Climate Innovation and Implementation in BC Communities Follow-up Live Chat

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Panelists

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Moderated by

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This Live Chat is a follow-up to the second e-Dialogue of the Meeting the Climate Change Challenge (MC³) conversation series

www.mc-3.ca

Time		Comment
12:42		Rob: Hello, and welcome to the second of the MC3 interactive Live Chats! Our session will begin shortly, and we will start this discussion with with a few words on the preliminary findings from our research. Then, we will open up the forum to your questions and comments. We have with us today members of the MC3 research team: Prof. Ann Dale (Principal Investigator) - Canada Research Chair in Sustainable Community Development, Royal Roads University Dr. Sarah Burch - Centre for Interactive Research on Sustainability, University of British Columbia, School of Environment Dr. Alison Shaw - School of Environment and Sustainability, Royal Roads University We look forward to engaging with you in this fascinating and crucial research!
12:59		[Comment From Alison Shaw Alison Shaw :] Hello everyone. We hope to have a very engaging discussion based on your questions and comments.
1:01		Rob: Our panelists are here, and we are ready to begin! I would like to start off with a few words on on most recent dialogue on Tuesday. Ann, could you please summarize what you learned from our most recent MC3 e-Dialogue?
1:03		Ann Dale: Sure, I will give it a try, but, first, let me apologize for the technical problems we had with the e-audience panel, they will be definitely be corrected for the third and last e-Dialogue of this series, scheduled for December. There is so very much happening on-the-ground in

| | | communities, and local governments are on the front line in responding to climate change adaptation and mitigation. Even within one province, however, there are large asymmetries of scale between communities. Small communities face huge density and transportation issues, which reminded me how interconnected all these issues are, land-use and GHG emissions, hence, the need for integrated decision-making and institutional organization. Revitalization of downtown cores, a link between creating space for connection and walkable access, and reduction in emissions, the notion of village-centred planning in Victoria. There is a wealth of information and tools being developed by the province to assist local governments in meeting this challenge, so issues of coordination, policy congruence (within a municipality) and policy coherence between levels of government is crucial. Getting the rules of the game right is also critical, as in the need to integrate OCPs and ICSPs. There are lots of innovations occurring in municipalities, so our research is very timely in terms of sharing this knowledge and speeding its up-take in communities, ideally reducing some of the asymmetries. So, asymmetries in access to resources, and expertise is there, as is the scalability of local actions, how place-based are they, I suspect, very? One last point, those communities with more actions on the ground tend to have both political and official level support, or congruence, and, the structure and mandate of sustainability offices is critical in the case study communities, whether they see their mandate as one of facilitation or one that is operational. It would appear that a blended model works best (Birch and Newell).

Another final point, it is interesting to me how many of the case communities have a strategic partnership in place, and the number of quasi-institutional intermediaries involved, such as the Columbia Basin Trust, BC Hydro Community Energy Manager program, Fraser Basin Council. |
| 1:04 | | Rob:
Thank you, Ann.

For those of you who are not familiar with MC3 project, this research effort examines eleven communities across the province of BC. We are hoping to share some of the |

			preliminary findings from our case study research today. Sarah, could you start us off with your key findings from your two case studies--Revelstoke and Surrey?
1:05			Sarah Burch: Hi all - I'm very glad to be here, and I look forward to discussing a few of our key findings and answering any questions that come up. I led the cases in Surrey and Revelstoke, and a few very interesting themes emerged.
1:05			Sarah Burch: First off - on the innovations side. Surrey has developed a Sustainability Charter – a filter through which projects can be justified, but doesn't force initiatives to meet standards that they wouldn't otherwise have met. It highlights linkages between new developments, infrastructure etc. and sustainability priorities.
1:06			Sarah Burch: Surrey is also developing a District Energy system to power its increasingly dense city centre. It's considering ways to ensure that new developments are equipped to plug into this system, and how to expand it beyond current plans.
1:07			Sarah Burch: In Revelstoke, there are two interesting innovations that jump to mind. The first is 'form-based code' - or paying attention to the form and function of urban areas, leading to a blending of uses rather than separating commercial, from residential, from industrial - as we've traditionally done in many Canadian cities
1:08			Sarah Burch: The second is also a District Energy system. When beehive burners closed across the province, Revelstoke set up a District Energy system to use 'waste' from it sawmill to power nearby commercial and city buildings.
1:08			Sarah Burch: Revelstoke is now considering how/if to expand this, and how to weave together this resilient, low-carbon fuel supply with future compact mixed-use development in the city.
1:09			Rob: Thank you, Sarah. Form-based code is an interesting

