



SOCIAL FOOTPRINT

The Social Footprint

Introduction and Proof of Concept

A Sustainability Innovation by the

Center for Sustainable Innovation

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“A sustainable society would not freeze into permanence the current inequitable patterns of distribution. It would certainly not permit the persistence of poverty. To do so would not be sustainable for two reasons. First, the poor would not and should not stand for it. Second, keeping any part of the population in poverty would not, except under dire coercive measures, allow the population to stabilize.”

Meadows, Meadows, and Randers
Beyond the Limits, 1992

*The Social Footprint is dedicated to
the memory of Donella (Dana) Meadows*

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1. Introducing the Social Footprint

What Is the Social Footprint?

- A measurement and reporting method that organizations can use to manage, measure and report the sustainability of their impacts on people and society in a broad range of areas
- A product of a new school of sustainability theory and practice:
 - Based on the *quotients approach* to sustainability developed by Mark W. McElroy, Ph.D. and the Center for Sustainable Innovation (CSI)
 - Measures organizational impacts on the quality and sufficiency of vital *anthro capital*¹ (social, human, and constructed capital)
 - Comprises the missing link in tools required to fully operationalize triple bottom line management, measurement, and reporting
- A context-based measurement tool, that takes actual human and social conditions in the world into account as a basis for measuring the social sustainability performance of organizations
 - An implementation of what GRI calls ‘sustainability context’

1. See next slide for discussion of this term.

What Is The Footprint's Philosophy?

1. Conceptually committed to a quantitative *quotients approach* to sustainability: performance measured relative to *standards* of performance
2. Activity-based: Sustainability is measured in terms of impacts that arise from *organizational operations* – i.e., their actions
3. Grounded in the principle of personal and collective responsibility, according to which individuals are responsible for their mutual or collective actions, including those of their organizations whose actions they directly support and jointly perform
4. Conceptually committed to *anthro capital*¹ as the social *thing* that organizations can have impact on, the effects of which determine whether or not an organization's operations are socially sustainable
5. Practical: Confines measurement and reporting to organizational boundaries, just as financial reports do

1. We use the term 'anthro capital' to refer to the combination of *human, social* and *constructed* capital. These capitals are vital to human well-being.

2. The *Quotients Approach* to Sustainability

What is the Quotients Approach?

- The result of a lesson taken from environmental sustainability tools: *That the sustainability of human activity is a function of the impacts it has on the quality and/or sufficiency of natural capital as required to ensure human well-being*
- If we generalize that principle, we can say that behaviors of all kinds can be measured on a scale of sustainability, according to their impacts on *capital* of one kind or another – i.e., *sustainability entails the maintenance and/or production of vital capitals as required to ensure human (and non-human) well-being*
- Thus, in the case of the Social Footprint, we look at human behaviors and we evaluate their impacts on *human, social, and constructed* capitals (or what we call “anthro capital”)

(cont.)

The Quotients Approach (cont.)

- So we immediately have a situation in which we are comparing one thing to another: *i.e.*, *behavior* with its impacts on *capital* of one kind or another
 - We ask: *Is the behavior sustainable relative to the impact it is having on the stock and function of vital capitals?*
 - And because we are comparing one thing to another — say, X with Y — we can express the comparison in the form of a quotient: X over Y
- This is what gives us our “quotients” approach — For example...
 - A geographical region produces 10 million gallons of freshwater per year, an ecological limit (call that the *denominator*)
 - Sustainability norms suggest that such limits not be exceeded
 - Still, humans in the region use 15 million gallons per year (call that the *numerator*)
 - $15/10 = 1.50 \rightarrow$ Anything greater than 1.0 is unsustainable

The Quotients Approach (cont.)

- Turning to the social arena, the same idea can be applied, with two important differences:
 - We're dealing with impacts on anthro capital, not natural capital
 - Anthro capital (social, human, and constructed), unlike natural capital, is created by people and can be produced virtually at will — we can almost always create more of it in order to meet our needs
- Thus, the applicable norms in the case of anthro capital are not a function of what we are stuck with and what we use; rather, they are a function of what we need and what we have decided to produce, or not produce, in response
- For social bottom lines (or quotients), then, the rule of thumb reverses: any score of less than 1.0 is unsustainable¹ (cont.)

