



The Resilient Interface



Across income brackets, social technologies are redefining what it means for households to be resilient in the face of environmental and economic volatility—linking household resilience to community resilience.

Households are the interface between individuals and the environments they inhabit. As such, they are themselves a resilience strategy. Over the next decade, households will find ways to cope with increasingly frequent and extreme environmental threats. They will reorganize our human resources to manage a growing number of chronic health issues as a result of more toxic environments. They will compete for dwindling yet more expensive global resources. And they will, in all likelihood, attempt to sustain a wide range of lifestyles through more debilitating cycles of economic expansion and contraction. From preparing for the worst, to making a sustainability transition, to reinventing the economy based on new principles of social production, households will innovate in the name of resilience. And while their specific innovations will depend very much on where they find themselves on the scale of wealth, it will be the social network innovations that provide the greatest promise for across-the-board prosperity.

—Kathi Vian and Jason Tester

critical balances



DISINTEGRATION
integration

Collaborative consumption drives a new economy of small-scale, peer-to-peer transactions on a community-wide scale.



EXPOSURE
accountability

New ways of tracking household assets increase trust in a sharing economy—and create new designs for sharable goods.



CONTAGION
isolation

Social platforms for peer-to-peer sharing of goods and services increase household resilience by building more resilient communities.

households: the resilient

QUINTILES OF POVERTY AND WEALTH: CHALLENGES ACROSS THE SPECTRUM

Resilience may be defined as the ability to adapt to changes in a socially positive way. While lack of education, exposure to violence, and simply poor social skills all undermine resilience, the greatest threat to resilience is persistent poverty. Unfortunately, the statistics on poverty are not encouraging. Over the past half century, from 1967 to 2009, the rich-poor gap in the United States has grown significantly: when we look at the overall distribution of income across the population, dividing households across 5 income brackets (or quintiles), we find that the mean household income in the top bracket grew by 41% compared to 28% for the lowest bracket. In 2009, those in the bottom bracket earned, on average, \$12,120 per year, while those in the top bracket earned \$170,844—or 14 times as much.¹ Worldwide, the richest 1% earn as much as the bottom 57%.²

The challenges that households face across this gap are obviously quite different, and the strategies they adopt to assure resilience in the face of these challenges also differ. But over the coming decade, they may converge as new *community* technologies provide new options for both the poorest and richest households.

“It’s very important to create a web-based platform so the household knows exactly how their consumption pattern affects other households in other regions of the country or other parts of the world. The moment you modify a pattern is the moment you don’t, for instance, import any more *acai* from Brazil. This could also be used to share know-how and to invest directly in the world.”



Paul Radu
Cross-Border Journalist,
Organized Crime and
Corruption Project

PREPARING FOR THE WORST: COPING, STOCKPILING, AND CREATING OPTIONS

Preparing for the worst—whether it’s a hurricane or a debilitating disease or the sudden loss of income—is all about managing unpredictability. The poor are perhaps the most sophisticated in managing unpredictability because they live with it daily. Their \$2-per-day income typically comes in bursts that they can’t count on. In *Portfolios of the Poor*, a group of global researchers point to *irregularity* and *unpredictability* as the essential problems of poverty. The poorest households cope, say the researchers, by developing a very complex portfolio of financial management strategies, using informal “money guards,” local insurance clubs, and a network of reciprocal loans and credits to prepare for unforeseen disasters.

In fact, at the end of a long day of work, poor households spend more time on financial management than the average middle-class American household. Beyond fairly blunt instruments like savings accounts and insurance policies, middle-income households depend on the regularity of their incomes and small surpluses in their accounts to hedge against small disasters, engaging in very little financial management. In the 2nd and 3rd quintiles, they are likely to practice stockpiling—keeping extra material goods on hand for emergencies. Moving up the wealth ladder, households create options for continuing their lives as normal by using “back-up” strategies: off-site storage of valuables, back-up generators, and even back-up homes. In the top income brackets, households again focus on sophisticated money management. Diversifying assets, protecting documents, and investing in health, their preparedness strategies take on the same complexity as the poorest households, albeit with formal institutions and almost

always with professional help. In fact, disaster preparedness services are now targeting the upper quintiles with “disaster plans in a box” like those offered by Black Umbrella.

