Summary of Breakout Session led by Wharton's Policy Incubator at the RNPN Annual Meeting

What are the research question(s) that if answered could advance *household resilience*?

Household Resilience Summary

Combined break-out input suggests that to advance household resilience, research should address the following themes:

- Improving risk information and understanding (35 votes)

- Making disaster insurance coverage and hazard mitigation actions affordable (13 votes)

- Prioritizing vulnerable groups (12 votes)

- Understanding key drivers of mitigation actions (12 votes)

What are the research question(s) that if answered could advance *community resilience*?

Community Resilience Summary

Combined break-out input suggests that to advance community resilience, research should address the following themes:

- Improve tailored and targeted decision-support tools and access to relevant and useable data (23 votes)
  - This needs to be place-specific
- Support and develop local level leadership and issue champions (18 votes)
- Address community infrastructure needs, including for ongoing maintenance (10 votes)
- Build local capacity and continuity in political attention and funding streams (11 votes)
- Focus on and understand the needs and solutions for low-income and disadvantaged communities (8 votes)
- Broaden the resiliency discussion to include and encompass community well-being (6 votes)

How can the Policy Incubator **effectively partnership** with policymakers to advance resilience?

Effective Partnership Summary

**Combined break-out input described effective partnership as that characterized by:**

Who:

Diverse stakeholders, including disenfranchised

- Include a diversity of disciplines and types of organizations that reflect unheard/disenfranchised voices as well as vested interests, including those outside the obvious set, e.g. social services, economic development, health, and local employers (28 votes)

What:

Long-term, consistent engagement through implementation

- Establish a long-term, continual engagement process from planning through implementation with a periodic check-in (e.g. hazard mitigation planning process) (16 votes)

How:

Credible measures of success / ROI / risk mitigation

Co-created with local, diverse stakeholders

Platforms for sharing

- Establish credible ways to measure project/initiative effectiveness, return on investment, impact on risk mitigation (16 votes)

- Co-identify challenges in working sessions that meet stakeholders where they are both sociologically and physically (e.g. meeting location matters) and try to identify solutions that address multiple issues/challenges (15 votes)

- Establish strong platforms and tools to share information across federal, state, local, non-profit, private, faith, etc. and highlight sources of funding for each ("patchwork quilt"); connect like-minded, like-sized places (11 votes)

Next Steps for Wharton Team

- Review input for integration with research agenda

- Scope potential new projects

- Pitch and promote new projects to potential collaborators and funders

Appendix – Full Responses
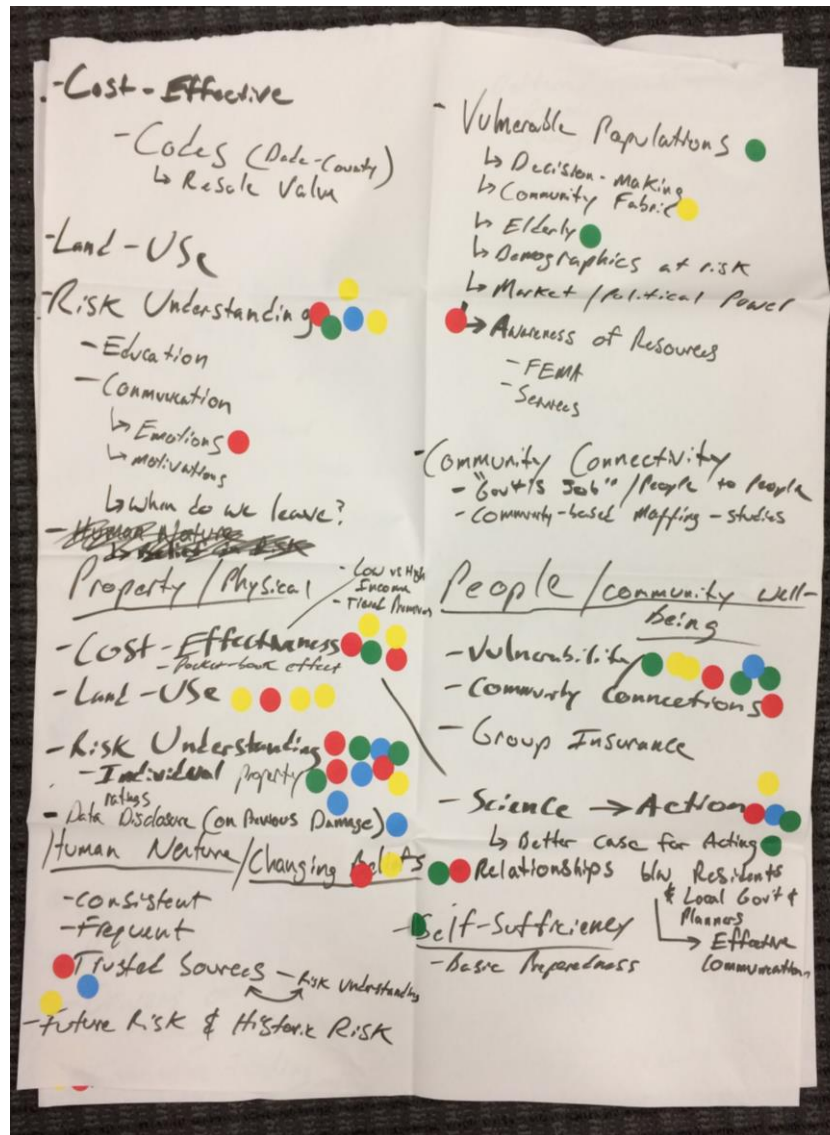
Household Resilience Group 1 Input (II/II)

