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Post-disaster Resilience: problems and challenges: (Working Paper V)

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Introduction

This working paper is the fifth in a series run by the ESRC/DFID funded project 'Poverty Alleviation in the Wake of Typhoon Yolanda'². The overarching aim of our project is to identify strategies that work in relation to poverty alleviation in post-disaster urban environments and the conditions necessary for the success and scaling up of these strategies. The Typhoon Yolanda relief efforts in the Philippines are used as a case study. The project focuses on urban population risk, vulnerability to disasters and resilience in relation to environmental shocks. We focus on attempts to build resilience over time and examine the extent to which the notion of 'Building Back Better' is credible.

On 8 November 2013 super-typhoon Yolanda³ hit the Visayas region of the Philippines. Official figures show that 6,293 individuals were reported dead, 1,061 went missing and 28,689 were injured. The typhoon affected 591 municipalities and total damage is estimated at US\$904,680,000⁴. The total number of people affected by this disaster in terms of their livelihood, environmental and food security was approximately 16 million.

This project examines peoples' experience of disaster relief and rehabilitation initiatives. We aim to make policy recommendations that advise on how sustained

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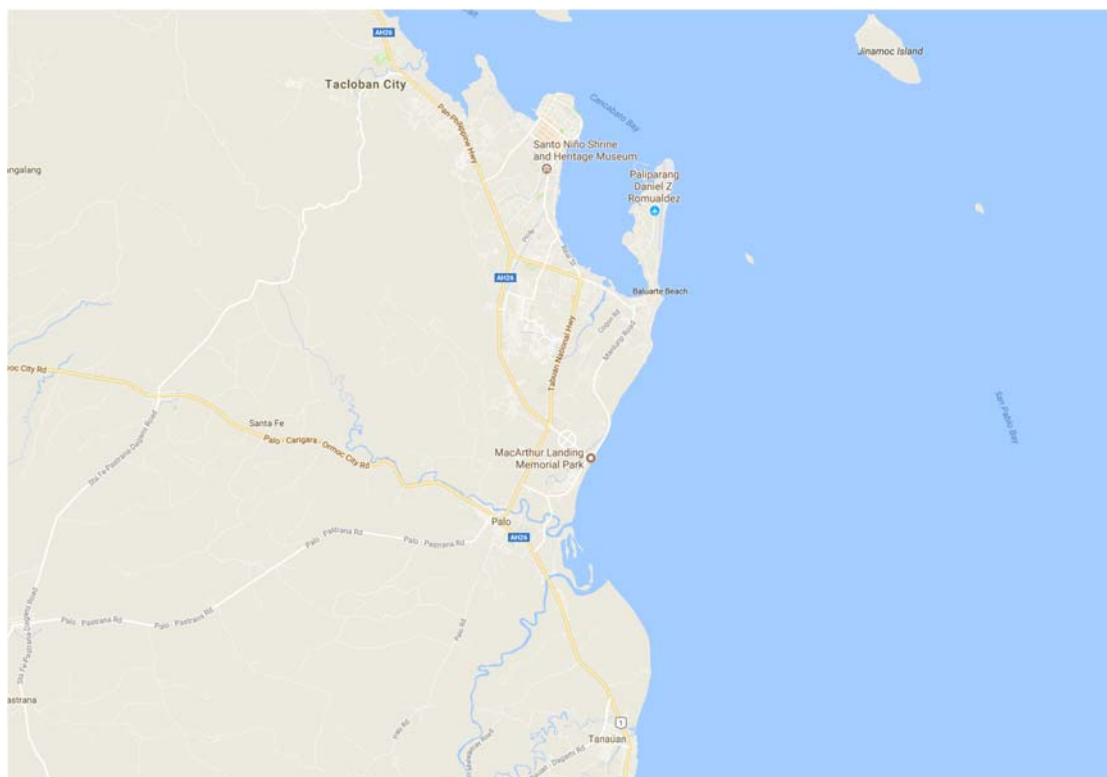
² (Ref ES/M008932/1). For further details and previous working papers see our web site:
<http://www.projectyolanda.org>. Accessed 21 September 2017.

³ For further details see e.g.: European Commission Humanitarian Aid and Civil Protection (2014) 'Typhoon Haiyan – Philippines', November. Available at:
http://ec.europa.eu/echo/files/aid/countries/factsheets/philippines_haiyan_en.pdf. Accessed 21 September 2017.

⁴ National Disaster Risk Reduction and Management Council, Republic of the Philippines, SitRep No. 108 Effects of Typhoon Yolanda (Haiyan), 3 April 2014. Available at:
[http://www.ndrrmc.gov.ph/attachments/article/1329/Effects_of_Typhoon_YOLANDA_\(HAIYAN\)_SitRep_No_108_03APR2014.pdf](http://www.ndrrmc.gov.ph/attachments/article/1329/Effects_of_Typhoon_YOLANDA_(HAIYAN)_SitRep_No_108_03APR2014.pdf). Accessed 5 June 2016.

routes out of poverty can be developed in ways that can be replicated and scaled up. The key themes of this project are vulnerability, risk, resilience and shocks in relation to pathways in and out of poverty. Vulnerability and risk inform why and how poor people are exposed to natural disasters whilst resilience informs how they coped and how coping strategies can be developed and risk lessened. In the immediate aftermath of Typhoon Yolanda the disaster struck region became the focus of a significant international relief effort. However the rebuilding of sustainable communities in the longer term is an ongoing concern.

Our investigations focus on twenty typhoon-affected barangays⁵ across three adjacent Local Government Units (LGUs), Tacloban, Palo and Tanauan, in the Eastern Visayas (Region VIII). By comparing the experiences of these areas we aim to determine how and why poverty relief strategies work better or worse in different administrative units under similar post-disaster conditions over time.



Map showing Tacloban, Palo and Tanauan (North Eastern Leyte, Philippines) (Google Maps)

17 of the barangays selected for this project are on the coast, and therefore most exposed to typhoons. The remaining three barangays were relatively less affected as they are inland and/or on higher ground. These barangays serve as least affected controls however no barangays in the region were unaffected. All suffered a significant degree of damage, even if they were not affected by coastal flooding. Over the last four years (2014-2017) we have conducted a series of surveys, focus groups discussions and interviews with a range of stakeholders⁶ across the barangays and

⁵ The barangays are: Tacloban: Barangays 54, 54-A, 66-A, 67, 87, 88, 89, and Abucay (least affected); Palo: Cavite, Cogon, Libertad (least affected), Pawing, Salvacion, and San Joaquin; and Tanauan: Bislig, Calogcog, Salvador (least affected), San Roque, Sta. Cruz, and Sto. Niño.

