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FEATURED ARTICLE

OCTOBER 2009

Sustainability Buzzwords: Making sense of all the terms

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Like any field, sustainability has a host of different terms, and for awhile they seemed to be multiplying like rabbits.

It can be overwhelming to people new to sustainability. The risk is not that they don't know them all well; that's often not necessary. The risk is they aren't aware of the ones that best apply to their situation and how they interrelate.

This article explains how we at AXIS Performance Advisors organize them into a hierarchy. It is shamelessly derived from work by Karl Henrik Robert of The Natural Step. There is elegance to the pyramidal structure he created, but I still found it a little difficult to use as an organizing tool. So what follows here is my adaptation of his pyramid.

The image at the right shows the overall structure of our hierarchy with examples. Please see the table at the end of this article for a more detailed (but not exhaustive) listing of examples.

You can't fool Mother Nature

Decades ago, there was an advertisement for margarine that was supposedly so good that it could fool Mother Nature. Unfortunately, in the real world, nature votes last. You can't will away the fundamental laws of nature—gravity, the laws of thermodynamics—because they are inconvenient. They just are and we ignore them at our peril. So at the top of



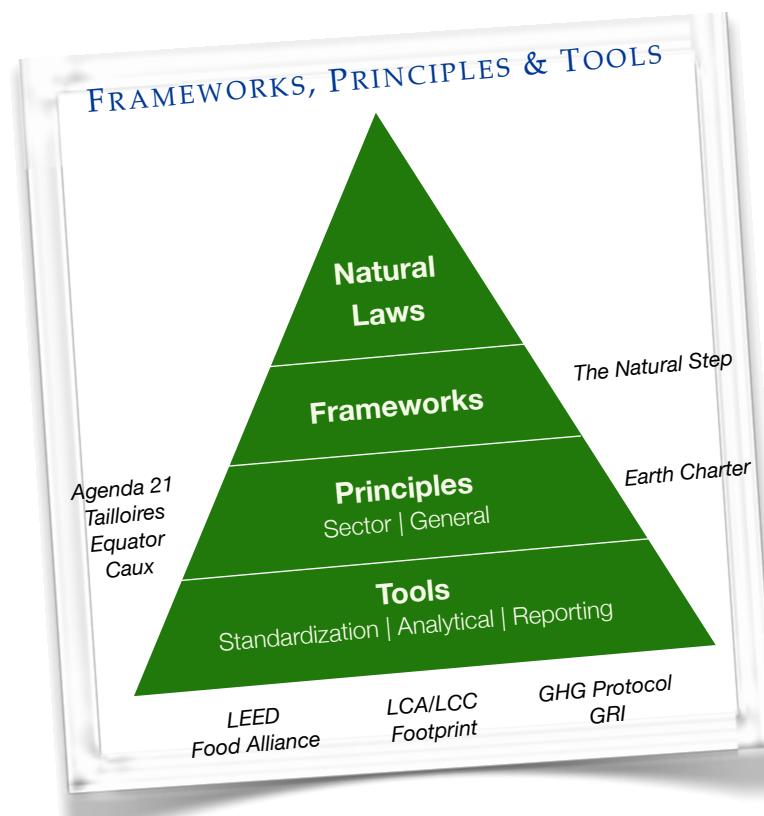
the pyramid are these natural laws, immutable and non-negotiable.

Frameworks

Below Natural Laws are Frameworks that provide a high-level definition of sustainability. A framework is a shared mental model, a definition of what sustainability is. A framework is useful in part because we share that mental image but also because it defines what's in and what's out.

Imagine we wanted to open a grocery store. You all would easily come up with the same aisles that we would need: produce, canned goods, pet food, etc. None of you would have an aisle for kayaks or chainsaws because we all understand that they're not part of the framework called 'grocery store.' Store customers share this mental model, which makes it easier for them to find what's on their lists. They know that grapefruit is in produce, not the breakfast aisle with cereal.

Wouldn't it be nice if we all shared as clear an image of



TALLOIRES DECLARATION

(Principles statement only.)

Read entire declaration at

http://www.ulsf.org/programs_talloires_td.html

1. Increase Awareness of Environmentally Sustainable Development

Use every opportunity to raise public, government, industry, foundation, and university awareness by openly addressing the urgent need to move toward an environmentally sustainable future.