¹ Ecological proxies can also be used in Societal Quotients, where ecological performance indicates social performance, as in the case of our Global Warming Footprint, which measures performance against ecological goals as defined by social plans of action. In those cases, the scoring of social footprints follows the logic of the Ecological Quotient (≤ 1 is sustainable, etc.), thanks to the inverse relationship between the proxy and the thing it stands for.

The Quotients Approach (cont.)

- A quick example:
 - A certain community has a need for \$10,000,000 a year in order to provide primary education for its children (call that the *denominator*)
 - Residents in the community are only providing \$8,000,000 a year in funding for primary education (call that the *numerator*)
 - \$8 mil./\$10 mil. = .8 → Anything *less* than 1.0 is unsustainable
- What makes it unsustainable is that we have defined a necessary stock of anthro capital in the area of interest to us (e.g., a norm for education) – shortfalls in *contributing to or maintaining* that stock can lead to undesirable, if not dangerous, social outcomes
- Now imagine that we are able to quantify minimum levels of sufficiency for any form of anthro capital....when we do, the makings of a *Social Footprint* tool come rushing into view!

(cont.)

The Quotients Approach (cont.)

- Denominators:
 - Relate to the carrying capacity of vital capitals in whatever quality or size is required to ensure human well-being for a specified population (e.g., a company)
 - Are calibrated to individual organizations, either as a function of their size or some other (allocation) factor (e.g., in accordance with their economic contributions)
 - Are normative in content, and constitute standards of performance (“N”)
- Numerators:
 - Relate to impacts on the same carrying capacity of the same vital capitals referred to by denominators, and for the same specified population
 - Are also calibrated to the same individual organizations
 - Are actual (“A”) in content, and constitute descriptions of actual performance
- Sustainability Quotients:
 - Sustainability Performance = A/N
 - See next slide....

The Sustainability Quotient

A Formula for Measuring and Reporting
Corporate Sustainability Performance

$$S = A/N$$

Where:

S = Sustainability Performance*

A = Net Actual Impacts on the Carrying Capacities of Vital Capitals

N = Net Normative Impacts on the Carrying Capacities of Vital Capitals

*For Ecological Quotients, S scores of ≤ 1 are sustainable, >1 are unsustainable;
for Societal Quotients, S scores of ≥ 1 are sustainable, <1 are unsustainable

A general specification for triple bottom line sustainability metrics!

Quotients as Measures of Sustainability

**Ecological
Bottom
Lines¹**

$$\frac{\text{Actual Impacts on Natural Capital}}{\text{Normative Impacts on Natural Capital}} =$$

Ecological Quotient (EQ)

- EQ ≤ 1 is sustainable
- EQ > 1 is *unsustainable*

**Social
Bottom
Lines¹**

$$\frac{\text{Actual Impacts on Anthro Capital}^2}{\text{Normative Impacts on Anthro Capital}^2} =$$

Societal Quotient (SQ), or what we call *The Social Footprint*

- SQ ≥ 1 is sustainable³
- SQ < 1 is *unsustainable*³

**Organizational
Sustainability
Defined**

Ecological Quotients are ≤ 1 **AND**

Societal Quotients are ≥ 1 ³

- If true, then sustainable
- If untrue, then *unsustainable*

¹ We take the position that there are many ecological bottom lines and many social bottom lines, each corresponding to impacts on some aspect of natural and/or anthro capitals, respectively. So-called economic bottom lines are merely types of social bottom lines, and the financial bottom line has nothing to do with any of this.

² We use the term 'anthro capital' to refer to the combination of *social capital*, *human capital*, and *constructed capital*. These capitals are vital to human well-being.