“Americans, right now, spend \$22 billion a year on self-storage space just as a way to store all this stuff we own and don’t use. I think there’s a lot of latent value in that stuff. There’s primarily latent social value. Now that we have the technology to expose our inventory and our need to each other, we can use the stuff we’re not using as a way to meet our neighbors again and as a way to strengthen our local communities and just feel more connected.”

Micki Kimmel
Founder, NeighborGoods



¹ U.S. Census, Selected Measures of Household Income Dispersion: 1967 to 2009.

² UC Atlas of Global Inequality, ucatlas.ucsc.edu/income.php

THE SUSTAINABILITY TRANSITION:

REDUCING, REINVENTING, REINFORCING

Beyond disasters, the coming decade will most likely be a decade of new constraints as resources are more scarce and costly and governments increase restrictions on everything from carbon to plastics. In the face of these constraints, households around the world will be challenged to make a “sustainability transition” that goes beyond green rhetoric and energy-efficient light bulbs.

Households in the highest income brackets will keep the consumption economy alive by reinventing everything from home building to automobiles to health practices. In the process, they will both drive the clean technology revolution and become its first beneficiaries. But for the coming decade, lower- and middle-income households (quintiles 2 and 3) will start the transition by reducing: they will reduce the size of their households, their consumption of goods, and their spending on leisure activities. As more households fall out of the corporate safety net—either through layoffs or retirement—they will downsize many of the basics. They may discover that having only one wage earner in the household actually reduces their expenses: less childcare, less eating out, more home gardening and repair. Less income may also mean more time, which they can use for their own version of reinvention, such as retraining or education. For example, the city of Berkeley, California offers a program that subsidizes home renovation for moderate income families while teaching householders the green construction trade. Such strategies may dovetail with the gradual emergence of new clean technology opportunities by the end of the decade.

And the poorest households? With little opportunity to reduce and few resources to reinvent their households, they will reinforce their community ties. They will participate in informal lending networks. They will return from urban jobs to rural communities. They will create community gardens and buying collectives. They will turn to religious communities for practical support and meaning making. Unfortunately, these socially positive adaptations have their shadow side: they have the potential to increase the burden of social relationship and create tensions when obligations go unmet. They also increase the influence of locally powerful leaders, including religious or political extremists.

The question is: can new social technologies help us scale up such community solutions while reducing the burden—and risks—of social engagement to provide a path to greater resilience for everyone?

THE COLLABORATIVE ECONOMY:

SHARING, INVESTING, AND CREATING MICRO-VALUE

The world is witnessing the birth of a new economic paradigm of social production: from collaborative authoring programs to collaborative investment and even collaborative consumption, we are building an infrastructure that will tap large-scale social networks to provide the resilience of intimate community ties while managing the risks of peer-to-peer solutions. In this economy, it's possible that the strategies of households across all income brackets will converge.

Platforms for peer-to-peer sharing like NeighborGoods, Good Gym, and RelayRides are experimenting with ways for people to feel safe and trusting of their neighbors or even strangers. Participants are using these basic sharing platforms to create micro-value from assets they own—for example, using RelayRides to “rent” their cars when they're not in use. Meanwhile, platforms for direct investment in local economies—such as “slow money”—and for investment in small-scale enterprises are proliferating beyond the early entrants like Kiva and Kickstarter.

These platforms go beyond social innovation. They are actually innovations in community—and ultimately in a new kind of economy that may well engage households across income brackets in building a more resilient world.

“Some of the things we'd like to see are having individuals have a better understanding of how their economic participation really serves as a voice to what their values are and provides a face to what their values are. If people begin to feel more connected to their economic decision-making and to invest in things that they want, I think that we can begin to see more resilience grow from communities. I think we'll see stronger communities in the end.”



