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The Future of Foresight

Long Term Strategic Considerations for Promoting the Precautionary Principle

Prepared by the *smartMeme* Strategy & Training Project
for the Science and Environmental Health Network

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1. INTRODUCTION

This document is the product of *smartMeme* project strategists work with the Science and Environmental Health Network (SEHN) on long term scenario planning and messaging strategy for the Precautionary Principle (PP). Having already worked with SEHN to produce a narrative analysis of the PP in 2004, and having worked with a number of organizations in the toxics/environmental health movement over the last year, *smartMeme* was uniquely positioned to undertake this project, and we are honored to have had this opportunity.

That said, it is important to begin by acknowledging that our approach to this project comes from a place of exploration, rather than expertise. We offer this document, and the final scenario document *Mapping 2020*, as a potential starting point for dialogues among Precautionary Principle advocates on long term strategic planning and thinking.

This project has pushed our creativity, imaginations, and training in the field of social change work to new and uncharted levels. We are grassroots intellectuals and social change practitioners who are daring to think big in partnership and collaboration with our colleagues at SEHN. We are not experts in scenario planning, nor are we trained social scientists, nor psychics! However, we do deeply believe that in order for social movements to create the world in which we want to live, than we need to develop better tools for creating long-term strategy and vision. Thus we have approached this work in the spirit of humble inquiry, imagination, and innovation.

We've surveyed materials provided by the SEHN staff, along with relevant source materials (see Bibliography). We also conducted a face-to-face scenario development/brainstorming process with SEHN staff and members of BESAFE. The focus of this session was to contextualize the various narratives in play around the Precautionary Principle, with common vision around some of the challenges and opportunities that may arise over the next 15 years. That session helped direct our research into some of the specific relevant areas that informed our design of this document and the companion scenario document *Mapping 2020*.

This project assesses the complex, interlocking factors and intertwined threads of the future. As such we have utilized some frameworks to categorize the future and some process tools for honing our collective thinking. The direction, tools, and process that guided the compilation and completion of the scenario development process are outlined in depth in the interim process document *Capturing the Future*.

This document is meant to be read in conjunction with the companion scenario document *Mapping 2020*, which explores possible narratives of how Precautionary Principle advocates can manifest a future that captures their goals and dreams. *Mapping 2020* is meant to be an emerging road map towards that future while *The Future of Foresight* is intended to provide the background information and thinking about how the scenario "maps" were constructed. This document in an overview of all the "building blocks" -- the drivers, key trends and strategic issues -- that we felt were most relevant to the creation of PP scenarios.

As with all scenario work, this document is partially based in the research on current trends and partially based in our creative analysis of possibility. We hope that providing this raw material for the scenario work will deepen the long-term strategy conversations amongst PP advocates, and facilitate the re-assembly of these building blocks into additional scenarios. Likewise these are just the building blocks we created in the limited time and scope of this project. As strategic work within the PP movement continues there will be a lot more trends and possibilities to be analyzed. The future is a big and exciting place. We look forward to going there together.

– The *smartMeme* collective

2. ABOUT SMARTMEME

The *smartMeme* Strategy and Training Project was founded to support struggles for justice, peace, democracy and an ecological future story-based strategies. Our focus is to promote a *culture of strategy*, and support grassroots movements in the task of creating fundamental social change in the current cultural climate of the US.

SmartMeme is a non-profit collective of long-term organizers, strategists, trainers and communications professionals. Through our writing, training, communication work, strategic consulting and action organizing we combine grassroots movement building with strategies to inject new ideas into the culture. We're a one-stop-shop for strategic consultation, messaging, communications and design, and we link these services with a deep understanding of grassroots organizing and social change.

SmartMeme helps grassroots groups magnify their impact by linking traditional organizing and movement building skills with values based messaging, narrative concepts and creative action. The project applies meme theory - the study of how memes spread and replicate. A meme (pronounced meem) is, "a contagious information pattern" an idea that "has taken on a life of its own". Memes are units of self-replicating cultural transmission (i.e. ideas, melodies, symbols) that spread virally from brain to brain, encapsulating larger frames and stories.

We are people who believe in the power of organizing, and the power of the stories we tell to change the world for the better. We believe deeply in the political power of imagination and the strategic importance of thinking big. Visit us at www.smartmeme.com.

3. KEY GOALS FOR PROJECT/SCENARIOS:

From the beginning of the process for developing this strategic document “The Future of Foresight” and the accompanying scenarios in “Mapping 2020” the following goals were utilized. These goals were given to *smartMeme* by SEHN:

- Widening circles of influence: SEHN seeks to move the Precautionary Principle beyond the environmental-health community.
- Averting/redirecting opposition: Opposition to the Precautionary Principle is escalating because of the success activists and governments have had in using the principle to find new ways of protecting public health and the environment.
- Environmentalism beyond regulation: The Precautionary Principle must be carried into the courts and other institutions in a way that influences the law as well as policy. But beyond that, this cutting edge science must continue to reveal the patterns of complex natural systems and our effects on them.
- Mainstreaming the PP: The Precautionary Principle must go mainstream if it is to influence the larger national political agenda. This inevitably means “rebranding” the PP, and creating a culture around the Precautionary Principle as a policy piece as well as *a way of doing things*.
- New ways of doing business: Business is embracing the Precautionary Principle. This can happen. SEHN wants to find and articulate the common purpose that will put business on the same trajectory as those working for justice and sustainability.
- New institutions: We need new governance models and institutions that are more harmonious with the patterns of the real (natural and social) world. What institutions are called for in our day that will fully implement the Precautionary Principle?
- Democratic engagement: All of this requires a commitment to finding new ways to exercise true democracy, dialog, and participation, so that traditional opposition patterns are overcome or avoided and the vision can grow organically and come into being.

4. THE SCENARIO PLANNING PROCESS

The strategic process *smartMeme* designed to inform SEHN's long-term vision for Precautionary Principle strategy is informed heavily by the emerging discipline of scenario planning. Our review of the field has revealed that traditional scenario planning, in the manner it is conducted by governments and corporations, is extremely resource intensive and time consuming. This certainly raises some issues in terms of its usefulness to social change work, but we adapted some of the tools, borrowed some of the existing trend analysis, and simplified the process to create both this document and the accompanying scenarios.

One of the specific areas of scenario work we have found most useful is called "normative scenario development". This process -- sometimes called "backcasting" or "inside out scenarios" (SEE "normative scenarios" in Glossary APPENDIX 2) -- involves articulating the futures that we desire and then identifying different pathways that connect that desired future to the present. This is a different methodology than most futurist work which is built more around "responding to the future" instead of strategically creating it. Well-known futurist and Arlington Institute founder John Peterson explains the relative simplicity around how this type of normative scenario functions:

The way we do that is by developing a strong, vibrant set of common visions of our most desired future. We must identify the underlying principles and characteristics--the fundamentals--upon which a global positive future will rest and allow these to become the framework upon which each of us, as individuals and in ever-larger groups, can build our own positive outlook about what might happen to us all.

What we at *smartMeme* have done is adapt some techniques of scenario planning, (particularly normative scenario development) to fit a movement-building context, using our own narrative power analysis and story-based strategy approach. The models of scenario development that we have adapted can best be described as part analytical, part intuitive, part common sense and part plain old creative.

This is ambitious and exciting work and as long as it's kept strongly grounded in the real world goals of the PP movement, we think this type of long term narrative strategy work will be very useful. The end product of our experiments with scenario planning is this strategic document "The Future of Foresight" and the companion document "Mapping 2020." Mapping 2020 is a traditional scenario document -- a series of short narratives that highlight key strategic pathways over the next fifteen years to promote the precautionary principle. As we described in the introduction "The Future of Foresight" is a strategic analysis document intended to support Mapping 2020. Hopefully together these two documents will help lay the ground-work for ongoing long term strategy discussion within the precautionary movement.

5. IDENTIFYING THE BUILDING BLOCKS OF THE FUTURE

The future is big and by-definition it is an unpredictable place with lots of different variables and factors. At the heart of the scenario development process we have undertaken has been the process of developing a methodology—a systematic approach—for looking at the future. Through this project, we have attempted to generate a loose working taxonomy of relevant categories for the future. The broad structure of this categorization – the driver set – we have pulled from existing scenario work.

The core studies we've researched identified several dozen trends that the futurists address as the most relevant to shaping the global future. There is reasonable – albeit not universal – agreement across the published work of the reviewed studies in the shape and direction of these trends. Analysis and cross-correlation showed that the trends could be grouped thematically into the fairly common sense minimum set of key drivers which we used as the skeleton framework on which to flesh out our scenario concepting. Using this standard driver set as a starting point, we've worked to identify and explore key trends that we think provide opportunities for PP organizing.

Driver Set (not in any priority order):

- I) Demographic Driver
- II) Environmental Change Driver
- III) Economics Driver
- IV) Science & Technology Driver
- V) National and International Governance Driver
- VI) Perceptions, Beliefs, Values and Attitudes

The structure of this taxonomy was primarily used to direct our research and the compilation of both quantitative and qualitative data that anchored our process of envisioning the future. We used these trends and wild cards, along with known events of the future (2008 election etc.), to seek out strategic opportunities for the precautionary principle. These strategic opportunities (or as we call them *points of intervention*) became the prime building blocks for the normative scenarios compiled in the "Mapping 2020" Scenario document.

6. OUR TAXONOMY OF THE FUTURE: DRIVERS & KEY TRENDS

DEMOGRAPHIC DRIVER

The Boomers re-define retirement (Yogurt Cities)
The Millennials Grow up/Screenagers start to shape culture
Increased prominence and cultural ascendancy of Spanish speakers within the U.S
Increase in Internally Displaced Person (IDP) as extreme weather creates more eco-refugees
Global trend of Urbanization (Mega-cities)
Global Generation Gap: Global south moves towards younger population, global north towards aging one

ENVIRONMENTAL CHANGE DRIVER

Global Climate Disruption
Global Ecosystem Decline (Deforestation, Ocean collapse, desertification, etc.)
The sick herd -- Rising visibility of environmental health problems (infertility, learning disabilities, birth defects, cancers etc)
Resource conflicts particularly around oil and water
Growing Visibility of Cancer Clusters
Increased awareness of Pollution
Visibility of Mass Extinction (Large Mammal Die-off etc.)