³ Ecological proxies can also be used in Societal Quotients, where ecological performance indicates or stands for social performance, as in the case of our Global Warming Footprint, which measures performance against climate change mitigation plans, treaties or scenarios. In those cases, the scoring of social footprints follows the logic of Ecological Quotients (≤ 1 is sustainable, etc.), thanks to the inverse relationship between the proxy and the thing it stands for.

Social vs. Ecological Footprints

The Social Footprint and the Ecological Footprint are alike in the sense that both are about measuring gaps, but the similarity ends there. In the case of the Ecological Footprint, the gaps of interest to us are between resources we need and resources we are stuck with; in the case of the Social Footprint, the gaps of interest to us are between resources we need and resources we have decided to produce.

Ecological resources are fixed and limited, social resources are not – we produce the latter as we see fit.

3. *Anthro Capital* as the “Thing” We Look At

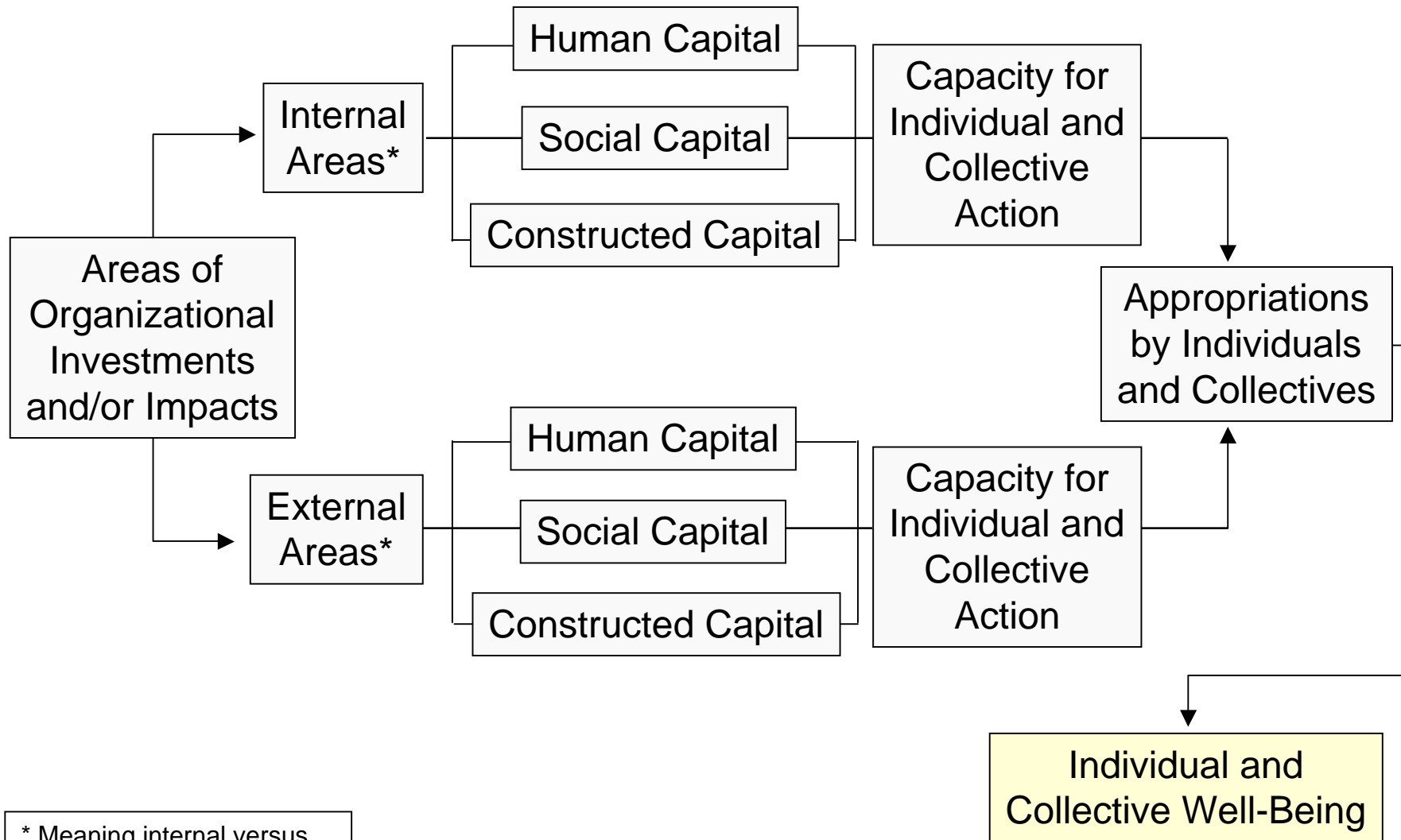
Non-Financial ‘Anthro Capital’