- Risk information and understanding (21 votes)
  - How does the frequency, consistency, and source (trusted?) of risk information influence household decisions?
  - How can we convey both historic and future risk?
  - How do we improve relationships and communication b/w residents and local government leaders/ planners?
  - How does the content and timing of hazard disclosure (including previous disaster damages) influence decision-making?
  - What influence would property-level hazard ratings have on individual decisions?
- Prioritize vulnerable populations (12 votes)
  - How do vulnerable groups receive and respond to risk information? (need to better understand vulnerable groups' decision-making process)
  - How do we improve vulnerable populations' awareness of resources and services available to them?
  - What role does community connectivity/cohesion play in household decision-making?
- When and how does risk information actually lead to action? What are the necessary conditions? (5 votes)
- Establish cost-effectiveness of mitigation measures (5 votes)
- Expand land use regulations (4 votes)
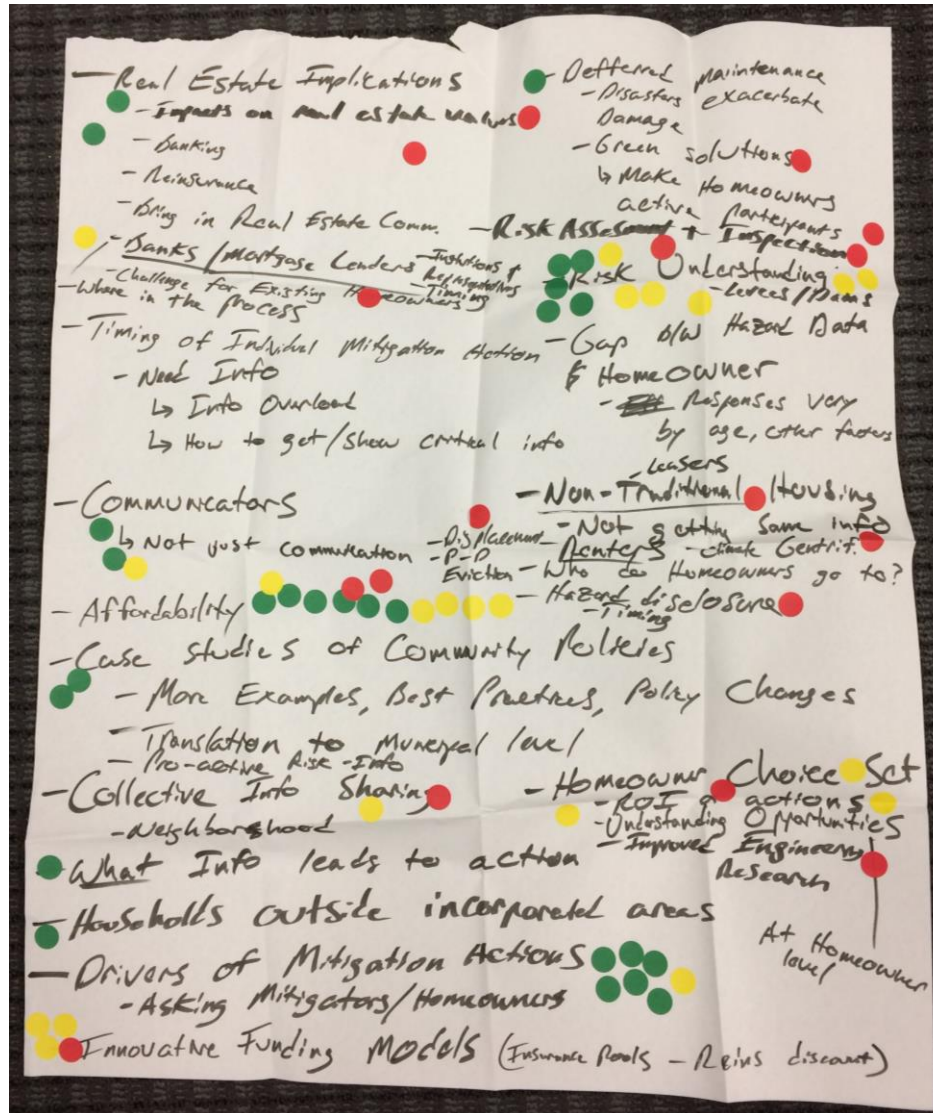
Household Resilience Group 2 Input (II/III)

