

Sustainable Consumption: Bridging Research and Action and Policy Workshop

U.S. Baha'i Office of Public Affairs (OPA); 1320 19th Street, NW, Suite 701, Washington DC

Summary Report

May 6-7, 2017

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Introduction

On May 6th and 7th 2017 the SCORAI presented a workshop on bridging sustainable consumption research with action and policy, hosted by the Baha'i Office of Public Affairs in Washington D.C. Our main objective is to explore how to bridge the gap between knowledge and action. Bridging this gap means seeking how to apply SCORAI knowledge for action and policy and to investigate which knowledge gaps from activists and policy makers SCORAI should address. We had three objectives:

- 1. To transfer SCORAI research findings into action and policy domains
- 2. To investigate research needs that exist in action and policy groups and areas
- 3. To co-produce knowledge, action and policies jointly with researchers and practitioners.

SCORAL Research Areas

Philip Vergragt began the substantive portion of the workshop with an introduction to SCORAI areas of research. SCORAI is about 8-years old, it is a network of about 1000 researchers and practitioners centered in North America but spread across the globe; The emphasis so far has been more on research and less on action and policy. "We want to get our research to do something." The Working Group on Action and Policy wants research to have some impact leading to change beyond consumerism. Unsustainable/Sustainable consumption research can't be explained in 7 minutes. Sustainable consumption research can be visualized as a lens into a complex system, Research studies different domains through different disciplines and at different levels from micro to macro; there is a multiplication of study areas.

Sustainable Consumption (~2015-Present): Post-consumerism?

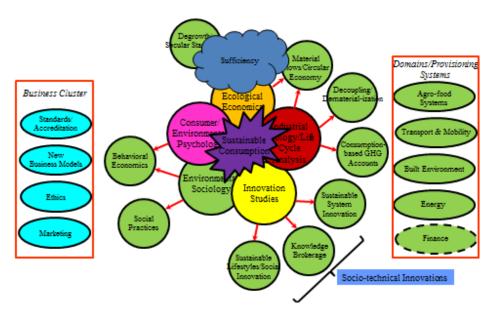


Figure 1: Maurie Cohen's slide (below) positions sustainable consumption in the context of disciplinary research areas

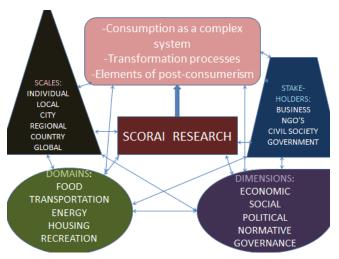


Figure 2: Philip's diagram of the different levels, domains, and disciplines connected to Sustainable Consumption

Presentations by Advocates

The introduction from research quickly transitioned to a focus on practice. Three advocates for policy and behavior change introduced their work and intersections with Sustainable Consumption. Leida Rijnhout from Friends of the Earth Europe spoke to the importance of justice as core value and advocacy as a strategy. She recounted some of the history of the term "ecological debt" which mostly invokes the reality of an invoice from the Global South directed to the North; and found it has been an effective frame for challenging

overconsumption in the North. Kelley Dennings, from New Dream, outlined social marketing as a strategy to reduce consumption, giving an example of cigarette cessation and alternative gift giving. Core elements of social marketing are: Define audience; Identify and evaluation measures; Identify channels; Identify benefits; Identify obstacles; Determine message; Test and refine; Collect data. Keya Chatterjee from the US Climate Action Network (USCAN) does not focus on sustainable consumption but power structures and narratives that mobilize movements. She found sustainable consumption is often individualized and can be disabling, whereas they focus on collective action, although personally she identified sustainable consumption as a political act of non-compliance. Chatterjee asks that the goals of sustainable consumption be clarified and argues that we need to understand the structures and levers of power. She cited research that shows political change requires: (i) political leadership; (i) a permissive majority; and (iii) an active base -- 3.5% of the population only¹. She identified the faith community and social justice communities, including Just Transition, as potential entry points for sustainable consumption work. Following the presentations, the group discussed the implications of the absence of any discussion of sustainable consumption in the climate movement, the limits of individual behavior change and marketing without structural change, and where environmental justice conflicts are being waged, documented in the EJ Atlas.²

Presentations by Local Government

We learned that state and local governments are addressing sustainable consumption in some areas in the space they can carve out. Babe O'Sullivan from the Department of Environmental Quality in Oregon may be the only state government employee in the nation with sustainable consumption in her title. Before joining the state she developed the Eugene Memorandum³ and a Toolkit on sustainable consumption in cities with the <u>Urban Sustainability Directors Network</u> (USDN) supported by SCORAI. She explained that the connection between climate and consumption is a fairly new area of research, and people from Oregon understand that the earth's resources are limited/finite and that we need to

¹see Ted talk by Erika Chenoweth https://www.youtube.com/watch?v=YJSehRIU34w

² EJOLT EJ Atlas <u>https://ejatlas.org</u>

³ http://scorai.org/eugene-memorandum/

live within our resource means. O'Sullivan asserted that sustainable consumption means one planet living, within eco-limits, and we therefore need to expand the post growth economy discourse. Madalyn Ciocci, with State of the Minnesota, has found an opportunity to work on sustainable consumption in her work at the solid waste department. She detailed how the concept and practice of reuse is outside what is considered normal; happening in the shadows of the economy, and popularly considered outside the role or authority of the State. Her work has focused on reuse, which reduces environmental impacts, and includes repair, rental, sales of secondhand goods—and none of this is ever included in calculations of GDP, or other measures and assessments. She finds that she is questioning myths; myth busting and promoting reuse consistency. And with government sponsorship, there is multiple messages: not only promoting legitimacy of reuse, but also creating greater social capital for the government in local communities. There is also a niche area for businesses to refurbish goods and creating greater availability of skills, tools, parts, and repair manuals.

In the discussion, the group dug deeper into why some places are ahead of others, the legal framework for action, and the unintended consequences of movements like decluttering. In summary, local jurisdictions can act as regulators of consumption and play a unique role as they set the contours of people's lives. One common element that emerged from the examples of both Minnesota and Oregon that were shared was that of communication. Both had a robust approach to communications. In terms of ongoing research needs, it was suggested that measuring the effectiveness of the interventions could be useful in terms of enduring changed behavior and ongoing reduced purchasing vs. there being a rebound effect.

Presentations by Researchers

In a series of presentations researchers demonstrated the power of science for practice and policy. Kuishuang Feng, of the University of Maryland explored the idea that zip codes are a window into what you buy. He has created a data-driven GIS model that shows consumption habits in individual zip codes across the United States. He found that while there is a strong correlation between household wealth and energy use, the correlation between lifestyle and carbon footprint is even stronger. He suggests consumer segmentation provides a better prediction of carbon footprint than other method. Katarina Gapp, of the Berlin School of Economics and Law (BSEL Germany), explored the drivers of energy use. Despite Germany generating 30% of its energy supply from renewable sources in 2016, its consumption of energy rose in the period from 1990 to 2010, and largely plateaued, but is not decreasing. Gapp discovered that GDP and employment, particularly when more than one job is held, are big drivers of energy use. The lack of decline was attributed to rebound effects, that energy saving simply goes into using more energy.