⁶ For further details on our data gathering techniques please see: Eadie, Pauline, Galang, Clarence and Tumandao, Donabel (2017) Gathering 'good' qualitative data in local communities post Typhoon

LGU's under examination.

This working paper focuses on how resilience was articulated and experienced post typhoon Yolanda. We found that resilience was a term that was frequently used by survivors, government officials and various other stakeholders to describe how those affected by Typhoon Yolanda coped in the aftermath of the disaster. In this paper we argue that 'resilience' is an overused, poorly understood and contested term. A better understanding of resilience is important in order to understand what is needed, in social and material terms, for successful post-disaster recovery. We argue that resilience is not a generic attribute; it is socially situated and culturally determined. However resilience is not easy to measure. Survivors may state that they are resilient when they are not (for fear of being seen as weak) and accept material resources that they have no need for (for fear of appearing ungrateful or compromising access to future offers of goods and services). Government and non-governmental agencies may use the term resilience to congratulate themselves on a job well done without due consideration of what it actually means to be resilient. Resilience also relates to intangible 'assets' such as trust, faith and familial and community cohesion.

We argue that equity is of key importance for resilience building. Equity matters in terms of having a voice in the rebuilding process and in the distribution of resources. Inequity, and the social discontent this generates, can undermine the rebuilding of sustainable communities. This is problematic for relief agencies, operating with limited resources within specific time frames as usually they seek to target resources towards those in greatest need. Disaster rehabilitation practitioners that fail to appreciate the nuances and context of resilience may waste resources and even undermine the very communities that they are trying to help.

The first section of this paper outlines what resilience is and how it has been addressed in the literature dealing with disaster studies thus far. The next section explains how 'resilience' has been articulated by various organisations in relation to disaster relief and development initiatives. We also outline how Typhoon Yolanda survivors articulated resilience during our fieldwork investigations. We examine how this term was used and understood by various stakeholders and commentators in order to unpack how rehabilitation strategies were devised and experienced in relation to resilience building. The following section outlines the problems and challenges in building resilience post Typhoon Yolanda. These issues are material but also social. Resilience is not just about satisfying material need, it is also about successful social adaptation. By carefully unpacking what resilience entails we will show that the rhetoric of resilience did not match up to the reality post Typhoon Yolanda.

What is disaster resilience?

The term '*natural*' disaster should be treated with caution. The scale and impact of 'natural' environmental disasters is mediated by human activity to the extent that there may little that is natural about them. Vulnerability to environmental *hazards*; 'arises from peoples' occupancy of geographical areas where they could be affected

Yolanda: power, conversation and negotiated memory (Working Paper IV). Available at: <http://www.projectyolanda.org>. Accessed 21 September 2017.

by specific types of events that threaten their lives or property'⁷. People living in typhoon affected, low lying, densely populated areas⁸ in unsafe housing are extremely exposed, and therefore vulnerable to, the vagaries of the weather. This was the case in many of the areas hit by Typhoon Yolanda and is a trend that can be more widely identified across the Philippines and elsewhere⁹. Population growth and density, increased urbanization¹⁰ and increasing climate change related flooding means that many Asian cities are increasing at risk. This demographic trend coincides with reports of increased frequency and intensity of typhoons¹¹. In short demographic trends mean that environment hazards have an increased likelihood of turning into disasters with the poor being least likely to be able to mitigate or adapt in the face of such hazards.

In their report, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, the IPCC defined resilience as 'the ability of a system and its component parts to anticipate, absorb and accommodate. Or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its basic structures and functions'¹². Resilience is a hybrid concept that finds its early roots in disciplines such as ecology¹³, physics, psychology and psychiatry. Resilience has been debated across disciplines in physical/material and social terms¹⁴. Purists argue that the term resilience has been adopted by so many different disciples that its 'conceptual clarity and practical relevance are critically in danger'¹⁵. Nevertheless social and

⁷ Lindell, Michael (2013) 'Disaster Studies', *Current Sociology Review*, Vol. 61, No. 5-6, pps 797-825, p. 799.

⁸ Ehrlich, P. (2013) 'Population and "Natural" Disasters', Millennium Alliance for Humanity and Biosphere (MAHB), December 5. Available at: <https://mahb.stanford.edu/blog/population-and-natural-disasters/>. Accessed 25 September 2017

⁹ Peduzzi, P. et. al. (2012) 'Global Trends in Tropical Cyclone Risk' *Nature Climate Change*, Vol. 2, April. Available at: <http://www.ssec.wisc.edu/~kossin/articles/nclimate1410.pdf>. Accessed 25 September 2017.

¹⁰ UNESCAP (2013) 'Factsheet: Urbanization Trends in Asia and the Pacific', November. Available at: <http://www.unescapdd.org/files/documents/SPPS-Factsheet-urbanization-v5.pdf>. Accessed 25 September 2017.

¹¹ Balagura, K. et. al. (2014) 'Increase in the intensity of postmonsoon Bay of Bengal Tropical Cyclones' *Geophysical Research Letters*, 41, pps. 3594-3601; Mei, Wei and Xie, Shang-Ping (2016) 'Intensification of Landfalling Typhoons over the Northwest Pacific since the late 1970s', *Nature Geoscience*, Vol. 9, October.

¹² IPCC (2012) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, Cambridge University Press: Cambridge. Available at: https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf. Accessed 25 September 2015.

¹³ Holling, C. S. (1973) 'Resilience and stability of ecological systems' *Annual Review of Ecology and Systematics*, Vol. 4, pps. 1-23.