		concept that is probably quite new to many in the audience. Perhaps, we can get a bit deeper into this idea as the conversation progresses We have Dr. Alison Shaw here as well who has looked into the innovations happening in Victoria and Carbon Neutral Kootenays. Alison, could you described what you've learned in your research on these?
1:10		Alison Shaw: Hi Rob. Yes a number of interesting innovations emerged in these two cases.
1:11		Alison Shaw: Victoria stands out in its efforts to strategically operationalize and pursue broader sustainability goals that include climate change in overall strategic planning. This is most notable in the policy frameworks guiding future development in the city, the recently adopted the Sustainability Action Plan (July 2012) and OCP (August 2012). Both plans identify specific goals related to climate and energy and key indicators for monitoring processes that will guide Victoria's planning and sustainability activities. The OCP embeds climate change mitigation and adaptation throughout, making this a City priority for the next 30 years.
1:11		Alison Shaw: Embedded in the Sustainability Plan are strategies to move Victoria towards "becoming a regenerative society – one that actually restores ecosystems, increases biodiversity and enables our communities to be healthier and stronger than they are now". In and of itself, this is an innovative mission.
1:13		Alison Shaw: In combination with a supportive community and culture and initiatives such as Transition Town Victoria and a region with over 700 NGO's, many of which dovetail with climate planning efforts, concepts of energy efficient buildings, alternative transportation and protecting the homeless are all strategic efforts that will influence climate adaptation and mitigation efforts.
1:15		Alison Shaw: In regard to Carbon Neutral Kootenays, the key innovation here is collaboration. Working together at the regional scale, with supportive intermediaries such as the COlumbia Basin Trust, has created a project is great in

			terms of geographic scope - 3 regional districts, 35 communities and 6 First Nations.
1:16			Alison Shaw: Collaboration and partnership has built economies of scale for bringing adequate expertise and capacity for emissions and energy monitoring and reporting to communities that would otherwise not have access.
1:17			Alison Shaw: By all counts this is incrementally changing the way even small communities think about their assets and the way the plan and do business over the long run.
1:17			Rob: Thank you, Alison. The "regenerative society" concept from the Victoria case seems that it would be key for any sustainable community. Lessons could be learned, if this concept is done successfully. Before we take questions, Ann, if you could take a few moments to discuss some of the work that is being done in the T'Souke community (Vancouver Island)? I believe you have worked on the T'Souke First Nations case with your co-investigator, Leslie King. T'Souke is a very different and interesting case than our rest due to size and culture. Your insights would be appreciated.
1:19			Ann Dale: Thanks, Rob. Their understanding of what sustainable development is all about, and how to engage an entire community is outstanding, as well as their knowledge about what they have to do to make their community sustainable, integration is just fundamental to their thinking and planning. So their integrated approach to sustainability put a first emphasis on energy, they are physically located by the ocean, so adaptation is a big issue, even though they started with mitigation. They are the first solar powered community in the country, yes, I know they are very small, just over 300 homes, but I believe what they are doing is eminently scalable. They have actively sought out strategic partnerships and business alliances and are now going for a 4 million dollar solar powered greenhouse. They have a project manager who has strategically leveraged resources normally

		outside the reach of smaller communities. I would like to echo Alison, social innovation is inherently collaborative, it is really all about accelerating social innovation?
1:20		Rob: Thank you to our panelists for providing us with a bit of background and research on what we've learned so far with the MC3 project. I would now like to open the floor up to the audience and take your questions (type in the questions/comments box and press "Send"). While we are collecting questions and comments, Ann, Alison and Sarah, could you share with us some of your overall learning and impressions from the research, thus far?
1:21		Sarah Burch: Collaboration, or at least public engagement, also emerged as crucial in the case of Revelstoke (while it appeared much less important in Surrey). Revelstoke already had a tradition of integrating social and economic planning, before environmental issues came on to the scene). There is also extensive and very fruitful participation in the planning process by local civil society, business interests and others. I think this has led to a more 'systems-level' view of things - ie how does action on climate change affect affordability? Food security? etc.
1:23		Ann Dale: The importance of framing the issue, even the language--carbon neutral or climate positive and as always, networks, how so many of the case study communities have formed strategic alliances and benefited from quasi-institutional intermediaries, such as Columbia Basin (Carbon Netural Kootenays, Victoria, Revelstoke), Fraser Basin Council (Prince George and across the province ICSPs), BC Hydro, Community Works Fund, Suzuki Foundation and champions.
1:24		Alison Shaw: Indeed. Social learning has been defined as a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks. There are so many different ways our leading case communities have approached innovation.