Following a break, Maurie Cohen of the New Jersey Institute of Technology (NJIT) explored the centrality of work to the area of sustainable consumption. He explained the growing connection between sustainable consumption and sustainable work, essentially including those people who labor to produce goods and services. Addressing the social solidarity economy, he highlighted that the accepted pillars of consumerism are faltering – demographics are changing, inequality is growing, wage-based employment is decreasing and public investment is lacking. New cultural norms are beginning to emerge as shown by the millennial age-bracket who consume experiences more so than material products and are less inclined to purchase large assets such as homes and automobiles. Giving the larger picture, Magnus Bengtsson of IGES, Japan, drawing on examples from emerging economies in Asia, explored how

countries can seek to achieve a high human development index while living within earth limits, we may require a new model for ensuring well-being. Examples of this could include shifting to community or local responses to sustainable consumption, such as low carbon diets, small-scale and family owned businesses and community provisioning. Through his work with emerging economies, Bengtsson was able to add some thoughts on how to frame sustainable consumption so that it is perceived as an attractive prospect. These included: giving equal weight to social, technical and environmental factors and that sustainable consumption need not necessarily be a consideration only when a country has reached a certain threshold of material wealth. The following discussion from these presentations touched on issues of work becoming more about qualitative benefits than quantitative benefits, the minimal climate impacts of bringing people out of extreme poverty but the huge risk of all trying be western consumers, the role of government programs, infrastructure, and taxes in consumption and sustainable consumption framing in terms of equity and justice.

Connections between advocates and researchers

In break-out groups, participants used information from the presentations and their own experience to dig-in on a series of prompts to identify positive examples, barriers, and opportunities. Some opportunities to be addressed include:

- Scientists engaging more directly in activism and policy: researchers can support and connect more locally with students, activists, and distributed organizing--like with the <u>Indivisible</u> groups. Also, academics and activists can assist one another in exploring the intersectionality that is being missed; i.e., larger scientific voices often are not making connections between social issues on the ground or in different disciplines. Key activist opportunities may exist in linking carbon pricing efforts and the climate justice movement, and the \$15 Now movement, community economic development, the fair work and solidarity economy work.
- Improve measures and assessments of policies and programs: Scientists can give greater focus to measuring the effectiveness/impact of both local initiatives and state-level policies aimed at curbing climate change and promoting sustainable consumption, including potentially using the Sustainable Development Goals. We need strategies for addressing/depressing rebound effects.
- Study and research in social movements themselves--the science of activism, its most effective/efficient means of success (what works?), and introducing into activism the areas of research that lift up the intersectionality of social movements Can we expand and bring larger academic ideas like sustainable consumption, degrowth, ecological economics into broad-based social movements, perhaps through knowledge brokers? This would be particularly useful in the context of current political discontent and in analyzing recent missed opportunities like the recession and upcoming crises in the economy and climate, as well as linkages between movements.
- Take on barriers: Barriers like funding and time to go deep on issues especially for activists and the disconnect between what's needed and what's feasible. There is a gap between empirical needs/applied research of practitioners and theoretical work of researchers (need to co-create).

Presentations on Communications and Faith

Halina Brown summarized the UNEP report on Fostering and Communicating Sustainable Lifestyles⁴ that emphasized the deeply participatory nature of communication. The report articulated eight principles for fostering or communicating SL's and used 16 specific case analyses to illustrate and refine these principles. The analysis of the cases revealed that most (13 out of 16) campaigns target one lifestyle domain at a time rather than holistically (i.e. food, housing, transportation, or leisure) or are even more narrow, engaging specific aspect of a domain (i.e. food waste in food consumption). This narrow focus may create rebound effects. For example, in one case the reward for reducing energy consumption was an airline ticket for travel). The project also revealed two types of generally missed opportunities for engagement and fostering sustainable lifestyles: 1. In addition to aiming to reduce the ecological impact of lifestyles, to celebrate low impact lifestyles in order to prevent embarking on more consumerist trajectory; 2. Enter the topic of consumption through widely recognized – yet atypical in sustainability discourse -- social concerns, such as growing indebtedness, sugar consumption or changing nature of work and income. Halina also emphasized that the proponents of sustainable lifestyles and organizers of campaigns need to be aware that the dominant ideology and cultural beliefs strongly frame, direct and constrain their efforts. For example, the power of neoliberalism is such that many approaches rely on market forces and never question their appropriateness for specific situations. In another example, the concept of efficiency is treated as an absolute good (and the term 'inefficient' has a negative connotation). But the idea that efficiency is a social good is a cultural construct which is deeply embedded in the economic theory and institutional structures that dominate our lives.

Anthony Vance and Ian Hamilton of the Baha'i Public Affairs Office introduced the role of faith-based groups; drawing firstly on the example of the U.S. State Department convening faith actors in advance of the UN climate change conference, COP21, given the potential of faith groups to mobilize positive action; and Ian talked about the massive number of faith-based groups that could catalyze change; especially among Catholic groups following Pope Francis' encyclical Laudato si. The discussion that followed these presentations further discussed the role of faith in adding stigma to overconsumption, and how faith connects to politics, the importance of role models and education, with one-planet living as a holistic approach.

Developing Action Items

For the remainder of the workshop we formed break-out groups on specific issues/interests of the participants. The groups solidified around the following issues and next steps. The groups are listed below.

Group 1: Sustainable Lifestyle Model

Participants: Babe, Katharina, Kuishuang, Anthony, Miranda

This group developed recommendations making use of the Sustainable Lifestyle Model (the "Model") presented by Kuishuang on Day 1. They sought to test the feasibility and identify successful approaches to use the model to inform policy and target investment. They identified the following potential projects:

1. We could find out what the 29 best practices are that have been identified in Minnesota's Green Step cities program. We could then examine those best practices against the data available in

 $^4\ http://scorai.org/wp-content/uploads/wordpress/FULL-REPORT-UN-Fostering-Communicating-Sust-Lifestyles-Dec-2016.pdf$

the Model that Kuishuang introduced in a plenary session on Day 1 to determine how impactful the best practices are when compared to the results available from the Model. We could also determine whether there are best practices, additional to the 29, to which the Model points. Depending on the results, we may even wish to promote certain best practices in the SCORAI newsletter and website (or other) or via social media.

- 2. At the Berlin School of Economics and Law (BESL), it was proposed to have students use the Model to test key questions at the neighborhood level. This would require the populating of the model with data from Germany.
- 3. It was proposed that Madalyn (Minnesota), Babe (Oregon), and Deric (Washington) create state level policy scenarios and run them through the Model to see the resulting impacts on CO2 emissions.

Each of these potential projects creates opportunities to take the Model to use as a narrative to justify policy action. There is also potential for a social media campaign to drive grassroots activity an interest, maybe app or personal impact - calculator. The groups brainstormed about expanding beyond GHG's, into other ecological footprint parameters. Potential funders identified include the Energy Foundation, the MacArthur Foundation, or crowdsourcing, using momentum as governments step out foundations step in.

Group 2: Supporting Alternative Lifestyles

Participants: Philip, Halina, Kelley, Jean

This group focused on the younger generation who may favor more sustainable and less materialistic lifestyles, including not owning a car, not aspiring to a single family suburban house, attraction to big cities, and generally consonant with the "New American Dream". The motivation behind this shift is probably mixed: for some the overriding reason may be changing lifestyle preferences while for others it may be the financial instability rooted in the gig economy and educational debt. This trend may provide a window of opportunity for policy and action. The key is for the early movers within this group to develop an identity as a cultural phenomenon and a political force and to start demanding that urban and economic policies support their lifestyles.

Much has been written about millennials as most representative of that lifestyle change. However, the urban millennials still represent a small proportion of their generation. Also, anecdotal evidence suggests that those who started or are planning to have a family are gravitating toward the suburbs. Further research will shed more light on this phenomenon.