ECONOMICS DRIVER

Asian economies (China, India) become the driving face of economic globalization
New localism – growth of local economic networks
Growth of socially responsible investing/financial activism
Growth of Green Capitalism/Eco-entrepreneurs
Increasing Economic impact of Global Warming
Marketing trends –Consumer desire for origin story
Economic instability/Debt (US financial bubble continues to grow)
Rising energy prices/Growth of Peak Oil meme

SCIENCE & TECHNOLOGY DRIVER

RFID technologies for tracking production chain
Fully Networked Life (Rapid adoption of Handhelds Technologies)
Spread of nanotechnology
Commercial Application of Artificial Intelligence voice Technologies
Growth of Virtual Worlds
Greater Acceptance of interdisciplinary frameworks and systems thinking in academia

NATIONAL AND INTERNATIONAL GOVERNANCE DRIVER

Multi-level crises of jurisdiction within US law
Crisis of jurisdiction internationally between free trade and national sovereignty

Post-Tobacco class action lawsuits
Growing copyleft and creative commons movement
US militarism/tension with international law
Rise of Pan-Latin Left

PERCEPTIONS, BELIEFS, VALUES AND ATTITUDES DRIVER

Technological change expands the possibilities and diversity of human identity
Cultural space (“idea space”) becomes more “real”.
Asia begins to dominate as a leader in economic and cultural influence.
Increasing pan-Asian influence on global youth culture
Asian companies adopt the precautionary principle
Ongoing popularity of organized religion in the US
Diversification of religious beliefs (post-modern pluralism)
Ongoing Student Activism
Yoga studio as the new gym

Obviously the range of trends we have touched on here is vast and a thorough analysis of them all was far beyond the parameters of this project. However, we have tried to balance thinking broadly with honing in on the trends we thought would provide the most important insights into long-term strategies for the future of the PP movement. Below, organized by driver, is an overview of the trend analysis, intersections and potential points of intervention that we thought might be useful to the PP movement.

7. DEMOGRAPHIC DRIVER

KEY TRENDS

- The Boomers re-define retirement (Yogurt Cities)
- The Millennials Grow up/Screenagers start to shape culture
- Increased prominence and cultural ascendancy of Spanish speakers within the U.S
- Increase in Internally Displaced Person (IDP) as extreme weather creates more eco-refugees
- Global trend of Urbanization (Mega-cities)
- Global Generation Gap: Global south moves towards younger population, global north towards aging one

Thinking Generationally

To help shape our thinking about demographics we relied on some of the literature about generational identity. Although there is a certain arbitrariness to how generations get classified, we found a useful basic framework in the book *Millennials Rising: The Next Great Generation*. It defines the six current US generations as:

GI (Born 1901-1924)
Silent Generation (Born 1925-1942)
Baby Boomers (Born 1943-1960)
Generation X (Born 1961-1981)
Generation Y/Millennial/Echo-Boom (Born 1982 -

A model promoted by this book is the notion of the hero generation occurring every four generations. America's last hero generation was the so-called GI generation, whose collective identity was formed by WWII and "saving the world" from fascism. There is a lot of speculation (and perhaps projection?) that the Millennials may be the next great hero generation. *SmartMeme's* own STORY youth training program has been influenced by this idea and the unique context in which the next generation of youth leaders is coming of age. We see the dynamics of this emerging large generation – often called the Echo-Boom – as having great significance for long term PP movement building strategies.

Will the Millennials be a Hero Generation?

Eighty million Americans were born between the years of 1982 and 1995. This youth demographic already makes up nearly 1/3 of the current U.S. population and already spends \$170 billion a year of their own and their parents' money. This generation has an unprecedented degree of economic, cultural, and political power and has already proven itself engaged in social change.

From activism around sweatshops, economic justice and environmental protection, to mobilizations for peace and fairer trade policy, young people from diverse backgrounds are already building strong grassroots networks. These youth networks are poised to influence a vital 21st century cultural shift that places values such as democracy, peaceful resolution of conflict, tolerance, and respect for the environment at the center of global decision-making.

The Millennials are the first generation to grow up being targeted by advertisers and marketers from birth, and to come of age in the era of 500 TV channels, globalization and the Internet. The Annenberg Public Policy Center estimates that children spend 60 percent more time watching TV each year than they spend in school. This means that the average American child sees between 20,000-40,000 commercials every year. The echo-boomer's cultural and political context is shaped by this information-saturated environment of consumerism, a rapid acceleration of

technological change, multi-media integration, and increasingly sophisticated advertising and government misinformation.

Screenagers Rising

Already the effects of rapidly shifting technologies are being seen in the way this generation expresses itself. The term “screenagers” has been coined to describe the shift in this generation from media consumers to media makers. As a study released by the Pew Internet and American Life Project in November of 2005 documented, 57% of the US teenagers who are active online (about 12 million youth) create digital content. A New York Times article on the survey quotes University of Toronto information sciences professor Paulette Rothbauer as saying the Pew survey reveals “mounting evidence that teens are not passive consumers of media content...They take content from media providers and transform it, reinterpret it, republish it, take ownership of it in ways that at least holds the potential for subverting it.” The same article quotes the Pew project’s director Lee Rainie describing the larger significance of the screenager trend. “At the market level, this means old business models are in upheaval. At the legal level, this means the definition of property is up for grabs. And at the social level, it means that millions of those inspired to create have a big new platform with which they shape our culture.”

Crusading Kids Give Voice to the Future

Given their familiarity and access to communications technology, the potential for youth networking among the Millennials is immense. A youth movement to demand action on behalf of the future could grow quickly and globally. With the help of some allies, this type of movement could gather the moral legitimacy to overcome institutional ageism and force governments around the world to establish children’s commission for the future. We had fun imagining what a *children’s strike* could look like. (No test taking until the cheetahs are safe!) Children are one of the easiest ways for mainstream culture to think about the future and as such are an incredibly important PP constituency and character within the broader PP story of caring for the future.

The Great Boomer Step Down/Step Up

A macro-trend we wove through many of the scenarios is the recognition of the potential inherent in the Baby Boom generation beginning to retire. As the boomers step down from their day jobs, we see huge opportunities to build powerful networks of retirees that step up to the business of addressing the looming crisis. The Boomers will be the most materially affluent and healthy group of Americans to ever retire and could be a powerful force for change if effectively harnessed. We can imagine a militant AARP or Raging Grannies for Precaution taking action on behalf of their grandchildren. We see the need to have “traditional” framings of the PP that will give seniors a sense of expertise to advocate around, and a “well back in my day...” common sense familiarity.

The Boomers could potentially challenge the traditional Euro-American ageism against senior citizens and perhaps lead the charge on promoting a culture of wisdom and reflection. A big psychological factor here is the issue of guilt and accountability. It’s hard to know what form this may take, but as the PP spreads through networks of retired Boomers, there will need to be a strategy around generational reflection.

Critiquing and breaking with the norms of the past will be essential for real change but depending on how it unfolds it could become a dangerous and alienating force. A generational crisis of conscience along the lines of -- “What have we done? What have we left for our grand children...?” – could motivate, or be disempowering. Guilt far more often leads to paralysis than motivation, so it is important that PP advocates are aware of this issue and tailor their messaging accordingly. Seniors acting as PP spokespeople to their peers will need to be able to provide a systemic analysis of what went wrong that provides a generational impulse to action.

Understanding the dynamics of grief – grief for extinct species, ecosystems, loved ones, places,

and ways of life lost – will also be important for the PP movement to catalyze the dramatic changes needed.

Redefining Retirement

Noted futurist Faith Popcorn writes about how the Boomers might re-define retirement, predicting a trend she calls Yogurt Cities. Instead of moving to Florida to play golf, she predicts the boomers will move to urban centers where they can walk to the movies, cafes, library, etc. This also means they can be close to their hip echo-boomer grandchildren. She envisions these enclaves as “Yogurt Cities” because they will be thick with culture.

This sort of trend is already being seen with the marketing of retirement services to Boomers (The latest ads by investment houses use Boomer icons like Harleys and Classic Rock).

From Merrill Lynch’s “The New Retirement Survey: How Baby Boomers Will Transform Retirement”:

***The transformation of the “me” generation into the “we” generation.** The “me” generation has grown up – now with deep concerns for the well being of their children, their parents and their communities. Boomers are now 10 times more likely to “put others first” (43%) than “put themselves first” (4%).*

***The unpredictable cost of illness and healthcare is by far boomers’ biggest fear.** They are three times more worried about a major illness (48%), their ability to pay for healthcare (53%) or winding up in a nursing home (48%), than about dying (17%).*

Cultural Creatives Claim Cultural Power

In 2015 – a 35 year old will have been born in 1980, a child of the 90s. A 50 year old will have been born in 1965 (child of the 70’s). This age range seems like a reasonable age range for cultural power holding– who is deciding which Hollywood movies get made, which pop songs get big promotion etc. No doubt they’ll be chasing youth interest and exploiting youthful innovation but nonetheless the generational reigns will shift. What does this mean?

Paul Rey’s research into values work suggests an ongoing shift in US values towards what he calls the “cultural creatives,” a 50 million person (and growing) demographic that crosses all age, race and class lines. The defining characteristics of this new social grouping includes acceptance of the basic tenets of environmentalism and feminism, a rejection of traditional careerism, big business and monetary definitions of “success,” a concern with psychological and spiritual development, belief in communities and a concern for the future. In other words they support the PP even if they don’t know it yet. Rey considers the group to be the cultural by-product of the last 40 years of social movements but since the U.S. mass media still reflects the technocratic consumerist world view (which Rey labels as “moderns”), they haven’t had a chance to self-identify as a cultural force and start making their influence felt.

With the Boomers stepping down there will be less moderns in positions of power to block the institutional expression of cultural creative values. Will this matter? Capitalism has entrenched modernist values... will these co-opt the cultural creatives or rather, force mutation/innovation/cultural transformation? The aesthetics of the status quo can shift considerably without necessarily leading to systemic change. Exxon executives could provide in house yoga and Montessori day care at their corporate HQ but this wouldn’t necessarily help us break our fossil fuel addiction. Yet even subtle cultural changes can have unpredictable political and economic consequences. How can the PP movement leverage cultural change to create structural transformation? This was one of the big questions we tried to tease out through the scenario work.