			Some of it has been lead by the Climate Action Charter, others, mainly leaders in local government, saw this as a way to justify projects and programs that were already being considered. It's very interesting to examine how leadership emerges in a community...
1:25			Ann Dale: Novel policy development--regional offset strategy (Carbon Neutral Kootenays), Form Based Code (Revelstoke), Sustainability Charter (Surrey), Natural Capital Accounting (City of North Vancouver), Greenest City Plan (Vancouver) and the importance of a provincial level policy framework.
1:26			Sarah Burch: The partners and networks theme is definitely prominent. The Columbia Basin Trust was an absolutely critical partner for Revelstoke. Collaboration with CBT provided a source of ongoing funding, access to expertise, a way to share best practices with similar communities, and a suite of other benefits.
1:26			Alison Shaw: It has also become apparent as Ann and Sarah mentioned that there are leading intermediary organizations. MC3 is also interested in understanding the social ecosystem in BC, this group of active public and private sector organizations working at different scales to increase climate awareness and action in communities. Including many of these organizations as collaborative partners in the research, will in turn lead to learning. The hope is that the project can also build capacity and social learning within and among these organizations, bringing coherence to what have otherwise been fairly disaggregated effort. With coherence comes coordination and clarity for communities about what the options are and what different scales of government can do to facilitate those options.
1:27			Rob: Thank you for those insights. I have our first set of questions and comments from Dr. Mark Roseland, also involved in the MC3 project. Panelists, would you like to take a look and give your ideas?
1:27			[Comment From Mark Roseland Mark Roseland :] Based on your experience so far with these 11 MC3 case

			study communities, I'm wondering about this panel's sense of the framing of "climate change/action" vs. "sustainable" (community) development? What is driving and/or motivating these communities to act? Is it aspiration toward a future vision of sustainability, or simply compliance with the current regulatory regime for GHGs in BC, or some combination of both, and/or something else?
1:27			Alison Shaw: Hi Mark. Great question and varied in my two cases.
1:28			Alison Shaw: I think this may be where scale becomes critical. Smaller, rural communities in general are suffering from limited capacity and so climate action is another portfolio eating time on the side of their desk.
1:29			Sarah Burch: This is a great question, Mark. In Surrey, the framing reflects the dominant motivation, which in turn reflects the perspective of the broader community I think. Surrey is a growing community, and competes with its neighbours (like Langley) for development dollars. The concern for decision-makers there is economic sustainability, and energy resilience - so this dominates the framing.
1:30			Ann Dale: I think it is a dynamic combination, with a bit of luck, Mark. What is happening in the province is a critical step--policy congruence between levels of government followed by policy alignment within government, what John Robinson calls changing the rules of the game.
1:31			Sarah Burch: In my view a 'sustainability' framing opens up a whole range of actions that might not be suggested by a strictly 'climate-centric' view. For instance, sustainability means robust ecosystems, but also an inclusive community with affordable housing, local food, and low-carbon sources of energy. We might only deal with the last bit if we focus only on reducing greenhouse gas emissions.
1:33			Alison Shaw: What is an interesting finding, particularly in communications with a few communities in the Kootenays, is that many communities are already doing things that link climate change and sustainability without calling it that. For instance, alternative transportation for

			rural people with one car or water management that considers changing freshet patterns (adaptation) or land-use planning that considers environmental hazards such a slope stability over time.
1:34			Rob: Great questions, Mark. Please, feel free to share with any thoughts and ideas on drivers/motivators from your experiences, as well. We have a question here about the methods of spreading ideas and innovations. One of the audience has noticed that we have used the internet a few times to share ideas on MC3. Their question involves what other sort of ways we place to distribute these idea. Ann, as the principal investigator for the project, how would you describe your knowledge mobilization activities? Alison, I know this is an area you've researched as well, so feel free to jump in.
1:34			Ann Dale: We have what we call four channels—real time, on-line conversations (e-Dialogues), these Live Chats, workshops, and social media, video productions (to be released this month) and led by our moderator, Rob Newell, blogging, facebooking, and tweeting, all supported by a website, www.mc-e.ca. We have these various channels as different media appeal to different audiences, as we are learning through this project, and I am particularly interested in the use of social media to disseminate research to young people. And oh yes, we will have a face-to-face workshop November 30, 2012, which will bring together 2 leaders from each case study with the research team, a peer-to-peer learning exchange. This last is funded by our partner, BC Hydro, and our last outreach will be a virtual workshop in December 2012. Stay tuned.
1:35			Alison Shaw: Our knowledge mobilization activities have also wanted to include going back into communities with lessons and information and also writing op-ed pieces for local case community newspapers. However time and funding for these efforts are constrained.

