

Craig Leischer's article

3.2. Focal Areas Relevant for Measuring Human Well-Being in the Conservation Context

Given the numerous conservation projects globally that impact the well-being of local people, one could conceivably find examples where almost every focal area of HWB in the indices reviewed is relevant. The choice of which focal areas to include when measuring HWB is likely to be specific to a local context. Rather than be prescriptive about which of the 11 focal areas shared by more than one index to use, here we explore the relevance of each focal area to conservation initiatives and note the contexts in which they may be less or more relevant.

The most frequent focal area in the HWB indices reviewed is “**living standard**”, which includes income and wealth. Improving material living standards is often a stated policy goal of international organizations as well as national or local governments, and the ability to provide empirical evidence of how a conservation **initiative impacts living standards** may be fundamental for an initiative's on-going support.

In Kenya, for example, fisheries closures and gear restrictions have led to **higher local fish catches**, greater income, and more support for fisheries conservation [15]. In certain conservation contexts, such as subsistence livelihoods or non-market activities that expand people's consumption, measuring material living standards may be less relevant. Generally, though, we hypothesize that **measuring change in living standards is likely to be relevant for measuring HWB impacts from most conservation initiatives**.

Health is one of the most frequently used focal areas in HWB indices, perhaps **because health is fundamental to realizing one's well-being potential**. Poor health can limit opportunities for benefiting from other elements of HWB such as better living standards or education. Within the conservation context, **health may be linked to the provisioning goods and services that nature provides, such as clean water and adequate food** [16]. Health may also be linked to the consumption of natural resources such as bush meat and medicinal plants e.g., [17,18] or to disease and the degradation of nature via zoonotic disease transmission [19]. Thus *including health as a focal area for measuring HWB may be warranted* in many conservation initiatives.

The links between education and *conservation may be less direct* than for the focal areas above, but changes in the management of natural resources such as fuel wood and water supply may change the opportunity costs for school-aged children tasked with collecting these resources. There is evidence showing a correlation between time spent on collecting fuel wood or water and school attendance [20,21,22]. Given this link, conservation initiatives that impact the availability of these local natural resources may also impact education. Additionally, conservation initiatives that increase local incomes may result in greater local investments in schools and education. Therefore, including education as a focal area for measuring conservation HWB *impacts may be relevant to some conservation initiatives*.

The *capacity of local people to manage their natural resources* is often crucial to conservation [23,24], and **shared social norms and social capital** are known to be a success factor for the self-organized social-ecological systems upon which many rural people depend [25,26]. The HWB literature suggests that social connections and relationships are important for an individual's

sense of well-being (see [27] for a review). **We hypothesize that the HWB focal area of social cohesion is particularly relevant to conservation initiatives in developing countries because the level of social cohesion may correlate with the ability to effectively manage local resources [28,26].**

The security focal area is largely about avoiding negative impacts on HWB. The benefits to HWB come from reducing or eliminating vulnerabilities to physical insecurity and economic insecurity that can cause a decline in HWB. In northern Kenya, for example, guards protecting community grasslands also improved local security in villages, and this was cited by local people as of greater value to local HWB than new income-generating activities or school scholarships [29]. *We hypothesize that the security focal area is relevant to conservation in contexts where physical violence is prevalent or where a large proportion of the population risks precipitous declines in living standards due to economic insecurities such as being marginally above a poverty line or relying on a single natural resource for their livelihoods.*

For the environment focal area, the *impact pathway on living standards from a conservation initiative* may be more about the *volume or biomass of a local natural resource* than the variety or biological diversity of the resource [30,31]. *This may be especially relevant for subsistence natural resources usage where HWB depends on an adequate supply of the resource such as fish or animal fodder. Environment may also impact HWB via soil erosion and clean water and air. Including the environment as a focal area is likely to be relevant to many conservation initiatives, and measuring changes in the volume or biomass of natural resources upon which people depend may be particularly relevant.*