- Risk information and understanding (14 votes)
  - How does the content and timing of hazard disclosure impact decision-making? (home and/or insurance purchase, mitigation investment)
  - Would conducting a property-level risk assessment at the same time as a home inspection improve homeowner decision-making?
  - How do different groups receive and respond to risk information? (young, elderly, low-income, leasers)

- Affordability (13 votes)
  - Are there examples of effective affordability policies in place at the state and local level? What are the factors that led to their implementation?
  - How can communities/states/U.S. generate political will to implement affordability measures?
  - Vulnerable groups (those in non-traditional housing, those outside incorporated areas, renters, etc.)

- What are the key drivers of household mitigation actions? (7 votes)

- Banks and mortgage lenders (4 votes)
  - Why are banks and mortgage lenders not effectively enforcing mandatory purchase requirements?
  - What incentives would motivate enforcement?

- Homeowners' choice set (4 votes)
  - How would providing homeowners clear choice sets of insurance and mitigation opportunities available to them (and associated ROIs) influence decision-making?

Household Resilience Group 2 Input (III/III)

- Innovative funding models to incentivize mitigation (e.g. insurers pay for household mitigation and get discount from reinsurers) (4 votes)
  - Where and how have these models been implemented?
  - How can they be expanded to encourage greater private investment in mitigation?
- Communicators (3 votes)
  - What effect does the identity/relationship of the communicator have on household action?
  - How can risk information be disseminated to households through communicators they trust?
