Integrated Climate Adaptation and Resiliency Program
Technical Advisory Council Resilience Metrics Work Group Meeting
Meeting Minutes

February 24, 2021 | Zoom Video Conference | 10:00 AM – 12:00 PM (PST)

Item 1 | Welcome and Roll Call

Present: Jacob Alvarez, Karalee Browne, Laura Engeman, Kimberly Clark (Alternate for Jason Greenspan), Clesi Bennett (Alternate for Amanda Hansen), Andrea Ouse, Jonathan Parfrey, Sydney Chamberlain (Alternate for Michelle Passero), Heather Rock, Linda Helland (alternate for Mark Starr), Brian Strong, John Wentworth,

Absent: Christina Curry, Grant Davis, Jana Ganion, Nuin-Tara Key David Loya, Dan McDonald, Sona Mohnot, Darwin Moosavi, Lauren Sanchez, Gloria Walton, Wilma Wooten.

Item 2 | Approval of Draft Meeting Minutes

DISCUSSION

Juliette Finzi Hart opened discussion for review of draft meeting minutes from the 1/20/2021 meetings.

ACTION

Councilmembers voted to approve draft meeting minutes from the January 20, 2021 meeting.

Aye: Jacob Alvarez, Laura Engeman, Kimberly Clark (Alternate for Jason Greenspan), Clesi Bennett (Alternate for Amanda Hansen), Andrea Ouse, Jonathan Parfrey, Heather Rock, Brian Strong

Abstain: Karalee Browne, Sydney Chamberlain (Alternate for Michelle Passero), Linda Helland (alternate for Mark Starr), John Wentworth

PUBLIC COMMENT

None.

Item 3 | Lightning Round Presentations

Juliette Finzi Hart provided opening remarks to introduce guest speakers with perspectives from both international and local examples of resilience metrics to inform the discussion and guide next steps.

DISCUSSION I

Robert Lempert (RAND Corporation) presented examples of equity indicators and metrics work in Pittsburg, developed in partnership with RAND, an example of economic valuation of well-being in the context of disaster and recovery impacts, and the World Bank Resilience Rating System for ranking resilience "of projects" and "through projects."

Jonathan Parfrey: The way IPCC characterizes vulnerability through exposure, sensitivity, and adaptive capacity; is this still a helpful framework as an evaluative tool?

> Robert Lempert: Yes, they are often useful categories, though the boundaries are fuzzy and it's not clear what to do with adaptive capacity. The World Bank Resilience Rating does not use those terms, though these terms can be mapped in that system. The difference between A and B ratings gets at whether a project plans for adaptive capacity. In the current report we are trying language like "different but complementary windows into the same space or set of ideas that have resonance within different communities." In many cases, yes it's still useful.

Jonathan Parfrey: Some of the ways equity plays out relates to peoples' ownership or usership relationship with respect to buildings they live in and work in. For example, Climate Resolve's Lessons from the Woolsey Fire report found that the health and safety of outdoor workers and laborers were not prioritized during response efforts, and instead focused on wealthier property owners. Does the World Bank's metrics work you've presented depend on property value with respect to well-being? How does one evaluate these things with respect to specific climate impacts?

> Robert Lempert: It's less skewed towards property owners, and more skewed towards aggregate data. I don't know how it captures day workers or renters. To the extent they show up in Census, employment or household data, renters would not show up in household data or other accounting of asset losses, but they would show up in work impacts and consumption data. These examples you provide are specific groups of individuals with specific impacts that probably wouldn't show up in aggregate data. That may feed into considerations around process indicators: to what extent have you done a thorough search for populations that are uniquely impacted, that might not show up in the aggregate data you're using? This is something you can report/rate on, and make sure to look for populations that don't show up in the aggregate data you're using.

> Brian Strong: My question is following up on this, with respect to understanding how you go from specific community challenges around equity and ability to measure it, vs. regional, statewide or larger areas. Equity indicators and rating systems have been used in various cities across the nation with scores between 1-100; but this concept doesn't seem to have been taken up by many people. One of the challenges is that every city is so unique, but we need tools where we

can make these comparisons. The Haywired analysis on equity after an earthquake shows that you can't localize these impacts: they become regional. How can we develop tools with both a broader state framework, but also can address more local and unique situations? We need something we can give to jurisdictions that allows us to push on these issues and measure what we're doing collectively.