But even if the city-bound millennials are now a relatively small proportion of their cohort, their absolute numbers are large. Furthermore, they may represent the leading edge of a more numerous "silent" population who would find less materialistic and unencumbered lifestyles attractive. Our group believes that people looking for alternatives to high-consuming lifestyles have not had an opportunity to articulate their needs and identity. For example, while recently the calls for affordable housing and slowing down gentrification in economically bustling cities have been getting louder, these are not generally linked to a culturally distinct cohort with specific lifestyle preferences. Creating such an identity would enable this population to recognize its power and to demand policies that support families living in cities: in the education, housing, mobility, health, recreation, and other key sectors.

Nor have the sustainable lifestyle benefits been well linked with health -- and when they have, it's been done in order to improve marketing of various goods and services. There is an opening here for communication campaign aimed at "de-marketing" and low impact lifestyles.

In the near term the group is looking at how to support and infuse Kelley's Masters project and Halina is exploring millennial lifestyle research.

Group 3: Centering sufficiency values through practice and policy

Participants: Magnus, Ian, Deric, Leida, Madalyn

Group three focused on strategies to more deeply embed sufficiency in society. The strategies they discussed were:

- Capping consumption: we identified knowledge needs around rebound effects and frames; and
 messages and intervention potentials in an pilot Vehicle Miles Traveled voluntary cap using apps
 (e.g. http://for-good.be) and the resource cap coalition in Europe, where in Hungary a cap on
 household energy use was nearly passed in parliament. Key issues include opposition to trading
 schemes, messaging around capping and hard limits. An example was given about car leases
 which have finite miles included and a balloon payment for violations.
- Advertising: Identifying intervention points and strategic opportunities, such as youth or looking
 to existing examples like banning soda in schools, being aware of rebound effects or skirting
 rules. Potential interventions could be critical media education or removing tax exemption for
 advertising.
- 3. Home Ecology: There is potential to bring back courses that existed around the turn of the century which taught people to take care of their needs outside the market. This could take place in a summer camp for example.
- 4. Leveraging sufficiency in statute and policy statements: Use language already on the books that speaks to sufficiency, for example Oregon.

In the near term, they will explore the VMT capping with sufficiency messaging as a potential project with both research and action components, starting with a proposal, and they will look at how to connect to the resource capping coalition with Leida.

Group 4: Post-Consumer Society

Participants: Nichole, Maurie, Ethan

This group focused on gig economy and ownership, including how a cooperative or shared ownership models can work successfully. They considered the structures that surround these endeavors, including laws that reinforce private ownership, and lack of community spaces to debate shared economic concerns or time and income to participate. They also discussed funding going to protect infrastructure as climate disruption increases, and how that might be leveraged for self-provisioning/ solidarity provisioning. They discussed leading institutions like the military and how it addressed racial integration and gay rights as a potential model.

Nicole will look at creating a conversation between Climate Ready Boston and SCORAI, with a potential August luncheon. In addition, they may explore partnership to catalogue sufficiency interventions, perhaps collaborating with groups like Shareable or Yes Magazine.

Lessons Learned and Evaluation:

There was acknowledgement that we need more crosstalk like this workshop and it won't happen from one meeting. While we're working in a niche area, we identified several different entry points through existing efforts which have momentum, from climate to gentrification to faith; and together we form a community to support each other in advancing the work. We need strategies to best leverage the diverse knowledge and skills at the workshop and in SCORAI and make it part of our day to day work. We also need to leverage current opportunities, for example, the German government's intention to integrate sufficiency into decision making. Researchers were motivated to apply their work to practical action, such as regional and local government, rather than focusing on publishing, and enjoyed being shaken up by activists. We must remember that some have been working on SCP for decades and some are new to the issue so we can't get lost in jargon and we must communicate what we're doing. There are many we still need to bring to the table, such as more social scientists and political advocates and we must make our work relevant to those groups, for example by quantifying the benefits of SCP for use in policy.

Appendix 1

Workshop Program

Saturday May 6

Session 1 (facilitator Deric; Jean note taker)

- 9:30 coffee, muffins and fruits available
- 10:00 Opening and introduction to workshop: Goals and Intended Outcomes (Deric)
- 10:05 SCORAI Research Areas (Philip)
- 10:15 Brief Introductions
- 10:30 Flash presentations on successful actions and policies by advocates and activists on advancing sustainable consumption and reflection on strategies:
 - Leida Rijnhout (FoE Europe): "Fruitful Link between NGO Advocacy and Scientific Research (cases from EU and UN advocacy work)"
 - Kelley Dennings (New Dream): "Planning for a Behavior Change Campaign to Encourage and Enable Sustainable Consumption"
 - Keya Chatteryee (Climate Action network): Activism by Climate Action Network
- 11:00 Plenary Discussion: Identifying Intersections with Research
- 11:30 Coffee break
- 11:45 Flash presentations on city policies:
 - Babe O'Sullivan (USDN; Oregon DEQ): Early Efforts to Implement Sustainable Consumption at the City and State Levels

- Madalyn Ciocci (State of Minnesota): "Minnesota's Efforts to Make Reuse Mainstream"
- 12:05 Plenary Discussion: Identifying Intersections with Research
- 12:30 Lunch

Session 2 (facilitator Nichole; note taker: Ian)

- 13:30 Summary of Outcomes (Jean)
- 13:40 Flash presentations by SCORAI members on selected research findings:
 - Kuishuang Feng (U. Maryland): "Behavioral Mitigation Potential of Consumer Lifestyle Types Using Market Segmentation Data"
 - Katarina Gapp (BSEL Germany): "What Factors Influence the Consumption of Electricity on a Macro-level"
- 14:00 Plenary Discussion: Identifying Intersections with Research
- 14:30 Flash presentations on selected research findings:
 - Maurie Cohen (NJIT): "The Centrality of Work in Sustainable Consumption."
 - Magnus Bengtsson (IGES Japan): "Well-being and Consumerism in the Global South Searching for Alternatives"
- 14:50 Plenary Discussion: Identifying Intersections with Research
- 15:20 Tea break
- 15:30 Three break-out groups to discuss three questions:
 - 1. What examples of fruitful connections between action and research have so far emerged; and what to learn from these?
 - 2. What new opportunities for connections between action and research can be identified?
 - 3. What barriers exist between research and action and what strategies and tactics can overcome these barriers?
- 17:00 End: informal drinks and brief
- 18:30 Workshop dinner (tba)

Sunday May 7

Session 3 (facilitator Jean; note taker Philip)

- 8:30 Coffee; put up white papers from break-out groups.
- 9:00 Plenary: Comments by Ethan Goffman (columnist)
- 9:10 Plenary: Debrief from break out groups
- 9:50 Flash presentation: Communicating sustainable lifestyles:
 - Halina Brown (Clark U.) "Fostering Sustainable Lifestyles through Communication Campaigns and Local Initiatives: Some Lessons"

- 10:00 Plenary discussion: Bridging Research and Action and Policy
- 10:20 Coffee break
- 10:40 Flash presentations on Religion and Sustainable Consumption
 - Anthony Vance/Ian Hamilton (Baha'i) "Examining the Intersection of Religion and Sustainable Consumption: Overlap and Divergence."
- 11:50 Plenary Discussion
- 11:30 Ad hoc break—out groups based on participant preference. Potential issue areas: energy and climate; work and cooperatives; scale (local and bottom-up initiatives, city-level policies, national); emerging opportunities, etc.
- 12:30 Lunch break

Session 4 (facilitator Philip; note taker Deric)

- 13:30 Continuation of break-out groups
- 14:00 Plenary: presentations by break-out groups and discussion.
- 15:00 Tea break
- 15:30 Plenary wrap-up session: everyone
 - · Lessons learned
 - Joint action plan for follow-up
 - Evaluation
- 17:00 Adjourn: informal drinks and dinner on your own.

