

The Think Tank view: empowering humanity for disaster resilience

Interviewer:Gareth Byatt – Principal Consultant, Risk Insight ConsultingInterviewees:Maddie Vann – Head of Strategy, The Resiliency Company

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Maddie,

Thank you for making the time to talk with me about the activities of <u>The Resiliency</u> <u>Company</u> and your vision to inspire and empower humanity to adapt to the accelerating challenges of the next 100 years to create a more abundant and equitable future for all.

During our conversation I will refer to the <u>Disasters Avoided initiative</u> that Ilan Kelman, Ana Prados and I work on. This initiative focuses on *how we can prevent disasters from happening* which includes a <u>six-point model</u>. I may also refer to my associated activities in urban resilience, and how businesses of all types can help urban societies to be resilient.





The Disasters Avoided model: G Byatt, I Kelman & A Prados

Could we start with some general context about the work of The Resiliency Company, your role for the organization and your background?

Maddie: Absolutely, and thanks very much for the invitation to join you in this conversation. I'm excited about the alignment between our two organizations, and we appreciate the leadership Disasters Avoided is bringing to the field of resilience.

The Resiliency Company is mobilizing the funding, policies, and innovation mechanisms required to shift markets and minds toward resiliency to reduce the costs of disasters, and hopefully enable people and communities to avoid disasters in the first place. We define resiliency as the ability of infrastructure—the physical, economic, and social systems central to the functioning of an economy and a society—to withstand extreme climate impacts and recover from them quickly.

At Resiliency Co. we're focused on two main strategies:

1) Tell a big story to make the business case for investing in resiliency, to mobilize capital to flow to adaptation solutions, and

2) Create the conditions for success that will enable resiliency at scale, by unlocking capital to flow and supporting the implementation of innovative solutions.

At present, our work is focused domestically in the U.S. We know that if we continue as things are today, without integrating a resiliency lens into how we build and invest as a country, communities, businesses, and investors won't be able to afford the costs associated with accelerating climate driven disasters. So, our vision for the future is anchored in a belief that if we can shift markets and minds toward resiliency, we can reduce the costs from climate-driven hazards and make our future more affordable. While we mostly talk about costs in the financial sense, we of course know that disasters have social and cultural costs which have to be addressed as well.

Gareth: Thanks for this overview of Resiliency Co., Maddie. What projects and initiatives have you recently been, and are you still working on at Resiliency Co., and what key areas of focus do you see moving forwards?

Maddie: First, we're here to tell a big story to make the business case for investing in resiliency and influence people with capital to invest in adaptation. As a key part of our work, Resiliency Co. has launched a newsletter called <u>The Epicenter</u>, that makes the business case for investing in resiliency. It's a weekly email newsletter that publishes briefings on the cost drivers that are making different disaster types so expensive, and the levers that exist to reduce the impacts and costs of disasters. Probable Futures also recently joined The Resiliency Co as a fiscally sponsored organization. They provide climate risk and adaptation education for a broad audience of institutional capital allocators and everyday consumers, and offer a suite of digital materials, data tools, and engagements to better prepare individuals and organizations for our changing climate.

Second, we've realized that it's not obvious how to fund resilience so we need to make that happen by creating conditions for success. That includes thinking about how we might advance public policy that incentivizes resiliency across industries and geographies and unlocks more capital to flow, or how we might influence new insurance models that incentivize resiliency. Then we're also thinking about how we can accelerate innovation that's positioned to absorb the funding that's unlocked from both private and public markets.

Gareth: I do like your weekly Newsletter, I must say. Always insightful. Very interesting to hear about Probable Futures - it gives me some ideas relating to climate risk.

We discussed recently the challenges of securing the right investment / funding (one of the factors of our Disasters Avoided Model) towards proactive and preventative investment and funding for disaster resilience. Many studies exist that show the benefits of providing preventative funding to pay for action that increases resilience and reduces the costs of post-disaster clean-up. Yet it still isn't happening at the scale it should be. Are you seeing signs of practical and tangible actions that are being taken to address this matter?