Taylor Stuckert
Co-Director, Energize
Clinton County



neighborgoods.net

NeighborGoods is a community platform for sharing the kinds of household tools and appliances that people might otherwise borrow or rent. Originally conceived as a way to save money and practice

sustainability, it has evolved into a platform for building local communities that provide all kinds of “neighborly functions”—from giving each other rides to watching each other’s pets and going out for a drink together.



relayrides.com

RelayRides is a peer-to-peer neighborhood car sharing platform that allows people to safely rent their cars to nearby friends or strangers by pre-qualifying the drivers and providing insurance. Like other sharing platforms, it provides a way for people to turn a car into an income stream, while making more efficient use of resources.



thegoodgym.org

Good Gym mobilizes people to provide services to elderly and shut-in members of communities. The platform matches runners with isolated people in their neighborhood—runners commit to at least one run per week, during which

they stop in to say “hello,” deliver a newspaper or other small item, such as a piece of fruit. These shut-ins are called “coaches” because they help motivate the runners. As with many community platforms, safety and trust are important issues, and Good Gym requires a Criminal Records Bureau (CRB) check for all members.

the quick list

- *Portfolios of the Poor: How the World's Poor Live on \$2 a Day*, Daryl Collins, Jonathan Morduch, Stuart Rutherford, Orlanda Ruthven. Princeton, NJ: Princeton University Press, 2009
- *What's Mine is Yours: The Rise of Collaborative Consumption*, Rachel Botsman. New York: HarperCollins, 2010
- “‘Beating the Odds’ Versus ‘Changing the Odds’: Poverty, Resilience, and Family Policy,” Karen Secombe. *Journal of Marriage and Family*, 64, May 2002, pp., 384-394. www.andrews.edu/~rbailey/Chapter%20four/6569691.pdf
- “Global Shocks and Local Resilience: Asian Fisherfolks’ Adaptation Strategies to External Crises,” May Tan-Mullins. Geneva: UNRISD Conference on “Social and Political Dimensions of the Global Crisis: Implications for Developing Countries,” 2009
- “What Entrepreneurs Can Learn from the Poor,” Venkatesh Rao. The ribbonfarm.com blog, November 16, 2010. www.ribbonfarm.com/2010/11/16/what-entrepreneurs-can-learn-from-the-poor/
- *The Global Lives Project*, www.globallives.org
- *Shareable*, online magazine on “Sharing by Design,” www.shareable.net

STACK-It!

BUILD A RESILIENT HOUSEHOLD

This game is about both cooperation and competition, about managing critical balances, and about connecting with the lives of people in real households worldwide. Above all else, it's a game of strategy.

how to play

- 1 Build an alliance
- 2 Set a household goal
- 3 Find the right balance
- 4 Apply your foresight

When you've completed these four steps, you can tell a winning story.

HOW TO PLAY

In this game, you choose a challenge and then select the cards that stack up to your winning strategy. You can play one-on-one against other players. Or you can play as a team against other teams. You can choose your cards from the four decks intentionally or by the luck of the draw. The more challenges you complete, the more points you win. The more points you win, the more the world wins.

HOW TO WIN

Each challenge is worth 100 points for you or your team. But you can win more! If you choose extra household goal cards, apply extra critical balance strategies, or leverage extra foresight, you can win bonus points. You tally these up on your **Tell a Story** card.

You can also go for a **Grand Challenge** by playing across a row. For example, if you complete all three challenges in the first row, you'll not only have created a big resilience platform for the poorest households. You can also multiply the total for each challenge by 10.

Or you can go for an **Epic Win** and complete all four of the challenges in a column. Then you'll be an expert in disaster preparedness or sustainability or the collaborative economy across all income levels. You can also multiply the total for each challenge by 100.

how to win

- 1 Challenge = 100 points + bonus points
- 2 Challenges across a row: **GRAND CHALLENGE** = 3000 points + bonus points
- 3 Challenges down a column: **EPIC WIN!** = 40,000 points + bonus points

start
here

START BY CHOOSING A CHALLENGE

CHALLENGE 1 reduce unpredictability and irregularity of income

The biggest obstacle to resilience in the poorest households is the lack of a predictable flow of money in and out of the household—even if the flow is relatively small. In times of crisis, such unpredictability increases the burden of adaptation and often threatens survival. → ZONE 1-2

The gameboard has 12 challenges.