We see the generational shift bringing a greater integration of network and media empowerment into mass culture. As the screenagers grow up, they will demand and create more of a culture of creative mass participation. The Institute for the Future (ITF) in their 2005 Map of the Decade predicts this trend will ripple out into the broader culture and drive a shift from consumer-based identities to collaborative creativity identities. In other words, Millennials will go from identifying by what they buy to what they create.

The Unwilling Nomads

Global Warming will displace many more people in the coming years. Globally speaking, “the eco-refugees” will be a massive issue that challenges the current frameworks of immigration and international governance. Domestically in the US, we can also expect it to be an ongoing trend that creates a new demographic of internally displaced persons (IDP). Inevitably the IDP Diaspora will be disproportionately made up of poor people and people of color. The networks that evolve from these displacements could prove to be incredibly powerful messengers about the need for systemic change and be the logical base constituency of an emerging climate justice movement.

The Willing Nomads

A growing trend is the increasing access to GIS interfaces as a way to make data geographically specific. Google Maps is a harbinger of this trend and is already in wide use to create personal maps about things as varied as urban crime statistics, low gas prices and childhood memories. (The *New York Times Magazine* called it “Do-It-Yourself Cartography” Dec 11, 2005 pg 66.) Applied to disease statistics this could easily reveal the toxic fault lines that define many invisible fence line communities. As this information becomes more understood and integrated, it could lead to substantial health related internal migration (health refugees), as those with the resources to leave toxic areas do so. (ITF Map of the Decade)

8. ENVIRONMENTAL CHANGE DRIVER

KEY TRENDS

- Global Climate Disruption
- Global Ecosystem Decline (Deforestation, Ocean collapse, desertification, etc.)
- The sick herd -- Rising visibility of environmental health problems (infertility, learning disabilities, birth defects, cancers etc)
- Resource conflicts particularly around oil and water
- Growing Visibility of Cancer Clusters
- Increased awareness of Pollution
- Visibility of Mass Extinction (Large Mammal Die-off etc.)

Responding to Global Warming

Global Warming is a macro-issue that interconnects myriad converging social and environmental trends, and to our thinking is probably one of the most significant trends of the next 15 years. Extreme weather and its impact (i.e. Katrina) will probably continue to be the most visible leverage points for a movement addressing climate, but much work has to be done to get policy makers to accept the situation. The PP is perfectly suited for this work as a tool that allows for action in the face of uncertainty. The capacity to address climate change requires a global, interconnected consciousness and a militant movement in the global North that can stand up to entrenched special interests (i.e. Big Oil). Europe is significantly ahead of the US on popularizing the issue, with “carbon neutral” being increasingly applied to everything from pop band’s albums to corporate vacations.

Putting a Face on Global Warming

The global warming story has been consistently failing to make it above the background noise of US mass culture. Despite the growing visibility of climate de-stabilization and a mainstream acceptance that it is happening, there continues to be a lack of understanding of the scale and immediacy of the problem. PP advocates could play an important role in amplifying the voices of the most impacted communities, species and ecosystems. From polar bears to Pacific Islanders, displaced former residents of New Orleans to Arctic indigenous communities, migratory song birds to coral reefs, Global Warming needs its many faces profiled to help it be understood as a threat to all.

The PP could be an important part of building a larger, wider Climate Justice movement—the beginnings of which are happening. The PP helps provide a solution-oriented frame on climate destabilization. There are probably already links and synergies between PP work at the local level and networks like the International Council for Local Environmental Initiatives (ICLEI), which is helping local municipalities coordinate their community efforts to reduce greenhouse emissions. Certain vulnerable communities may be particularly primed for this work, including coastal cities (particularly Sacramento with its decaying levees) and the entire Mississippi water shed.

The Sick Herd

This somewhat frightening term is what the IFTF calls the trend of the growing visibility of health problems. Many of these clearly stem from environmental exposure, while the cause of others may still remain a mystery. There could be unexpected epidemics such as anti-biotic resistance to existing diseases or new plagues (perhaps unleashed by climate change) that increase people’s sense of vulnerability and uncertainty. Childhood learning disabilities, infertility, cancer clusters etc. are all becoming mainstream concerns thanks in large part to the work of environmental health movement.

As our creative session with PP advocates identified, infertility in particular will bring a powerful new constituency into the PP movement, as heart broken couples need to translate their anger and pain into action for change. (The movement for the values of healthy families...) The Gen X/Y working women who wants to “have it all”—including a career, healthy life style, sense of community, and family—are a key constituency for the PP message. Children are one of the few ways in the dominant American culture to imagine the future and as such it is a key issue with which to talk about the future and family values as core PP concerns.

Energy Demands and Alternative Energy

This is a huge area that could be a signature issue for PP activists as they take a leading role in local transition efforts. The shift towards alternative energy combines ecology, economics, human health, grassroots democracy and re-localization into a tangible and necessary policy shift. Additionally, as more people draw the connections between oil addiction, war, global warming, environmental racism (etc.) there is a potential to unite many different constituencies around a massive shift towards local green energy production.

PP activists should be branding alternative sustainable energy as a precautionary approach. Alternative energy trends are spiking—the demand for Hybrid vehicles outpacing production is one such example. Needless to say, there will be plenty of turf battles and difficult issues to figure out.

The nanotech industry is already hyping nano-solar, industrial wind production is proving controversial (we’ve been tracking local battles in Vermont and on Cape Cod) and the nuclear industry is busy repackaging itself as the answer to global warming. The PP can offer a framework to negotiate many of these complex issues and should be at the forefront of these debates.

New Nuke Plant Battle(s)

How does PP preempt attempts to build new plants? PP advocates must both act to address the climate crisis and say no new nukes at the same time. If the government does try to move forward with a large scale new nuke plan, there are greater opportunities for intergenerational solidarity as the No Nukes veterans are joined by a new generation of youth enviro activists (who may need to be substantially educated on the issue). The PP can serve as both the underlying logic of the movement, and the campaign-rallying cry, as citizens mobilize to prevent authorization.

Seeing through the Ocean’s Eyes

As journalist Julia Whitty points out in her recent cover story in Mother Jones magazine (“Last Days of the Oceans” issue): “Although we carry the ocean within ourselves, in our blood and in our eyes, so that we essentially see through seawater, we appear blind to its fate.”

Numerous human activities (factory trawling, line fishing, industrial aqua culture, global warming, coastal development, pollution etc.) have pushed ocean ecosystems to the point of total collapse. Although this issue has been largely invisible to the general public this may be about to change as fisheries collapse, coral reefs die off and people learn that the farmed salmon they are eating has to be dyed pink. “The oceans are dying” could be a meme that moves through the culture, and with the help of some PP framing, drives both deeper reflection about humanity’s link to the global life support system, and an action plan to restore the oceans to their once (seemingly) endless abundance.

(One personal note: While on retreat in a coastal town working on this project, we spent considerable time with the Ocean, letting the waves be the backdrop to our endless conversations about the PP in 2020. As we watched the sea wash up garbage, dead fish, and a

strange white chemical foam. we couldn't help but be reminded of the urgency of the oceans' state.)

Lions and Tigers and Bears, Oh My!

As the ecological crisis deepens and accelerates, the realities of the 6th mass extinction (as many scientists are calling our current era) will become more visible. Many studies already predict the loss of many large mammals and other charismatic mega-fauna by mid century. Many of the mega-fauna that have captured the imagination of previous generation—orangutans, polar bears, and big cats – are teetering on the brink.

How can the PP harness the tragedy of extinction as a call for systemic change? Traditionally charismatic mega-fauna have been one of the primary windows for popular culture into a non-anthropocentric world-view. The grief that people of all ages will subsequent feel for the loss of species is real. How can strategic intervention move this grief into action? If we can link the die off of lovable creatures to the systemic ecological crisis, there is potential for making peoples' love for animals into a force for fundamental change.

9. ECONOMICS DRIVER

KEY TRENDS

- Asian economies (China, India) become the driving force of economic globalization
- New localism – growth of local economic networks
- Growth of socially responsible investing/financial activism
- Growth of Green Capitalism/Eco-entrepreneurs
- Increasing Economic impact of Global Warming
- Marketing trends –Consumer desire for origin story
- Economic instability (US financial bubble continues to grow)
- Rising energy prices/Growth of Peak Oil meme

The Global Warming Price Tag

As global climate change causes increasingly devastating levels of climatic disruption to the planet, the economic system will be stretched to its limit. Predictions vary widely on how fast and how bad, but the basic trajectory seems fairly certain. The wild card is the possibility of sudden climate change brought about by a rapid shift in the global climate system such as ocean current disruptions, a sudden die-off or a rapid break up of Antarctica ice shelf. Some of the most relevant impacts of global warming will probably be:

- Extreme weather as its most visible component (“eco-spasms”)
- Increasing disruption of agriculture and distribution leads to food shortages
- Petroleum shortages caused by disrupted access to energy supplies
- Decreased availability and quality of fresh water in key regions
- Increasing numbers of eco-refugees

Price of Oil hits \$100 barrel

All scenarios we looked at predict energy consumption increasing; most predict continued rises in energy prices. A common prediction is that rising exploration, development, and refining costs could cause the price of oil to rise to \$100 a barrel by 2010. The \$100 mark and the subsequent high price at the pump may be a moment of mass reflection and could be a big opportunity for the PP to insert itself into a major structural issue like our current addiction to fossil fuels. This is a good arena to show case common sense precautionary action -- Either we begin reducing dependency on fossil fuels now, or as the prices rise (and potentially shortages emerge) the US economy and way of life is in big trouble.

Transforming the Global Economy

Many of the structural aspects of the globalized economy provide relevant challenges and opportunities for PP advocates. We live in an era where many products are produced through a globalized division of labor and assembly, where an individual consumer item may have components created in half a dozen countries and have traveled around the world before reaching its purchasers. This raises big questions for product safety, ecological sustainability, labor standards, human rights and consumptions trends. The PP has the potential to provide both policy direction and moral insight into many of these issues.

Asian Applications of PP

As the Chinese and Indian economies grow and further integrate into the global economy they will be having more influence on the international standards and global business culture. Two relevant potential trends identified by the National Information Council (a branch of the CIA) in their 2020 report are: 1. The “Asian face of Economic Globalization” (partially replacing the current American face of globalization) and 2. The rise of an Asian-centric cultural identity. To

date, this Asian economic influence has been largely at odds with Western standards of environmental and labor protections. Similar to the leverage coming from Europe through REACH and the application of PP to international trade regimes, it will be important to have Asian models of precaution and pressure from Asian companies who are adopting the PP. This may mean that it is worth investing time in some alliance building with Asian social movement peers and helping to insure there is cultural appropriate articulations of the PP that link it to relevant traditions within Eastern thought.