  - Would improving collective information sharing (among neighbors) improve household resilience decisions?
- Real estate (2 votes)
  - What impact does hazard risk and mitigation have on real-estate values?
  - What effect does realtors' (and banking representatives') knowledge of hazard risk have on household resilience decisions?
- Case studies of community policies (2 votes)
  - What policies or best practices have been effectively implemented at the local level? How they be applied in other municipalities?
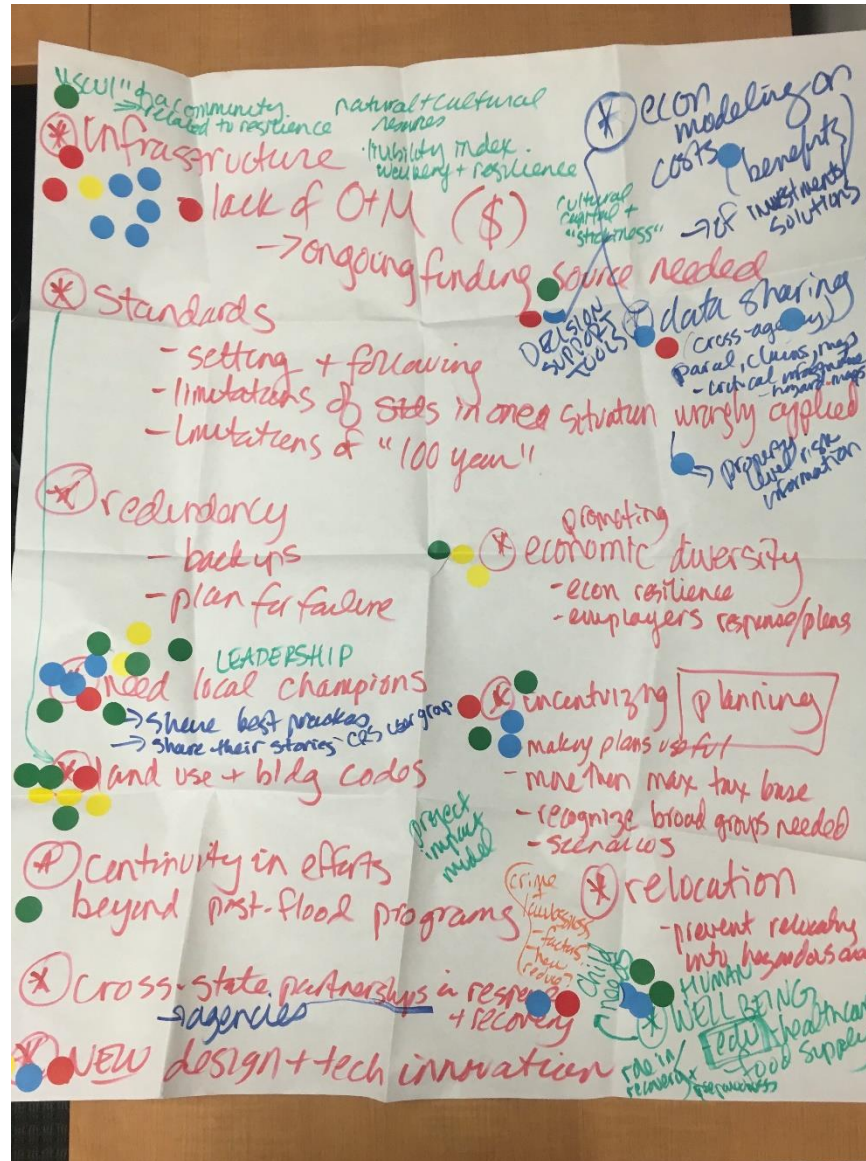
- Local leaders and champions (11 votes)
  - And a way to share best practices; project impact might be a model
- Infrastructure improvement (10 votes)
  - Lack of funding and attention to O&M needs
- Decision-support tools and data (8 votes)
  - Economic modeling of costs and benefits of solutions
  - Data sharing of all layers
- Land use and building codes fail to promote resilience. How can this be addressed? (7 votes)
- More discussion and incorporation of human well-being (6 votes)
  - Build cultural capital
  - Livability and well-being should be linked to resilience
  - Include education, health care, food supply
  - Address needs of children
  - Address crime and lawlessness post disaster
- Incentives for better plans and changes to make them more useful (5 votes)
  - Can they push local governments to go beyond just expanding tax base?
  - Bring in broad groups
  - Include scenarios

Community Resilience – Group 1 Input (III/III)

- Economic diversity with community needs to be promoted (3 votes)

- Investment in novel design and in technological innovation (3 votes)

- Continuity of resilience programs that are stood up post-flood (1 vote)

- Standard setting policies and procedures need updating
  - Limitations of current standards and their misapplication