¹⁴ For conceptual overviews of the term resilience as they relate to disaster relief see e.g. Alexander, D. E. (2013) 'Resilience and Disaster Risk Reduction: an Etymological journey', *Natural Hazards and Earth System Sciences*, Vol. 13, pps. 2707 - 2716; Cote, M. and Nightingale, A. (2012) 'Resilience Thinking Meets Social Theory: situating social change in socio-ecological systems (SES) research' Vol. 36, No. 4, pps. 475 - 489; Manyena, S. B. (2006) 'The Concept of Resilience Revisited', *Disasters*, Vol. 30, No. 4, pps. 434-350; Mitchell, T. and Harris, K. (2012) 'Resilience: A risk management approach' Overseas Development Institute: Background Note. Available at: http://www.preventionweb.net/files/globalplatform/entry_bg_paper-7552.pdf. Accessed 18 October 2017; Weichselgartner, J and Kelman, I. (2014) 'Geographies of Resilience: Challenges and Opportunities of a Descriptive Concept', *Progress in Human Geography*, Vol. 39, No. 3, pps. 1-19.

¹⁵ Brand, Fridolin Simon and Jax, Kurt (2007) 'Focusing the Meanings of Resilience: Resilience as a Descriptive Concept and a Boundary Object', *Ecology and Society*, Vol. 12, No. 1. Available at: <https://www.ecologyandsociety.org/vol12/iss1/art23/>. Accessed 22 September 2017.

environmental systems inevitably interact and impact upon each other. Therefore human resilience is not distinct from ecological resilience and any ‘delineation between social and ecological systems is artificial and arbitrary’¹⁶. A network of economic, social and cultural structures and beliefs determine humankind’s interaction with nature. The institutions and various stakeholders tasked with devising mechanisms for resilience after environmental disasters must consider how social life and environmental adaptations impact upon each other. If societies are unable to mitigate or adapt to either slow onset or rapid environmental change or disasters then they will not be resilient.

For our purposes here resilience relates to how people and communities recover or ‘bounce back’ in the aftermath of a disaster. The word resilience is derived from the Latin word *resilio* meaning to leap or spring back. Resilience is not just about perseverance or the ability to absorb shocks, it also relates to the ability to adapt in the face of challenges. Resilience is not only about managing threats and staying the same; it is also about physical and social evolution in order to reduce vulnerability to future disasters.

It is important that the process as well as the end point of resilience is context specific and informed by local voices. There are dangers in resilience strategies that rely on ‘command and control styles that risk preserving the status quo, and which might entrench exclusion, and take attention away from the inequality, oppression and entitlement loss that results in cases of proneness to insecurity and disaster (Manyena, 2006: 438). Resilience strategies that resurrect pre-disaster inequalities and vulnerabilities, or even create new ones, are not resilient at all. However even when local voices inform resilience capacities these voices may be conflicting. Some may have a vested interest in maintaining the status quo, some may favour different adaptation strategies than others and some adaptation strategies may compromise others with effects that are difficult to disentangle¹⁷.

It is also useful to consider the argument of Bèné et. al. who argue that adaptation, rather than being a purely positive notion, involves ‘unacceptable trade-offs’¹⁸ between resilience and well-being. Household coping strategies that involve missing meals, neglecting health care or education or living in completely inadequate shelter can hardly be considered resilient. Bèné et. al. also argue that disaster rehabilitation strategies that are premised on resilience building may simply entrench pre-existing vulnerabilities and inequalities. Real resilience is likely to involve some element of redistribution and social justice and this is likely to suit some more than others. As such the crafting of resilience is also about power and control.

The Perception and Articulation of Resilience

The adoption of the term resilience reflects a broader and relatively recent tendency among NGOs and INGOs and government agencies.

¹⁶ Folke, C. (2006) ‘Resilience: The emergence of a perspective for socio-ecological systems analyses’, *Global Environmental Change*, Vol. 16, pps. 253-267, p. 262.

¹⁷ See: Béné, C. et. al. (2014) ‘Resilience, Poverty and Development’, *Journal of International Development*, Vol. 26, No. 5, pps-598-623, p. 601.

¹⁸ Ibid.

Resilience: the new mantra

The United Kingdom 2011 ‘Humanitarian Response Review’, published by the Department for International Development (DFID), identified resilience as a leading theme in humanitarian and development work. Resilience was broken down into the following component parts:

- Economic resilience: from macro policy that ensures economies can withstand shocks, to livelihoods work that helps communities and households survive famines and disasters.
- Physical resilience: including vital infrastructure such as hospitals and community infrastructure such as dams.
- Social resilience: including institutions in fragile contexts, building on the governance work that DFID has historically done.
- Environmental resilience: ensuring that our development work does not exacerbate natural hazards or reduce people’s ability to cope.
- National resilience: helping governments and civil society prepare for and respond to disasters through training and equipping the relevant institutions¹⁹.

In very simple terms DFID defines resilience as the capacity to deal with a disturbance²⁰. Disturbances are classified as both shocks and long-term stresses whilst the capacity to deal with a disturbance is based on exposure to risk, sensitivity to disturbances and capacity to adapt or adjust in the face of a disturbance.

The World Bank has also adopted the mantra of resilience. The term is used in relation to the convergence of policy designed to address climate change in relation to extreme weather events and disaster risk reduction²¹. The World Bank ‘Resilient Cities Program’ has adopted resilience in order to address ‘an increasingly complex range of shocks and stresses to safeguard development gains and accelerate poverty reduction’²². Meanwhile The United Nations Office for Disaster Risk Reduction (UNISDR) uses the term resilience in its ‘Making Cities Resilient’ disaster risk reduction campaign and UN-Habitat has launched a City Resilience Profiling Programme (CRPP) for ‘measuring and profiling city resilience to all types of hazards’²³. Resilience features in the USAID funded ‘Strengthening Urban Resilience

¹⁹ Department for International Development (DFID) (2011) ‘Humanitarian Emergency Response Review: UK Government Response’. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67489/hum-emer-resp-rev-uk-gvmt-resp.pdf. Accessed 3 October 2017, p.8.

²⁰ Department for Foreign and International Development (DFID) (2011) ‘Defining Disaster Resilience: A DFID Approach Paper, pps. 7-9. Available at: <https://www.gov.uk/government/publications/defining-disaster-resilience-a-dfid-approach-paper>. Accessed 3 October 2017.

²¹ The World Bank Group (2013) ‘Building Resilience: Integrating Climate and Disaster Risk into Development’ Washington: The World Bank Group. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/16639/826480WP0v10Bu0130Box37986200OU090.pdf?sequence=1&isAllowed=y>. Accessed 3 October 2017.