- In contemplating a Social Footprint (and its quotients), we need to address the things that our activities have impact on, and the things that investments in improving a social bottom line are aimed at – for us, it’s ‘*anthro capital*’ of three different kinds:
 1. **Human Capital**, consisting of personal health, knowledge, skills, experience, and other resources (including human rights and ethical entitlements) required for individuals to take effective action
 2. **Social Capital**, consisting of social networks and mutually-held knowledge required for collectives to take effective action
 3. **Constructed Capital**, consisting of material things, such as tools, technologies, roads, utilities, infrastructures, etc., that people build

See Reference Model



Social Footprint Reference Model



* Meaning internal versus external to an organization

4. A Reference Model for Anthro Capital Areas of Impact

Social Footprint Reference Model

Appropriations by individuals and collectives in need of....



¹Contributions made to third parties in society

External Areas of Investment and/or Impact

▪ **Social Capital (Contributions to Social Programs and Resources)¹**

- Food, Water, and Nutrition
- Health
 - Via Monetary Means
 - Via Indirect Product and/or Service Impacts When Consumed
- Child Care
- Education
- Exercise and Physical Recreation
- Clean Environment
- Housing
- Material Necessities
- Infrastructure
 - Power
 - Water
 - Sanitation
 - Roads
 - Transport Services
 - Telecommunications
- Jobs at Livable Wage
 - Workers at Other Firms
- Commerce and Trade
 - Impact on Local/Regional Businesses
 - Impact on Minority/Women-Owned Businesses (MWOBs)
 - Commerce with Fair Trade Suppliers

Social Footprint Reference Model (cont.)

Appropriations by individuals and collectives in need of....



¹Contributions made to third parties in society

External Areas of Investment and/or Impact (cont.)

▪ **Social Capital (Contributions to Social Programs and Resources)¹ [cont.]**

- Bank Services and Credit
- Safety and Security
 - Local
 - National
- Government
 - Social Services Administration
 - Trade Regulation
- Justice and Rule of Law
- Ethics
 - Human Rights
 - Labor Rights
 - Anti-Corruption
 - Transparency
 - Stakeholder Inclusiveness
 - Gender Equality and Empowerment
 - Diversity
 - Work/Family Balance
- Information
- Aesthetics
- Religion and Spirituality

▪ **Human Capital (Direct Contributions to Individuals in Society)¹**

- Food, Water, and Nutrition
- Health
 - Via In-Kind and Supportive Monetary Means
 - Via Direct Product and/or Service Impacts When Consumed

Social Footprint Reference Model (cont.)

Appropriations by individuals and collectives in need of....



¹Contributions made to third parties in society

²Contributions made to second parties in society

External Areas of Investment and/or Impact (cont.)

▪ **Human Capital (Direct Contributions to Individuals in Society)¹ [cont.]**

- Child care
- Education and Personal Enrichment
- Exercise and Physical Recreation
- Housing
- Material Necessities
- Jobs at Livable Wage
- Ethics
 - Human Rights
 - Labor Rights
 - Anti-Corruption
 - Transparency
 - Stakeholder Inclusiveness
 - Gender Equality and Empowerment
 - Diversity
 - Work/Family Balance

▪ **Constructed Capital (Direct Contributions to Social Resources)²**

- Infrastructure
 - Power
 - Water
 - Sanitation
 - Roads
 - Transport Services
 - Telecommunications

Social Footprint Reference Model (cont.)