Robert Lempert: An important question is what are the indicators for? One of the powerful things about the World Bank resilience rating is that it has a specific focus: it's meant to be a framework that can be used to make lending decisions on a case by case basis. If this is used throughout the Bank, its loan portfolio will move its clients and the world towards resilience over time. It's not meant to compare countries or different sectors/divisions like water or transportation. It's focused on individual decision-making. You need to think about what the metrics are for. Is it to allocate money? Incentivize behavior?

Brian Strong: We need to guard against thinking about only making individual projects resilient vs addressing them as parts of the whole.

Robert Lempert: That's what the "resilience through" part is for. You can do it project by project, or you can use it as a set of projects; does this rating system get us there? Not sure – something to ask the team managing it.

Heather Rock: This is an interesting framework, it would have been useful for the CPUC adaptation proceeding regarding how utilities should be prioritizing investments with a disadvantaged communities framework in mind. If you're a utility with a set amount of funds for projects and asking what resilience will be achieved through this project, we're meeting the resilience *of* the project by thinking about the future conditions through which this asset will operate. But when trying to measure resilience through the project, and we have so many communities impacted in so many ways, the question becomes how do I prioritize among all these communities? How do we differentiate the value of resilience between each community?

Robert Lempert: The household well-being measure example is meant to compare, rank, and prioritize different policies – in this example, disaster recovery policies. It could be used to compare investment in different communities and whether a policy will increase well-being in different communities. It's a single metric though, which doesn't get to other metrics like protection of natural systems. As a quantitative metric that tries to focus on specific populations and capture more than a pure economic measure, that is the closest example from what I've presented for application to what you were talking about.

Linda Helland: A large part of resilience is health outcomes, methodologies and economic valuation of health impacts. How are these incorporated in your examples?

Robert Lempert: Less so. The well-being measure doesn't address this specifically. The closest one is the equity indicators, which has a particular health category. A lot of work on measuring well-being is grounded from the health sector. You could construct something for well-being similar to metrics specific to health, but there isn't an example here.

DISCUSSION II

Kimberly Clark presented the Southern California Association of Governments' Climate Adaptation Framework, findings from community outreach, and adaptation principles, metrics and implementation tools for jurisdictions and MPOs.

Linda Helland: I really appreciate the attention to health, equity, and especially racial equity. Also process metrics, and agency engagement metrics.

Karalee Brown: Thank you. In our outreach in communities for GHG and climate action plans (CAP), when we get authentic engagement, we find that they want to talk about things that are aimed more at resilience plans such as health, etc. It's nice when both are combined but this gives us a nice structure to get the most from our engagement.

Laura Engemen: Knowing city CAP experiences and the need for more quantifiable metrics that make things more mandatory, you did a nice job of starting a complementary qualitative aspect. When you were showing those, in terms of understanding investments and where efforts at a city level might be happening, you had individual metrics. In your work, you had individual quantifiable metrics, one thought for you is to think about some way of mapping all of those. What happens sometimes is that in considering one or two of these metrics, one or more agency may target their investments only in one or more communities experiencing these particular indicators, but other communities and indicators are getting left out without anyone being aware. So looking at the metrics cohesively, and piling them on top of each other, to see what communities are receiving investments and where there may be gaps is an idea for how we can do that comparison work within a given jurisdiction or region.

> Kimberly Clark: There's an opportunity to dive deeper based on your points. Your comment echoes input received from local jurisdictions, where they want to have comparable metrics across jurisdictions. We also want to treat things more regionally; we are directed by our regional council to bring together decisionmakers and local jurisdictions to advance climate planning throughout the region, and encourage jurisdictions to adopt and use these metrics and exemplify best practices. Quick shout-out to Reema Shakra, who was instrumental to this process.

> Reema Shakra: The challenge to these metrics was to make sure they are quantifiable and trackable, but not overwhelming for cities. The input we got from stakeholder outreach is that staff capacity is stretched, so the idea here is

to provide a menu of indicators, and to be mindful about choosing ones that make the most sense for targeting the vulnerabilities of a given community and tie back to the outcomes as established in goals and objectives and target your highest risks. We learned from climate action plans that you can't have too many actions; it's too hard to track and you dilute limited resources. There's a lot, but people can pick and choose based on community priorities. They are quantifiable and trackable, though some may have more value than others.