²² The World Bank (2015) ‘Resilient Cities Program’. Available at: <http://www.worldbank.org/en/topic/urbandevelopment/brief/resilient-cities-program>. Accessed 3 October 2017.

²³ UN-Habitat (2012) ‘Resilience’. Available at: <https://unhabitat.org/urban-themes/resilience/>. Accessed 3 October 2017.

for Growth with Equity' (SURGE) project that focuses on inclusive and resilient economic growth for selected cities in the Philippines²⁴. Resilience was a key feature of the United Nations' 'Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disaster', with a strong focus on disaster risk reduction. The Sendai Framework for Disaster Risk Reduction (2015-2030) succeeded the Hyogo Framework in 2015. Resilience features as a guiding theme. There are four priorities: priority three reads 'investing in disaster risk reduction for resilience'²⁵. All of these initiatives equate resilience with growth and development. It seems that resilience, whether ecological or social, is not to be found outside of the overarching logic of economic growth.

Resilience and Typhoon Yolanda

On 10 November 2013 United States President Barack Obama stated that: 'Michelle and I are deeply saddened by the loss of life and extensive damage done by Super Typhoon Yolanda. But I know the incredible resiliency of the Philippine people, and I am confident that the spirit of Bayanihan will see you through this tragedy'²⁶. Five weeks later Philippine President Benigno Aquino stated that: 'the task immediately before us lies in ensuring that the communities that rise again do so stronger, better, and more resilient than before'²⁷ when introducing the Reconstruction Assistance on Yolanda (RAY) plan to partner agencies. Pope Francis is also on record as praising 'the deep faith and resilience'²⁸ of Yolanda survivors.

Resiliency was also a recurring theme in news reports on the disaster. A *National Geographic* article on the work of photographer David Guttenfelder, who published a series of images of the aftermath was entitled 'Photojournalist Captures Resiliency in the Philippines After Typhoon Haiyan'²⁹. This article was published just two weeks after the disaster. CNN reported that 'One Year After Haiyan Resilience Builds the Philippines'³⁰ The term resilience was also used by a series of aid agencies such as the

²⁴ USAID (2016) 'Strengthening Urban Resilience for Growth with Equity'. Available at: <https://www.usaid.gov/philippines/economic-growth-and-trade/strengthening-urban-resilience-growth-equity-surge-project>. Accessed 3 October 2017.

²⁵ United Nations Office for Disaster Risk Reduction (2015) Sendai Framework for Disaster Risk Reduction 2015-2030, United Nations: Geneva. Available at: http://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf. Accessed 5 October 2017.

²⁶ ITV News (2013) 'Obama: Philippine People "Incredibly Resilient"', 10 November. Available at: <http://www.itv.com/news/update/2013-11-10/obama-philippine-people-incredibly-resilient/>. Accessed 26 September 2017.

²⁷ Aquino, Benigno S. III (2013) 'Speech of President Aquino at the briefing on Yolanda Reconstruction Assistance plan', December 18, Manila. Available at: <http://www.officialgazette.gov.ph/2013/12/18/speech-of-president-aquino-at-the-briefing-on-reconstruction-assistance-on-yolanda/>. Accessed 26 September 2017.

²⁸ Mayol, Vincent Ador and Fernandez, Connie E. (2016) 'Pope Francis again extols Pinoys' deep faith and resilience in the face of tragedy as IES closes', *Philippines Daily Inquirer*, 31 January. Available at: <http://globalnation.inquirer.net/135926/pope-francis-again-extols-pinoys-deep-faith-resilience-in-face-of-tragedy-as-iec-closes>. Accessed 26 September 2017.

²⁹ Than, Ker (2013) 'Photojournalist Captures Resiliency in the Philippines After Typhoon Haiyan' *National Geographic*, 23 November, <http://news.nationalgeographic.com/news/2013/11/131123-david-guttenfelder-photography-typhoon-haiyan-philippines/>. Accessed 26 September 2017.

³⁰ Klemming Nordenskiöld, Sofia (2014) 'One Year After Haiyan Resilience Builds the Philippines', CNN, 7 November. Available at: <http://edition.cnn.com/2014/11/06/world/asia/philippines-typhoon-haiyan-one-year/index.html>. Accessed 26 September 2017.

UNDP³¹, World Vision³², Save the Children³³ and Oxfam. Resilience also featured in the CARE poster below, published in 2013.



Image Credit Sandra Bulling. www.care.org

In 2016 the Tacloban City Government launched a ‘Clean Green and Resilient’ environmental campaign, mirroring the World Bank’s clean, green and resilient 2012-2022 Environment Strategy (see poster below).

³¹ UNDP (2013) ‘Post-Disaster Recovery and Resilience in Typhoon Yolanda Affected Areas: Immediate Response Initiatives from the UNDP’, December. Available at: <http://www.alnap.org/pool/files/undp-support-post-yolanda-recovery-project-chapeau.pdf>. Accessed 26 September 2017.

³² Aspi, Aaron (2016) ‘Philippines more resilient 3 years after Typhoon Yolanda’, World Vision, 7 November. Available at: <http://www.wvi.org/asia-pacific/article/philippines-more-resilient-3-years-after-yolanda>. Accessed 26 September 2017.

³³ Bloomer, David Brickley (2014) ‘The Children of Typhoon Haiyan: Tales of Resiliency, Heroes and Recovery – Part 3’, Save the Children, 10 January. Available at: <http://savethechildren.typepad.com/blog/2014/01/the-children-of-typhoon-haiyan-theses-of-resiliency-heroes-and-recovery-part-3.html>. Accessed 26 September 2017.



Poster depicting Mayor Christina Romualdez and the ‘Clean Green and Resilient’ Campaign.