Maddie: As you say Gareth, the case for resiliency is clear. A recent U.S. Chamber of Commerce study found that for every \$1 invested in resilience, there are \$13 in savings.



There are numerous other examples of savings, including from the National Institute of Building Sciences that have found that measures such as building (and adapting) above code can save \$4 for every \$1 spent.

We still have a long way to go, but it's a promising signal that we're starting to see more capital flow to adaptation and resiliency. For example, venture capital funds that specialize in this field are gaining momentum – <u>Tailwind Capital</u> and <u>Lightsmith</u> <u>Capital</u> are two such examples. <u>Convective Capital</u> is another that's investing in startups fighting wildfires specifically.

State-level policy measures in the U.S. also incentivize and provide capital for resiliency projects. One example is a \$10B Climate Bond that the State of California passed in November 2024. Many of the initiatives discussed as part of this bond are targeted at providing ways for California to adapt to a changing environment. It's an exciting measure that could massively reduce climate-related costs in California over time. Wetland restoration, for example, can buffer cities from rising tides in the Bay area, preventing huge potential future costs. And while California is the most recent example, other states have adopted similar measures including New York (<u>\$4.2B in 2022</u>) and Rhode Island (<u>\$5.2M in 2024</u>).

We're also seeing trends toward improvements in how companies price in risk, which is a trend that could support a greater shift in capital towards prevention, as companies advance models that more accurately price the costs (and benefits) associated with climate risk and resiliency measures. We also know that insurance companies are reducing their risk exposure by exiting disaster-prone markets. Other companies are also looking at methods for pricing in climate risk. <u>Climate Core</u> <u>Capital</u>, for example, invests in real estate assets that have limited exposure to recurring climate risk. And there's a growing body of private data providers that offer info for investors to make more informed decisions about where to invest, such as climate risk insights being provided to homebuyers by <u>Realtor.com</u> or <u>First Street</u>.

Gareth: Thanks for these examples, Maddie. The last one makes me think of the *good data* factor in our Disasters Avoided model. Another of the factors in our model is *meaningful inclusion*, by which we mean the importance – indeed, the criticality – of involving all parts of society from all backgrounds in defining and implementing good resilience solutions. Are you seeing examples of actions that are involving and engaging a full range of people to maximize the use of finance and funding, and if so are they easily replicated?

Maddie: I appreciate how in your model you talk about how locals must be thought of as "the first mile" of engagement for action and activities. That's a compelling inversion of the traditional "last mile" framing. We know that "meaningful inclusion" has not been a default design principle for historic disaster recovery or prevention work - and the way capital is allocated in disaster recovery currently reflects this.



A <u>study on FEMA disaster aid</u> from 1999 to 2013 found that in U.S. counties with extensive hazard damages of at least \$10 billion, white households gained \$126,000 in financial support, Black households by comparison lost an average of \$27,000, and Latinx households lost \$29,000. Meanwhile, a 2019 study found that tribal citizens on average receive only <u>\$3 per person</u> in federal disaster aid each year, compared to \$26 for nontribal U.S. citizens. So, there are significant disparities in how funding currently flows.

Furthermore, the "investment-as-usual" approach risks further widening the racial wealth gap through maladaptation, which is when adaptation projects actually increase vulnerability for marginalized groups. This can mean new developments that drive displacement, or short-term protections for a small few that increase collective climate risk. Research estimates that <u>one in six adaptation projects globally</u> is at risk of maladaptation. A project from Fiji offers an example: seawalls there were built to protect people from rising sea levels, but caused more damage by inadvertently preventing stormwater drainage.

On a positive note, an example that has engaged and supported a community is the Florida Keys Community Land Trust which constructs disaster-resilient housing for working-class families. They partnered with a local affordable housing developer to construct 27 affordably-priced cottages that are built with resilient materials to withstand 200 mph winds. In 2022, their cottages were mostly unharmed after Hurricane Ian's flooding and five-foot storm surges. That development was enabled by a \$1M private investment to protect that land from entering the speculative real estate market and spiking up prices following new development.