The Tools of the Culture Industry Move West

The majority of mass media making tools are manufactured in Asian countries, where the largest audience of both future cultural producers and cultural consumers will arise. This inevitably will put the U.S. culture into a play catch-up/no-win situation as western-model-monolithic distribution technologies are superceded by decentralized swarm technologies. Media producers are already unable to afford to defend their products from mass duplication and cannot profit from overseas exports. Internet technologies (particularly growing access to high speed connectivity) will only further bypass physical distribution. Next generation infrastructural technologies, especially wireless media, are rapidly taking root in Asia leaving the U.S. potentially further behind. Combine this with demographics and culture and the American hold on the cultural industry seems set to decline. What does this mean for pop-culture intervention for the PP? The short answer is that tapping the potential and creativity of Millennial generation leaders in places like Guangzhou, Hong Kong, Manila and Seoul could prove an essential alliance for the PP.

Place is LESS Important

We see two rival but deeply interconnected trends that represent simultaneous cultural responses to change. The first, based on the growing influence of communications technologies, is that place becomes less important. Virtual technologies allow people to affiliate based on more specific interests and to create community separate from physical space. As the economy of cultural production continues to get more de-centralized (more and more “consultants” working on lap tops in coffee shops), those sectors of the workforce’s jobs are less place based. This increasing specialization of culture also helps to drive networking and affiliation that is not place based. Likewise the virtual worlds, which began as (and still largely are) a recreational entertainment phenomena, are birthing new types of economic activity. E-Bay and other technological interfaces are allowing for a huge sector of de-centralized grassroots economics.

Place is MORE important

Many futurists simultaneously predict that place will also become more important to many people, fueling a “new localism” (ITTF Map of the decade). Even the techie true believers hunger for some human face-time and place based connectivity. Also, all those laid-off factory workers aren’t going to suddenly get jobs designing web sites—instead they are going to be trying to connect with their neighbors (maybe trying to make ends meeting by selling stuff on their local Craig’s List). Likewise, as people lose faith in the broader systems (FEMA, industrial agriculture, schools, health care), people will turn for support towards a more manageable scale such as their local churches and community groups.

There is great potential here, as civil, economic and political experiments are more possible at the local level. From an economic lens, we also see rising oil prices bursting the global economy’s bubble and making local agricultural products more affordable. The trend of consumer interest in the origin story, and the desire for personal interest and novelty of products is growing. (The evolution of the advertising sector’s response to cultural creatives is to make the product tell a story, and “local” is a good story). Community leaders wanting to proactively insulate themselves from the uncertainties of global economics many increasingly turn to local investment initiatives. There are already over 4,000 local community development corporations focused on job creation and housing construction, as well as new land trust arrangements to stabilize housing prices, and

a growing interest in municipally owned power (See Gar Alperovitz's recent article in Mother Jones magazine). We see the rise of local currencies, community supported agriculture, and regional watershed resource management as logical extensions of this trend. The retiring boomers and their "yogurt cities" could help strengthen this trend as well.

Virtual Marketspace

The virtual storefront+warehouse model is already rivaling the traditional physical warehouse, in the future it is sent to replace it. Wal-Mart becomes "WiredMart" as most transactions move online. Increasingly, future consumers will buy from an online vendor who acts as the middleperson for various warehouses and cottage industry producers located all over the globe, powered by privatized shipping services like FedEx. Workplace safety, practices and health conditions become even more difficult to assess.

DIY-Mart

The technology infrastructure for grassroots economics (eBay, Craig's List etc.) is already in place. Economies of scale are set to meet economies of sociability as networked individuals and small groups create their own economies outside of corporate industry through local and virtual trade networks. These technological interfaces could be key in helping transformation-oriented projects like local currency and ECO-eBay get off the ground. If the PP could brand itself as the ethical and smart philosophy around product life cycles, PP could become a mark of approval, similar to organic standards, merging philosophies of autonomy with responsibility.

Business Health Commons

Healthcare, and lack of it, is one of the biggest issues in the US. The rising cost of health care is also one of the biggest issues in the US economy, and more and more companies claim they can't pay. What happens? Does the government step in?

One trend the IFTF predicts is that companies who are providing long-term retirement/health benefits (which is already a key way to attract employees) will take more of an interest in the health of their employees and promote healthier lifestyles. There are already companies who don't hire smokers for this reason, and have won the right to legally discriminate in hiring. PP could become an important concept within this milieu.

Massive Pandemic Cripples Global Economy

One of the few variables that many futurists and scenario planners think could slow down the global economy in the short term is a massive pandemic that leads to extensive loss of life and major disruptions in the flow of goods and services. Once this type of huge crisis has been surmounted, there will be a huge interest in both public opinion and policy circles to ensure that adequate safe guards are taken to prevent further outbreaks or similar crises. This is a good example of a wildcard that is relevant, whether it happens or not, because it exists already in the popular imagination and people fear it. (Avian flu, SARS etc.) The PP can help address this fear.

10. SCIENCE & TECHNOLOGY DRIVER

KEY TRENDS

- RFID technologies for tracking production chain
- Fully Networked Life (Rapid adoption of Handhelds Technologies)
- Spread of nanotechnology
- Commercial Application of AI voice Technologies
- Growth of Virtual Worlds
- Greater Acceptance of interdisciplinary frameworks and systems thinking in academia

Sharing Maps of the Future

A key source for some of the technological predictions we utilized was the “The Technology Timeline” <http://www.btplc.com/Innovation/News/timeline.htm>.

The site is a collaborative ongoing futurologist project intended to keep decision makers and nonprofit organizations informed about probable tech developments and their potential impacts. The timeline is used by think tanks inside the military, government and corporate sector to “kick off” scenario development and long term planning sessions. The timeline is well done, extensively researched and interactive. It assembled and maintained by the BT group (<http://www.btplc.com/Thegroup/Companyprofile/Companyprofile.htm>).

Our assumption is that even if the predictions don’t happen, many governments and organizations will be planning based around the potential of them happening. Thus the “map of the future” that we’ve assembled and are using is the same one the “opposition” and governments are using to plan. Thus these predictions have strategic relevance beyond their actual accuracy because resources will be focused into the created “possibility space”.

SmartNets

In the future, networked individuals and conscious consumers will rely on ready-access to information about everything marketable, through RFIDs and public databases. There is already much speculation about harnessing merchandise tracking technologies for product history. The natural turkey company Heritage Foods attracted attention in 2004 for providing a tracking number with each piece of meat it sells. Using a web interface, customers could get info on the animal’s medical history and diet like they were tracking a FedEx package (NY Times Dec 12, 2004 “The Augmented Bar Code”). These technologies could provide powerful tools to harness market desire for sustainable products by making production techniques and conditions far more transparent to the consumer.

Rise Of Virtual Friends, So Why Not Virtual PP Activists?

Already Artificial Intelligence programs exist, and are in use on websites like myspace.com, that pretend to be real people and communicate with others on the net: “adding” them as friends, sending hellos, and updating them about a make believe life. By 2008-2010, virtual friends will be even more common, and with various AI personalities, even sought out for companionship in the same way that people enjoy playing computer games they will enjoy interacting with virtual friends. The rise of the “virtual pet” phenomena over the last few years is a precursor to the future rise of virtual friends, especially with the Millennials.

PP advocates could create a “virtual friend” that has progressive values and shares the PP with folks once they get to know each other. Such AI’s never sleep and so could really accumulate a large network of folks around the world. The idea here is similar to hiring programmers to create a video game, but instead the AI is created and turned loose on the internet. It would be important that the AI is truthful, and not deceitful about what it is, etc. but all indicators suggest that folks will welcome virtual friends into their online lives, as weird as that may sound today. Creating such an

activist AI virtual friend “first” could also be used to generate a lot of earned media, especially in technology publications, which would also spread the values of the PP to companies and individuals who are in industries that would benefit from its adoption.

Personal Biomonitoring

Already in development (and possible commercial use as soon as 2008) are handheld scanners that detect tumors using tissue resonance interferometers. PP advocates could use such devices in the same way that anti-nuclear activists used Geiger counter technology to expose wide-scale contamination from uranium mining and nuclear testing. (Such technology was used to show how cement driveways were made using radioactive sand.) Thus in a similar way PP advocates could use the tumor scanners to biomonitor suspected at risk communities or locations, and publicize the findings. In addition, funding could be sought in partnership with unions within the chemical industry to routinely check workers, etc. thus providing affordable prevention and early detection. The device itself could be branded as embodying the PP.

Computers that Take Calls 24/7

Sometime between 2008-2012, commercial voice synthesis technology will be affordable enough that organizations and companies could purchase AI receptionists, etc that would not be detectable as not-human. Voice communication in political campaigns, where the AI actually responds and answers questions, will be possible. PP advocates could invest in things like a toxic information 24 hour help line, and have it staffed 24/7 with an AI that simply asks the right questions and provides critical information to any people who call requesting info on a product, or who suspect contamination in their community. Even with the rise of totally networked data available to individual cell phones, presumably some people will still want to call and talk with a real person. Additionally the data overload will make trustworthy information sources an even greater premium in the future.

Mirror, Mirror, Who’s the Healthiest?

Personal health monitoring devices will be embedded in next generation bathroom mirrors. The thinking here is that the mirror will be networked, know what prescriptions you’re taking, and tell you what pills to take in the morning, or you can tell it your symptoms and it’ll tell you to “take two of these” and will schedule an appointment with your doctor. Of course there will be beauty and fashion applications as well. Just like computers, these devices will run on software, and thus consumers could be sent software for their mirror that provides PP based health care information.

Rapid Language Evolution

Text messaging is driving a rapid evolution of language. Already the bible has been translated into “txt” so that it can be downloaded on Australian cell phones. As Charles McGrath, writing in the *New York Times Magazine* (Jan 22 2006 pg 15) describes the evolution of “letter-number homophones (gr8 and 2moro) emoticons (like the tiresome colon-and-parenthesis smiley face) and acronyms (like the ubiquitous lol for laughing out loud).” What will this mean for popular culture? Culture is becoming more memetic, but what will it take for a given meme to rise above the cultural clutter and get noticed?