Appendix 2

Presentation Abstracts

1. Leida Rijnhout (FoE Europe): "Fruitful link between NGO advocacy and scientific research (cases from EU and UN advocacy work)"

For many years I did the facilitating work for the Major Group of NGOs in sustainability processes (Rio process-CSD/HLPF) and environment (UNEA and OECD-EPOC). Nowadays I'm more and more involved in EU advocacy work (related to the 2030 Agenda implementation). My experience in all this work is that it is crucial to use **scientific data** in your arguments to convince decision makers. Arguments, based on ethics, justice and moral values are important too, as all decision makers are also human (parents, partners, neighbors, ..). I'm working on resource justice, where I use both moral and scientific data, to show that the Global North is seriously overconsuming and therefore blocking the development/food supply in the Global

North. Data on footprints (land, water, carbon, etc.) are very useful and illustrative for decision makers, but also for consumers (awareness raising).

On the other hand it is also important that concepts coming from CSOs (ecological debt, climate justice, buen vivir, ...) are also acknowledged and studied by academics to make those concepts accepted and more science based. I will give some more information on how the ecological debt case transformed from a symbolic action at UNCED 1992, into a scientific report of the calculation of the ecological debt of Belgium.

2. Kelley Dennings (New Dream) "Planning for a behavior change campaign to encourage and enable sustainable consumption"

Behavior change is not easy. If it was we would all exercise regularly and eat healthy. And even when we know something might be the right thing to do, we don't always do it. We are human – maybe our actions are due to peer pressure, personal motivations and values, lack of convenience, cost and the list goes on. This project begins by understanding why and how our target audience consumes and what their thoughts are on reducing personal consumption. Once we better understand their barriers and benefits to waste reduction we can implement a campaign geared towards a specific action for our target audience.

When planning the campaign we will ground our work in various social and behavior change theory borrowed from marketing, psychology to sociology. This provides us with a roadmap in which to focus the project. Behavior and social change campaigns must be evaluated continuously to make sure we are achieving the outcome we seek. This project will include research throughout the campaign's lifecycle. We will conduct a baseline attitude, awareness and behavior survey and a similar follow-up survey near the end of the campaign project to track results. We plan to conduct some focus groups to better understand the barriers and benefits our target audience has towards waste reduction. Throughout the implementation of the campaign we propose testing different messages to see which resonate best with the audience.

New Dream has decided on an outcome to focus our work. Following the SMART formula our goal is to reduce the exchange of material gifts during the winter holidays in pilot communities for a specific demographic audience yet to be decided. Results will be based on pre-and post-self-reported surveys and information from the SoKind online alternative gift registry tool. The specific action we plan to promote will be to give experiential gifts instead of material gifts. This outcome and action was chosen based on the impact and likeliness of them to occur and be successful. We will pick a target audience to focus on the action we seek. This may be baby boomers, parents, people already on the registry or new members.

We propose piloting the campaign in a couple of communities to test different strategies. The campaign's "marketing mix" will include various messages, communication channels and messengers. Within each of those categories we have various strategies to use such as pledges, storytelling, goal setting, defaults, feedback, incentives, nudges, etc. All of these strategies are in our behavior and social change toolbox for us to use. After piloting the campaign, we will

make any necessary changes based on our learnings prior to distribution to a larger geographic audience.

3. Keya Chatterjee: "Climate action, advocacy and behavior change"

Drawing on experience of leading an inclusive and diverse network of US organizations who work together to meet and exceed the US targets outlined in the Paris Climate Agreement, Keya will be discussing the link between, and importance of, advocacy and behavior change campaigns. Additionally, Keya will address US Climate Action Network's specific role and focus in advocacy.

4. Babe O'Sullivan (USDN; Oregon DEQ): "Early Efforts to Implement Sustainable Consumption at the City and State Levels"

For several years, local, state and federal governments have been exploring their role in advancing sustainable consumption. But the scope of necessary change and the potential for triggering disruptive politics has made it difficult to find a clear path forward. The Urban Sustainability Directors Network (USDN), the premier organization for advancing a local sustainability agenda in North American cities, has provided a supportive platform for innovation in this space. Through partnerships with SCORAI and its members, philanthropic organizations and federal and state agencies, USDN has built a suite of policy tools, staff capacity and financial resources to enable urban experimentation and learning.

This presentation will include a report of recent efforts through the USDN Sustainable

Consumption in Cities program, including:

The USDN Sustainable Consumption Toolkit
Recent grant-funded city pilot projects
The 2017-18 work program

The State of Oregon Department of Environmental Quality (DEQ) is a recognized leader in developing a state-level approach to sustainable materials management. Some of the related activities that will be reviewed include:

Materials Management 2050 Vision development and implementation
New statewide strategies for food waste prevention, repair and reuse, sustainable consumption, sustainable production
Ongoing foundational research and analysis

5. Madalyn Cioci (Minnesota State) "Minnesota's Efforts to Take Reuse Mainstream"

Sharing, repairing, and reusing are today understood as central to sustainable consumption. In many states, however, including Minnesota, state and local resources and policy have favored

recycling and landfill diversion (even when the law may require adherence to the waste management hierarchy).

One reason for that, it seems, is that reuse has been *interpreted* as a minor or marginal activity of lesser impact than recycling. Reuse is often presumed to be of small environmental impact, done through tiny personal actions (e.g.: reusable mugs) or by non-profits and by people at society's margins, and in the shadows of the economy outside the scope of environmental policy makers. On the other side, there are those who claim that reuse, if it happened on a large scale, would hurt the economy.

Minnesota is working to challenge some of these interpretations and assumptions through research, programs and communications, to bring reuse into the mainstream and out of the shadows.

Madalyn Cioci, of the Minnesota Pollution Control Agency, will share examples of actions and strategic communications at the county and state levels, as well as a few business examples, that have helped shine light on the important role of reuse as a sustainable consumption strategy, including:

Since 2009, the MPCA has given out about a dozen grants focused on increasing
reuse, including support of a non-profit, reuse business networking group.
Analysis of economic activity of Minnesota reuse, repair, and rental businesses.
Government coordination of Fixit Clinics
Communication about limits of GDP to reflect economic benefits of reuse.

6. Kuishuang Feng (U. Maryland): "Behavioral Mitigation Potential of Consumer Lifestyle Types Using Market Segmentation Data"

To encourage substantial reductions of U.S. residential emissions, cost-effective responses to climate change will need to recognize changes in consumer behavior and lifestyles as mechanisms to mitigate carbon dioxide emissions. Marketing experts have long recognized the usefulness of developing composite variables to target specific consumer lifestyles and have subsequently developed market segmentation approaches to express relationships between geo-demographics and consumer behavior. We employ market segmentation data to delineate lifestyles for approximately 70,000 census tracts in the US and develop a spatial framework to better conceptualize lifestyles as location specific typologies of emission drivers. We find that lifestyles are not only very useful in explaining variations in emissions but in fact are as important as income, typically recognized as the major determinant of consumption emissions. Results from our analysis link the differences between suburban and urban footprints directly to lifestyle patterns and illustrate the geographic distribution of emissions resulting from households' consumption. We find that statistical clustering and consumer classification methods provide a unique perspective for understanding how various CO2 drivers interact and impact household emissions. Our proposed framework suggests that carbon mitigation strategies should move beyond a "one-size-fits-all" approach centered on income and account

for community specific lifestyle impacts related to consumer preferences and demographic characteristics at fine spatial scale.