2. Create an Institutional Culture of Sustainability

Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward global sustainability.

3. Educate for Environmentally Responsible Citizenship

Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.

4. Foster Environmental Literacy For All

Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students.

5. Practice Institutional Ecology

Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.

6. Involve All Stakeholders

Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with community and nongovernmental organizations to assist in finding solutions to environmental problems.

7. Collaborate for Interdisciplinary Approaches

Convene university faculty and administrators with environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives,

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what sustainability entailed? What are the 'aisles' of sustainability? Most organizations use the 'triple bottom line,' some form of economic/social environmental well-being. This is a useful way to think about sustainability but it lacks clear standards of performance. How do you know when you have met the requirements of these three areas? The Brundtland Commission definition (meeting our needs while ensuring that future generations can meet theirs) is equally imprecise.

Ideally you want a framework that answers the question, Are we there yet? In our pyramid, we list The Natural Step as the primary framework because it is the only one we are aware of that connects human behavior to natural laws. The Natural Step was derived by scientists directly from these natural laws. The first three 'system conditions' (principles) define environmental sustainability conditions

our society must meet to be environmentally sustainable. The fourth system condition is the best attempt we have a defining social sustainability, derived also from natural systems.

Because the general public is more likely to be familiar with the triple bottom line than The Natural Step, we usually merge them such that TNS gives the triple bottom line the performance standards it lacks.

Principles

Below the Frameworks is a broad array of what we call Principles. Following the grocery analogy a little longer, these principles would provide guidance on how to make our grocery more sustainable. The principles for sustainable groceries would likely include the selection of retail products (local, certified, in-season, affordable) as well as the operation of the store (choice of refrigerants, energy efficiency, daylighting).



The Four System Conditions	...Reworded as The Four Principles of Sustainability
In a sustainable society, nature is not subject to systematically increasing:	To become a sustainable society we must...
1. concentrations of substances extracted from the earth's crust	1. eliminate our contribution to the progressive buildup of substances extracted from the Earth's crust (for example, heavy metals and fossil fuels)
2. concentrations of substances produced by society	2. eliminate our contribution to the progressive buildup of chemicals and compounds produced by society (for example, dioxins, PCBs, and DDT)
3. degradation by physical means	3. eliminate our contribution to the progressive physical degradation and destruction of nature and natural processes (for example, over harvesting forests and paving over critical wildlife habitat); and
4. and, in that society, people are not subject to conditions that systematically undermine their capacity to meet their needs	4. eliminate our contribution to conditions that undermine people's capacity to meet their basic human needs (for example, unsafe working conditions and not enough pay to live on).

Source: <http://www.naturalstep.org/the-system-conditions>

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operations, and outreach activities that support an environmentally sustainable future.

8. Enhance Capacity of Primary and Secondary Schools

Establish partnerships with primary and secondary schools to help develop the capacity for interdisciplinary teaching about population, environment, and sustainable development.

9. Broaden Service and Outreach Nationally and Internationally

Work with national and international organizations to promote a worldwide university effort toward a sustainable future.

10. Maintain the Movement

Establish a Secretariat and a steering committee to continue this momentum, and to inform and support each other's efforts in carrying out this declaration.



Many sustainability principles are sector-specific (e.g., Talloires Declaration for universities, Melbourne Principles for governments, and Equator Principles for financial institutions) and some are more general in nature (e.g., the Earth Charter). These principles usually include a dozen or so aspirational statements created through a group process. As you read them, you likely will find yourself nodding your head in agreement. "Yes, that's a good thing, and that too." If you find yourself thinking, "Who could object to that?" you probably have come across a set of principles.

While it can be tempting to discount these motherhood-and-apple-pie statements as pie-in-the-sky gibberish, they are useful because they help translate what sustainability means in your context. For example, the Talloires Declaration reminds universities that they should not only attend to their facilities but also incorporate sustainability into their curriculum and contribute to learning in primary and secondary schools as well. You might not have thought of that.

It's important, however, to use these principles not in isolation but within the context of the higher-order frameworks. Without the clear stake-in-the-ground that The Natural Step provides, it's too easy to pat yourself on the back and think you're sustainable. Trust me. You're not even close.