Gareth: I really appreciate these examples, Maddie. The work in Florida Keys seems like a great example of proactive action with meaningful engagement of people to avoid disasters. I am drawn also to another of the points we stress in our Disasters Avoided work, of the importance of systems thinking to think about, as best we can, the potential for different consequences to occur when we take certain actions. Scenario analysis can sometimes help with this.

I'd like to gain your views on engagement by the private sector (by which I mean businesses of all sizes) in supporting disaster resilience? We see opportunities to get a lot more businesses involved, in a way that also helps them. What kinds of practical options do you think exist for the private sector to be involved in supporting disaster resilience? Are there good business cases for investment by the private sector to support disaster resilience, perhaps working in conjunction with the public sector?

Maddie: Yes, there are many practical and achievable ways for the private sector to be involved in supporting disaster resilience, especially in partnership with the public sector. Fundamentally, every business, regardless of sector or industry, will have to adapt to a changing climate and they will have to think about disaster hazards that may affect them. There are many ways for the private sector to get involved in resilience and adaptation efforts, even if just to ensure good business continuity and limit their supply chain disruption during extreme climate-related events.



One example we wrote about in The Epicenter is from Houston, Texas, where the Mayor's Office created a regional <u>Supply Chain Group</u> to maintain supply chains and critical infrastructure during and after an emergency event like a hurricane. The group aligned representatives from infrastructure companies (including power, water, telecoms, transportation) and also grocery stores to coordinate efforts to be resilient against hurricanes and other emergencies.

We're also seeing interesting examples of investments being made by private sector businesses to reduce potential disaster costs by adapting commercial real estate to be less vulnerable to climate-related impacts. Examples include stormwater management software that is helping businesses to better manage their rainwater runoff, which can also reduce community flood impacts (and save money on water usage and stormwater utilities). There are also cool roof technologies that can reduce air-conditioning expenses by as much as 49%.

Gareth: I really like the examples from Houston, of the private and public sectors working together, and the way improving stormwater management can aid a business and the broader community. This is good to see.

Perhaps we finish by talking about the resilience towards disaster of urban environments now. Many cities and towns in the US and elsewhere around the world have been severely impacted by disasters. Do you have any thoughts and perhaps examples on how urban planners and policy makers, and municipal and local authorities, can improve their disaster resilience in the urban environments they oversee, given the stretched and tight budgets that so many of them have to grapple with?

Maddie: Local governments have power to influence resiliency and disaster recovery. Our team has just brought Matt Posner on board to lead our emerging Public Finance practice to explore muni bonds and other public financing opportunities. The California bond I mentioned before is one example, and there are other interesting examples in private markets for influencing urban environments.

There's a community, for example, in Cortez, Florida that has been built to be entirely hurricane-resilient. <u>All 31 homes in that development</u> withstood the impacts of Hurricane Helene, when it landed in Florida in late September 2024, and the community was only minimally affected by the storm. Thanks to the resilient design measures that have been implemented, insurance companies have been willing to cover the properties, even while many insurers are pulling out of Florida altogether. However, these resilient homes cost upwards of \$1.25 million and don't present an opportunity that can necessarily be scaled to all communities, especially when communities have tight budgets as you mentioned. Nonetheless, it's an example of private financing measures that can be used in certain contexts to build more resilient urban environments.



Gareth: Thank you very much for this discussion, Maddie. I'd like to finish by asking if you have any particular publications that you would like to point our readers towards?

Maddie: I encourage your readers to subscribe to our newsletter, <u>The Epicenter</u>! We have strong writers on the team – a shoutout here to Banks Benitez and Supreya Kesavan – who I've been collaborating with, alongside our CEO, Abby Ross, to tell the story about the cost drivers that are making climate disasters so expensive and the resiliency opportunities we see to reduce those costs. The newsletters are well researched and we link out to lots of content, so they offer a trove of other reading material too from our partners and peers in this space that may also be interesting for your readers.