaction with pay
- Financial satisfaction
- Family satisfaction
- Leisure satisfaction
- Social satisfaction
  - Satisfaction with sports
  - Satisfaction with recreation

Satisfaction with pay
## Andrews & Withey (1976) Measure of Life Satisfaction

### How do you feel about your life as a whole?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Delighted</th>
<th>Pleased</th>
<th>Mostly satisfied</th>
<th>Mixed (about equally satisfied and dissatisfied)</th>
<th>Mostly Dissatisfied</th>
<th>Unhappy</th>
<th>Terrible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Andrews & Withey (1976) Other Measure of Life Satisfaction

**I think my life is:**

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
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</thead>
<tbody>
<tr>
<td>BORING</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>INTERESTING</td>
</tr>
<tr>
<td>ENJOYABLE</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>MISERABLE</td>
</tr>
<tr>
<td>USELESS</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>WORTHWHILE</td>
</tr>
<tr>
<td>FRIENDLY</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>LONELY</td>
</tr>
<tr>
<td>FULL</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>EMPTY</td>
</tr>
<tr>
<td>DISCOURAGING</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>HOPEFUL</td>
</tr>
<tr>
<td>DISAPPOINTING</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>REWARDING</td>
</tr>
<tr>
<td>BRINGS OUT</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
<td>DOESN’T GIVE ME</td>
</tr>
<tr>
<td>THE BEST IN ME</td>
<td></td>
<td></td>
<td>MUCH CHANCE</td>
</tr>
</tbody>
</table>
Andrews & Withey (1976) Measures of Satisfaction with Life Domains

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delighted</td>
<td>Pleased</td>
<td>Mostly satisfied</td>
<td>Mixed (about equally satisfied and dissatisfied)</td>
<td>Mostly Dissatisfied</td>
<td>Unhappy</td>
<td>Terrible</td>
</tr>
</tbody>
</table>

Using the delighted-terrible scale (scale is shown above), respondents answer questions such as:

- How do you feel about your car?
- How do you feel about your house/apartment?
- The services you get in this neighborhood—like garbage collection, street maintenance, fir and police protection?
- The outdoor space there is for you to use outside your home?
- This particular neighborhood as a place to live?
- This community as a place to live?
- Outdoor places you can go in your spare time?
- The weather in this part of the state?
- How safe you feel in this neighborhood?
- The way you spend your spare time, your non-working activities?
- The things you do and the time you have with your friends?
- Things you do to help people or groups in this community?
- Your marriage?
- The things you and your family do together?
- Your housework—the work you need to do around your home?
- Your religious faith?
- Your job?
- ..................................................
Hedonic Psychology

The focal point of hedonic psychology is that subjective well-being can best be conceptualized in terms of momentary feelings of positive and negative affect captured through a variety of methods such as the immediate sampling method, end-of-day diaries, the recall-of-yesterday method, and the day-reconstruction method. These methodological approaches to capturing subjective well-being were initially suggested by Daniel Kahneman and his work on “objective well-being” (Kahneman, et al., 2004).
Experience of **positive** affect in situations x, x, z at times a, b, c

Experience of **negative** affect in situations x, x, z at times a, b, c

QOL

**HEDONIC PSYCHOLOGY**
Social Judgment Theory

One social judgment theory that has gained much popularity in QOL research is Alex Michalos’ *multiple discrepancies theory* (Michalos, 1985; Lance, Mallard, & Michalos, 1995). Michalos’ theory helps us understand how people make these global evaluations about their life using standards such as the ideal life, the deserved life, past life, current life, future life, etc.
Evaluation of life based on standard x
Evaluation of life based on standard y
Evaluation of life based on standard z
QOL
SOCIAL JUDGMENT
An Example (Meadow et al. 1992; Sirgy et al. 1995)

Compared to your LIFETIME GOALS, IDEALS, and WHAT YOU HAD IDEALLY HOPED TO BECOME, how satisfied are you?
Very dissatisfied 1  2  3  4  5  6  Very satisfied

Compared to what you feel you DESERVE TO HAVE HAPPENED TO YOU CONSIDERING ALL THAT YOU’VE WORKED FOR, how satisfied are you?
Very dissatisfied 1  2  3  4  5  6  Very satisfied

Compared to the ACCOMPLISHMENTS OF YOUR RELATIVES (parents, brother, sister, etc.), how satisfied are you?
Very dissatisfied 1  2  3  4  5  6  Very satisfied
Positive versus Negative Affect

There is a research program in QOL studies that demonstrates that the determinants of positive affect of well-being may be different from the determinants of negative affect. Therefore, positive affect should be captured differently from negative affect (i.e., positive and negative affect are two separate dimensions and not polar opposites of the same dimension). A well-known measure based on positive/negative affect is the PANAS measure (Watson, Calrk, & Tellegen, 1988).
Repertoire of positive affect

Repertoire of negative affect

QOL

POSITIVE AND NEGATIVE AFFECT
An Example (PANAS; Watson, Clark, & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent [INSERT APPROPRIATE TIME INSTRUCTIONS HERE]. Use the following scale to record your answers.