Digital Media (Alert: Millennials Don't Read Newspapers)

The structure of advertising and news is already being forced to respond to the drop in newspaper sales. Digital VCRs like Tivo are forcing big changes in TV advertising that are blurring the line between advertising and programming content. The deeper integration of commercial messages into the “content” of media is a trend that is accelerating dramatically. What are the next steps in news? Like the evolution of the 24-hour news cycle, the evolution of the “crawl” and multi-info stream screens, the future of news is integration. The Anglo-American domination of satellite news is coming to an end as regional challengers such as Al Jazeera and Venezuela’s new TeleSur South American news channel grow in popularity. As more international

medial target the US market through the web and new communication technologies, more global view points will probably be heard inside the US.

The other key aspect here is the era of narrowcasting. The age of “broadcast” media is over. The future is illustrated by Apple’s new “Tiger” OS “dashboard” feature. All the information you need is personalized to you. You can have the weather in San Francisco, the headlines from Common Dreams, and the movie selection at the theater across the street all at your fingertips. Why know what’s on CNN, or about the hailstorm in NY, or the latest blockbuster for the tween market if you don’t have to? People are increasingly demanding filters to cope with information saturation. You want information that comes direct to you, filtered through your personal taste and preference. Ultimately, what the trend means is that you can more effectively reach people who already agree with you—but the rest of the population becomes harder and harder to reach.

High Tech Food Backfires

The agriculture and food system is not only essential to human survival, it is also the site of much political struggle from migrant workers to family farmers to food justice campaigns to get healthy food into low income communities. Of particular interest to the PP movement may be the campaigns that are already using a precautionary approach such as anti-biotech work and (hopefully) emerging efforts against “atomically-modified” or nano-food. Unfortunately, with the amount of GE crops already planted in North America, some kind of GE food disaster is almost inevitable, whether it’s super weeds, allergen contamination, visible impacts on biodiversity or some other unexpected side effect. The PP movement needs to be ready to frame the issue.

As new GE crops are introduced and the anti-biotech movement struggles for a larger frame to contest this technology, the PP can play a key role as a cross-issue uniter meme/container. Anti-biotech groups, grassroots family farm groups, the sustainable agriculture movement and the urban organic consumer are all logical constituencies for the PP movement to be reaching. At the state level, there are various rulemakings and policy struggles around introduction of new crops (strawberries, alfalfa, grass, etc.), and some lawmakers are struggling for a framework to address the issue (rather than going crop by crop). There is an Ag policy maker audience who may be receptive to an organized outreach effort (policy briefing and power point that state level groups can use to talk to them.) Connecting the practice of seed saving with precautionary action could be accomplished by outreaching to this audience through seed saving publications and gatherings. Connecting with the urban “oppies” could be done in myriad ways, with PP outreach efforts tied to healthy food and healthy children.

Tech and the Generation Gap

The cell phone – the most rapidly adopted technology ever – has lead to sweeping changes in social norms, cultural expectations and business. It is difficult to predict what the sudden tech breakthroughs of the next decade may look like, but our guess is on an explosion of integrated hand held technologies as a combined social, economic and cultural interface. An accelerating culture also means an accelerating generation gap as older people get left out of really key technologies that change life more rapidly than previous ones. This could make older people a key voice questioning rapid technological change – a voice of precaution. However this could also mean young people are less able to hear messages from older people because they come across as anti-tech.

Virtual World/Game Culture Metaphors

Predictions suggest the tech-future will provide more opportunity to live in increasingly complicated representations of reality. With a trend that they call “Life becomes a pervasive game,” the IFTF predicts that these alternative realities (games being their example) will increasingly interact with urban reality. Picture that in 2015; instead of people walking around listening to an ipod, some people will be walking around while simultaneously controlling avatars

in a virtual worlds. IFTF predicts, “strategies from the world of gaming will increasingly be employed in non-game situations.”

Already tens of millions of people are spending considerable time in the virtual worlds and they are becoming one of the largest per capita economies on the planet. What happens in these virtual worlds will become increasingly more relevant in the non-virtual world. Already, military recruiters are cruising the military sponsored interactive games to lure the high achievers into the military. The virtual worlds may offer lots of opportunities for PP advocates to express and eventually experiment with alternatives to the status quo. Certainly as a way to reach youth, the PP will need to be translated into terms of popular virtual world strategies/practices.

Affordable Remote Sensing Technology (The “New” Fire Alarm)

Already you can purchase a home security kit that contains five cameras, digital recording, and motion sensing lights, etc. for under \$50. This same type of technology by 2012 will be available and could sense dangerous chemicals and other toxins. PP advocates could market and promote the “new” fire alarm, which embodies the PP by alerting homeowners to toxic exposure such as from off gassing products. This fire alarm like device could be made mandatory in public buildings and schools, like fire alarms now are. A catchy name could be developed for the device, and partnerships could be forged now to develop and market the device to ensure that it meets appropriate health standards, etc.

11. NATIONAL & INTERNATIONAL GOVERNANCE DRIVER

KEY TRENDS

- Multi-level crises of jurisdiction within US law
- Crisis of jurisdiction internationally between free trade and national sovereignty
- Post-Tobacco class action lawsuits
- Growing copyleft and creative commons movement
- US militarism/tension with international law
- Rise of Pan-Latin Left

Which World?

At the core of the emerging global crisis are issues of inadequate models of governance. Global social movements have been visibly making this point for the past three decades with massive resistance to neo-liberal corporate globalization and US militarism. As the near future unfolds, we see some growing tensions between the two poles of the current elite worldview -- the neo-liberal worldview of a global corporate state ("Market World") and the neo-con worldview of US empire ("Fortress World").

However the real action will come with the ability to articulate the similarity between these two views, and contrast them with a third and emerging world view of ecological sanity (re-grounding economics in biological reality) interconnectedness (versus alienation, intolerance and unilateralism), and social justice (versus exploitation). This scenario, called "Transformed World" in some future projections, is a core component of PP normative scenarios for 2020. The overarching strategy question is how big to take the PP? As the historic systems of economics, governance and social interaction continue to transform themselves in the face of massive change, uncertainty will be a defining force. Quite a rich opportunity at the grandest scale for the PP...

Nuclear Waste Transport Conflicts

Whether Yucca Mountain is finally approved or not, there will inevitably be a lot of high-level nuclear waste to be moved to storage facilities in the coming years. The odds of potential accidents versus the thousands of trips necessary to deliver the waste equate to almost inevitable disaster somewhere along the line no matter the method. Already some communities have organized against the transport of nuclear waste through their communities – the PP can become a logical argument for this position. This will lead to crisis of jurisdiction between local and federal governments that could erupt into some powerful organizing opportunities that the PP movement should be ready to exploit.

Free Trade Bio-Backlash/ The Container (Ship) That Changed The World

Some time soon something big and public is going to go wrong at an American port – invasive species, terrorism, food poisoning/quality incident etc. Much like how the Bush administration's effort to sell off the ports to foreign managers erupted into a national controversy, the incident will provide a window into the current globalized economy and many of its hidden costs. The PP can insert itself in dialogue as a broader stakeholder framework asking questions about what type of economy we need and want. Depending on the nature of the incident it could make longshoremen, who at least on the west coast are strong and well organized, good allies around workplace safety.

Concern Over WMD's Gets Harnessed For PP

The spread of WMD and other threatening technologies to both new nations and non-state actors (political extremists, religious sects, organized crime etc.) is a trend that is going to get a lot of attention in the US media. Although it's always dangerous to play the fear card, there could be

elements of precaution in this. The moral high ground is to challenge US uses and development of these technologies, but it many cases its too late. This speaks to the big strategy issue of how the PP deals with military pre-emption – the exploitation of fear of WMDs as an excuse for US imperialism. It may be that in the future, military pre-emption happens more through legitimate international frameworks and PP advocates feel more comfortable with their logic being borrowed. Or we may see ongoing U.S. unilateralism and PP advocates needing to avoid the principle becoming associated with rationalizations for state violence and military aggression.

Big Brother's High Tech Applications Divide Public

As the coming wave of nano-surveillance technologies becomes more widely understood, there is the opportunity to mobilize the US public around the tradition of resistance to tyranny. The PP could provide a process for questioning tech applications – take precaution against tyranny. Power holders have a long track record of using the latest technology to invade their citizen's privacy and subvert civil liberties. This usual happens under the guise of some contemporary moral panic whether its subpoenaing google to fight child pornographers or using fear of "terrorists" as an excuse to tap phones. The cultural fear of "Big Brother" could be a leverage point for the PP and a place to build alliances with civil libertarians of all political stripes.

Dark Mobs get smart/International Policing Gets...Ugly?

The "dark mob" name is an emerging term referring to the trend of smart mobs (mobile communication technologies enabling rapid social mobilization) appearing among more sinister elements – organized crime, terror networks, lynch mobs etc. (picture a tech-enabled smart mob Rwandan genocide...) At the governance level, this could be the perfect moral panic with which to restrict democratizing technologies. No doubt new levels of government/policing cooperation will be involved. PP may again be used as a cover for state repression etc. or as a legitimate argument for international action against scary folks (think Japanese death cult, al-Qaeda nuke attack etc.)

Native Legal Rights Movements Gets \$ and Momentum

Hopefully the US government will soon settle the Native trust lawsuit (Cobell v. Norton) with a multi-billion dollar payout to tribal governments and individual natives. (They are asking for \$176 billion and its been in court since 1996.) As the Trustee system is rejected, native governments could become a more politically cohesive network for moving new ideas. Under the framework of the 7th generation principle, the PP could move into the mainstream with native leaders calling for legal protections for the sacredness of nature. There is great strategic potential to set legal crisis of jurisdiction in motion along various lines – chemical pollution on traditional lands where treaties (supposedly the "highest law of the land") ensure native hunting and fishing rights to native peoples. Native movements and tribal governments are a key constituency for PP advocates.

Crisis Of Jurisdiction Chips Away At U.S. Legal Pyramid

Some major crisis of jurisdiction battles around federal-state-local tensions (perhaps about the commerce clause and what it really means) are looming. Likewise there is a pending right wing grassroots revolution around eminent domain. One example is the recent effort by libertarian activists in New Hampshire are attempting to get Justice Souter's farmhouse seized to protest the recent Supreme Court ruling that economic development is a reasonable argument for eminent domain.