1:37		Alison Shaw: Do you have alternate suggestions for MC3? We are currently very techno-centric with our outreach, which may limit our audience considerably.
1:38		Rob: Dynamics of communication are changing rapidly with the exponential increase in usage of social media and digital devices. The nature of knowledge mobilization does seem to be a blend of both digital and print with increasing more digital. Research must take this into account, for sure when disseminating, but also not alienate communities that are not technology linked in.
1:38		Rob: Shifting gears a bit with the next question...
1:40		Sarah Burch: Along the lines of the technologies we use: What I really like about the methods that we use in this project is that they can do more than just disseminate our findings. Social media provides all kinds of tools for engaging in a conversation with unusual suspects - whether they are younger people, or those who are geographically remote. It's pretty exciting to get feedback as our findings emerge, view them through the eyes of others.
1:40		Rob: These next questions are about a term that one of our audience has come across during the dialogues...what is a sustainable development pathway? What does it mean to follow such a pathway? Sarah, I would like to bring these questions to you.
1:42		Sarah Burch: Ahh Rob this is an emerging topic, so I'm sure I can't give a definitive answer! First off, we're starting to think about development pathways as the really complex context of the policies we make, our behaviours, the ways we design our cities. Development paths are interwoven trajectories - economic, social, environmental.
1:43		Sarah Burch: The point here is to think about the system as a whole - how do climate change policies resonate with our values? Do they reflect the realities of our political system (like our

		electoral cycle)?	
1:44		Sarah Burch: And when we start to think about development paths, we realize that there's a lot of inertia in way we do business. We have infrastructure - highways, gas stations, and land use plans - that suits cars. Changing this, shifting to a sustainable development path, means thinking about all of these elements simultaneously.	
1:45		Sarah Burch: It's this kind of transformative change - the fundamental, deep changes to the ways our communities are designed - that is required, I think, to deliver really deep emissions reductions.	
1:46		Rob: Thanks, Sarah. This is the complex million dollar question! Much shifting involved in the way we think and live. Alison, one of the audience members looked at a term that you used a bit earlier, "social learning". They want to know if this is different from simply chatting with your peers about climate change. How does this operate in the context of climate change innovation and could you provide examples of this in action?	
1:46		Alison Shaw: This is exactly the question we are hoping to ask in the next round of MC3. Is climate innovation changing the way we design and thus live in our communities? Are there indicators that can be deciphered that shift us away from unsustainable land-uses, practices and behaviours toward behaviours we may think are more sustainable? What does a sustainable development pathway look like and how would we know whether we are on one?	
1:46		Alison Shaw: Oh sorry I got excited about the development pathway question.	
1:46			Sarah Burch: :)
1:47		Rob: Any topic is a fair one to jump on!	
1:48		Rob: While we are on the topic of social learning, perhaps Ann and Sarah, you might want to share some practical	

		examples of this happening in communities you've researched? Were there driving organizations for social learning? Is there a "right" way of doing it in the context of climate change?
1:51		Rob: To jog the audiences memory, this was the original comment from Alison " Social learning has been defined as a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks."
1:51		Alison Shaw: There are three defining characteristics of social learning. 1) Change in understanding and practice occurs - this includes fundamentally questioning underlying norms and assumptions to ensure they respond to values 2) The scale of change is beyond individuals and small social units, which integrates a broad diversity of players and the desire to find shared values 3) Mode through which learning occurs is social - moves through social networks. The concept emerges from the desire to influence transformative change at various scales
1:52		Sarah Burch: To me social learning means embedding new ways of doing things in the ways we make decisions, interact with each other, etc. It's a bit of a feedback - ie we've figured out that we get a better outcome if we think about economic and social development at the same time, so now we build practices that allow us to think about synergies and tradeoffs between our economic development policies and the environment as well.
1:52		Rob: Ah, now, comes the big conundrum...
1:52		Rob: ...transportation in rural communities!
1:53		Ann Dale: Well, I can think of a model, in a small community called