1
very slightly
or not at all

2
a little

3
moderately

4
quite a bit

5
extremely

_____ interested
_____ distressed
_____ excited
_____ upset
_____ strong
_____ guilty
_____ scared
_____ hostile
_____ enthusiastic
_____ proud

_____ irritable
_____ alert
_____ ashamed
_____ inspired
_____ nervous
_____ determined
_____ attentive
_____ jittery
_____ active
_____ afraid

We have used PANAS with the following time instructions:

Moment  (you feel this way right now, that is, at the present moment)
Today   (you have felt this way today)
Past few days (you have felt this way during the past few days)
Week    (you have felt this way during the past week)
Past few weeks (you have felt this way during the past few weeks)
Year    (you have felt this way during the past year)
General (you generally feel this way, that is, how you feel on the average)
In recent years a number of psychological theories of human flourishing have been developed. These theories are essentially based on earlier humanistic psychology theories. For example, Carol Ryff (Ryff, 1989; Ryff & Singer, 1998), and Ryan and Deci (2000) suggest that there are several universal human psychological needs, such as the need for competence, relatedness, and autonomy that contribute to human flourishing. Keyes (2002) argues that the presence of mental health is flourishing in life, and the absence of mental health is languishing in life. “Mental health” is thus a syndrome of symptoms of both positive feelings and positive functioning in life. Further, Fredrickson’s (2001) broaden-and-build theory of positive emotions suggests that cultivating positive emotions is useful for building resilience to stressful events. In essence, positive emotions enhance coping behavior.
Satisfaction of competence needs
Satisfaction of relatedness needs
Satisfaction of autonomy needs

QOL

SELF-DETERMINATION
**Ryff’s (1989) Construct of Psychological Well-Being**

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definitions of Theory-Guided Dimensions of Well-Being</strong></td>
</tr>
</tbody>
</table>

**Self-acceptance**

*High scorer:* Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self including good and bad qualities; feels positive about past life.

*Low scorer:* Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what he or she is.

**Positive relations with others**

*High scorer:* Has warm, satisfying, trusting relationships with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.

*Low scorer:* Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

**Autonomy**

*High scorer:* Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.

*Low scorer:* Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

**Environmental mastery**

*High scorer:* Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.

*Low scorer:* Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

**Purpose in life**

*High scorer:* Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

*Low scorer:* Lacks a sense of meaning in life; has few goals or aims, lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.

**Personal growth**

*High scorer:* Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self and behavior over time; is changing in ways that reflect more self-knowledge and effectiveness.

*Low scorer:* Has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.
Flow and Engagement

The flow concept describes an optimal state of mind that individuals similarly report when they are acting with focused and intense involvement in an activity. Flow is a function of the relationship between perceived challenge of a task vis-à-vis the person’s skill level. Flow is experienced when the task is both challenging and the individual feels that he or she has the necessary skill to meet the challenge.

Flow is traditionally captured using the experience sampling method or ESM (Csikszentmihalyi, Tathunde, & Whalen, 1993; Massimini & Carli, 1988). ESM involves contacting subjects several times before, during, and after the focal activity prompting the subject to record his or her level of arousal and directionality of affect.
Engaging in tasks that challenges one’s level of skill → Flow → QOL
Much of the writings on purpose and meaning in life (e.g., Battista & Almond, 1973; Frankl, 1963, 1967; Steger et al., 2008) support the notion that purpose and meaning are beneficial to human functioning. People who are aware of what life aspects are most vital and live their lives consistently with those values are likely to experience high levels of subjective well-being.

Examples of QOL measures based on the concept of purpose and meaning in life include Palomar (1997) that asks questions such as “How do you feel about your sense of purpose in life?”
Engaging in life events that are purposeful and add to life’s meaning
The Concept of Social Justice

Many QOL indicator researchers develop indicators projects guided by the implicit notion that QOL is a community or nation in which its people enjoy a high level of **social justice**.