Local communities banning GE crops are also working at creating a crisis of jurisdiction. The pre-emption laws against local regulation of GMO's are already being framed as an attack on the PP. Other products – nano, cloned, sweatshops etc. could add to the list.

Among the most sophisticated efforts in this trend are the work of the farmers in Pennsylvania engaging in writing their own constitutions and revoking corporate constitutional rights (CELDEF),

or the work of Democracy Unlimited of Humboldt County in Northern California. There is a growing trend of disillusionment with government and big business in the US...What if this was to start becoming more strategic and widespread? The PP could be a logical framework, especially in context of the work around the Commons. There are opportunities here to graft PP on to the proud mythology/tradition of local democracy in the U.S.

The Creative Commons versus the Copyright Police

The copyleft and creative commons movements are creating alternative models for the exchange of cultural production, often times outside the realm of commerce. As these movements grow and deepen their challenge to cultural privatization and intellectual property, there will hot spots of conflict that capture mass attention. This movement is powerful and important in that it is a key arena where the concept of the commons is being revived. It could prove an exciting ally and fertile ground for the PP.

PP vs the WTO

On an international level, the PP exists in some treaties but hasn't made it into the international trade regime. As the economic concerns of biotech, nano, cloning, toxic products etc become more apparent, there is set to be a clash between these frameworks. Right now the Biodiversity Protocol allows for the banning of GMOs or the import of potentially invasive species under the premise of protecting local biodiversity, although the WTO certainly disagrees.

As this contradiction in governance systems intersects with the macro-trend of the rising power of Asian markets and Asian cultural forces, there may be some major trade battles. There is currently an intellectual property rights battle be watched around the TRIPs treaty (ie. Bill Gates vs. the Asian creative commons). Inevitably PP will get dragged into a free trade battle. Perhaps it already has with the EU ban on US beef etc. This is a dangerous area where PP can get scapegoated for economic woes – the old jobs vs. the environment argument – but it is also a place where PP advocates can reveal that the global economy really is based on some deeply flawed assumptions.

The Post-Tobacco Class Action Suit

There are various ways that litigation could move the PP forward, but there's always the immortal "next tobacco" line. As the science crystallizes, public concern builds, and perhaps strong health/justice movements evolve to direct the rage of the "sick herd" – enter the trial lawyers. One obvious form would be class action suits against chemical companies. This could create an economic base for large public education work (like the Truth ads that came out of the tobacco settlements) to sway public opinion. Lots of money will change hands but more politicized demands may evolve – such as companies adopting the PP etc.

One key factor that PP activists have already been involved in is the danger of tort reform to threaten the PP's efforts to reverse the burden of proof. Likewise if Big Chemical is really going to fall, we may see government intervention such as in the asbestos cases. Whether because people sue companies, or corporations attempt to use the courts to block local municipalities implementing precautionary laws, the courts are going to be a relevant venue for the PP. However, even if the courts create the stage (soap box) for the conflict, of the PP movement must have a larger political strategy in order to not to get marginalized as a mere technical legal debate.

Rise of Pan-Latin Left Becomes Model for Democratization in the US

The Bolivarian revolution seems to be framing its vision of grassroots democracy in a way that can evade capitalistic fear and criticism. Venezuela's President Chavez is redistributing wealth and promoting collectivization, while preserving private property per se – the untouchable holy grail of modern capitalist economics. Given Venezuela's oil wealth and the popularity of Chavez's

program, it's hard to imagine a major shift in Venezuela, short of a major military (covert or otherwise) intervention by the United States.

Chavez is very openly working to build a unified Latin counter-power to US hegemony. Venezuela's oil wealth, Bolivia's natural gas, and Chile's copper are all being presented as key engines to drive this process and create a well-funded ascendant left across the continent. Chavez is also trying to deepen people-to-people connections around the world, including with the US (heating oil program etc.) Could more movements in the US be inspired by this work? Could the great illusion of US as a democracy begin to fade, leading local communities to demand greater autonomy? What does the PP have to offer a local community that is working to practice self-rule and exercise their sovereignty? How is the PP applied in the context of Latin America and in Latino populations in the US? The PP could become a plank in a broader platform for re-asserting local rights.

Reigning in Wal-Mart

Wal-Mart has become the epitome of the "New Economy" – violently anti-union, providing low wage, no benefit jobs, destroying local economies and extorting local communities to change their zoning laws to accommodate its never ending expansion. However, Wal-Mart has pushed too far, and now they have become the main target for a growing national effort to link different movements and help the struggling labor movement win their most important battle.

Local government is starting to stand up to Wal-Mart, as well as tax the company for the drain their low wages put on government services. Maryland has become the first state in the country to pass such a law, but more are sure to follow. The ongoing campaigns are creating an opening to talk about where Wal-Mart's products come from. PP advocates may have an opportunity to help provide new economic vision for the alliance. Similar to the way the Apollo project has worked to provide a vision of job growth from energy transition, PP advocates could help craft a precautionary vision of job growth through a transition to clean, non-toxic production and green chemistry.

12. PERCEPTIONS, BELIEFS, ATTITUDES & VALUES DRIVER

KEY TRENDS

- Technological change expands the possibilities and diversity of human identity
- Cultural space (“idea space”) becomes more “real”
- Asia begins to dominate as a leader in economic and cultural influence
- Increasing pan-Asian influence on global youth culture
- Asian companies adopt the precautionary principle
- Ongoing popularity of organized religion in the US
- Diversification of religious beliefs (post-modern pluralism)
- Ongoing Student Activism
- Yoga studio as the new gym

Generation Why?

Areas the precautionary principle could intervene seem linked most effectively to methods of informing people around confronting the growing uncertainty of daily life in the face of accelerating change, ecological collapse and social transformation. The PP could become a vehicle that not only informs action but is also a container for articulating alternative visions. There are possibilities to claim (Name and Frame) the actual next generation (Children of Xers) in a way that brands the PP. Perhaps something that evokes the idea of a Forecaring Generation. Maybe something along the lines of: Generation Why? As in why let things be this way. Why not make the world a better place. The term “oppies” might be evolved to become the “opties”, the Optimists, working forward from a glass half full. There is a need for strategic optimism. Particularly in terms of avoiding the pitfalls of “I-told-you-so-ism” in a world that is inevitably going to be getting worse (i.e. if we’d just had the PP in place then we wouldn’t have this messed up situation)

Personalization and Specialization of Mass Culture

Technological integration and shifting demographics are allowing for the specialization and fragmentation of popular culture. Increasingly, the culture industry is working to personalize its reach and commercial messaging (Direct TV, massive numbers of self-produced pod casts, individually targeted advertising etc.) This means that although media space is become less hegemonic and more open to diverse ideas, it is also less likely that there will be common unifying cultural experiences (one hit TV show or pop song). The future is the multi-channel, highly personalized, interactive blogosphere of interactive media and ideas. Markets and advertisers are re-working their trade to invade the personalized network world. One futurist institute (IFTF Map of the decade) named this trend “Strong beliefs, strongly held” – since media culture is fragmenting, people self-select their info from sources that reinforce their worldview. Ironically the advances of communications technology may well allow for the creation of more insular strong belief-based social networks. These identity/meaning based internet/virtual communities will allow ideas to spread rapidly through networks, but require more tailoring of an idea to that constituency. This will probably mean a greater need for narrowcasting but a greater impact on the target audiences.

Millennial culture is far more comfortable with hybridity – ideas and other cultural productions are removed from context and are available for use. They are growing up in the postmodern, media-saturated world and thus are far more equipped to thrive in the fragmented, patchworked culture. It’s no coincidence that Hip-hop -- where anything can be sampled, remixed and claimed – has become the dominant cultural expression of this generation. This may give the Millennials a particularly important role as a cultural counter weight to the “strong beliefs, strongly held” trend.

From Cyberspace to Cyborgspace

Certain technology trends are carrying humanity in a post-biological trajectory. The distinction between, physical space and digital space will continued to be undermined as cyber blurs with the everyday real. There are already scientific conferences on human enhancement and synthetic biology that are openly discussing the blurring of the traditional boundaries between life and non-life, human and machine. Whether or not “wiring” humans with machines via bio/nanotech morphology becomes accepted as “normal,” unless there is some dramatic break or organized intervention, it will happen shortly. There will be culture shock about this as well as regulatory battles and other opportunities for PP advocates to ask deeper questions about where and why society is going. In general the work to create a political discourse around technology itself is an important front for the PP movement.

The End of the Middle Class Vacation

As transportation costs and ecological decline conspire to prevent those without money from “getting away from it all” people will turn to technological solutions. Given some market demand virtual reality technologies could quickly evolve to provide “Holodeck” style mini virtual vacations as a substitute for real experiences. There could be useful opportunities for the PP movement in articulating the tension between the virtual and the real at a time when commercial and political forces are trying to blur it. The PP has an opportunity to brand itself as a manifestation of what life could be like with the right PP measures. Technological and cultural shifts within the next two decades will make the issues of -- what is real? And how real is virtual? -- relevant arenas of political struggle.

Quality of Life Support

Living longer but getting sicker is the way the Boomers and those that come after them are headed. Science allows for the sick to live longer lives. Chronic diseases and the quality of longevity could become trajectories that will demand a healthy alternative and ultimately some confrontation with the Western relationship with death. Imagine euthanasia and the right to die as political battlefields where fundamental issues of what does it mean to be alive and what is well being could be contested.

Rise In US Mental Health Incidence... Acceptance? Stigma?

More and more people in the US are being diagnosed with mental disorders and being placed on medication. Australian epidemiologist Richard Ekersley writes "A new US study has found almost a half of Americans will experience a clinical mental disorder during their lives, while over a quarter will suffer a disorder in any one year. The risk increases for successive generations; those aged 18 to 29 have an estimated lifetime risk four times that of those aged 60 and over." Opinions vary widely on whether new psychotropic medications are wondrous products of modern science, or a sign of Orwellian cultural dystopia.

Extreme Makeovers and Extreme Leftovers

Advances in morphological science will allow surgery to expand further into areas of more extreme manipulation. Meanwhile second generation plastic surgeries will present their recipients with health and aesthetic issues as implants and nipped, tucked, sucked out, and cut out areas fail to age gracefully. The pressure to perfect and change oneself physically may take whole new unexpected directions amidst shifting identities and an ever increasing barrage of cultural ideals. Likewise, despite medical ethics efforts, organ replacement and enhancement could become available to the highest bidder.