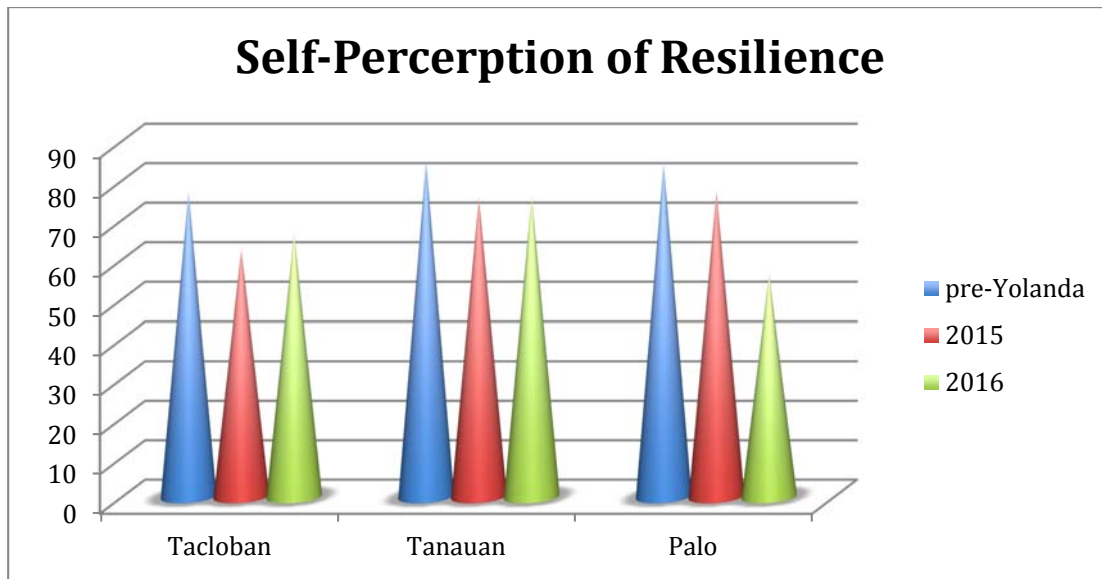
Clearly ‘resilience’ was a go to term when it came to describing the Philippine people and Typhoon Yolanda reconstruction efforts. However, our field research indicated that understandings of resilience amongst survivors were somewhat vague. We detail our findings in the following section.

Are we Resilient?

In one Tacloban focus group we were told ‘we have heard the term but we don’t really know what it means’³⁴. This was despite the fact that the poster above was visible all around Tacloban. In answer to the questions: ‘Have you heard the term resilience? What does it mean?’ the most common answers in focus groups were: to be sturdy, durable, strong, to have faith, to not be in poverty, having a regular income, having livelihood, being able to withstand calamities, for businesses to be back up and running and for buildings to be reconstructed (very often barangay halls were mentioned), to recover quickly from calamities and for utilities to be restored. One person noted that resilience was ‘being like bamboo; it only breaks instead of bending during strong winds’. The responses proffered related broadly to personal determination to overcome difficulties, livelihood and physical housing and infrastructure.

In our surveys of 800 people across Tacloban, Palo and Tanauan, in 2015 and 2017 we asked the questions ‘Did you consider yourself resilient before Typhoon Yolanda?’ and ‘Do you consider yourself resilient now?’. The results are in the chart below. Self-perception of resilience was high across all three LGUs pre-Yolanda with a drop being recorded in all areas post-Yolanda, the greatest drop being seen in Palo. From this we can see that even though people were unclear on what being resilient actually entailed they still classified themselves as being resilient.

³⁴ Focus Group (2017) Mixed Respondents, Tacloban, 17 June.



The barangay captains that we interviewed tended to equate resiliency with disaster preparedness. Saturnino Jacobo, barangay captain of Cavite East in Palo, noted that his community was 90 percent resilient, the remaining 10 percent being down to lack of typhoon resistant evacuation centers. Others related resilience to the efficient dissemination of typhoon warnings by government authorities, specifically the Municipal Disaster Risk Reduction Management Council (MDRRMC). The captains also noted that the people were now better educated when it came to disaster preparedness and that people would now voluntarily evacuate when they knew a typhoon was coming³⁵. They mentioned ‘fighting’ calamities, which relates to the idea of ‘strength’ that was raised in focus groups.

Emelita Montalban, captain of Barangay 88, one of the worst hit areas³⁶ in Tacloban, stated that she thought that resilience was about community and ‘peaceful living’. She noted that ‘we were in a group helping one another after Yolanda, we were survivors’. In order to improve her communities’ resilience she suggested that more disaster training, livelihood training and peace and order initiatives were needed. For Montalban effective leadership and community cohesion were important for resilience building. She claimed that, prior to Yolanda, people had to be ‘forced’ to leave their houses when typhoons were imminent. This was despite Barangay 88 being located on a peninsula meaning that it is exposed to the sea on two sides.

Community cohesion was an issue that was also raised by Jerry Yaokasin, Vice Mayor of Tacloban. He suggested that resilience was about being able to ‘live a normal life³⁷’. He suggested that when he saw people enjoying the 2017 Tacloban Sangyaw Festival of Lights it was ‘like nothing happened three years ago. It is a story

³⁵ We heard from numerous sources that many people did not evacuate during Typhoon Yolanda as people stayed at home to safeguard their livestock and property. This was common practice, with men and older boys staying behind whilst the women and younger children went to evacuation centers.

³⁶ Ramzy, Austin(2013) ‘In Worst-Hit Area of Tacloban, a killer from Two Sides’, *The New York Times*, 16 November. Available at: <http://www.nytimes.com/2013/11/17/world/asia/tacloban-philippines-typhoon-haiyan.html?mcubz=0>. Accessed 27 September 2017.

³⁷ Interview (2017) Vice Mayor Tacloban, Jerry Yaokasin, 15 June.

of resilience and speedy recovery’³⁸. Yaokasin agreed with Montalban in that resilience is about human cooperation and leadership. These sentiments were echoed by Mayor Pel Tecson of Tanauan who said that the main lessons learned from the experience of the Typhoon Yolanda rehabilitation efforts were:

- ‘You need leadership. It plays a vital role in how you confront the crisis and how you translate the crisis into an opportunity to make things better.
- You need community involvement. Community means collaboration and inclusion and this is very important. Our approach in Tanauan is to include the communities as much as possible in the programs we have.
- You need to be proactive and have a plan to engage stakeholders’³⁹.

In 2015⁴⁰ Mayor Alfred Romuldez of Tacloban was clearly looking to the future when he said that; ‘when you deal with humanitarian response you are laying the ground already for recovery and rehabilitation and there should be a definite focus on the people’⁴¹. He also he noted that ‘resilience should be in every department of the city government and every pillar of growth and progress. Resilience programs should be tailored to fit as every LGU is different’⁴². Romuldez’s comments are pertinent as post disaster humanitarian response is about meeting basic needs in an emergency situation however the next step is about rehabilitation and strategies that are sustainable in order to build resilience over the longer term.

