Multidimensional measurement and analysis of poverty and progress in the next decade

Sabina Alkire, ESRC Methods Festival 2010
Our lives shall not be sweated from birth until life closes;
Hearts starve as well as bodies;
give us bread, but give us roses!
Multidimensional Measures are increasing

• Bandura (2006) found that over 50% of composite (multidimensional) indices related to many topics had been developed within the past five years.

• In the area of poverty/well-being the proportion appears to be even higher
Demand is also increasing

For example, these are related only to OPHI’s work:

November 2008: Bhutan released its 9-dimensional Gross National Happiness Index

December 2009: Mexico released Multidimensional Poverty measure to replace Income poverty

July 2010: UNDP HDRO/OPHI to release a Multidimensional Poverty Index for 104 countries.

Other work is in progress (national, OECD, EU)
Motivation of Methods

“Hopefully, the work of our commission will have increased the impetus to align the metrics of well-being with what really contributes to quality of life – and, in so doing, help us direct our efforts at those things that really matter.”

Joe Stiglitz, FT article on the Commission
Measuring what Matters:

- “As Sen has put it, “the role of income and wealth. . . has to be integrated into a broader and fuller picture of success and deprivation””
  Atkinson, A.B. 2002

- “Well-being is intrinsically multidimensional from the view point of ‘capabilities’ and ‘functionings.’”
  Bourguignon and Chakravarty 2003 p 26
### Possible dimensions becoming clear

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But Data are often Missing (or infrequent, or inaccurate)

“Improving data gathering and its quality in all countries should be a central focus of the second half of the MDG time frame and beyond.”

Bourguignon et al. 2008 page 6

OPHI’s **Missing Dimensions:**
- Informal Work,
- Safety from Violence,
- Empowerment,
- Social Relations, &
- Psychological Well-being
Selection of dimensions in practice depends on

- Purpose of measure
- Data availability
- Policy and parsimony
An Example:

Multidimensional Poverty Index (MPI)

- to be launched 14 July by UNDP HDRO/OPHI
- to supplant Human Poverty Index (since 1997)
- methodology: Alkire & Foster (2007)
- why? simple; policy relevant; robust
Dimensions and Indicators of MPI

Three Dimensions of Poverty

Health

Education

Living Standard

Ten Indicators

Nutrition

Child Mortality

Years of Schooling

Children enrolled

Cooking Fuel

Toilet

Water

Electricity

Floor

Assets
Missing Dimensions of Poverty Data

We considered incorporating some of the following dimensions:

- Work
- Empowerment
- Safety from Violence (crime, conflict)
- Political Freedom
- Relationships (social capital, inclusion, dignity)
- (Cultural/Spiritual/Subjective Well-being)

Data are not available to incorporate any of these into the MPI for 100+ countries.
Methodology: Identification

A person is multidimensionally poor if they are deprived in 33% of the weighted MPI indicators.
Methodology: Aggregation

- We construct the MPI using the AF method:
  
  \[
  \text{MPI} = M_0 = H \times A
  \]

- \(H\) is the percentage of people who are poor. It shows the *incidence* of poverty.
- \(A\) is the average proportion of weighted deprivations people suffer at the same time. It shows the *intensity* of people’s poverty.
What is $A$? $A$ shows how many deprivations a household is experiencing at once. It is the **Average proportion of deprivations** people suffer. It reflects the **Intensity** of Poverty.
• MPI is also the red area.
• It is made up of every person’s data!
Why not just use incidence, or headcount? If we only used 55% (‘Headcount’) to measure poverty, we could not distinguish X from Y.

These people are deprived in **two** dimensions each.

These people are deprived in **six** dimensions each!

Clearly they are different! Poverty in Y is more intense than in X.
Four Findings from MPI

Results will be presented. They will be put online after 14 July 2010 when the MPI is launched.

Thank you for your understanding.
A time of transition?

Measurement Methodologies of Multidimensional Poverty & well-being are on the upswing.

Policy Space is open for multidimensional measures (Stiglitz Sen Fitoussi; OECD Measuring the Progress of Societies; UNDP MPI; CCTs; governments).

Multidimensional analyses are also advancing – need more to meet demand; clarify value-added over income.
10 years from now?

Non-traditional Data Sources will provide more and better data on a regular basis.

Multidimensional Poverty Measures will be implemented widely, with support from mainstream institutions.

A Multidimensional Index of Quality of Life will be used alongside GDP to reflect societal well-being.

Methodologies of multidimensional measurement & analysis will be taught in graduate Social Sciences.

We will be more able to measure bread and roses.
As we come marching, marching in the beauty of the day,
A million darkened kitchens, a thousand mill lofts gray,
Are touched with all the radiance that a sudden sun discloses,
For the people hear us singing: "Bread and roses! Bread and roses!"

As we come marching, marching, we battle too for men,
For they are women's children, and we mother them again.
Our lives shall not be sweated from birth until life closes;
Hearts starve as well as bodies; give us bread, but give us roses!

As we come marching, marching, unnumbered women dead
Go crying through our singing their ancient cry for bread.
Small art and love and beauty their drudging spirits knew.
Yes, it is bread we fight for -- but we fight for roses, too!

As we come marching, marching, we bring the greater days.
The rising of the women means the rising of the race.
No more the drudge and idler -- ten that toil where one reposes,
But a sharing of life's glories: Bread and roses! Bread and roses!