The Rise of Eco-Christianity

There are already significant networks of Christian environmentalists working on a wide range of issues. A current development is for some less traditionally-progressive or social justice-oriented

denominations to get involved in environmental issues. Most dramatically this is happening right now with the National Evangelical Association church around global warming.

At the doctrinal core of this trend is the interpretation of the Biblical concept of “dominion”: is it “domination” or is it “stewardship?” If this trend continues to expand and motivate more and more organized Christian networks to action, we could see significant grassroots action and moral authority coming to bear on corporate and government actors. As the stewardship meme grows, there is an opportunity for the PP to holistically link Christian values with policy action in many arenas – environmentalism, health, social justice etc.

ACT-UP of the Cancer Movement

As the environmental health crisis becomes more visible, cancer patients, survivors and outraged family members could get more militant and become impossible to ignore. Modeled after ACT-UP and the AIDS movement, a growing network could target polluting corporations and demand that the government take action. This movement could be linked to a growing movement against corporate, privatized health care as well. The PP could help inform the demands that confrontational campaigns use as the benchmarks for real action by corporations and the government. Impacted communities are the main mobilized constituency, but the message is about protecting everyone’s loved ones from toxic exposure and becomes universal.

Re-Defining Security

Currently “readiness” (ready.gov) is a big Homeland Security meme around preparing the American public for terrorism. While this is surely more PR than it is a real foundational effort, the PP could be a container for emerging “readiness” networks that are preparing to address climate disruption and other related local impacts of future uncertainties with real actionable methods of preparation. These networks that are already forming will probably play many roles, from sharing information on local sustainability to putting political pressure on national decision makers to address the systemic problems of fossil fuel addiction. PP could play a key role in naming the strategy of confronting fear inducing uncertainty with action. The message to a public increasingly bombarded with images of climate driven disasters leading to total social break down (a la Katrina) is: Don’t be scared into a victim role, apply the PP in your community and start getting ready to weather the storm.

The Network Generation

The Millennials are naturally network savvy because it’s the context they have grown up with. This means that if you can get their attention it makes it easy to organize them – get them motivated and they self-organize from there. The Dictionary of the Future calls it “Address Book Activism: when individuals fwd. an urgent email to their entire address book in an attempt to call attention to a cause, issue, or concern”(Pg. 291-292).

13. MACRO-STRATEGY/MESSAGING ISSUES

If the Precautionary Principle is to emerge as a key driver of decision making in the US economy and culture, there are some important strategic considerations, limitations, and problems that must be assessed and explored. This section is an effort to flag some of these issues that have come up so far in the research and writing of this scenario development process. PP advocates will undoubtedly have others and the process of strategy is an ongoing one. Here we are merely attempting to begin a conversation...

Escaping The Passive Tone Of Precaution

One of the fundamental, core strategy issues that *smartMeme* sees for PP advocates is the limitations of the frame of “precaution.” In our assessment the Precautionary Principle doesn’t necessarily evoke “action” to those unfamiliar with the term. On top of the cultural assumptions about precaution (that it means not acting), PP opponents are actively working to define the concept to mean “inaction,” “backwards,” and even “anti-progress.”

As we wrote in our 2004 report, *Throwing Precaution to the Wind: Attacks on the Precautionary Principle*:

1. Precaution the word conjures inaction, inertia, and timidity. (Many people assume that doing something is always better than doing nothing.)
2. The principle can appear obstructionist, negative and inherently reactive – about vetoing/blocking things.
3. Vague/Abstract. People don’t know what the principle means in a real context. It’s a ‘big-idea’ without grounding.

Although these are still no doubt live issues for the PP movement, it seems that Precautionary Principle is the meme that is here to stay. However, given the limitations of the English language to translate *forsorge* to the US audience, we strongly recommend an aggressive messaging and branding strategy that constantly defines and frames the PP as an action-based approach. Using phrases like “precautionary action” and “acting with precaution” or even coining new phrases like “preaction” and “preactionary”.

Additionally, we would recommend that SEHN and its allies consider other “memes” that carry the message of the precautionary principle to different audiences for different contexts. What the precautionary principle needs is a “brand suite” that works in harmony to tell a common story of precautionary action to multiple constituencies.

The Tensions Of Long-Term/Medium Term/Short Term Goals Of The Movement

In our work with the PP movement thus far, we have come to notice a mild but strategically significant tension around the priority applications of the PP. The question is one of common vision and strategy around long term, mid range, and shorter-term goals for the PP’s adoption. Fundamentally the question is how broadly and how deeply do PP advocates want the principle to be applied?

For instance here are 3 different articulations of the scale of the PP’s impact:

- a) The PP is a tool for winning concrete chemical policy reforms.
- b) The PP is a vehicle for building a broader environmental health movement by mainstreaming a critique of synthetic chemistry and the related hidden downsides of modern industrialism.

- c) The PP is the capsule (brand) for the larger effort to re-align the trajectory of consumer capitalism and the global economy with earth-centered and human rights oriented values.

The three elements – acting more as placeholders rather than specific declarations of political vision – fall loosely into the categories of shorter, mid-term and long range goals for the movement. Tensions between these three layers of goals are inevitable and productive but they could also create significant strategic differences within the movement over the next 15 years. In our experience, there is often tension in strategy work around creating political vision – some people want to focus exclusively on the first step but others don't know which direction to take the first step in unless they've conceived of the final step. Effective movement strategizing takes advantage of both of these perspectives. As the PP movement evolves there will need to be a balance between articulating long term visions that are compelling enough to attract mass support and highlighting the short term tangible victories that will give the movement political traction and momentum.

The PP's Relationship With Other Movements

As a self-consciously cross-movement tool we see incredible opportunities for the PP to help build a powerful multi-sector movement for systemic change. In order to do this we see a crucial need for the PP movement to both define itself, and define its relationship with other movements in order to strengthen relationships and strategically build alliances. Our understanding is that the PP movement is predominantly rooted in the “environmental health community” made up of toxics, environmental justice and public health oriented organizations, with growing participation from local decision makers, sustainable agriculture and GMO groups, native constituencies, and presumably some others. In order to move the PP amongst a broader section of society, it is important to assess the spectrum of allies and potential allies in relation to the movement's goals. Reaching out to other organized movements and finding the issue hooks and opportunities that will make the PP useful to these movements is a crucial step towards multi-sector alliance building. In our scenario work we explored connections to various social movements but prioritized three movements that seem particularly important for PP advocates to develop deeper understanding and relationship with.

Place/Race/Class based environmental justice struggles: How is the PP movement relevant to and acting in solidarity with front line struggles in working class communities and communities of color? The unfortunate reality of the history of the implicit and overt racism of majority white social movements (and the history of the US) means that white environmentalists must have more than the good intentions— they must actively work to confront, transform, and undo historic patterns of marginalization and oppression along race and class lines. This means taking leadership from those most directly effected by the environmental crisis: Indigenous peoples, land-based communities, front line communities, etc. Given the significance of race and class segregation in this country, and how the gap between rich and poor, (organic and toxic) will continue to widen over the next 15 years, we see a real necessity for all social movements to grapple with these issues. We assume that many current PP advocates have considerable experience in building cross-cultural/cross-class alliances. However, as the PP movement expands to include more people from privileged backgrounds without experience in this type of work we see race and class as critical fault lines that could seriously weaken the movement's impact. In order to effectively manage these issues we recommend the PP movement create additional institutional processes around them. For instance, examples of such internal institutions would be a diverse leadership team to assess and evaluate PP vision and strategies through a race and class lens (as well as other useful power and anti-oppression lenses). Other suggestions could include institutionalizing workshops on

race and racism (mostly for white constituencies) at PP gatherings, and the formation of People of Color and Working Class caucus groups as part of movement formations.

Climate Change/Climate Justice: The next 15 years will bring dramatic shifts in our global climate, and how mass cultures conceive of and deals with climate change. We see global climate de-stabilization as being one of the marco-forces that will shape the collective notion of uncertainty in the coming decades. As such it should be an incredible impetus for systemic change and provide major opportunities to popularize and implement the PP as a tool for acting in the face of uncertainty. The biggest pitfall here that we see is the “I told you so” dynamic. How does the precautionary principle get out front and frame its response to climate change? How is the PP interfacing with the emerging “Climate Justice” movement, and how does it get in on the ground floor with an analysis and vision of the PP’s relevance to this movement? Hurricane Katrina was just the beginning of the increasing visibility of and devastating significance of climate change’s disproportionate impact on marginalized communities (particularly poor people and communities of color).

Anti-Imperialism/War: The most visible broad-based “left” issue in the US today is the movement against the Iraq War. Even if the US fully withdraws and the overt-war simmers down in the next few years, the United States is still on a largely bi-partisan path of Empire building and full-spectrum domination. Iran, Syria, and Venezuela are all potential theaters of US intervention in the next 15 years. One of the most troubling distortions of the PP is its application as a guiding principle of the doctrine of “pre-emptive strike.” The PP movement must actively define its relationship to struggles against militarism and for peace in order to be relevant in a period where US militarism and domination are a defining political trend globally. Also related are the issues of civil liberties and surveillance in the post-911 period. For instance, given the current climate of racism and fear surrounding the so-called “War on Terror” it is conceivable that a lobby could arise to claim that it would be “precautionary action” to keep tabs on all Arabs and Muslims in the US. How does the PP work in solidarity with movements for tolerance, nonviolence and peace, and define itself in relation to these questions? We feel that if the PP movement doesn’t do this work, the opposition will distort the PP in deliberate ways to split PP advocates from potential allies.

Tapping into Meaning: Sacredness versus Science

A number of the scenarios we developed explore how to tap into the widely felt dearth of meaning in modern consumer culture. People are searching for meaning and value-systems that make sense (is this not the essence of being human, after all?). The realm of meaning and core values has traditionally been the realm of religious belief, which remains deeply (and increasingly divisively) embedded in the fabric of US society. Progressives are learning to use the language of values in a way that avoids the reductionist, moralistic and intolerant tone of the religious right but it is still contested ground. We see one of the strengths of the existing PP narrative as its ability to bring values into the decision-making process. A core element that is lacking in many of the secular responses to the mounting ecological crisis is the concept of sacredness. We see sacredness as a powerful, transformative (and popular) concept but one that is rife with messaging complexities. As the PP starts to be mainstreamed in mass culture perhaps the (artificial) dichotomy between sacredness and scientific rationalism will be transcended. Until then however, balancing the very real creative tension between pseudo-spiritual and scientific perspectives will require creating diverse but mutually supportive frames.