However the following comment from Yaokasin is telling, as it is indicative of a failure to adapt:

After Yolanda we had an opportunity to be a little Singapore, we could have been a blueprint or a road map. But we see the same things; traffic and unsafe electric wires, it is still chaotic. We should have built medium rise tenements for people with more space but we have all these new single rise houses that are eating up agricultural land in the north⁴³.

This comment was Yaokasin’s response when we asked him what, with the benefit of hindsight, should have done differently during the relief and rehabilitation effort. Tacloban’s city planning did adapt in the aftermath of Typhoon Yolanda as many residents have now been relocated to more robust housing on higher ground. However these settlements have a number of problems including a lack of utilities and inadequate livelihood provision⁴⁴.

³⁸ Ibid

³⁹ Interview (2017) Mayor Tanauan Pel Tecson, 12 June.

⁴⁰ Mayor Alfred Romualdez was succeeded by his wife Mayor Christina Romualdez in the 2016 Philippine election. She declined to be interviewed for this project in 2016 and 2017.

⁴¹ Interview (2015) Mayor Tacloban, Alfred Romualdez, 11 November.

⁴² Ibid.

⁴³ Ibid

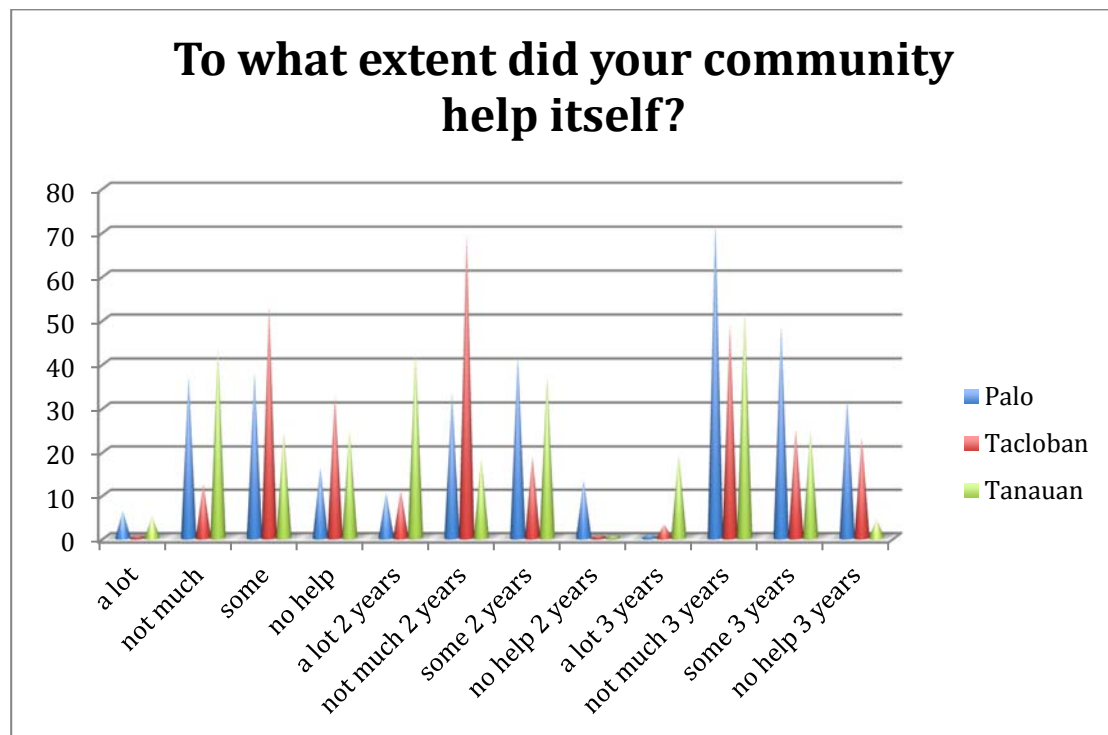
⁴⁴ See Working Paper III in this series. Atienza, Maria Ela, Eadie, Pauline and Tan-Mullins, May (2017) ‘Building Back Better in the Aftermath of Typhoon Yolanda: Shelter and Resilience’. Available at: <http://www.projectyolanda.org/documents/working-paper-iii.pdf>. Accessed 27 September 2017.

Problems and Challenges in Resilience Building

The following section is structured using the three broad categories highlighted in our surveys and interviews. These are strength, livelihood and infrastructure. It is useful to focus on *collective* resilience as the resilience of individuals is inevitably tied to how communities organize themselves, cooperate and adapt in the aftermath of disasters.

Strength

The chart below details answers to the question ‘To what extent did your community help itself?’ This question was asked in relation to the period immediately after Typhoon Yolanda, two years later (2015) and three years later (2016). The results are disappointing given that community engagement and cooperation is one of the declared aims and objectives of the mayors cited above. The most common response was that communities did not help themselves much. In year two (2015) Tanauan was the best performers with 43 percent of residents reporting that communities helped themselves a lot but this figure dropped to 19 percent in year three (2016).

