POLICIES FOR TRANSFORMATIONAL CHANGE:
MEADOW'S LEVERAGE POINTS

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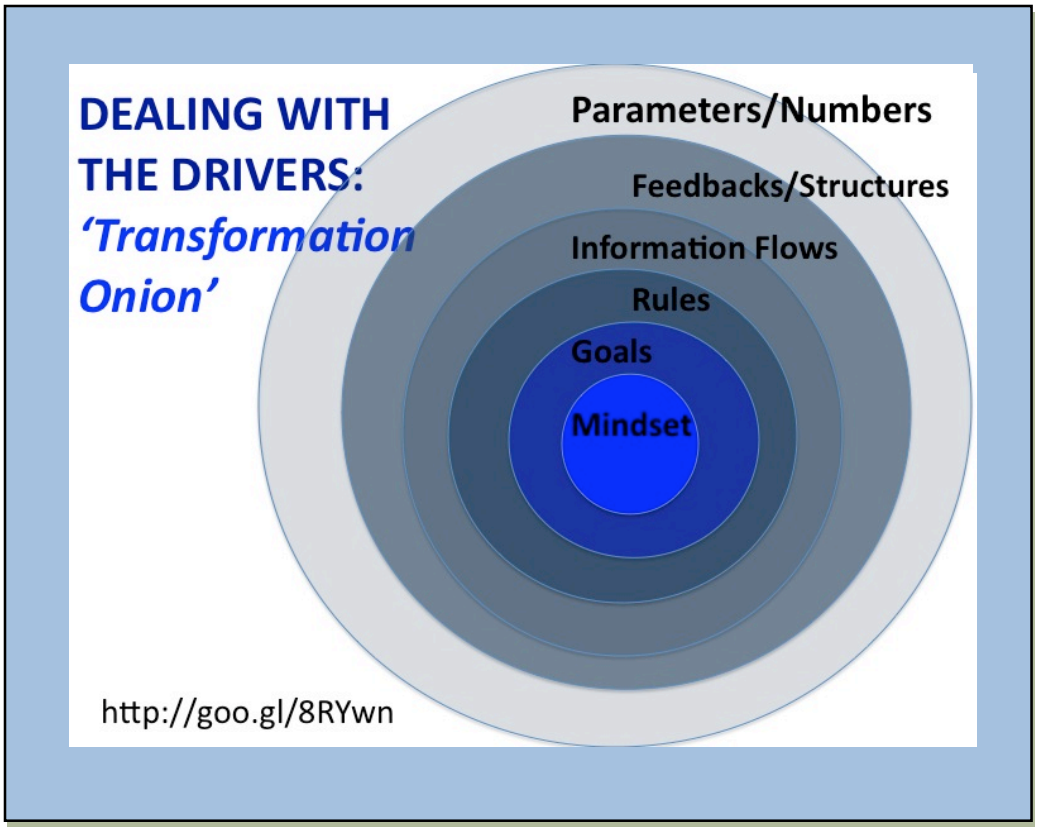
SYSTEMS ARE INCLINED TO REVERT TO THEIR 'SAME'. A DIVERSIFIED APPROACH CAN CULTIVATE CONDITIONS THAT SUPPORTS AND SPIRALS UP SUCCESS. USE THIS TECHNIQUE TO BUILD A BETTER TARGET: CHANGE TACTIC, BUILD RESILIENCE, SCALE UP & OUT.

A SYSTEMS PERSPECTIVE

Systems thinking embodies the belief that small catalytic events can cause very large changes in complex systems. It attempts to examine things "in context" -be they relationships among parts within a system, or relating one system to other systems.

Because a systems-approach recognizes that improvement in one area of a system can either positively or adversely affect another area of the system, it promotes organizational communication in ways which encourage us to look past a more typical 'silo' approach, rather than

isolating a specific problem or policy by the usual disciplines or methods.



Complexity theory shows that great change can occur from small calculated actions, if action is directed at the right leverage point. Leverage points are therefore points of particular power. In a complex system we may not be able to predict, or control, but certain kinds of interactions are more likely to result in movement towards desired outcomes than others. Identifying leverage points helps us make the most of scarce resources. Systems thinking can help us identify and use these leverage points.

Cultivating long-term, profound change in systems is an important, and challenging goal. The deepest change means supporting the system through sometimes long and fitful transitions. Effective leaders look for, recognize and support effective and diverse leverage points; actions that generate a productive flow in the direction of the desired change, building the momentum to help

tip the system when opportunities emerge. Maintaining this flow, over both the short and the long term, requires a diversified strategy.

Policies can act on leverage points at a variety of system levels- from the very superficial level or very deep one. Consider the "transformation onion" diagram. The fastest change and often the most easy to implement, and also the subject of most of our models, estimates, and policy interventions. We adjust numbers and parameters (eg. the minimum wage rate, or the legal level of certain pollutants in waste water discharge) fairly easily with policy. The drawback is, that this change is relatively superficial to the system- and therefore temporary.

In contrast, the deepest level of system change is much more difficult to bring about. It tends to be qualitative, not quantitative, but once a change occurs at this level (eg. Paradigm, mindset, or goals that the system is orienting on) the change propagates itself through the system, creating a systemic, profound, and often enduring shift.