Laura Engemen: Some might argue that might be too simplified of an approach. But some cities just need to start somewhere. Maybe the recommendation here regards the back-end evaluation and taking a layered approach, where jurisdictions ask how each community as a whole became impacted by multiple metrics (as opposed to did we achieve one metric or not), in order to get at the complexities of resilience.

Kimberly Clark: So not just focusing on one of the vulnerabilities, but recognizing communities are unique, have different challenges, will be impacted by multiple vulnerabilities, and that we need a holistic approach.

Jacob Alvarez: Issues for jurisdictions: At the City of Coachella, sometimes a lack of staff or champions in climate arena is a barrier to moving forward. Some cities have more than just disadvantaged communities but are entire disadvantaged cities, and this takes a lot of lifting across departments to get some of these projects. When they are completed, there comes an issue of tracking. For GHG inventories and CAP work, people move on after the projects are done and it may take a while before they are revisited again. A lot of times we invest time into staff like we did for SB 375, which was a top down approach where the regional MPO/COG Coachella Valley Association of Governments (CVAG) was the expert on the policy implementation and trickled it down to planners. This top down approach is helpful for getting elected officials to move staff forward. Some of this work is already being done and reflected in how we're changing general plans, which involves bringing it all together to report back appropriately. When we invest a lot of time and staff, after the first go around and we get an understanding of what the work incorporates, the second time we hire a consultant, and hope that previous staff that remembers what the work entails will stick around to review and make sure the consultant's work is still on point.

Kimberly Clark: Regarding your comment about having top down support and councilmembers who can move the ball forward from the executive level to develop more resources towards climate activities, I've seen this transform the way jurisdictions handle issues and topics. Wonderful to see local jurisdictions saying the same thing. Regarding bringing concerns together across departments, we've found it helpful to have a special climate change committee made up of elected officials, appointed members of the public, or community based organizations that the department can use to guide their activities, and make sure they are consistent and connected across

departments and continue to have that top down support. We continue to hear that jurisdictions would like assistance in setting up these types of committees. Definitely note your concerns.

Juliette Finzi Hart: If you have a menu approach involving choosing metrics specific to a time, place and particular goals, and then the jurisdiction updates in five years and has new goals and pick a new suite of metrics, how do you consider maintaining consistency and also addressing changes over time, given that resilience is not a point in time?

> Kimberly Clark: Related to that is high staff turnover at the local level, which presents challenges in carrying over the knowledge and lessons learned from previous efforts, and having to revisit things every few years. Having continuity of staff can help. Regarding growing concerns about climate vulnerabilities, we are seeing a groundswell at the local level; our climate resolution was adopted unanimously. We know residents are wanting more work from local governments on this topic. It's likely we will be on this continuous process of updating as the strategies change and vulnerabilities continue to grow. Having that continuity of lessons learned and institutional knowledge can help address this challenging topic.

Andrea Ouse: I echo what Jacob said. Small to medium sized jurisdictions staffing issues don't bode well for these localities to have a particular champion or expert; we all have to be everything at once. ABAG has provided extensive technical advisory services for each of its jurisdictions. One of the next steps could be to have this model at MPO level for jurisdictions that don't have dedicated staff, who could come in and help guide the electeds in the community, to educate them on these topics and be local champions for resilience policy. When I hear about committees as a solution, I respond that that's more staff lift to manage and administer these, which takes us away from other things we also need to be working on. The next step: how do we provide the technical assistance to local governments that don't have dedicated staff?

> Kimberly Clark: We are rolling out a program to help jurisdictions use our tools to meet requirements and achieve their goals. We are doing technical assistance, but we hadn't really integrated or prioritized the technical assistance being geared specifically towards elected officials and champions. There's often an information gap to inform decisions at the highest levels. That's an opportunity area to invest more resources in.

Jonathan Parfrey [via chat]: Question: do we think it is important to distinguish between "process metrics" and "outcomes metrics?"

> Sydney Chamberlin [via chat]: Second Jonathan's question - especially given that some things (e.g. land-use planning) can stretch across both process and outcomes.