In writing about common-pool resource management, Ostrom notes that **collective choice arrangements allowing most resource appropriators to participate in the decision-making process is vital for successful common-pool resource governance [32].** *Where local people have a say in how natural resources are governed, resource productivity may improve which can benefit both people and nature e.g., [33,31].* A study comparing different approaches in the governance of marine protected areas found that *community-based governance of resources* resulted in greater socioeconomic benefits to local people than government-managed national parks [34]. *We suggest that measuring changes in governance, such as local levels of conflict and leadership, may be important for understanding changes in HWB from a conservation initiative.*

Measuring changes in the *work-life balance* of local people is relevant to conservation in contexts where initiatives may impact travel time for resource collection such as coastal fisheries or may impact time for tasks such as fuel wood collection. In locations where this is the case, and especially where *“time poverty” among women is an issue, including the work-life balance focal area may be relevant.* For many conservation initiatives, however, we hypothesize that this focal area may be a lower priority than those above.

Improving a person's *subjective well-being* may be the ultimate goal of HWB, but it is harder to measure than objective well-being and can vary depending on a number of exogenous factors. Given that conservation is only beginning to measure HWB impacts, the challenging measurement of a subjective well-being focal area may be more relevant once basic HWB measurement capacity is in place.

Studies of conservation initiatives have noted a bias towards participation by those who are economically better-off e.g., [35,36] and that project benefits tend to flow to the better-off (“elite capture of benefits”) e.g., [37,38]. *While an inequitable distribution of benefits may improve HWB for some, inequity may negatively impact social cohesion* [39]. **Equity is most relevant in community conservation contexts that depend on the support of the community for success.** We hypothesize that for community-based conservation, equity is an important attribute to measure. However, we would include indicators on equity within the *social cohesion focal area* rather than adding it as a stand-alone focal area.

Sacred groves and cultural taboos against fishing in an area or hunting particular wildlife may be perceived by local people as impacting HWB [40,41]. Measuring cultural impacts on HWB may be relevant for conservation initiatives that are built on cultural knowledge or traditions and especially for indigenous and community conserved areas [41]. As with equity above, we suggest that impacts on culture could be measured as part of social cohesion, and a specific focal area may be unnecessary.

nine common focal areas remain. Among the list of indices in this review, three include at least eight of the nine focal areas: Bhutan’s Gross National Happiness Index (GNHI), the OECD’s Better Life Index (BLI), and France’s Commission on the Measurement of Economic Performance and Social Progress (CMEPSP).

CMEPSP is our recommendation for understanding and selecting HWB focal areas that can be used to measure the impacts of conservation initiatives.

Using the more common HWB focal areas to measure HWB impacts could also help raise the profile of conservation. The three most common HWB focal areas in the review—**living standards, health, and education**—align closely with Millennium Development Goals one, **two, four, five and six** [45].

Measuring HWB with focal areas widely recognized as important by policy makers may help influence the next generation of global development goals and expand the constituency for conservation.

<http://wikiprogress.org/articles/imported/Human-Well-Being/>

Objective measures

The Stiglitz-Sen-Fitoussi Commission found the following objective measures necessary in measuring human well-being along the lines of the “eight key dimensions”: 1) personal income, consumption and wealth; 2) mortality and morbidity; 3) educational enrolment, graduation rates, years completed, standardized test scores and expenditure on education; 4) time spent on personal activities including paid and unpaid work, commuting, and [leisure time](#); 5) measures of

housing; 6) political voice (freedom of speech, dissent, and association) and [governance](#) (corruption, accountability, democracy, universal suffrage, and non-citizen rights); 7) social connections (volunteer work, civic engagement, and the amount, nature, and breadth of connections generally); 8) environment (ecosystems health, access to environmental resources, individual exposure to pollutants); 9) personal insecurity (crime, accidents, natural disasters); and 10) economic insecurity (job security, illness and health issues, and global economic trends).^[8]