In general, systems tend toward remaining the same. The deeper (inner circle) the leverage point, the stronger this tendency. A policy approach which diversifies strategy across wide ranges of leverage points, presents a diverse portfolio, best prepared to actualize both short term (low-hanging fruit) and long-run/profound system shifts. Leaders with an innate sense for leverage points can cultivate and target increasingly deeper system change, monitoring it as well as feeding it with successes at more superficial levels.

TRANSITION IS MESSY

Policy forums often require quantitative, logical, correlated data. Yet, complex systems are messy, have positive and negative feedbacks & time delays that drive them in directions or at rates we don't anticipate or are counter intuitive. We may intuitively know where leverage points lie, but our instinct is to push them in the wrong direction.

A system, is a set of things—people, cells, molecules, or whatever—interconnected in such a way that they produce their own pattern of behavior over time." Systems thinking helps the manager, scientist, and change-agent within us more clearly anticipate, understand, and react to opportunities as they arise.

HUMAN APPROACHES TO TRANSTION

Complex systems also confound us at a very human level. Striving for policy decisions to be 'value neutral', we often fail to fully account for, elicit, or effectively process normative information. Ironically, the part of the human brain that processes this also houses the neurons that fire the moment we make a decision.

We might have a logical policy, and be envisioning transformational change, but if we haven't prepared for human reaction to system complexity (tipping points, counterintuitive system behavior, time lags) risks are high that decisionmaking facility will be crippled. Witness how many times urgent decisions have been delayed due to a needs for "more information" when data about the superficial layers of the onion is clearly pointing to needs for system transition at deeper levels. Breaking these challenging issues into layers suggests it is possible to facilitate discussion on goals and mindset- and use this information to support individual or collective decisions, and the resulting transformational change.

VISION BOLDLY

"Leaders with vision use the gap between their vision and the reality of how things are as a motivating force."

A *vision* concentrates on the future, and outlines the desired policy outcome, or how it wants the world in which it operates to be. With vision, one must boldly declare a direction even if it is one no one else has taken. Vision is critical to leading by example. It is a source of inspiration, supports the emergence of clear decision-making criteria.

TO CONCLUDE

Aspiring to change systems, and embracing the chaos that follows when they do, is not for the faint of heart. Global transformational change requires more than a mechanical adoption of new policy requirements. It necessitates facilitation at & transformation to deeper layers of the systems at hand to support new, robust, flexible and empowering human approaches.

	General Description	Simple Example: Air temp in a hotel	Policy Example
Parameters /Numbers	Elements of a system described in simple, relatively easily adjusted numbers	Room temperature setting	Minimum wage rate, tax rate, price
Feedbacks	Positive and negative feedback loops that tend to catalyze or slow the rates of change among two different system elements or parameters Relation between goal, monitor, & response. Delays can compound feedbacks	Responding to positive feedback, on temperature, a hotel manager lowers the temperature even more (too much of a good thing)	Smith's "Invisible hand" is an autocorrecting feedback loop [→ demand (Up) → scarcity (Up) → price (Up) → demand (Down)] Doesn't function for ecosystem services= positive feedback loop. Charging for carbon emissions is a policy proposal to close this loop.
Information Flows	The transparency, form, predictability, and distribution of information.	Sweat/ shiver or voicing discomfort	Providing information and synthesis, such as carbon footprint of a consumer product or describing the benefits of conservation in financial terms
Rules	The codified trusts, norms, and agreements that govern system behavior.	Hotel management might decree: turn off air conditioner at night or change hotel linens on day 3 instead of every day	Certification rules, Rules for participation (eg. "girls aren't allowed at school"), laws (eg. Endangered species act) (China's 2008 rule that stores must charge for plastic bags, but can keep profit= ~est 100 billion bags saved)
Goals	Aspirations and their (often quantified) metrics and indicators of success.	Goal may be to "look like X hotel"	Increase GDP (activity, or quantitative goal) vs increase wellbeing/prosperity (qualitative goal) -Conserve Natural Capital Stocks
Mindset	The thought process, and logical connections from which goals arise.	Hotel has only bottled water, air conditioning, meat based meals, doesn't recycle	GDP is an indicator of success, vs. GDP as one tool of many to indicate activity

Further Reading:

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Patton, Michael Quinn, Westley, Frances, Zimmerman, Brenda. *Getting to Maybe: how the world is Changed.* Random House of Canada, Toronto, Canada, 2006.

Senge, Peter M. *The Fifth Discipline: the Art and Practice of the Learning Organization.* Doubleday Dell Publishing Group, New York, 1990.

Citation: Patterson, T. (2010) Policies for Transformational Change: Meadow's Leverage Points. Proceedings of the United Nations Global Environment Outlook Lead Authors Roundtable, Cairo, Egypt Nov 8-11, 2010. Portions of this paper have appeared in a previous white paper: Jones-Crabtree, A. T. Patterson, M. Zanowick, S. Baker, and R. McWilliams (2009). Leadership for Sustainability; 10 Guiding Principles. USDA Forest Service, Sustainable Operations Western Collective (located at http://goo.gl/mZLui)