- Redundancy needed in critical lifelines

- Cross-state and cross-agency partnerships
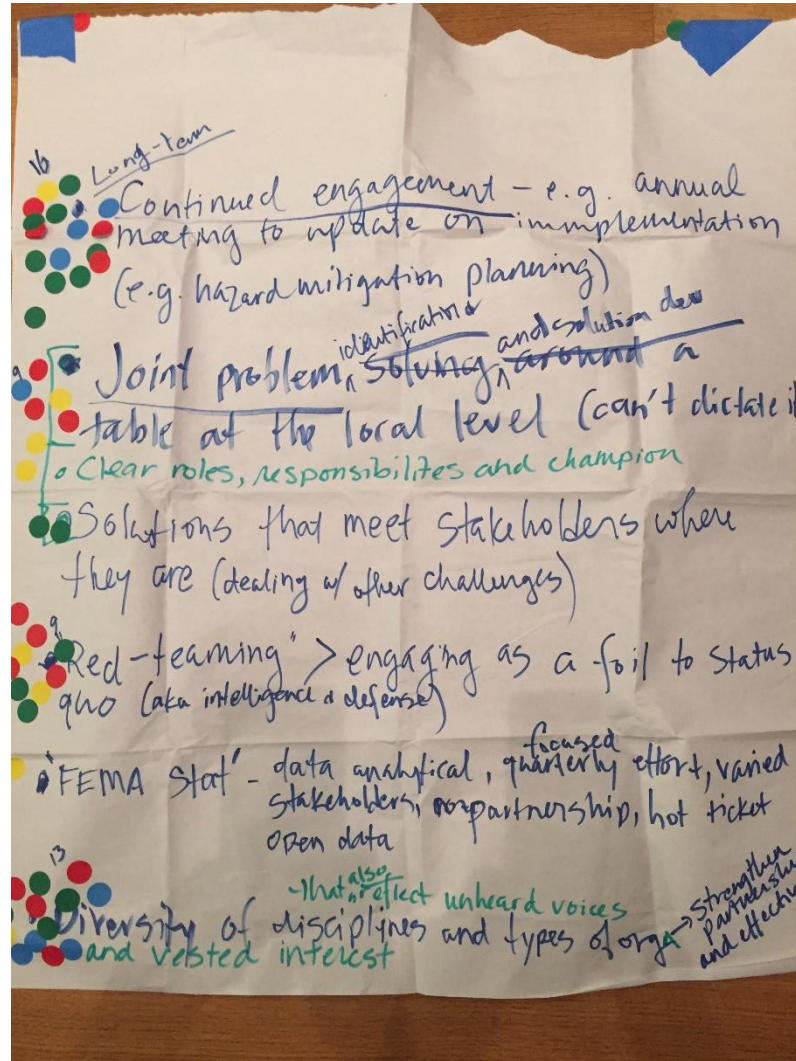