7. Katarina Gapp (BSEL Germany): What factors influence the consumption of electricity on a makro level?

Within the European Union several policies exist that aim to reduce electricity consumption. For example, the eco-design directive and the related regulations should lead to energy savings of about 385 TWh per year (about 12% of electricity consumption in general, CSES 2012). Nevertheless, the overall consumption of electricity by private households in the European Union has not decreased (Eurostat, Code: tsdpc310) since the policies where put in place in 2009.

For government programs to be more effective it is essential to analyze not only what influences the consumption of electricity on an individual basis, but also — and more important — to explore which factors have an impact on makro basis. For this reason, almost 100 makro-indicators from Eurostat have been examined. The presentation will show, which of them seem to have an impact on the average electricity consumption by European households. This could lead to the discussion about possible starting points for additional policies.

8. Maurie Cohen (NJIT) "The Centrality of Work in Sustainable Consumption"

Prior to the 1990s, the predominant international discourse pertaining to environmental change was centered on population growth primarily occurring in nations of the global South. The 1992 Rio Earth Summit marked a turning point where significant attention first came to be devoted to the high per capita volumes of resource throughput among affluent consumers in post-industrial countries. In particular, Chapter 4 of Agenda 21 triggered early establishment of a community of researchers and policy practitioners devoted to developing international and national policy agendas around the notion of "sustainable consumption (or sustainable consumption and production)." While certainly useful (especially as a counterpoint to an exclusive emphasis on population growth), this framing of the sustainability problématique has for the past two decades been almost singularly focused on the management of energy and material flows at different geographic scales. Lost in this framing has been the reciprocal social, economic, and cultural relationships between the routines of consumers and workers. More specifically, the social organization of consumption in a very real sense mirrors (and arguably is determined by) the social organization of work. A key question becomes whether significant shifts in the demand for labor—the decline of waged work, the emergence of a gig economy (sometimes erroneously termed the "sharing" economy), and widening differences between financial returns to capital and financial returns to labor—are undermining the reproducibility

of contemporary consumer society. If this is the case, what are the implications for less material intensive lifestyles? How can we manage the decline of consistent and reliable employment in ways that are facilitative of more sustainable consumption? What role might the encouragement of more solidaristic and cooperative forms of provisioning play in such a transition? These issues point to a potentially important new research frontier.

9. Magnus Bengtsson (IGES, Japan): "Opportunities and challenges for leapfrog development in Asia – Searching for viable approaches"

The idea of leapfrog development (LD) – that developing countries can jump over polluting and resource intensive stages of development and go directly to more sustainable solutions – has been around for several decades. However, the LD concept has mostly been used in a narrow technical sense with scant attention given to the institutional and cultural dimensions that shape aspirations and behaviours. The increasingly urgent need to reconcile human development globally with climate stabilisation and other ecological constraints makes LD more relevant and important than ever, but it needs to be understood and pursued in a different way than has often been the case – with stronger emphasis on social and human aspects Development practice is to a high degree (explicitly or implicitly) based on the idea that countries in the Global South should emulate the North in basically every regard, including adopting the cultural and institutional underpinnings of a consumerist society, but to do so with more eco-efficient and less polluting technologies – which often needs to be sourced from wealthy countries. At the same time, at the local level in the Global South there are many existing practices with clear sustainability values, such as repair/reuse businesses and systems, collection of recyclables, and communitarian provisioning and other sharing economy practices. Such practices, which used to be widespread also in the Global North but were largely lost in the process of modernisation, are now often being promoted as part of a shift to SCP. It seems to be an important task for research and practice to explore how such Southern SCP practices do not disappear as these countries climb up the development ladder. Simply conserving such practices, which are often associated with poverty and thus carry a social stigma, is not likely to work. More innovative approaches are thus needed, approaches that seek to upgrade and adapt these practices to be feasible also when social structures and households' time-use patterns change with modernisation.

This is an area with limited existing research but with the potential of having significant real-world impact.

10. Halina Szejnwald Brown (Clark U.) "Fostering Sustainable Lifestyles through Communication Campaigns and Local Initiatives: Some Lessons"

This project formulated eight principles for effective communication as well as best practices for designing local sustainable lifestyle initiatives. The communication and practical engagement are treated jointly because both draw on the same core understandings of human

behavior, perceptions, aspirations, and subjective well-being, all in the context of culture, markets, social practices and institutions, and infrastructure. Moreover, it is increasingly recognized that effective communication is deeply participatory. The principles were derived from the current state of theoretical knowledge about human behavior in a societal context and from examining 16 campaigns from around the world. The principles are: stakeholder – focus; speaking to aspirations for better living; setting clear goals; considering lifestyle holistically; taking advantage of life stages and transitions; accommodating diversity; engaging individuals as group members; responsiveness and adaptability to change.

The analysis of the cases revealed that most campaigns target one lifestyle domain at a time rather than holistically (i.e. food, housing, transportation, or leisure) or are even more narrow, engaging specific aspect of a domain (i.e. food waste in meat consumption). This narrow focus may create rebound effects. The project also revealed two types of generally missed opportunities for engagement and fostering sustainable lifestyles: 1. In addition to aiming for reducing ecological impact of lifestyles, to *celebrate* low impact lifestyles in order to prevent embarking on more consumerist trajectory; 2. Enter the topic of consumption through widely recognized – yet atypical in sustainability discourse -- *social concerns*, such as growing indebtedness or sugar consumption.

11. Deric Gruen (WU): Rethinking Prosperity - Communication for Sustainable Societies

The eco-modernist, 'substitute consumption' approach to the problem of transgressing planetary resource boundaries dominates environmental policy in the United States, while the absolutist, 'sufficient consumption' approach, necessary for global equity and sustainability, is largely sidelined from politics and policy. To simplify, mainstream environmental policy is largely focused on switching inputs or fuels and somewhat focused on efficiency strategies and technologies, while mostly ignoring the quantity and distribution of resource consumption and production. Even in EPA's Clean Power Plan, to cap greenhouse gas emissions from power planets, the model plan ignored absolute demand for energy, focusing only on fossil fuel energy. Sufficient consumption has been sidelined from policy as part of a larger movement to liberalize the economy and to separate economics from politics. The Rethinking Prosperity project at the UW Center for Communication and Civic Engagement seeks to advance ideas and communication that re-embed the economy in democracy and the environment. Through research, education, communications, dialogue, civic-engagement, and network building we promote this notion of rethinking prosperity in local and global forums. This presentation will highlight our recent strategies and tactics and the barriers and opportunities we have found in our efforts to shifting the policy discourse locally.

12. Anthony Vance/ Ian Hamilton (Baha'i)

Despite recent demographic shifts, religion remains a potent force in the United States where it can drive social, economic and cultural change. Similarly, as organizations that tend to take a moral stance, religious groups may see themselves inherit a growing responsibility to promote the concept of sustainability within their sphere of influence. Having engaged in national and international sustainability discourse since the early 1990's, the U.S. Baha'i Office of Public Affairs (OPA) seeks to identify the principles in various facets of the sustainability discourse. As part of this intervention, staff of OPA will provide an overview of broad religious engagement in this area as well as identifying some relevant principles and concepts that could inform the intersection of religious belief and sustainable consumption.

Appendix 3: Participants' bios

Biographies

Anthony Vance

Since October 2010, Anthony Vance has been the Director of the Office of Public Affairs for the Baha'is of the United States. Before that, he was the Deputy Secretary-General at the Baha'i World Center in Haifa, Israel from 2006 to 2010 where his responsibilities revolved around relations of the World Center with the government of Israel, the diplomatic community and civil society. After two years of private law practice, from 1985 until 2006, he worked for the U.S. Agency for International Development first as a lawyer and later as a manager in USAID missions in Cote d'Ivoire,



Kenya, Botswana and Egypt. His degrees are a B.A., Economics, M.B.A. and J.D., all from Harvard University.