		Val-des-Monts. A municipal official set up a cooperative farm as one policy to try and attract younger farmers and encourage economic diversity. The equipment was also bought by the municipality and is shared cooperatively. The younger farmers learn from the older ones, so, shared economies of scale and in some ways, a place-based network. Quite an integrated vision for a very small community.
1:53		Rob: My apologies...I jumped the gun on the next question.
1:54		Rob: I would like to share it now that we've opened up the topic of small communities. The question is "how do we do transportation in rural communities?"
1:55		Rob: How do we get out of the car-dependency situation when public transit is not hugely feasible? Any practical examples from cases?
1:55		Sarah Burch: One of my favourite comments in Revelstoke about public transportation in a small community was that the bus system doesn't really work - if you stood at the bus stop for a few minutes, a neighbour would inevitably drive by and offer you a ride home.
1:55		Ann Dale: The elephant in the room for all Canadian communities. First, I think we need strong legislation, similar to California's, I don't people are natural innovators, and the bigger an organization the slower it is change, and we need massive technological innovation in transportation. Sustainable infrastructure choices are also key. We need high speed rapid transit between major cities, with a distributed hub network that connects the smaller communities.
1:57		Alison Shaw: There is a car-sharing coop in Nelson. The regional districts in the East Kootenay appear to be getting involved with municipalities to set up a bus that runs based on the needs of the riders.

1:57		Sarah Burch: So, in the Revelstoke case, car share or carpool may work best given the social fabric. It also might be the case that more investment in public transit would make it more frequent, reliable, and desirable.
1:58		Sarah Burch: Ah - great (?!) minds thinking alike, Alison!
1:58		Ann Dale: Bringing more qualitative services into smaller communities, I live in one, and now have access to local, organic produce delivered to my cottage, eliminating the drive into a major centre for access. It seems like such small potatoes, but community vitality is so dependent upon amenities--social, services. I once read that one of the things that contributed to a community's resilience was a baker.
1:59		Ann Dale: And of course, a doctor.
1:59		Rob: Sarah, that is a really interesting (and funny) note about Revelstoke, regarding the bus system. My audience member did just follow up with this question in a manner that relates to this, "how much responsibility is on the citizen and how much is on the government for the transportation issue? Is it up to the resident to walk and bike even when the possibilities are limited?"
2:00		Alison Shaw: Many small communities are supporting locally grown produce and meats, which begins to influence local economies, people's health and nutrition values as well as the carbon footprint of food servicing.
2:00		Ann Dale: That is an excellent question, and again, think integration, we need both, the infrastructure has to be there to be able to make more sustainable choices, like bike racks on the front of buses, but the individual also has to act.
2:01		Sarah Burch: Great question - I don't discount individual responsibility, but I put a huge amount of responsibility on government to provide convenient, accessible, reliable public transportation. We have heaps of evidence that relying on

		voluntary action, or changing individual behaviours doesn't work so well - especially if that new behaviour is much less desirable than the old one!
2:02		Ann Dale: Alison, in some recent work we talked about relocalization in the action agenda for rethinking growth and prosperity.
2:02		Sarah Burch: I don't think it's reasonable to ask people to cycle down dark, busy, dangerous streets. Those who do, have my unending admiration, though!
2:02		Alison Shaw: This is always the debate in regard to transportation. Vancouver is an interesting example. It wasn't until student bus passes were provided to UBC students that the buses really provided good services. Same with the bike lanes. It is a lesson of build them and people will cycle. The numbers of cyclists are growing annually.
2:03		Ann Dale: Sarah, you raise a critical point, often people don't choose alternative transportation because of a concern for safety, and with government emphasis on crime, when all stats are going down?
2:04		Rob: Ann, some on picked up on your not about having local amenities, and they just sent in this question: "I've often heard that cities had much less of a footprint due to density. What is your impressions on this? Should we densify to create more sustainable communities? Is there still a place for those living in rural and remote?" Tough situation...perhaps we could bring up examples from Revelstoke and the Kootenays to address this one?
2:06		Sarah Burch: Great question - there's a bit of a mixed picture here. While it may seem like those in rural communities drive much more than others, commuters in big cities actually top the list of vehicle kilometers travelled! So density, and especially in the sense of multiple town centres, is really important in major regions like Metro Vancouver.
2:07		Alison Shaw: Even in smaller communities, density can bring