- Relocation is difficult but necessary
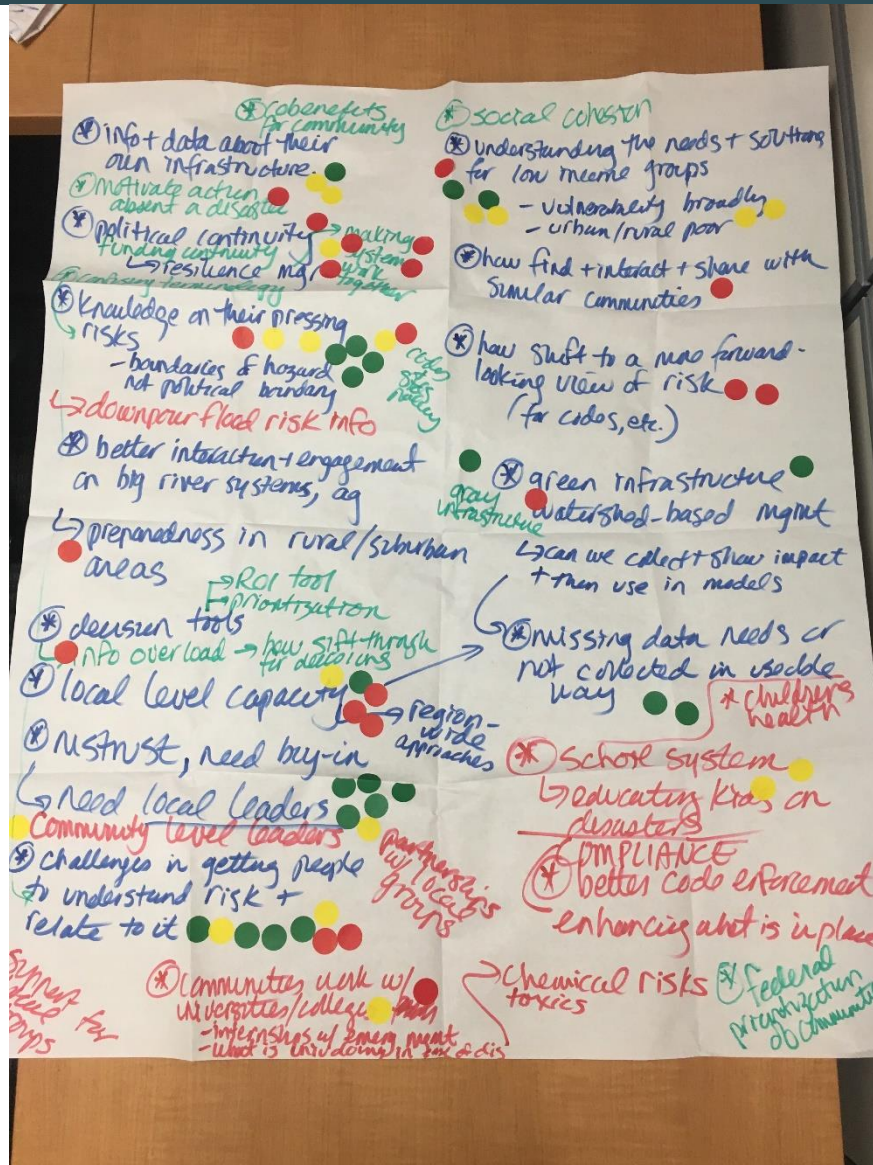
Community Resilience – Group 2 Input (II/III)