Some of them focus on poorer households, some on wealthier households. Some are all about preparing for disaster. Others are about creating new kinds of lifestyles and even a new kind of economy. Once you choose a challenge, follow steps 1 through 4 to gather the tools to tell your story.

FOLLOW THESE STEPS:

1 build an alliance



The future is all about cooperation and collaboration across sectors, industries, and different organizational sizes and structures.

Your first step is to **draw 3 alliance cards**, each from a different category of organization. Use the questions on the cards to build your story.

Categories of Organizations:

Global corporations typically have large supply networks, lots of physical facilities, strong logistics systems, and access to capital. They can put big plans into action but may be slow to move.

Government agencies may be large or small; local, national, regional, or global. They have the authority to balance the needs and resources of multiple stakeholders but may be hampered by competing interests.

Non-governmental organizations span the range from large philanthropic organizations to local church groups and community service organizations that may have international affiliates. They are often brokers between economic and non-economic interests.

Networked organizations provide a platform for large distributed groups of people with loose affiliations to act in concert. Their shared goals can be narrow or broad, but their strength is their ability to mobilize lots of people or resources without a lot of management overhead.

Small businesses employ the majority of workers worldwide. They can range from the single street vendor to companies with 1500 employees. They are the most vulnerable to volatile environments but often display the most ingenuity in meeting their challenges.

2 set a household goal



Households in different income brackets face different challenges. After you choose a challenge, look at the households near the income brackets for that challenge. **Choose up to 3 cards from the household set.**

Each household brings its own resources and risks and its own hopes and fears to the task of building resilience. Review the information on the card or watch the videos for those households at globallives.org. Then set a goal that you want your households to achieve by 2021.

Examples of household goals:

- Jamila is able to pursue her interest in medicine and create a platform for better health care in the refugee camp—including her father's ongoing care.
- Dušan is able to expand his beekeeping business even as he ages.
- Rumi is able to navigate Tokyo even in the aftermath of a major environmental catastrophe.

3 find the right balance



The next decade will challenge everyone to manage five critical balances. These are the dials we will turn to build resilience into our households, our organizations, and our world. **Choose 1 or more critical balance cards** to focus your strategy. Use the following guidelines to think about your strategies.



DISINTEGRATION | integration

Look for ways to use the fine-grain tools at our disposal to deconstruct and reconstruct all kinds of systems, from money to language to the very concept of the human, in the service of a new, more balanced stability.



EXPOSURE | accountability

Balance the growing ability to expose everything from thousands of personal details to large-scale corruption with systems of accountability that avoid inflammatory revelations.



SLOW | fast

From investment strategies to organizational workdays, weigh the value of rapid results against the long-term benefits of slower but more satisfying value creation.



CONTAGION | isolation

In the spread of innovation as much as disease—and happiness as much as turmoil—balance the potential of social and biological contagion against the strategies that isolate as a way to increase security.



PERSUASION | regulation

In a decade where persuasive tools and technologies will mushroom and dominate our attempts to influence human behavior, seek combinations of persuasion and regulation that protect the vulnerable and build capacity for responsiveness.