		advantages when it comes to energy and water servicing.
2:08		Sarah Burch: And I think that there should always be a place for rural and remote communities - but this doesn't preclude having low emissions vehicles, and mixed-use small town centres so that walking is feasible.
2:08		Ann Dale: Density is, of course, connected to transportation, and I am always surprised at how interconnected all these issues are, hence, the need for integrated decision-making. This is an argument my research team has had over a long period of time, that cities are cultural centres of innovation, great activity and more sustainable because of density. I argue there is an optimal density, and we need more thinking on this, that sociability is lost over a certain scale? And how does one densify in smaller communities when most of us have moved here to have an acre of beautiful land. Hence, the emphasis also has to be on the idea of creating more 'village centres' in small communities but ones with amenities and services. This came up in the e-Dialogue, how critical village centres, revitalization of the downtown core, to walkability and of course, the connections to sociability and health. Great question!
2:09		Rob: Cathy LeBlanc has a piece she would like to add to this discussion, Ann.
2:09		[Comment From Cathy LeBlanc Cathy LeBlanc :] Ann- doesn't having groceries delivered to your door just mean the transportation is going the other way from city to you, rather than you going to local farm market which support community inclusion
2:09		Rob: Any thoughts on this?
2:09		Alison Shaw: For a municipality it is a way to increase tax base. For a resident it is the beginning of the urbanization process. I don't think these have to mutually exclusive. For instance, Castlegar is in the process of revitalizing its downtown core. They have developed art projects all over the city to encourage walkability, this increases foot traffic to local businesses and builds prospects for the type of integrated systems living that come with density.

2:10		Ann Dale: And what about telecommuting, why is everyone still forced to commute to work, it should be every business contribution to GHG reductions, employees get to work at least one day a week from home, starting with leadership by governments.
2:13		Ann Dale: The transportation emissions are reduced, Cathy, because he lives in the community and delivers to at least 25 homes on the same day. The farm is within the community. The distances he is driving are less than half if one person from these 25 homes drove the 50 kilometres into Ottawa to the Sunday local market. So, in essence, we are trying to get more diverse mixed land use.
2:14		Sarah Burch: I think that this is a really interesting comment from Cathy. Having groceries delivered can provide some benefits in terms of greenhouse gas reductions, because the delivery company can optimize its delivery path and reduce km travelled - but it's a great point that this may stop up the community interaction that takes place at markets.
2:15		Rob: Thanks, for the responses, Cathy also had a comment from observations of earlier in the discussion.
2:15		Sarah Burch: This actually highlights the issues we were talking about earlier (ie thinking about the social and the environmental simultaneously). A city could implement a grocery delivery service to reduce emissions, but would we see tradeoffs in terms of community building?
2:15		[Comment From Cathy LeBlanc Cathy LeBlanc :] An earlier comment - I think 2 things effect local govt interest in jumping into adaptation. One is whether they have had a major event (i.e. severe flood) and whether they can access funding (Columbia Basin Trust funding is quite unique In and NRCan and others require matching dollars.)
2:15		Ann Dale: Point of clarification--it is local, organic vegetables and we have no local market, that is next in the planning, now what would be the more sustainable choice? We need an

		emissions calculator.
2:16		Alison Shaw: I think this raises the important point about the integrated nature of sustainability and considering food systems and other supply chain elements. Considering local, more sustainable procurement activities for instance can also considerably reduce community emissions.
2:17		Rob: Anyone have any observations on the two points above: - communities responding to major events - access to funding Perhaps, examples from the communities understudy?
2:17		Alison Shaw: I'd like to share an anecdote from a small Kootenays community in response to Cathy's comment.
2:17		Sarah Burch: Thanks for raising the adaptation issue, Cathy - we've definitely been focused more on mitigation in this conversation so far. Go ahead, Alison!
2:18		Ann Dale: Another critical resource has been the BC Hydro's community energy managers program.
2:19		Rob: Cathy just wanted to add on the earlier conversation: "I was thinking about all 25 people going to farmers market, no one going into town and all 25 seeing friends and buying more at the market. :)"
2:20		Rob: Thank you panelists for the insights...I'm about to open up a larger realm of questions and concepts from one our audience.
2:21		Ann Dale: Cathy, of course, I am amazed at the social capital in place at local markets, even in big cities, and the knowledge (recipes) that are shared directly between producers and consumer, and many other benefits. That is another whole conversation, and I would just like to add the capital city of this country does not have a permanent indoor farmer's market, although it is coming.