Babe O'Sullivan



Babe O'Sullivan is a sustainability professional with over fifteen years of experience in consumption and materials management programs. Currently, she is a working as a consultant for the Urban Sustainability Directors' Network (USDN) as the lead for *Sustainable Consumption in Cities*, a multi-year project exploring the role of cities in advancing sustainable consumption. As part of that work, she helped to design and launch the new USDN Sustainable Consumption Toolkit providing guidance

and resources to cities. Babe recently joined the Materials Management Section of the Oregon Department of Environmental Quality (DEQ) as a Sustainable Consumption Specialist. In that role, she is developing a statewide strategy for sustainable consumption that includes foundational research, policy

development and long-term strategic direction for the agency. Previously, Babe was the Sustainability Liaison for the City of Eugene, Oregon, where she worked on climate action planning, sustainable economic development, land use and transportation, energy efficiency and renewable energy and Triple Bottom Line decision-making. Babe was also a program coordinator for the City of Portland, Oregon, developing and implementing solid waste and recycling programs for the business sector. She is a member of the leadership team for the EPA West Coast Forum on Climate and Materials Management and serves on the board of the Eugene Toolbox Project, a local tool lending library in her home community. She holds an MBA from University of California, Berkeley and a Bachelor of Science degree in Environmental Policy from the University of California, Davis.

Deric Gruen manages the Rethinking Prosperity project at the University of Washington Center for Communication and Civic Engagement in Seattle. He also consults on policy, program development and communications for initiatives at the intersections of equity, environment, and the economy. Current projects include Front and Centered, a coalition working for equitable and effective state climate policy in Washington State, the Seattle Good Business



Network's Local Economy Leaders Lab, and the Stand Up to Oil Campaign. He was recently a Fellow at the Sightline Institute, a sustainable communities' think-tank, and is an Alumni of the Emerging Leaders in Environmental and Energy Policy network (ELEEP), a transatlantic program of Ecologic Institute and Atlantic Council. Previously, Deric was the Sustainability Director for Bellevue College where he led initiatives in curriculum integration, climate, transportation and resource conservation, and community leadership.

Ethan Goffman



Ethan Goffman is Associate Editor of Sustainability: Science, Practice, & Policy. Besides his six years of authoring the SSPP Blog, his publications on the environment and sustainability have appeared in Earthtalk, E: The Environmental Magazine, Grist, and elsewhere. He is the author of Imagining Each Other: Blacks and Jews in Contemporary American Literature (State University of New York Press, 2000) and co-editor of The New York Public Intellectuals and Beyond (Purdue University Press, 2009) and Politics and the Intellectual: Conversations with Irving Howe (Purdue University Press, 2010).

From 2009 to 2014, Ethan was Transit Chair of the Montgomery County (Maryland) Chapter of the Sierra Club. He is a 2016-2017 Montgomery College-Smithsonian Faculty Fellow.

Halina Szejnwald Brown is Professor of Environmental Science and Policy at Clark University and a Fellow at Tellus Institute. With a doctoral degree in chemistry, during the 1980s Brown was a chief toxicologist at the Massachusetts Department of Environmental Protection, directing the agency's environmental health policy. At Clark University Brown's research and teaching has evolved: from risk assessment of environmental pollutants to environmental health policy and corporate environmental management, to institutionalization of sustainability reporting, to



socio-technical transitions. She published and consulted widely on new methods of risk assessment, and led a pioneering study of how US multinational corporations managed hazards in their facilities in India and Thailand. She conducted a study of the institutionalization of Global Reporting Initiative, GRI, a global model for "civil regulation" based on information disclosure about corporate sustainability performance. During the 1990s Brown worked in Poland - the country of her birth -- studying the relationship between air pollution and lung cancer; and the transition of the environmental and occupational regulatory system to market economy and democracy. Over the past decade and half the theme of Brown's work has been the interface between technology, policy and culture in a transition to sustainable and prosperous future. Working in the US and Europe, Brown studied the role of small scale experiments and social learning in socio-technical transitions, focusing on the building and mobility sectors. In 2008 she co-founded the Sustainable Consumption Research and Action Initiative (SCORAI), the knowledge network of professionals working to address challenges at the interface of material consumption, human fulfillment, lifestyle satisfaction, and technological change. She is a member of the SCORAI Executive Committee and conducts research on this topic. Brown was a visiting professor at University of Utrecht and University of Delft in the Netherlands, served on numerous committees of the National Academy of Sciences, and is a Fellow of the American Association for the Advancement of Science and a Fellow of the International Society for Risk Analysis. Brown is an energy activist in her home city of Newton, Massachusetts, serving as co-chair of Citizens' Commission on Energy. She coauthored dozens of articles and book chapters and four books: Corporate Environmentalism in a Global Economy; Effective Environmental Regulation: Lessons from Poland's Experience; Innovations in Sustainable Consumption; and "Social Change and the Coming of Post-consumer Society."

Ian Hamilton



Since January 2016, Ian Hamilton has worked as the Representative for Sustainable Development at the Office of Public Affairs for the Baha'is of the United States. In this capacity he works on a number of related issues including climate change, climate finance and sustainable consumption and production while seeking to promote principled dialogue in the sustainable development space — often in collaboration

with other like-minded organizations. Prior to joining the Office of Public Affairs, he worked in climate finance at the World Bank and for the Energy, Environment and Climate Change Department of the

African Development Bank. Ian holds a B.B.S in Management and an M.Sc in Sustainability and Corporate Social Responsibility.

Jean Boucher



Jean Boucher is a Postdoctoral Associate in the Department of Technology and Society at Stony Brook University—State University of New York. He conducts research in the areas of energy-environmental systems, technology, and innovation policy; particularly socio-technical factors that influence cultural diffusion and adoption of greener technologies in energy transition and systems change. Jean recently completed his doctoral studies in sociology at George Mason University where he analyzed the relationship between household income, personal carbon emissions, and attitudes

concerning climate change. Jean is also a former Mechanical Engineer and U.S.-Mexico border educator, and has interests in social class and immigration in the United States.

Katarina Gapp

Katharina Gapp is currently working as a guest lecturer at the Berlin School of economics and law (BSEL, Germany). She is also graduate student at Leuphana University (Lüneburg, Germany). Katharina has a Master's Degree in sustainability and quality management. Before her guest lectureship she worked as a Program Manager for a Master's Program at the Berlin School for Professional studies from 2013 until 2016. Until 2013 Katharina worked as a Project Manager for Metro Cash and Carry Germany, a cash and carry wholesaler. After finishing her extra-occupational Master's studies in 2013, she



left the company. One reason for leaving was, that it is difficult to support sustainable consumption in your personal life while working in a company that promotes pure consumerism.

Keya Chatterjee



Keya Chatterjee is Executive Director of USCAN, and author of the book *The Zero Footprint Baby: How to Save the Planet While Raising a Healthy Baby.* Her work focuses on building an inclusive movement in support of climate action. Keya's commentary on climate change policy and sustainability issues has been quoted in dozens of media outlets including *USA Today*, the *New York Times, Fox News*, the *Associated Press, The Washington Post*, and *NBC Nightly News*. Prior to joining USCAN, Keya served as Senior Director for Renewable Energy and

Footprint Outreach at the World Wildlife Fund (WWF), where she worked for eight years. Before that,

Keya was a Climate Change Specialist at USAID. Keya also worked at NASA headquarters for four years, communicating research results on climate change. Keya was a Peace Corps Volunteer in Morocco from 1998 to 2000. She currently serves on the board of the Washington Area Bicycling Association. Keya received her Master's degree in Environmental Science, and her Bachelor's in Environmental Science and Spanish from the University of Virginia.

