Session 2: Dialogue 1 - Resilient Cities: Climate Adaptation and Food Security

March 8, 2014

Moderator- Frank Smizik: How do we deal with some of the issues about food? Most climate policy discussions are about gas emissions. However, food discussion are also part of the discussion. This panel is designed to introduce and discuss urban farming as part of the

Crystal Johnson: My intent was as a strategist in energy and water resources and seeing how different trends form. My involvement with agriculture has been as an energy strategist. When I was getting involved with the urban farming conference and UFI, I always recognized that there was a great marriage between these two contexts. My interest with bringing urban farming and climate change together is to teach and help plan between multi-sectors to help them see the value of urban farming. Policy, planning, and funding are important for urban farming. It's better to do it as a business model and to have a legitimate business. Then policymakers will be more receptive to including urban farming as an important aspect to adapting to climate change. Then there is more opportunity for funding and growth. The chairman helps plant seeds for the importance for urban farming. We need to improve food security, and we need to tie that argument to environmental issues. I'm interesting in talking about networking and strategies for connecting multi-sector networks.

Julie Conroy: I've spent most of my time as an environmental analyst and planner on water-related issues. My worlds collided with agricultural sector in that our agency has been asked to work on a statewide food systems plan. As planners we want to be able to facilitate the process because the plan is yours. We don't drive the process but help to put the best plan together based on stakeholder's desires. I've been working on a regional climate change adaptation plan that will fall along with the state's adaptation plan. In our strategy, we are thinking how will environmental change affect the agricultural sector? I want to bring up positive side of climate adaptation not focus on negative changes due to climate change. I think there is a real opportunity in MA— I want to credit Ben Folk from VT whose work changed my entire perspective on this issue. He said MA was going to be in pretty good shape if we think about things a little bit differently. We need to work with nature, even in urban areas instead of combat against it. Location is what MA has going for it. Because of where we're located, we're going to be the most resilient when climate adaptations occur. We have a lot of rainfall and a diversity of agricultural practices—we're going to be leading the nation in longer term, more innovative opportunities when climate impact occurs. That's where urban element comes in. He introduced me to permaculture, which incorporates practices that have a lot of different uses and benefits. For example, trees that provide shading and reduce heat. It's an amazing model. I encourage everyone to look into it. Another recommendation is this idea of no regrets. Some ideas are great regardless of what's going to happen with climate change. For example, rain water harvesting, tree shadings, and different plant varieties. I work a lot to with modern conservation and reuse where there are opportunities for urban agricultural practices in order to get over some of these infrastructure issues. There are a lot of logistical concerns of urban agriculture in cities that need to be worked through. We've also learn aquaculture is part of our food system. There are innovative ways of aquaculture that mimic natural ecosystems. There's needs to be a lot of emphasize partnership between sectors and stakeholders. A lot of organizations, land trusts, and watershed organizations are interested in working through the issues that encourage sustainable agriculture and protect water resources.

Veronica Eady: I'm with Conservation Law Foundation. We are a New England, Boston-based environmental advocacy group. In 2010, we launched our Farm and Food Initiative. I want to talk about a few of our projects that we're working on. Last year, we worked with City Growers to produce a report called Growing Green—how job growth can come through urban agriculture. Now we're working on a report about how to build, prompt, and sustain a regional, sustainable food system. In many urban centers, large, national food chain grocery systems are leaving. Our food travels about 1500 miles to our grocery stores. In thinking about how eating conventional food from grocery stores contributes to environmental issues, we need to know that

something like 50% of gas emissions comes from food distribution. Urban farm combats climate change by eliminating those greenhouse gas emission and increasing plant life which absorbs carbon. We have a Clean Water Act program. We file lawsuits against illegal discharges of storm water. The Mystic River Watersheds lawsuit generated about $100,000 supplemental environmental projects. This money goes directory back into the watershed for watershed restoration. The Boston Foundation distributes the money to local groups that do restoration work. So we started thinking about how can urban farming promote river/watershed restoration? In urban watersheds, can be replicate this work? Is there a way CLF can infuse money to local, urban watershed initiatives related to water restoration. We also played a significant role in advocating for the passing of Article 89 that lifted zoning barriers for commercial farms. We're about to see how that unfolds as the city auctions off parcels.

Q1: Can you talk about the role of education in these initiatives?

A1:

> Crystal: I put together an environmental change youth forum that brings multi-sector groups to have conservation. Now my focus is around youth and climate adaptation. Education is key to starting the conservation. Collaboration and partnership is important for everyone involved. The more conversations that occur, eventually the importance of urban farming to climate change will catch on. Education plants a seed for new opportunities.
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> Julie: Education is a huge component. There are some really innovative programs at local schools. One example that I've heard of involves the Denver Housing Authority that worked hard to provide the community with various food system services. Their approach was to connect directly with schools to create empowerment that allowed initiatives to come out of community. What happens when kids aren't' in school? In the Denver model the kids, who grew seedlings, transferred seedlings to the land identified by Denver Housing Authority.

Q2: There's a significant amount of state-held land in threatened watershed areas. It's flood prone and has some the thinnest soils. It's immediately adjacent to Boston. We're composting for the city's needs, but we're taking a fraction of the carbon that's harvested from urban forests. To use that material effectively would require control and stewardship of state-held land. I encourage you to look at different leverage points to access that land.

A2:

> Julie: This is a real issue because it becomes a political issue because of various agencies stepping in. There has to be other ways to get them to recognize there is value on these lands for economic growth and alternatives with co-benefits. Maybe that is a leverage point because everyone's interesting in expanding the economy and having alternative energy sources.
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> Veronica: Conversation needs to be supported. MDAR and DEP have discussed soil contamination and farming. It'd be interesting to pull in a third agency.
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> Crystal: DECAN might not understand immediate value. They are interested to economic outcomes. They need to hear about the environmental value of the land in a framework they can understand.