2:21		Alison Shaw: I performed an interview with a powerful local official who was quite eager to let me know that he thought climate change was bogus. In the same breath, he started telling me about what his community was doing - revising land-use plans to embed prospects for more frequent storms (observation) on slopes and hazardous terrain. He also mentioned that the farmers were requiring more water in the summer months that just wasn't available and so they were revising their water management plan to examine back-up water sources and ways to increase efficiencies in the town. Now these activities were not framed as adaptation but they certainly have similar outcomes.
2:22		Sarah Burch: This brings up a really interesting issue for me, Alison. The drivers of adaptation seem to make sense from a community's perspective - if you have more frequent storms, slope stability issues, wildfires etc, you simply must protect your people and infrastructure (even if you don't think that climate change is a factor)
2:22		Alison Shaw: I find this very interesting. Another interesting anecdote comes from Victoria and the development of their storm water utility.
2:23		Rob: My apologies...I shift topics a bit too early. Please, finish off your thoughts and I'll repost Ed's comments.
2:23		Sarah Burch: It's a lot more complicated with mitigation (greenhouse gas reductions) - if we reduce emissions by a few percent here, does it have any impact at all on the global climate change? No. So we need to find many co-benefits - more liveable cities, cleaner water, etc.
2:24		Ann Dale: Ed, I encourage you to read our recently published Action Agenda for Rethinking Growth and Prosperity, which is on my website, www.crcresearch.org. It lists 10 key actions for change and moving to economies that optimize rather than maximize?
2:25		Rob: This very much a question relating to rethinking growth, for our audience, this is the question once again:

| | | "The vast majority of history`s tragedies have been caused and licenced by faith based theories overruling human rights, physical realities and logic.

Years ago, economic textbooks used to warn against overcapitalization, which was defined as around "one wage year per worker" and executives were paid the old Platonian figure of about ten times the wages of workers. Today, the capital investment into a single job sometimes reaches hundreds of wage years and executives receive several hundred times the wages of workers, resulting in gross overcapitalization, causing poverty, sickness, family breakdowns, environmental destruction and climate change.

Environmental destruction really started with the forced introduction of the neoclassical market economic theory into our universities and by deregulated money creation from the air, licencing the collectivization of the world`s economies into a few hands, resulting in major human and environmental destruction to maintain the imaginary value of that imaginary money that exists only as computer figures, yet used as weapons of colonization, fraudulently called GDP and "globalization".

What are the panel members' suggestions on how to stop this crime wave against humanity and the environment by imaginary money, when literally all the world's politicians are on the bandwagon for its expansion and continuation toward the biggest tragedy in human history?" |
| 2:25 | | Alison Shaw:
The storm water utility was set up so that users pay for their use of community stormwater systems. The concept is that permeable services in driveways and yards will pay less; impermeable surfaces like pavement will be more of a burden and will thus pay more. This was framed as smart municipal business meeting stormwater challenges from the demand side rather than the costly supply side (changing all the infrastructure). It too, has implications for adaptation. |
| 2:27 | | Rob:
Let's look at this in terms of the MC3 research. How do we create a global shift were are economy moves to "climate positive" to use a term that I picked up from the |

			Tuesday dialogue?
2:28			Ann Dale: In the Action Agenda we strongly encourage greater use of cooperatives, even for community utilities.
2:28			Ann Dale: Rob, you don't believe in asking easy questions do you?
2:29			Sarah Burch: I think that this is part of the sustainability conversation. If we use deep and meaningful community engagement to talk about what sustainability means to us (it's a value proposition, after all), we can start to question these deeper structures in our economy, and the assumptions that form their foundation.
2:29			Rob: I have a tendency to go for the big fish at times :)
2:30			Alison Shaw: Ed, this really is a skill testing question. If we are to meet the climate change challenge, do we need to fundamentally reorient our economic system and the types of behaviours, practices and values that emerge from it?
2:30			Sarah Burch: If we just talk about finding a shiny new technology that reduces emissions (as important as these are), we miss the boat on the values conversation.
2:31			Ann Dale: It may well be that critical tipping points are now occurring, I think people realize that at a visceral level, there is something happening with our climate. Now, all we need is for gasoline prices to remain very high for a very low period of time. And we need governments to put in place strong policy frameworks, at multiple levels, to induce the necessary innovation by the private sector and civil society.
2:33			Rob: This does relate directly to the work we've done with rethinking growth and prosperity, and this does require quite a large global shift. However, rethinking growth can happen on the community level, as well. Alison, Sarah and Ann, how about local examples where people are rethinking growth? Ed sent in a follow up question discussion how GDP is often used to measure