Linda Helland [via chat]: Jonathan, we definitely need both, because we have more control over process metrics, and there are lots of confounders on outcome metrics, though that's the ultimate goal. But to the public the terminology of "process/metrics" may be unnecessarily wonky, like "mitigation/adaptation".

Jonathan Parfrey: Linda, I hear you. Good process and a survey of foundational services and infrastructure are great indicators. And yet, there are key questions worth answering, like are people safer, more resilient?

Linda Helland: Absolutely, Jonathan! Totally agree. We need to answer those key questions of human well-being, even if we don't have perfect metrics or indicators, or if we can't attribute all the changes to our actions.

PUBLIC COMMENT

Susi Moser [via chat]: Unless ICARP (i.e., California, as a whole agrees) on a shared vision of success, for which you can jointly develop indicators and find ways to measure them, there is no way to get to a comparative approach. This is a hugely political issue and you won't get around it. Resiliencemetrics.org provides guidance for developing and using indicators and metrics - this is tailored and bottom up, but at least it helps in the development. There are indicator development efforts going on at the local (standardized), state, federal, UN, and private institution (S&P) levels. There are huge questions that are being raised here and that are not being raised, because they're not talking to each other. Really tricky questions around indicators fostering maladaptation; how to integrate adaptation efforts across scale, etc.

Susi Moser: First comment, I've been having the same conversation about similar struggles with people at all levels of government. It was brought up whether to distinguish between process vs outcome, etc. In our work we distinguish between six types of adaptation progress and success, which gets to a finer grade on the process: these include engagement process, decision making, actions, outcomes, building capacity, and removing the barriers.

Secondly it's important to think about intended use and you want to avoid having too many, avoid just picking what is easy, and tie them to what you really want to achieve. The resilience metrics toolkit helps the process for development.

If you want to integrate across California and across a region, you will have a hard time. How does one jurisdiction's efforts undermine the efforts of a neighboring jurisdiction? How to address this? There's a role for the state to address this and track.

Angie Hacker [via chat]: I'm sharing a few data sources I've accessed for communities through the CA Tribal Epidemiology Center that could help inform wellbeing metrics

from a health perspective: California Behavioral Risk Factor Surveillance Survey (BRFSS), UCLA California Health Interview Survey (CHIS), EDM (Epi Data Mart), American Community Survey (ACS). E.g. "Psychological Distress During the past year."

> Meredith Milet [via chat]: Angie, we (CDPH) are working with CHIS currently to add a few questions about whether people's health, mental health, or economic well-being have been impacted by climate change events.

Dana Brechwald: BCDC has been focusing on regional indicators. We've been stuck on understanding which metrics are tied to actual change on the ground, capacity, tying them to projects, and leading to resiliency, and advocating for the needs of the region to make a quantitative case for funding.

Item 4 | Discussion on Resilience

Juliette Finzi-Hart recapped the outcomes of the January 20th TAC working group meeting, survey responses, and Interagency Resilience Working Group meeting, and summarized findings.

Laura Engeman [via chat]: Maybe think about metrics in terms of specific feedback loops.

PUBLIC COMMENT

Alexandra Huttinger (RAND) [via chat]: Look at the different levels: hyperlocal, jurisdictions, regional and think about procedural, distributional and structural impacts

Susi Moser [via chat]: Tie indicators/metrics to adaptation strategies. Think through strategies very carefully using metrics to see whether you can actually trace how an action leads to an outcome you want to see. Not all metrics have to be quantitative. Constantly challenge yourself to go for fewer than more. Are they meaningful for decisions?

Julie Ekstrom (DWR) [via chat]: Watch out for sectors or places that use their menu of resilience metrics that make themselves look highly resilient or ahead of others (when they actually aren't).

> Susi Moser [via chat]: Oh yes, great comment Julie - Indicators can be used to mislead. Maybe think through to what extent they can be "fudged."

> Laura Engeman [via chat]: I agree with Julie Ekstrom. Different from cap metrics, resilience is not necessarily something to compare/grade one city against another. So how can we measure without shaming and acknowledge non-climate resilience work?

Item 5 | General Public Comment

Item 6 | Closing, Future Agenda Items, and Meeting Adjourned