Tools

Moving down to the base of the pyramid, you will find a wide array of tools that help you move toward sustainability. In our grocery analogy, tools might equate to the individual products on the shelves: use this non-toxic product for cleaning floors and another for laundry.

In our sustainability hierarchy of practices, these tools serve different purposes:

- **Standardization**—These tools include industry standards, certification schemes or eco-labels: LEED for green buildings, EPEAT for electronics, Forest Stewardship Council for wood products, organics for produce. Certain regulations might also fall into this category such as those European directives related to toxics. Note that these usually define what's better, what's more sustainable, but not fully sustainable. So people who think LEED equals sustainability are mistaken. It's a stepping stone in the right direction but still far from fully sustainable. It's critical to interpret these standards within the context of the frameworks like The Natural Step.
- **Analysis**—These tools help you calculate, compute or analyze. Examples include life cycle assessment (to compare the relative environmental impacts of products), life cycle costing (to include the full, lifetime costs of decisions), and the ecological footprint (to calculate the earth-share your lifestyle demands). The host of greenhouse gas calculators would also fall into this category. These decision tools typically help you estimate impacts and make sense of the mind-twister trade-offs we have to make in the real world, right now.
- **Reporting**—These tools provide standards or accepted procedures for sustainability reporting. (Imagine Generally Accepted Accounting Principles for sustainability.) Examples include the Global Reporting Initiative (for public corporations' sustainability reports) as well as the General Reporting Protocol and Greenhouse Gas Protocol (for climate-related reporting). These reporting tools help to ensure that data and reports are comparable.

Which practices are right for you?

In the table below, we've listed many of the sustainability buzzwords that are in common use and have categorized them so you can more easily see which ones are worth your investigation and which ones probably aren't relevant in your situation. You should be able to google any of these terms to learn more.

Find a way to incorporate The Natural Step into your overall definition of sustainability (framework) so you take responsibility for the limits of nature. Then choose relevant principles and tools to guide your actions.

I hope this structure helps you make sense of the existing and emerging terms and practices in our field.

Table of Terms and Practices

FRAMEWORKS (overarching)	The Natural Step (Scientific definition of sust society; includes Backcasting as a visioning/planning process)	Triple Bottom Line Social, Economic, Environmental Economy, Environment, Equity People, Planet, Profit Corporate Social Responsibility Herman Daly's Triangle	NOTE: These lists are not exhaustive.		
	GENERAL	GOVERNMENT	BUSINESS		
	Earth Charter	Agenda 21 (nations) Melbourne Principles (municipalities) Caux Roundtable for Govt (general) Millennium Goals (international)	Talloires Declaration (universities) Equator Principles (financial) Caux Roundtable (international business) CERES (general business) UN Global Compact (intl business)		
TOOLS (by sector—if you are <u>in</u> the sector or <u>purchasing</u> from the sector.)	GENERAL	GOVERNMENT	MANUFACTURING	BUILDING	NATURAL RESOURCE
	Global Reporting Initiative (standards for sust reports) Greenhouse Gas Protocol(s) (standards for reporting GHGs) Ecological Footprint (measuring impact of individuals, orgs, communities or nations) Life Cycle Costing (evaluating costs over life cycle of product, building, etc.) Environmental Management Systems/ ISO 14001 (plan-do-check-act) SA 8000 (social audit) AA1000 (stakeholder engagement)	Smart Growth (land use) New Urbanism (land use) Precautionary Principle (toxics) Industrial Ecology (land use) WEEE, REACH, RoHS, EUP (European legislation re toxic products)	Life Cycle Assessment (compare impacts of products) Design for Environment (methods for product design) Cradle to Cradle (certification for products) EPEAT (standard for electronics) Green Seal (certification for wide variety of products, hotels, etc.) Hannover Principles (design) Product Stewardship/EPR (life cycle responsibility) Precautionary Principle (toxics) Biomimicry (design) Industrial Ecology (trading waste streams)	LEED (certification for buildings) BREEAM (European certification) Hannover Principles (design) Developers: See also Smart Growth and New Urbanism under Govt.	Organic (ag) Food Alliance (ag) Biodynamic (ag) Marine Stewardship Council (fisheries) Forest Stewardship Council (wood products) Sustainable Forestry Initiative (wood products) Green Globe (travel) STEP (travel, Sustainable Travel Intl; see related SCORE assessment)