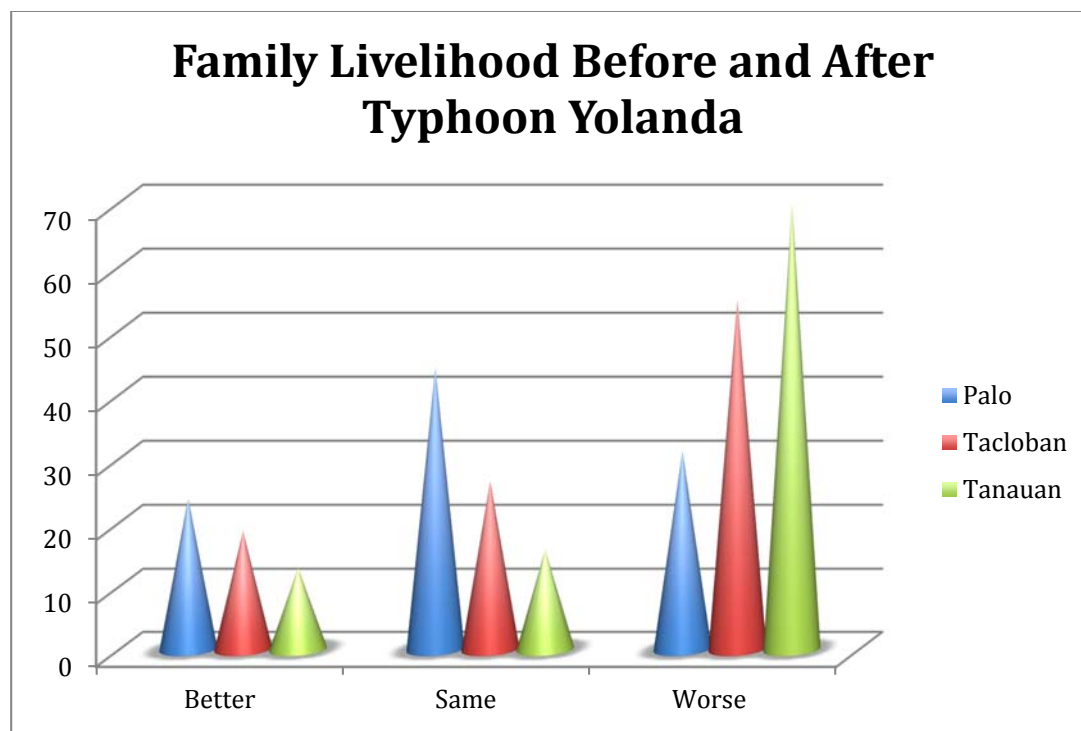


In light of these results it is also relevant that the majority of our respondents were women: 61.5 percent in 2015 and 74.7 percent in 2016. This was not the result of purposive sampling. Our fieldworkers were directed to gather information on a random basis from roughly 50/50 percent men and women. The imbalance is likely because our fieldworkers were only active during daylight hours. The skewed gender ratio is indicative that women were more likely to be available to be interviewed in the barangays during working hours. If we had surveyed out of working hours we may have generated a different set of results however by capturing the views of presumably un or underemployed respondents we potentially captured the views of some of the most vulnerable people.

Another issue that we found to be of key importance in relation to community resilience was *equity*. Focus group discussion evidence indicated clearly that many people were unhappy with the way that goods and services were allocated after Typhoon Yolanda and that this had had an impact on community relations within the barangay. In some cases a lack of trust was evident with respondents feeling that some barangay captains and mayors directed resources towards family members and trusted allies. This is an issue that has been reported by other researchers⁴⁵ working in the same areas.

Income

In 2015 91.2 percent of our survey respondents reported that their family’s livelihood had been affected by Yolanda.



⁴⁵ Field, Jessica (2016) ‘The Philippines and Typhoon Haiyan: The Humanitarian Context’ Humanitarian Effectiveness Project. Available at: http://humanitarianeffectivenessproject.com/wp-content/uploads/2016/05/Philippines_Jessica_Field_HAT.pdf. Accessed 27 September 2017; Ong, Jonathan Corpus Ong (2016) ‘Hidden Injuries of Humanitarian Relief’, CDAC Network, 23 February 2015. Accessed 27 September 2017. Available at: <http://www.cdacnetwork.org/i/20150223164553-xdmv2>. Accessed 27 September 2017; Wilkinson, Olivia (2015) ‘Faith and Resilience After Disaster: The Case of Typhoon Haiyan’ November, Misesan Cara. Available at: <http://www.miseancara.ie/wp-content/uploads/2016/02/Faith-Resilience-After-Disaster.pdf>. Accessed 6 October 2017.

As outlined in the chart above the majority of those surveyed in Tacloban and Tanauan reported that they were worse off than before Typhoon Yolanda whilst the majority of those surveyed in Palo reported that they were better off or the same as before. Despite these figures 77.1 percent in Palo, 75.6 percent in Tanauan and 62.5 percent in Tacloban reported that they were resilient in the same year (2015). The difference is particularly stark in Tanauan. 75.6 percent reported resilience whilst 69.9 percent reported reduced livelihood. If a simple correlation is made then respondents did not equate reduced income with a lack of resilience. This could mean that families are managing on a reduced income or they are receiving goods and services from sources not considered to be livelihood. Alternatively it could mean that a reduction in the economic 'resilience' of the household is not considered to be an overall indicator of a lack of resilience. This is a key point as, if this is the case, resilience not measured in terms of economic recovery, it is measured on the basis of negative coping strategies as outlined by Béné, et. al⁴⁶, or other intangible assets. Whatever the answer to this puzzle it also raises the wider question of what we should measure and how we should go about this in order to generate reliable data on resilience.

Housing and Infrastructure

According to the Philippine National Risk Reduction and Management Council (NDRRMC) Typhoon Yolanda totally damaged 244,550 houses and partially damaged 248,306 in Region VIII alone⁴⁷. Infrastructure damage was estimated at more than £83 million⁴⁸. Providing resilient housing in safe areas was one of the stated aims of the National Housing Authority (NHA) in the aftermath of Typhoon Yolanda. The government decreed that a 40-meter 'no dwell zone' should be established along the coastline meaning that many families were, in theory, banned from rebuilding their homes in the original location. It was also decreed that families who lost homes in the 40-meter zone would not be eligible for Emergency Shelter Assistance (ESA) funds in order to discourage them from rebuilding in the zone. Instead they would be rehoused further away from the sea. However many families did rebuild in the no dwell zone, especially in Tacloban. This was because the mass relocation⁴⁹ of those that lived in the no dwell zone was an extremely protracted process that is still ongoing in some areas. With no ESA or affordable alternative building plots available many families had no choice but to rebuild makeshift homes in their original locations. In order to rebuild people were often forced to rely on the largesse of extended family or loans. The rebuilding process often pushed them deeper into poverty. In Tacloban the local government effectively abandoned trying to stop rebuilding in the no dwell zone as they were unable to offer any practical alternative.

⁴⁶ Béné, C. et. al. op.cit.