Society is considered **just** if two distinct principles are met. The first principle of a *just society* holds when there is equality in the assignment of basic rights and duties. The second principle of the just society holds when inequalities are justified to benefit the least advantaged members of the society (Rawls, 1971, 1975).
Social justice: equality in the assignment of basic rights and duties

Social justice: inequality in protecting the disadvantaged

QOL

SOCIAL JUSTICE
<table>
<thead>
<tr>
<th>Equality in basic rights and duties</th>
<th>Inequality to benefit the least advantaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ <strong>Right to meet basic needs</strong> (e.g., % of population below poverty line; government entitlement programs directed to the poor and equitable appropriations across all community groups)</td>
<td>❑ <strong>Children</strong> (e.g., under five mortality rate, one-year olds fully immunized against tuberculosis and measles; teen pregnancy rate, low-birth weight infants, underweight children under age five)</td>
</tr>
<tr>
<td>❑ <strong>Right to safety</strong> (e.g., crime rate; government programs and expenditures to combat community crime and equitable appropriations across all community groups)</td>
<td>❑ <strong>Women</strong> (e.g., ratio of females graduating high school to males; ratio of females unemployed to males; ratio of median wage of females to males; educational scholarships available to females relative to males; job training and assistance programs available to females relative to males)</td>
</tr>
<tr>
<td>❑ <strong>Right to employment</strong> (e.g., unemployment, educational attainment; literacy; job skills; job training programs and equitable appropriations across all community groups)</td>
<td>❑ <strong>Minorities</strong> (e.g., ratio of minorities graduating high school to non-minorities; ratio of minorities unemployed to non-minorities; ratio of median wage of minorities to non-minorities; educational scholarships available to minorities relative to non-minorities; job training and assistance programs available to minorities relative to non-minorities)</td>
</tr>
<tr>
<td>❑ <strong>Right to a healthful environment</strong> (e.g., air pollution, water pollution, land pollution, noise pollution; incidence of disease; government programs to combat environmental pollution and equitable appropriations across all community groups)</td>
<td>❑ <strong>The Poor</strong> (e.g., educational scholarships available to the poor relative to the non-poor; job training and assistance programs available to the poor relative to the non-poor; government expenditures to the poor relative to the non-poor)</td>
</tr>
<tr>
<td>❑ <strong>Duty to pay taxes</strong> (e.g., measures of corporate welfare; tax evasion indicators; % of undeclared work; government programs to reduce tax evasion and equitable appropriations across all community groups)</td>
<td>❑ <strong>The Disabled</strong> (e.g., ratio of disabled graduating high school to non-disabled; ratio of disabled unemployed to non-disabled; ratio of median wage of disabled to non-disabled; educational scholarship available to the disabled relative to the non-disabled; job training and assistance programs for the disabled relative to the non-disabled; government expenditures to the disabled relative to the non-disabled)</td>
</tr>
<tr>
<td>❑ <strong>Duty to vote</strong> (e.g., % of eligible voters voting; government programs to increase voter turnout and equitable appropriations across all community groups)</td>
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</table>
The Concept of Human Development

- The basic premise underlying the concept of **human development** is the notion that a community or nation is characterized as high in QOL is one that plays a significant role in satisfying people’s developmental needs.

- Developmental needs refer to a hierarchy of lower and higher-order needs such as health, safety, and economic needs (lower-order needs), as well as social, esteem, actualization, knowledge, and aesthetics needs (higher-order needs).
Satisfaction of people’s higher-order needs