PP Movement Memes

As the PP connects with multiple movements and influences different sectors of the culture there will be an ongoing need for new ways of communicating core concepts. The more memetic (self-replicating) these concepts are, the more effective they will be at as movement building tools. In our scenario work some of the key areas where we felt that PP advocates should consider their meme strategies include:

Environmental Health – What meme gets mainstreamed to speak to the universal appeal of protecting your loved ones from toxic chemicals?

Safe – A term Gen X and younger associate with sexually transmitted disease, and that most people have some strong connection with. Can it be expanded to address the general toxicity of the current economy and culture?

Contamination/Toxicity – What unifying concept links the various types of exposures and health risks in the popular consciousness? How can this meme spread with out creating pessimism, nihilism or paralysis?

Changing Definition of Vulnerability – Public consciousness of global warming will spawn new ways of conceptualizing vulnerability – “low-lying”, levee, island metaphor (based on evacuated Island nations...) We see huge opportunities for the PP here.

Overcoming the Human vs. Environment Divide – At the core of the environmental health message is the reality that the human skin is permeable and that we are not separate from the environments we inhabit. Despite the obvious reality of this message it is difficult to communicate. We’re curious how the movement is assessing the effectiveness of memes like body burden, chemical trespass and biomonitoring. We see a need for stronger memes in this area.

Community – Future trends of network/virtual identities, cultural fragmentation, urbanization and localization will all add to the debate over what is “community” particularly as PP advocates work to expand the definition to include non-human life.

Commons – This wide-ranging, powerful concept offers an essential understanding for a precautionary future. Unfortunately the idea of the commons has been so undermined by centuries of capitalist enclosure that it’s hard to even insert into the contemporary political debate. How can we resurrect the concept in the popular consciousness?

14. AFTERWORD

The current global situation, like all crises, offers both dangers and opportunities. Within *smartMeme* we believe that the extent that each of these two opposing qualities will define the coming era will be largely based on the appeal and breadth of the social movements which arise to address the crisis. To this end we see the precautionary principle and the related movements for fundamental change playing a key role in shaping our collective future.

The process of imagining a precautionary mass movement is in itself a practice of fore-caring and an important first step in building the kind of movements that our times demand. To paraphrase the 19th century philosopher Arthur Schopenhauer's model for the creation of truth, first the truth is ignored, then it is ridiculed, then it is repressed and finally it is accepted as self-evident. It's clear that the precautionary principle is rapidly moving toward being a self-evident truth. That doesn't mean there won't be set backs and obstacles, but ultimately the wisdom and appeal of the precautionary principle and it's related family of ideas will be undeniable. Life in all its myriad diversities is stronger than greed. Hope in all its multiple expressions, is stronger than fear.

Therefore in conclusion we would like to offer our respect and admiration to all the hard working organizers, thinkers and strategists who have brought the paradigm shifting work of promoting the precautionary principle to this critical juncture. As an outside support organization, *smartMeme* has witnessed first hand the commitment, passion and focus of the growing movement for precautionary action.

To us it seems clear that the dreams of a broad, powerful, transformative movement for precautionary action are just the foreshadowed rumblings of the great changes that are already underway. Tomorrow's realities begin as today's dreams. First we dream it, then we speak it, and then we struggle together and build it. Here's to a future worth fighting for!

-- the *smartMeme* collective

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The nature of this project required us to cast a very wide research net. We built upon the *smartMeme* collective's own diverse knowledge base and read widely in many different subject areas. In addition we absorbed ideas from any number of contemporary media sources and snatched valuable information out of the datasphere, as it happened to wander by us in daily life. To capture the full range of information inputs into this process would be impossible. However, we have tried to catalogue some of the more useful sources we found and to provide bibliographical information for sources we mention through out the document.

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APPENDIX 2. GLOSSARY OF SCENARIO PLANNING TERMINOLOGY

Although we are borrowing some tools from the world of scenario planning it is a highly specific and (in our humble opinion) overly complicated field. Thus in order to adapt these tools of social change work we have utilized some key terms while adapting more specific meanings of others. We provide this glossary as a way to make this process transparent and inclusive.

Input data: Observations, raw data, empirical evidence, sources etc. that are then analyzed/synthesized to produce trends. An example of input data would be mean summer temperatures for the last 50 years; or the data on the annual earnings of companies who have adopted the precautionary principle for the last x# of years.

Internal Factors: These are the factors internal to the PP movement itself. Internal factors include movement resources (funding and capacity), present strategy, the movement's base (active constituencies), society's cultural identity/knowledge of the Precautionary Principle, i.e. the current "brand recognition" information. For purposes of this project we did not list these out, instead we rely on SEHN and other PP advocates as internal experts to use their knowledge of internal movement factors as a lens to bring to this scenario work.

Drivers: Drivers are the macro-categories of change. Drivers are the way futurists describe the landscape of the future. Essentially, drivers are *groups of trends and wild card events that share a common theme*. An example would be "Demographics" or "Culture." The list of these macro-categories is the **Driver Set** (see Section 6 Taxonomy of the Future.)

NOTE:

A full scenario planning process would involve identifying the specific drivers for the PP. We saw that undertaking as beyond the resources and needs of this project and so, after surveying a number of driver sets used in well researched government scenario planning processes, we selected a driver set that we think works. It includes 6 overarching drivers: *Demographics, Environmental Change, Economics, Science and Technology, National and International Governance*, and a somewhat catch all Culture category of *Perceptions, Beliefs, Attitudes & Values*.

Trends: Trajectories, extrapolations, projections, and possibly even predictions, that speaks to the general tendency or direction that things are moving in. An example trend would be 'The increasing proportion of the world's population living in developing countries.'

Key Trends: We are defining key trends as the *specific trends within each of the drivers that are most relevant to the Precautionary Principle movement*. The future is a big place and in order to produce useful scenarios it was essential that we focus our thinking on areas that offer the greatest potential for positive change. For example, *rising infertility rates* is a key trend that PP advocates have identified as relevant to examine. For a list of the key trends used in the project see Section 6 Taxonomy of the Future.

Wild Cards: Wild card is the term in scenario planning for unexpected events or future trends that *represent discontinuities or (relatively) abrupt changes of particular significance*. These could include potential catastrophes and other high-impact, low-probability events. An example would be the Chernobyl accident.

NOTE:

Given their inherent unpredictability wild cards might not seem like a good investment of resources to incorporate into scenario development. However, we think some wild card

events may be very important to PP advocates, less because they will actually happen (or even might happen) but rather because the public perception that they will or could happen affects popular culture and attitudes. A classic example is “extraterrestrial contact with humans.” Now, regardless of whether this wild card event ever happens, the possibility of it has already spawned a massive sub-culture that is regularly mined by Hollywood and advertisers for images and ideas.

Another important aspect of wild cards for Precautionary Principle advocates to consider is the *rapid response scenario* to wild card events—such as industrial disasters, Katrina-scale disasters, pandemics and the like—which, if there was foresight by the movement on how to respond to such events, could provide the movement with opportunities to get out in front and frame the conversation, thereby gaining ground for the PP and “harnessing psychic breaks.”

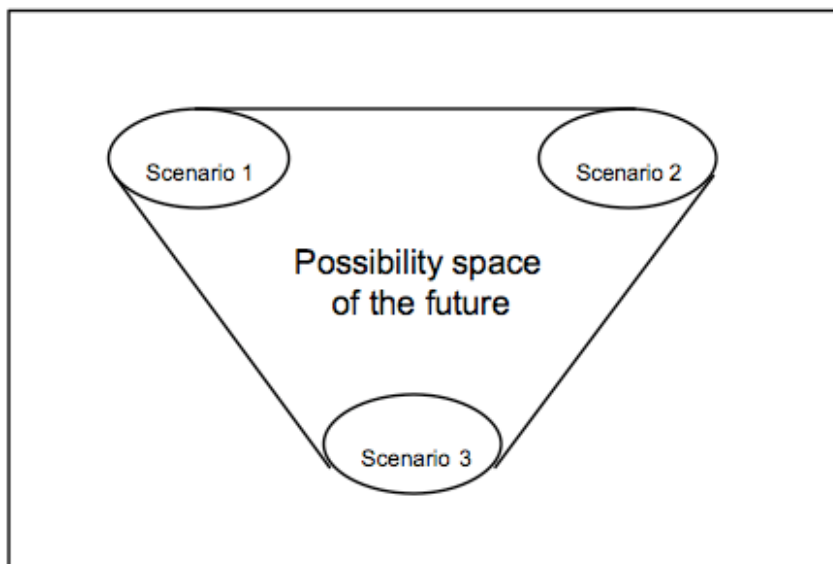
Scenarios: A term for predictions, future ‘worlds’ and outcomes. These usually draw on a number of trends and wild card events.

Normative Scenarios: A (single) desirable end state is specified and through the process of working backwards in time (“backcasting”) creates a sequence of events from this future end state backwards in time, usually to the present.

Possibility Space of the Future: Nobody has ever accused *smartMeme* of being afraid of a good bit of jargon and we have to admit when we dug this concept out of the scenario planner’s toolbox we immediately gravitated towards it. *Possibility space is the end product of a scenario planning process – literally the range of possibility that lies between the different scenarios.*

This process is intended to produce a number of different normative scenarios by which the PP achieves mass acceptance in the U.S. by 2020. The range of possibility between these spaces is a way to approach long term strategy choices for the PP movement.

Fig.1. Possibility Space of the Future – from “A Futurist’s Toolbox”



Points of Intervention: Points of intervention is a fairly common-sense conceptual tool that *smartMeme* uses in our strategy work. They are the places in a system, be it a physical system or

a conceptual system (ideology, cultural assumption etc.) where action can be taken to effectively challenge and change the system. Examples include **point of production** (factory) **point of destruction**, (logging road) **point of consumption**, (chain store) **point of decision** (corporate HQ) **point of potential** (actions which makes alternatives real) and **point of assumption** (culture/mythology). In the context of applying this model to scenario work we see points of intervention as strategic opportunities where actions by PP advocates can have an impact in moving the normative scenario forward.