4 apply your foresight



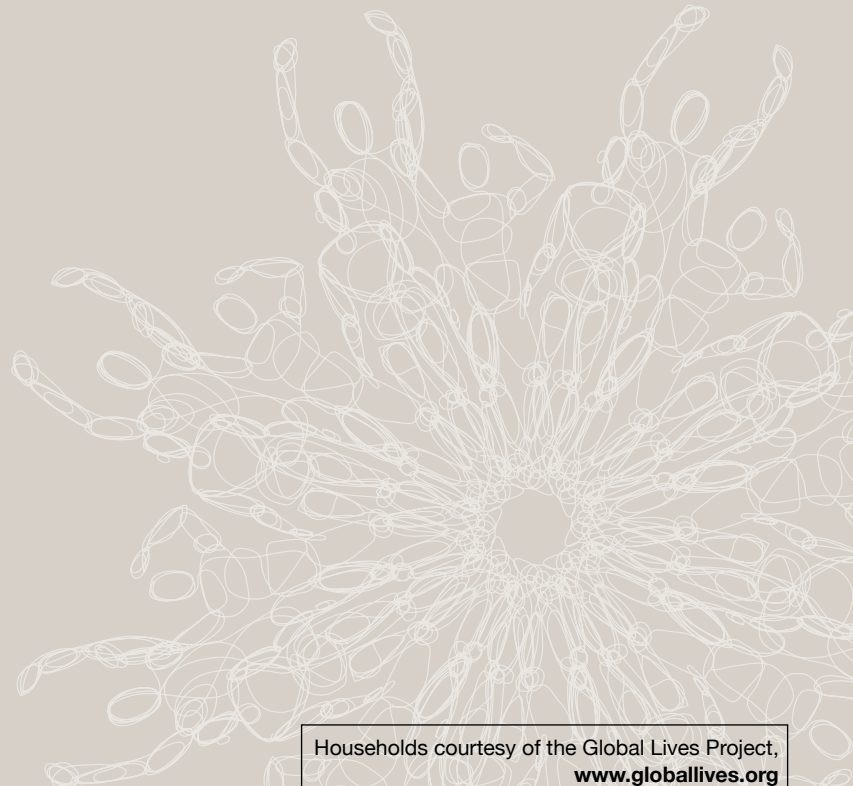
The future environment of households will be shaped by forces that are just beginning to be visible today. These forces may make your challenge easier or harder. They may offer up new strategies or present barriers to your efforts.

The best way to anticipate future forces is to track signals. A signal is something that is happening today on a small or local scale that could grow to have big impacts in the future. **Choose 1 or more signal cards** that you think may be important in meeting your challenge. Or use a blank signal card to add your own signal to the game.

NOW TELL A STORY

Now you're ready to put it all together and tell the story of a winning strategy. Grab a **Tell a Story** card, and start building the story by answering the questions on your other cards. You can capture your genius on side 1 of the card.

Then **turn the details into a winning resilience story**. Imagine that it's 2021 and the news media are singing your praises. What's the headline? What are the key elements of your winning strategy? And how did everyone win? Create your very own story for **The Stack-It! News**.



CHALLENGES:

Preparing for the Worst

POOREST ZONE 1

ZONE 2

ZONE 3

ZONE 4

RICHEST ZONE 5

Resilience in the face of environmental disasters, health challenges, and economic crises

CHALLENGE 1

reduce unpredictability and irregularity of income

The biggest obstacle to resilience in the poorest households is the lack of a predictable flow of money in and out of the household—even if the flow is relatively small. In times of crisis, such unpredictability increases the burden of adaptation and often threatens survival. → ZONE 1-2

CHALLENGE 2

create alternatives to fragile community infrastructures and institutions

One of the greatest risks to poor households is the failure of community infrastructures—whether they are physical structures that collapse or institutional forms that disappear or fail due to brittleness. → ZONES 2-3

CHALLENGE 3

prevent depletion of household assets in times of crisis

A basic strategy for resilience in all but the poorest households is stockpiling and saving, but unusually extreme crises can take even well stocked households by surprise, while minor short-term disruptions (such as illness) can deplete their reserves and leave them vulnerable, or even destitute. → ZONES 3-4

CHALLENGE 4

diversify paths to security

For all households, the creation of options is an important resilience strategy, but for households with abundant resources, diversification (whether of assets, social networks, or life strategies) is a way to secure the household in the face of unexpected threats. → ZONES 4-5

CHALLENGES:

Making the Sustainability Transition

Adaptative strategies for managing scarcity and ecological disruptions

CHALLENGE 5

secure basic life-sustaining resources

As growing numbers of people enter the global economy, the burden of human enterprise on basic resources like water, energy, food, and medicines will weigh most heavily on the households that already have the poorest access to these basics. → ZONES 1-2

CHALLENGE 6

manage scarcity

New limits imposed by declining resources and growing ecological constraints will demand that households find ways to get by with less on a daily basis—not just for brief periods of crisis. → ZONES 2-3

CHALLENGE 7

invest in reinvention

Facing a changing landscape of resources—physical, social, and economic—households will seek resilience by reinventing everything from their physical shelter to the skill sets of their members, and ultimately their social connections. → ZONES 3-4

CHALLENGE 8

rewrite the “global dream”

Even as frontier economies turn their sights on the “American dream” that has shaped global development for the past half century, that dream may be rewritten to include new values such as organic food, eco-healthy practices, local identity, and global mobility. → ZONES 4-5

CHALLENGES:

Building the Collaborative Economy

GOALS:

Households

INCOME BRACKETS

Win-win outcomes that result from the new rules of social production

CHALLENGE 9

balance cross-boundary flows of value

In a global economy, dependence on remittances from abroad vie with the need for local skills and resources to build not only resilient households but also resilient communities to support them. → ZONES 1-2

CHALLENGE 10

design for sharing

In an economy where social platforms make it easier to share everything from media to household tools to automobiles, resilient products and services are those designed for sharing from the outset. → ZONES 2-3

CHALLENGE 11

create global platforms for local micro-value

As social production shifts into high-gear, households will build resilience by tapping into new sources of value in all kinds of collaborative activities—turning to trustworthy platforms to track value and convert it to practical exchange. → ZONES 3-4

CHALLENGE 12

redirect investment toward local value

Recognizing the link between personal self-interest and community resilience, thriving households will seek new ways to make their money count directly for the things they care about in their communities—from their food systems to their global reputations. → ZONES 4-5



Dadah
Sarimukti,
Indonesia

Age in 2021: 45

Facts: Mother of 3, farms state-owned plantation with her husband

Risks: loss of land, drought, health issues



Edith
Ngwale Village,
Malawi

Age in 2021: 27

Facts: Oldest of 4 daughters, lives with mother, aunt, and cousins

Risks: disrupted school due to household duties, early marriage, drought

POOREST ZONE 1



Muttu
Hampi,
India

Age in 2021: 30

Facts: Tour guide and postcard vendor in city of ancient ruins

Risks: destructive weather, lack of growth opportunities, physical hardship



Zhanna
Vannovka,
Kazakhstan

Age in 2021: 17

Facts: Youngest of 4, her parents work in the orphanage where the family lives

Risks: failure of supporting institutions, hollowing out of community, civil disruption

ZONE 2



Jamila
Beirut,
Lebanon

Age in 2021: 21

Facts: Oldest of 4 children, lives with parents in refugee camp

Risks: disrupted school due to household duties, civil unrest



Dušan
Vojka,
Serbia

Age in 2021: 79

Facts: Beekeeper, father of 2, lives with wife in house he built

Risks: aging without a safety net, failure of bee colonies, renewed regional conflict

ZONE 3



Rael
Saõ Paulo,
Brazil

Age in 2021: 39

Facts: Hip-hop artist and civil servant, lives in *favela* with his parents

Risks: health issues, sustainability of work, dangers of life in *favela*



Kai
Anren,
China

Age in 2021: 50

Facts: Married with 1 daughter, lives behind the convenience store he manages

Risks: health issues, food scarcity due to drought

ZONE 4



Rumi
Tokyo,
Japan

Age in 2021: 37

Facts: University student in public management, lives in her own apartment

Risks: dependence on wheelchair, extreme weather events, employment uncertainty



James
San Francisco,
USA

Age in 2021: 73

Facts: Cable car conductor, lives with contractor wife in 3-story house

Risks: failure of city pension programs, unions, earthquakes

RICHEST ZONE 5