Satisfaction of people’s lower-order needs

Human Development

QOL

HUMAN DEVELOPMENT
<table>
<thead>
<tr>
<th>Indicators of satisfaction of lower-order needs</th>
<th>Indicators of satisfaction of higher-order needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ Measures of <strong>environmental pollution</strong> (air, water, land, and noise) and environmental programs to reduce environmental ill being</td>
<td>❑ Measures of <strong>work productivity and income</strong> and community programs to enhance productivity and quality of work life</td>
</tr>
<tr>
<td>❑ Measures of <strong>disease incidence</strong> and healthcare efforts to reduce health-related ill being</td>
<td>❑ Measures of <strong>consumption of non-basic goods and services</strong> and community programs to enhance consumer well being</td>
</tr>
<tr>
<td>❑ Measures of <strong>crime</strong> and safety and law enforcement programs to reduce crime and enhance public safety</td>
<td>❑ Measures of quality of <strong>leisure and recreation activities</strong> and community programs to enhance leisure well being</td>
</tr>
<tr>
<td>❑ Measures of <strong>housing conditions</strong> and community programs to meet housing needs</td>
<td>❑ Measures of <strong>educational attainment</strong> and community programs to enhance education well being</td>
</tr>
<tr>
<td>❑ Measures of <strong>unemployment</strong> and community programs to reduce work ill being</td>
<td>❑ Measures of the quality of <strong>community landscape</strong> and community beautification programs</td>
</tr>
<tr>
<td>❑ Measures of <strong>poverty/homelessness</strong> and community programs to assist the poor and the homeless</td>
<td>❑ Measures of <strong>population density and crowdedness</strong> and community programs to reduce crowdedness and congestion</td>
</tr>
<tr>
<td>❑ Measures of <strong>cost of living</strong> related to basic goods and services and community programs to reduce the cost of these basic necessities</td>
<td>❑ Measure of <strong>arts and cultural activities</strong> and community programs to enhance cultural well being</td>
</tr>
<tr>
<td>❑ Measures of <strong>community infrastructure</strong> (e.g., utilities, roads, transportation, telecommunications) and community programs to maintain a minimum level of infrastructure</td>
<td>❑ Measures of <strong>intellectual activities</strong> and community programs to enhance knowledge well being</td>
</tr>
<tr>
<td>❑ Measures of <strong>illiteracy and lack of job skills</strong> and community efforts to eradicate illiteracy and enhance job skills</td>
<td>❑ Measures of <strong>religious activities</strong> and community programs to enhance spiritual well being</td>
</tr>
</tbody>
</table>
The Concept of Sustainability

- Sustainable communities and nations are those that enhance the economic, social, and environmental characteristics of the place so its people can lead healthy, productive, enjoyable lives—higher QOL.

- Two sets of community characteristics are traditionally used to capture QOL, namely indicators of **human well-being** and indicators of **eco-system well-being**.
<table>
<thead>
<tr>
<th>Indicators of Sustainable Humanity</th>
<th>Indicators of Sustainable Ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health and population</strong> (i.e., physical and mental health, disease, mortality, fertility, population change)</td>
<td><strong>Land</strong> (i.e., diversity and quality of forests, farmland and other land ecosystems, including their modification, conversion, and degradation)</td>
</tr>
<tr>
<td><strong>Wealth</strong> (i.e., income, poverty, inflation, employment, infrastructure, basic needs for food, water, and shelter)</td>
<td><strong>Water</strong> (i.e., diversity and quality of inland water and marine ecosystems, including their modification by dams and other structures, pollution and water withdrawal)</td>
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<tr>
<td><strong>Knowledge and culture</strong> (i.e., education, communication)</td>
<td><strong>Air</strong> (i.e., local and indoor air quality)</td>
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<tr>
<td><strong>Community</strong> (i.e., institutions, law, crime, racial and ethnic strife)</td>
<td><strong>Resource use</strong> (i.e., energy and materials, waste generation and disposal, recycling)</td>
</tr>
<tr>
<td><strong>Equity</strong> (i.e., distribution of benefits and burdens between social groups)</td>
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</tbody>
</table>
The concept of capabilities and functioning approach is attributed to Amartya Sen’s work (1987, 1999). This approach argues that a person’s life can be viewed in terms of a combination of doings and beings—referred to as “functionings.” In turn, QOL is assessed in terms of a person’s freedom to choose among the various functionings. This freedom to choose is referred to as “capabilities.”
CAPABILITIES AND FUNCTIONING
<table>
<thead>
<tr>
<th>Indicators of Capabilities</th>
<th>Indicators of Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health</strong> (i.e., immunization, physician care, lack of environmental pollution, eradication of contagious disease)</td>
<td><strong>Pursue a desired lifestyle</strong> (i.e., to be able to live a lifestyle of one’s choosing without coercion from others)</td>
</tr>
<tr>
<td><strong>Wealth</strong> (i.e., income, poverty, inflation, employment, infrastructure, basic needs for food, water, and shelter)</td>
<td><strong>Succeed in the business of living</strong> (i.e., to be able to eat, drink, have adequate shelter, protection from crime, enjoy the company of relatives and friends, have entertainment, enjoy intellectual pursuits, enjoy arts and culture)</td>
</tr>
<tr>
<td><strong>Education</strong> (i.e., level of education, literacy, job and career skills)</td>
<td></td>
</tr>
</tbody>
</table>
Theoretical Concepts Guiding QOL Indicators Projects

1. Concept of socio-economic development
2. Concept of personal utility
3. Concept of the just society
4. Concept of human development
5. Concept of sustainability
6. Concept of capabilities and functioning
Thank You

If any would like a copy of this presentation, do not hesitate to contact me (sirgy@vt.edu), and I’ll be more than happy to e-mail you the slides (and also the actual SIR article).