Kelley Dennings



After graduating from North Carolina State with a bachelor's of science degree in Natural Resources, Kelley Dennings worked in the recycling industry for 15 years at a local and state government level, along with a national nonprofit. She implemented a school system and state fair recycling program, facilitated a food waste reduction working group, helped draft policy for a statewide electronics recycling funding mechanism and raised awareness for NC's plastic bottle landfill ban. In 2006 she was asked to do a presentation linking recycling and litter and it was recommended she talk about "behavior change". Since that time she has been using social marketing to help the environment. When she worked for the state's recycling office and national Keep America Beautiful, she conducted various behavior change, social media and traditional advertising projects and worked to build the body of knowledge around recycling behavior change.

Kelley then joined the American Forest Foundation to help motivate landowners to take conservation actions on their forested land. This included such goals as longleaf pine restoration, building of wildlife habitat or placing a conservation easement. While there she built an audience segmentation database, conducted focus groups and surveys and defined their national behavior change research agenda.

Most recently Kelley started working for Action Research, a social marketing agency; become a fellow at New Dream, working to decrease personal consumption; and is the founding President of the Social Marketing Association of North America, an all-volunteer organization to bring social change professionals together for networking, learning and collaboration for improved impact.

In 2010, she received her project management certification. Kelley's case studies have been published or presented in Resource Recycling, Social Marketing Quarterly and at various state and national conferences. She is currently working on her Master's in Public Health at the University of South Florida where she hopes to bring together the disciplines of public health, the environment and social change.

New Dream background:

With its founding in 1997, the Center for a New American Dream sparked a new and unprecedented national conversation on materialism, living in balance, and the hidden costs of a high-consumption society. For 20 years, the Center for a New American Dream (CNAD) has been a pioneer for its work at the intersection of consumption, environmental degradation, and quality of life. In 2016, CNAD underwent a strategic restructuring and name change to streamline its programs and better respond to the needs of a growing and more international audience. It is now known simply as New Dream.

New Dream's focus made it truly unique among environmental organizations, and it has garnered significant achievements over the years, including:

- Releasing three books, <u>More Fun Less Stuff</u> and <u>What Kids Really Want That Money Can't Buy</u>, both authored by New Dream founder Betsy Taylor, and <u>Sustainable Planet: Solutions for the 21st Century</u>, co-edited by Taylor and fellow founder Juliet Schor.
- Launching and spinning-off the <u>Responsible Purchasing Network</u>, which continues to thrive as an independent entity.
- Creating and marketing <u>SoKind</u>, an alternative gift registry that helps people reduce and shift consumption at key moments in their lives.
- Producing a large volume of practical resources to help individuals enact change both in their daily lives and in their communities—including our <u>webinars</u>, <u>videos</u>, <u>action guides</u>, and more.
- Providing global leadership through the United Nations, the President's Council on Sustainable Development, and other entities raising awareness about the need for limits to growth and an economy built on sustainable rather than excessive consumption.

Kuishuang Feng

Dr. Feng is an Associate Research Professor at University of Maryland College Park. He is an ecological economist with a research specialization in modeling the human and environmental interaction in the context of sustainable development. His research focuses on tele-connecting local development to environmental impacts at multiple spatial scales. The objective of his research is to uncover how human activities drive environmental change at local, national and global scales by using consumption-based modeling framework and more specially the environmentally extended input-output analysis.



This consumption-based socio-ecological modeling framework allows to trace environmental impacts of local consumption activity along the regional, national and global supply chains. Dr. Feng has incorporated many environmental indicators into this developed modeling framework including water use, water scarcity, land use, land stress, ecosystem impacts, energy consumption, GHG emissions and air pollution. His currently research includes global social inequality and environmental inequality, distributional effects of climate change taxation and fuel subsidy removal, carbon consequences of people's lifestyle change using geo-demographic database. Dr. Feng has published intensively in high impact scientific journals, including Nature, Nature Climate Change, Nature Communications, Proceedings of the National Academy of Sciences (PNAS), Global Environmental Change, and Environmental Science and Technology. Many of his research have received public discussions in international media outlets such as The BBC, CBS, Reuters, Science Magazine, Smithsonian, the LA Times, and the Guardian. He has received funding support from many national and international agencies, such as NASA, the World Bank, the Inter-American Development Bank, Energy Foundation, WWF-UK, and National Natural Science Foundation of China.

Leida Rijnhout



Leida is a national Dutch and has a background in cultural anthropology with more than 30 years of experience in international development cooperation (focus on rural development in Bolivia) and sustainability. For many years, she facilitated and coordinated the global NGO community to realise their active engagement in United Nations processes on Sustainable Development and Environment. For that reason, she was heavily involved at and in the preparations of the Summit on

Sustainable Development in 2002 (Johannesburg), at Rio+20 in 2012 (Rio de Janeiro) and in the development of the UN 2030 Sustainable Development Agenda, including the Sustainable Development Goals. She is the European Focal Point for civil society in Europe, in the 10-year Framework on Sustainable Consumption and Production (UNEP). And was the representative for the Environmental NGOs at the OECD, until shortly. At UNEA2 she was the co-chair of the Major Group Facilitating Committee, and the main contact for UNEA and member states for the civil society groups. She was Director Global Policies and Sustainability at the European Environmental Bureau (EEB), and since September 2016 program coordinator Resource Justice and Sustainability at Friends of the Earth Europe. Leida was also coordinator of an international think tank on ecological debt and environmental justice. She is full member of the Club of Rome, EU Chapter. She always combined scientific research work, activists' approaches, field experiences and policy work. She wrote many articles and chapters of books on strong sustainability and speaks Dutch, English and Spanish.

Madalyn Cioci

Madalyn Cioci (pronounced Chō-chee) is a Principal Environmental Specialist in product sustainability and partnerships at the State of Minnesota Pollution Control Agency, where she has worked since 2007. She coordinates the MPCA's work in waste prevention through reuse and repair, and leads analysis efforts in MPCA's transition to sustainable materials management. She also works on State of Minnesota's sustainable procurement and toxic pollution prevention efforts. Her particular interests currently are in developing research-based state government policy, programs and communications to motivate sustainable consumption, and addressing the intersection waste/toxicity in circular economies.



Madalyn has authored several reports recommending systemic life cycle materials and sustainable consumption perspectives for government policy and programs, including:

- Product Bans and Restrictions: a guide for local government policy makers (MPCA, 2016)
- <u>2015 Solid Waste Policy Report</u> (MPCA, 2015, establishing Sustainable Materials Management approach)
- The Cost and Environmental Benefits of Using Reusable Food Ware in Schools: A Minnesota Case Study (MPCA, 2014)
- Reuse, Repair, Rent (Resource Recycling, April 2013)

She is a founding member and vice-president of ReUSE Minnesota, a statewide network of reuse-related businesses and advocates. She was also a founding member and board member of Linden Hills Power and Light, which was a catalyst for establishing curbside organics collection in city of Minneapolis, Minnesota. Prior to joining the MPCA, she worked in the field of organizational change and community development in Minnesota and New Jersey.

She has an MA in Organizational Psychology from University of Michigan and a BA in Psychology from Vassar College. In her spare time, she's usually in, on, or around one of Minneapolis' many lakes, reading a good book, or practicing guitar.