- Locally specific data and risk information (12 votes)
  - Boundaries of hazard may not be political boundaries
  - Tailored to specific place
  - Better terminology for communication
  - Information on downpour flood risk
- How do you get people to understand their individual risk and relate to it? (8 votes)
- Local leaders (7 votes)
  - Mistrust of non-locals
- Focus on and understand the needs and solutions for low-income and disadvantaged communities (7 votes)
  - Also a rural/urban poverty divide
  - Consider vulnerability broadly
- How do you ensure political continuity and funding continuity? (6 votes)
  - How do you make the entire system work together?
- Build local level capacity (5 votes)

Community Resilience – Group 2 Input (III/III)

- How can we show the effectiveness of green infrastructure? (3 votes)
  - Watershed based management
  - Need better quantification and models

- Better decision support tools and data (3 vote)
  - ROI tool
  - Prioritization tool
  - Data missing or not collected in a meaningful way

- How can we involve the school system?
  - Educating kids on disasters
  - Addressing children's health post-disaster

- How do you motivate action absent a disaster? (1 vote)

- How can communities find and interact with peer communities to share best practices? (1 vote)

- More attention to issues of rural communities and ag (1 vote)

- Communities need to work with local universities and colleges (1 vote)

- Promote social cohesion and co-benefits of resilience policies

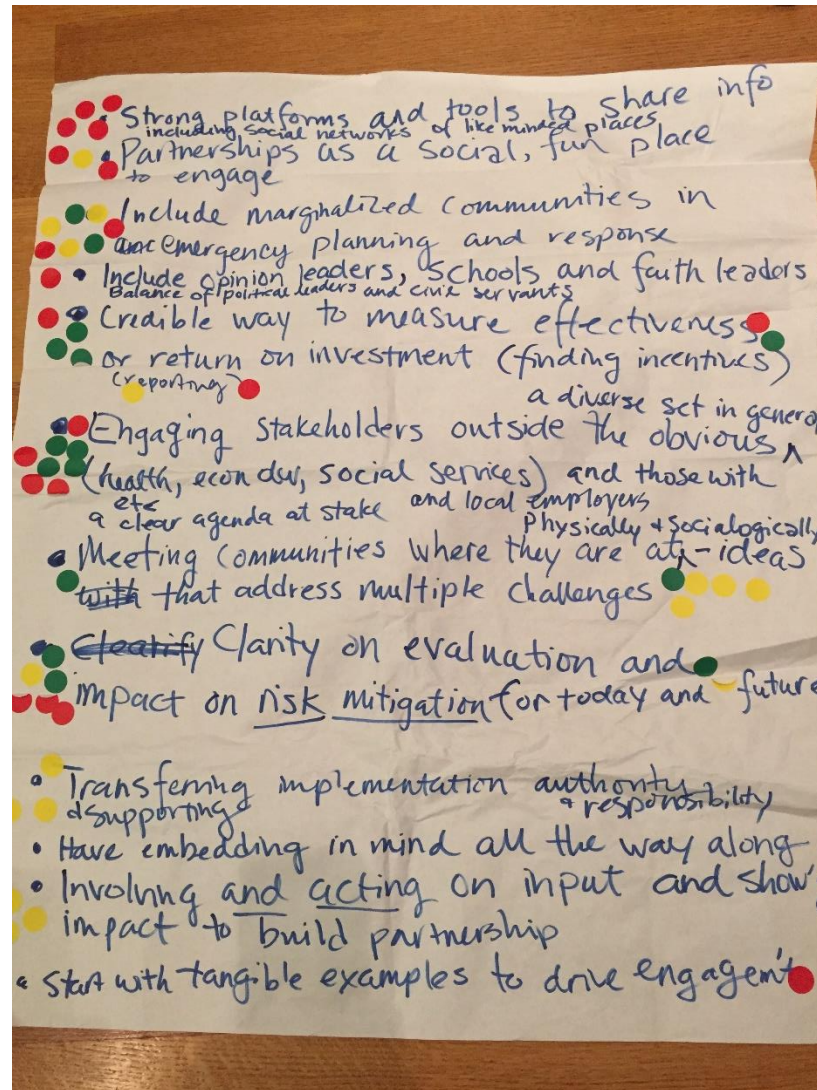- Better compliance and enforcement of what is already in place

Effective Partnership Group 1 Input (II/II)

- Establish a long-term, continual engagement process from planning through implementation with a periodic check-in (e.g. hazard mitigation planning process) (16 votes)

- Include a diversity of disciplines and types of organizations that reflect unheard voices as well as vested interests (13 votes)

- Co-identify challenges in working sessions that meet stakeholders where they are and try to identify solutions that address multiple issues/challenges (9 votes)

- Establish a "red team" process that engages as a foil to the status quo, as is common in intelligence and defense agencies (8 votes)

- Emphasize resource sharing across federal, state, local, non-profit, private, faith, etc. and highlight sources of funding for each ("patchwork quilt") (6 votes)

- Establish focused data analytical teams to surgically address "hot ticket" items on a quarterly timeframe with varied stakeholders and open data (1 vote)

Effective Partnership Group 2 Input (II/II)

- Engage a diverse set of stakeholders, including those outside the obvious set, e.g. social services, economic development, health, and local employers (8 votes)

- Clarify evaluation and impact on risk mitigation for today and the future (8 votes)

- Meet communities where they are both sociologically and physically (e.g. meeting location matters) and seek solutions that address multiple challenges (6 votes)

- Include marginalized communities in emergency planning, response and resilience-building (7 votes)

- Establish strong platforms and tools to share information, including social networks of stakeholders from like-minded, like-sized places (5 votes)

- Transfer and support implementation authority and responsibility (4 votes)

- Involve stakeholders actively: record and show impact of input (4 votes)

- Build partnerships as social, fun places to engage (2 votes)

- Start with tangible project examples to drive engagement

- Include opinion leaders, schools, faith-based leaders, and a mix of political and civil servant champions (1 vote)

- Keep mainstreaming or embedding resiliency as a goal throughout partnership processes (1 vote)

https://riskcenter.wharton.upenn.edu/incubator/