			progress. Any examples where communities have decided to say "no" to this?
2:33			Alison Shaw: In my view, given we do not have any models at the global scale, innovations such as those we are seeing in BC communities that are taking local economy, local food systems, local well-being and more complete communities seriously are likely the best models to use at the moment. Incremental and small scale but true.
2:34		Rob: Alison, in response, to your comments...	
2:34			[Comment From Ed Deak Ed Deak :] Alison, The majority, or even all human actions, systems are licenced by need and mostly by faiths and beliefs based theories, resulting in major tragedies and destruction. My point is why chew endlessly over the effects, without looking at the causes and the psychological motives behind the causes ?
2:35			Alison Shaw: Again, at the local scale, new and contextualized well-being indexes are being used. For instance, the indicators that emerge from Victoria's OCP and Sustainability Action Plans provide us with new metrics for thinking about life/work and how we want to live.
2:36			Sarah Burch: Ed, I haven't seen examples of this in my cases (there was certainly evidence of this conversation, but not institutionalized policies). I think the Transition Town movement is part of the questioning of these underpinnings. Winnipeg is launching its Transition Town movement right now. There is also a pretty cool group in Melbourne looking into this called the Simplicity Institute http://simplicityinstitute.org
2:36			Ann Dale: Again, I refer to the cooperative sector. Evidence shows that in economic downturns, that cooperatives are more resilient, to exogenous shocks. Their 7 values, which I am not going to remember now, are very consistent with the implementation of sustainable development, and this sector is growing. For example, the Cooperators Insurance Group is the third largest insurance company in Canada. We have also published a detailed case study of this company, again on my website, if you want further

		information.
2:36		Alison Shaw: In response to your question Ed, I think this is being done. I think contemporary philosophers and ecological economists are doing this. I also think we are seeing change, albeit incremental. Collectives are becoming much more prominent through food, car, housing cooperatives.
2:37		Ann Dale: Ed, I think we just might see the demise of the GDP in our lifetimes, believe it or not. It doe not measure anything of real value to human development.
2:38		Rob: I think are good notes to begin wrapping up the session. How about revisiting the question above about local initiatives in which people are no longer coupling there values with the greater economy, with GDP. Maybe, panelists could share one neat community initiative with audience? Something interesting and innovative?
2:39		Alison Shaw: Ed, at the national scale, Norway is reconfiguring how it measures prosperity instead of productivity. I agree with Ann that other countries are likely to follow suit.
2:39		Ann Dale: The national capital accounting system being put in place by the City of North Vancouver may be a leading model for change.
2:40		Sarah Burch: Natural capital, Ann?
2:41		Ann Dale: I was just going to correct my typho.
2:41		Sarah Burch: Gotcha! Just checking!
2:41		Alison Shaw: Transition Town Victoria offers collective procurement strategies for households to co-share tools, reducing consumption (and hopefully production) and associated social and ecological footprints of manufactured items. This is a seemingly small initiative but used more broadly and expanded to other areas could increase community welfare, social relations and reduce carbon footprints.

2:43		Sarah Burch: Revelstoke has a number of great, small-scale programs that demonstrate resilience and community-building outside of the traditional economy. Replacing street trees with fruit trees generates local food that is freely available, car-share programs create a sense of community without increasing the number of cars on the road, and some residents are event putting in backyard chicken coops to enhance food security. All great stuff.
2:44		Rob: Thanks for sharing these initiatives, Ann, Sarah and Alison! It's good to know there are good things happening out there. Ed had one more comment to add to Sarah's comments. I'll give you a chance to respond, and then we can wrap up.
2:44		[Comment From Ed Deak Ed Deak :] Sarah, the best and worst example is the "creation" of imaginary money. Monetary values are basic pseudo religions based on artificially induced beliefs, which, in our present system are permitted to overrule physical realities and even alter the sizes andmeasurements of trade goods
2:46		Sarah Burch: I agree Ed, and I do hope that my comments didn't indicate otherwise. This is actually my hesitation with the increasing move towards valuing ecosystem services - it's putting a very narrow label on something with immeasurable cultural and ecological significance.
2:48		Rob: Thank you very much to our panelists and audience. I enjoyed the session today, and we will leave this discussion up on the site for people to revisit.
2:49		Rob: I enjoyed the discussion and insights, and I hope our audience will continue to follow this critical research!
2:49		Sarah Burch: Thanks all for the great comments and very interesting questions!
2:49		Sarah Burch: Happy Thanksgiving, all.
2:49		Alison Shaw:

| | | Thank you everyone for participating. It's definitely driven home how much is being done and how much more needs to be done. Happy Thanksgiving!! |
| 2:49 | | Rob:
Oh, yes...and everyone have a great long weekend! |