Magnus Bengtsson



Magnus Bengtsson is currently a Fellow at the Institute for Global Environmental Strategies (IGES), based in Japan, where he is leading a flagship book project on the Sustainable Development Goals and transformative change in Asia. He was previously the Director of IGES' Sustainable Consumption and Production group, which he built up and led between 2010 and 2013. Before that, he was the Manager of the institute's Waste Management and Resource Efficiency project (2008-

2010). Prior to joining IGES in 2007 he was a Post-Doctoral Fellow at the University of Tokyo where his research focused on water demand scenario analysis and global water futures assessment. Magnus received his PhD in Environmental Systems Analysis at Chalmers University of Technology in Göteborg, Sweden, where he worked on Life-Cycle Assessment (LCA), stakeholder consultation processes and sustainability controversies. He also holds a Master's degree in Industrial Engineering and Management and a Bachelor's degree in History. Magnus has conducted and lead practice-oriented research on a wide range of topics, mainly focusing on policy approaches towards Sustainable Consumption and Production and Sustainable Materials Management.

Keywords: Sustainable consumption, Social metabolism, Systems analysis/thinking, Political economy, Global "development", Asia

Maurie Cohen



Maurie J. Cohen is Professor of Sustainability Studies and Director of the Program in Science, Technology, and Society at the New Jersey Institute of Technology. He is also Associate Faculty Member with both the Division of Global Affairs at Rutgers

University and the joint Rutgers University/NJIT Urban Systems Program and Associate Fellow at the Tellus Institute. Cohen is additionally Editor of Sustainability: Science, Practice, and Policy (SSPP), co-founder and Executive Board Member of the Sustainable Consumption Research and Action Initiative (SCORAI), and co-founder and co-facilitator of the Future Earth Knowledge-Action

Network on Systems of Sustainable Consumption and Production. He is the author of *The Future of Consumer Society: Prospects for Sustainability in the New Economy* and editor of *The Coming of Post-Consumer Society: Theoretical Advances and Policy Implications* (with Halina Szejnwald Brown and Philip Vergragt), *Putting Sustainability into Practice: Applications and Advances in Research on Sustainable*

Consumption (with Emily Huddart Kennedy and Naomi Krogman), Innovations in Sustainable Consumption: New Economics, Socio-technical Transitions and Social Practices (with Halina Szejnwald Brown and Philip Vergragt), and Exploring Sustainable Consumption: Environmental Policy and the Social Sciences (with Joseph Murphy). Cohen received his Ph.D. in regional science from the University of Pennsylvania in 1993.

Miranda Chase



V. Miranda Chase; PhD student; Global Governance and Human Security; McCormack Graduate School of Policy and Global Studies; University of Massachusetts Boston

Miranda Chase holds a BA in International Relations from the University of Brasilia (Brazil), and a Masters in Integrated Water Management from the University of Queensland (Australia). Working with several rural fishing communities in the Amazon basin gave her hands-on experience with participatory research and community engagement.

The purpose of her Masters research project was to assess the extent to which fishing agreements promoted sustainable development. She created an evaluation framework based on principles of integrated water management, such as social equity, economic efficiency, and environmental protection. The results indicated that fishing agreements were effective in providing food security and environmental conservation, although they contributed very little towards economic development. Furthermore, the analysis was able to correctly predict that agreements in some communities were about to be disrupted by economic stressors. For her PhD studies, she is eager to expand beyond that and analyze how certain energy management policies (building dams) impact fishing communities. Her PhD dissertation analyzes the ways through which socio and environmental movements influence policymaking regarding large dams in the Amazon. Miranda hopes that her research will find effective solutions to support energy management policies that improve the livelihoods of local communities.

As a volunteer, she coordinates a research database and a team of translators for *Remineralize The Earth*, a non-profit organization that promotes sustainable agriculture worldwide.

Research Interests Include:

Environmental Policy in the Amazon basin; Sustainable Development; The Water-Food-Energy Nexus; Political Theory

Nichole Wissman-Weber



Nichole Wissman-Weber is a doctoral student in the College of Management and a National Science Foundation Integrated Graduate Education and Research Traineeship Fellow at the University of Massachusetts Boston. She studies the allocation of risks and rewards and the incorporation of equity in the process of climate adaptation in the northeast coast of the United States. Nichole is also part of a larger team of interdisciplinary researchers at the University of Massachusetts (UMB) who are currently involved a series of climate adaptation research projects in Boston. Nichole holds a Master of Arts degree in Sociology from New Mexico State University and is trained in transdisciplinary research

and qualitative and quantitative methods. She has lectured on business and society, environmental sociology, and she has researched socially oriented business models in the African context. Nichole's previous experience includes work in applied policy, research, and ecology. She worked in environmental youth education programs and environmental restoration efforts in Ecuador and Washington State. She has also worked as a research assistant in public policy at the Center for Public Policy & Administration at the University of Utah where she helped design and implement various applied projects such as economic impact surveys and the efficacy of household alternative energy installations. Nichole's general interests include linking research to action, climate adaptation, sustainability policy and practices, and integrating the natural environment in the social science context.

Philip Vergragt

Philip J Vergragt PhD is an academic and activist; a Fellow at Tellus Institute, Boston; and a Research Professor at Marsh Institute, Clark University, Worcester, MA; he is a Professor Emeritus of Technology Assessment at Delft University of Technology, The Netherlands. He has co-authored more than 90 scientific publications and four books. His main research interests are visioning and backcasting; sustainable technological and social innovations in transportation, energy, and housing; grassroots innovations; socio-technical transitions; higher order learning; sustainable consumption and production; sustainable cities; technology assessment of emerging technologies; and more recently communicating sustainable lifestyles. His action and public



policy interests go back to the late 60s when he was a political activist in the Netherlands. He started the Chemistry Shop in the 70s at the University of Groningen where he was then a lecturer in Chemistry and Society. Later in the 90s he served as a policy maker at the Dutch Ministry of the Environment where he co-directed the 5-ministries program "Sustainable Technology development", which also resulted in a co-authored book (Weaver et al 2000). In the late 90s when a Professor of Technology Assessment at the Delft University of Technology he directed the EU funded multi-country project "Strategies for the Sustainable Household". He was an early supporter of the Transition Management project in the Netherlands and of the EU-funded SCORE! project. After he moved to the US in the early 2000s he joined both MIT's program on Technology Policy and the Tellus Institute supporting their scenario work (the Boston scenario project) and the work on the Great Transition Initiative. In those years her participated in various projects and consultancies, among those on hydrogen fuel cells, on sustainable mobility and housing, on GMO foods, and published on bounded socio-technical experiments and higher order learning. In the last nine years he joined the George Perkins Marsh Institute at Clark University Worcester; and he became a founding Board member of SCORAI, the Sustainable Consumption and Action Initiative; and a co-founder of NARSPAC, the North American Roundtable on Sustainable Production and Consumption; of WoHEC, the Worcester Housing, Energy, and Community group; and of GRF-SPaC, the Global Research Forum on Sustainable Production and Consumption. He co-organized two international GRF conferences (Rio 2012 and Shanghai 2014); the SCORAI 2016 conference at the University of Maine; and numerous smaller workshops for SCORAI and GRF. More recently he became a member of the Development Team of the Future Earth Knowledge Action Network on Systems of

Sustainable Consumption and Production where he co-leads two working groups. His latest co-edited book (March 2017) is "The Coming of Post-Consumer Society: Theoretical Advances and Policy Implications" (with Maurie Cohen and Halina Szejnwald Brown). Prof. Vergragt obtained a PhD in Chemistry from the University of Leiden, The Netherlands, in 1976.

Appendix 4: email addresses

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