Appropriations by individuals and collectives in need of....



Internal Areas of Investment and/or Impact

▪ **Social Capital (Contributions to Social Programs and Resources)²**

- Food, Water, and Nutrition
- Health
 - Via In-Kind and Supportive Monetary Means
- Child Care
- Education (Social Learning and Innovation)
- Exercise and Physical Recreation
- Housing
- Justice and Rule of Law (Policies and Programs)
- Ethics (Policies and Programs)
 - Human Rights
 - Labor Rights
 - Anti-Corruption
 - Transparency
 - Stakeholder Inclusiveness
 - Gender Equality and Empowerment
 - Diversity
 - Work/Family Balance
- Information
- Safety and Security
 - Enterprise Level
- Aesthetics
- Religion and Spirituality

¹Contributions made to second parties in society

²Contributions made to third-party programs internal to the enterprise

Social Footprint Reference Model (cont.)

Appropriations by individuals and collectives in need of....



Internal Areas of Investment and/or Impact (cont.)

▪ Human Capital (Direct Contributions to Workers)²

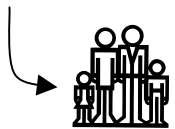
- Food, Water, and Nutrition
- Health
 - Via Direct Impacts of Products and/or Services When Produced or Applied
- Child Care
- Education (Individual Training and Personal Enrichment)
- Exercise and Physical Recreation
- Housing
- Material Necessities
- Jobs at Livable Wage
 - Workers at Own Firm
- Justice and Rule of Law (Actual Behaviors)
- Ethics (Actual Behaviors)
 - Human Rights
 - Labor Rights
 - Anti-Corruption
 - Transparency
 - Stakeholder Inclusiveness
 - Gender Equality and Empowerment
 - Diversity
 - Work/Family Balance
- Information
- Safety and Security
 - Enterprise Level
- Aesthetics
 - Religion and Spirituality

¹Contributions made to second parties in society

²Contributions made to first and second parties internal to the enterprise

Social Footprint Reference Model (cont.)

Appropriations by individuals and collectives in need of....



¹Contributions made to first and second parties internal to the enterprise

Internal Areas of Investment and/or Impact (cont.)

▪ **Constructed Capital (Direct Contributions Within Own Enterprise)¹**

- Infrastructure
 - Power
 - Water
 - Sanitation
 - Roads
 - Transport Services
 - Telecommunications

What The Categories Mean

- External Areas of Investment and/or Impact*
 - Social Capital (Contributions to Social Programs and Resources)
 - These are contributions to (or impacts had on) third-party programs and institutions in society external to an organization which, in turn, constitute or have impact on social capital resources and services available to individuals and collectives in society
 - Human Capital (Direct Contributions to Individuals in Society)
 - These are direct contributions to (or impacts had on) individuals in society external to an organization, which in turn constitute personal human capital resources for such individuals
 - Constructed Capital (Direct Contributions to Social Resources)
 - These are contributions to (or impacts had on) the presence or quality of human-made infrastructures and/or material goods in society external to an organization

(cont.)

**External* means external to a reporting organization

What The Categories Mean (cont.)

- **Internal Areas of Investment and/or Impact***
 - Social Capital (Contributions to Social Programs and Resources)
 - These are contributions to (or impacts had on) programs and institutions internal to an organization, which in turn constitute, or have impact on, shared social capital resources and services available to its members, workers, or stakeholders
 - Human Capital (Direct Contributions to Workers)
 - These are direct contributions to (or impacts had on) individuals internal to an organization, which in turn constitute personal human capital resources for its members, workers, or stakeholders
 - Constructed Capital (Direct Contributions Within Own Enterprise)
 - These are contributions to (or impacts had on) the presence or quality of human-made infrastructures and/or material goods internal to an organization

**Internal* means internal to a reporting organization

- END -

Comments Most Welcome!

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