Q3: Green Communities Act, the state climate adaptation plan had a lot of watershed groups involved. Is there anything in that plan that can be leveraged because there were a lot of agencies at the table? What polices and framework laid out in that plan can help make the connections you are all working on?

A3:

Julie: We were on that committee. Their plan –they have an adaptation report and are modifying it to make it more plan-oriented. There are definite opportunities for there to be some new innovative thinking about renewable energies to get the attention we need to actually make the change.

Q4: Can you provide a nutshell for how to get Article 89 passed in a smaller city?

A4:

Julie: We currently work directly with municipalities of all sizes to work on similar issues. We've worked with rural communities to encourage urban agriculture as an important factor in the community. We're there to help. We're looking at zoning as a mechanism.

Veronica: We'd love to connect with you. We've worked with communities across several states.

Jenny from CLF: There are two models: Model A is city driven by mayor, like in Boston, and Model-B is grassroots driven that creates community support which is then taken to city council.

Crystal: City councils wants to hear the economic side. An example for encouraging buying locals is comparing the cost of buying greens locally versus from California, which is more expensive. Sometimes change comes from policy, and sometimes it comes from entrepreneurs. But the focus is economics. Also focus on the community building that urban farming brings.

Q5: Climate change scenarios always include food price increases, so how do we approach that when food access is already a concern. Under climate change how can we make it where people can still afford food?

A5:

Julie: Local food is more expensive because it can't compete with subsidized produce. How can we create systemic change? There are real issues. In terms of state level work, we need to think about that. It may not happen right away, but hopefully people will realize that locally produced food is part of a resiliency model. And maybe that systemic change will lower costs and level the playing field. I hope those things change in terms of climate adaptation.

Crystal: There are going to be food security/prices issues, and the conventional systems will try to maximize their opportunities. We need to take advantage of the conventional system. Chain grocery stores still have local managers. I talked to the manager at my grocery store and ask for local food. A few weeks later, they had organic, local food. Demand it and you will see change. There is a power as a consumer. We need to take the lead and create forums for local producers to sell.

Veronica: I think it's happening very slowly. In some markets, they post where fish was caught.

Crystal: Yes. Demanding it and putting on pressure will convince the managers.

Q6: If all we focus on is local, urban agriculture, we miss that the food system is driven by the Farm Bill. It is shaped by the Farm Bill, so talking about issues in the Farm Bill has the biggest gain. We need to talk to representatives on the Food and Agriculture Committee, and we still have to pay attention to federal and state bills.

A6:

Crystal: We also need to think about what it will mean if republicans versus democrats come into new political positions.

Veronica: Can I ask you a question? What are your thoughts about trying to change the Farm Bill?

Participant: I think it's the best chance for those who truly want to change the food system. To reframe the Farm Bill, we need to focus on urban and suburban constituencies because they hold the power, and we must get them on board.

Q7: Is there an active meet up group for permaculture?

A7:

Julie: Yes.

Q8: How does soil fertility work for sequestering carbon in the soil? We can reverse environmental change through our own by working to improve soil quality.

A8:

Moderator-Frank: Would you talk about anaerobic digestion in that discussion? Because in Europe, it's a very important and clean source of energy. Compost is a very big issue for having this kind of energy.

Q9: How do you see urban agriculture as a feasible, scalable strategy for climate change? Do you think it's possible to scale up urban agriculture to a size that would offset the need to import from rural farms?

A9:

Crystal: I want to promote urban farming systematically. Trainings and land cooperatives are part of the issue, so urban farming can be a sustainable business. I'm just trying to maximize as much land as possible for environmental benefit. We've done outreach to farms in Western Mass. There's a difference between what you grown in raised beds and elsewhere. We're just trying to maximize the benefit, mostly for environmental reasons. I don't have an exact scale. Just get as much active, economica land as possible.

Julie: It's not about the numbers. Locally grown food is the most sustainable solution we have. We need to lessen our reliance on others and produce our own food. The more we're relying on outside, the worse it is.

Crystal: If anything happens outside, we won't be able to feed ourselves. We're trying to fill that need as much as possible. But it's not just urban agriculture—it's land trusts, training, etc.

Veronica: Our report will be available on our website later this month that addresses all sorts of issues on this topic. …foodpolicy.org

Q10: How does urban agriculture complement water restoration work considering the environmental degradation agriculture can causes?

A10:

Veronica: We doing research to try to answer these questions and how urban agriculture improves water quality. In general, cities with paved, impermeable surfaces, replacing it with agriculture can improve the watershed.

Julie: The basis is you're keeping water local, instead of piping it away. We're keeping it for a functional and important set of resources. It's maintains natural hydrologic systems on sites. Adding 50 sites can improve the system and groundwater. Getting the water through the crops and back into ground is a critical part of restoration.

Q11: A few points about what makes urban farming more viable is that you can grow very intensively. It's much different than using a tractor. Plus, we believe that when you grow food and when you eat it, harvest it,

and it's on somebody's plate the same day, there is more nutritional density than produce that has been transported for days. I had a head of lettuce for a month from Trader Joe's, and it didn't want to go bad. I think we're eating a lot of deadfood.

A11:

> Crystal: UFI and other organizations are monitoring their work to determine a model for how urban farming can be viable farm in MA.
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> Veronica: Grocery stores are required to label where food comes from. That's something we could push for in MA. With local food I had to learn to eat in a new way because food behaved the way it's supposed to.