⁴⁷ National Risk Reduction and Management Council (2013) 'Final Report re Effects of Typhoon 'Yolanda' (Haiyan), Available at: [http://ndrrmc.gov.ph/attachments/article/1329/FINAL_REPORT_re_Effects_of_Typhoon_YOLANDA_\(HAIYAN\)_06-09NOV2013.pdf](http://ndrrmc.gov.ph/attachments/article/1329/FINAL_REPORT_re_Effects_of_Typhoon_YOLANDA_(HAIYAN)_06-09NOV2013.pdf). Accessed 5 October 2017, p.14.

⁴⁸ Ibid. p. 6. Based on a conversion rate of 60PHP/1GBP.

⁴⁹ Many organisations were involved in the relocation efforts including the government, NGOs and private companies.



House in no-dwell zone Anibong, Tacloban 2016. Image credit Pauline Eadie

The resettlement efforts have been hampered by a number of problems, including a lack of available suitable land⁵⁰, a lack of utilities in resettlement zones⁵¹ and issues over the size and quality⁵² of housing units⁵³. In November 2017 President Duterte ordered a mass movement of people to the resettlement sites in Tacloban however issues with the water supply remain, many residents return to their old homes by the sea to work, especially if they are fishermen and some coastal houses in the no dwell zone have been repopulated by families that have moved to Tacloban in the hope of finding work⁵⁴. Many efficient programs for resettlement have been developed by a number of governmental, non-governmental and private in Tacloban, Palo and Tanauan. LGUs faced a substantial task in terms of recovery and rebuilding after Typhoon Yolanda; whether this was done in a timely and efficient manner is open to debate.

⁵⁰ Fitzpatrick, Daniel and Compton, Caroline (2014) 'Beyond Safe Land: Why security of land tenure is crucial for the Philippines post-Haiyan recovery', Oxfam Joint Agency Briefing Paper, August. Available at: <http://policy-practice.oxfam.org.uk/publications/beyond-safe-land-why-security-of-land-tenure-is-crucial-for-the-philippines-pos-324557>. Accessed 5 October 2017.

⁵¹ After Typhoon Yolanda the Philippine government ruled that there would be a 40-meter 'no dwell zone'

⁵² The quality of housing units is currently the subject of a Congressional Hearing in the Philippines. Contractors have been accused of using sub-standard materials. See: Nonato, Vince (2017) 'Raps eyed 'vs' Yolanda housing contractor over substandard materials' *Philippines Daily Inquirer*, 26 September. Available at: <http://newsinfo.inquirer.net/933448/yolanda-housing-substandard-materials-steel-bars-perjury-estafa-nha-national-housing-authority>. Accessed 5 October 2017.

⁵³ For more details please see Working Paper III in this series. Atienza, Maria Ela, Eadie, Pauline and Tan-Mullins, May (2017) 'Building Back Better in the Aftermath of Typhoon Yolanda: Shelter and Resilience'. Available at: <http://www.projectyolanda.org/documents/working-paper-iii.pdf>. Accessed 5 October 2017.

⁵⁴ The population of Tacloban grew from 221,174 in 2010 to 242,089 in 2015. Figures from: The Philippines Statistics Authority (2016) 2016 Regional Social and Economic Trends: Eastern Visayas Region. Tacloban.

In contrast to housing private businesses recovered and thrived in the aftermath of Yolanda. Robinson's shopping Mall in Marasbaras, Tacloban was totally gutted after Yolanda after it was reopened in little more than a month⁵⁵. Another mall, Robinsons North Tacloban, has recently opened in Tacloban. Hotels and eateries have expanded and grown in number, public buildings have been repaired and a comprehensive program of road improvement is underway. Healthcare facilities have improved and private housing schemes have grown and expanded, including private residential projects operated by Double Dragon in Tanauan. However many survivor beneficiaries in the resettlement areas live in substandard housing without potable water. Schools in the resettlement areas are temporary open sided wooden constructions with dirt floors. According to Oxfam 'resilient rebuilding must include plans to tackle inequalities and adapt to the impacts of climate change'⁵⁶. The housing situation in many Typhoon Yolanda affected communities in fact entrenched inequalities.

Discussion

Despite the increased use of the term amongst governments and aid agencies tasked with disaster relief and rehabilitation understanding of resilience remain vague. It seems that resilience is something to aspire to and it is normatively understood as being a 'good thing' or an admirable characteristic. However, there is no consensus on what resilience is. It is unclear how resilience can be measured and understood. Typhoon Yolanda survivors surveyed for this project overwhelmingly confirmed that they considered themselves to be resilient. However probing questions on resilience revealed that understandings of what it meant to be resilient were vague. People generally identified 'strength' as being a positive attribute in relation to resilience. However the ability to absorb shocks through negative coping strategies does little to reduce inequality. Negative strategies do not *improve* or *adapt* the lives of individuals and communities as measures of resilience. It is particularly worrying that negative coping strategies can be casually equated to positive connotations of resilience by both survivors and aid agencies. Reducing food intake, living in inadequate housing with adequate sanitation, increased debt, the increase of excessive working hours in 'own account' or family work or child labour are not positive adaption strategies.

It was also evident that some of the rehabilitation strategies used post Typhoon Yolanda had the effect of undermining community cohesion as opposed to making it *strong*. Equity in the distribution of rehabilitation goods and services was an important issue for survivors. A lack of equity tended to generate suspicion and distrust in communities and it was perceived that some were favoured more than others. There was the perception that those aligned with barangay captains and mayors were more likely to receive favourable treatment. Interview evidence also revealed that residents were unhappy when barangay halls were rebuilt further away from their homes as this meant that they were not alerted when visitors, potentially

⁵⁵ Dumlao-Abadilla, Doris (2013) 'Robinsons to reopen Tacloban stores on Thursday' *Philippines Daily Inquirer*, 17 December. Available at: <http://newsinfo.inquirer.net/547961/robinsons-to-reopen-tacloban-stores-on-thursday>. Accessed 5 October 2017.

⁵⁶ Oxfam (2014) 'Philippines Typhoon Haiyan – our response'. Available at: <https://www.oxfam.org/en/philippines/philippines-typhoon-haiyan-our-response>. Accessed 16 October 2017.

bringing goods and services, arrived in the barangay. This was indicative of a lack of trust amongst residents and/or the perception that goods and services would be distributed on a first come, first served basis.

Aid agencies were heavily reliant on local government personnel to provide information on those qualified to receive aid and who was not. Many individuals felt that this system was unfair. It is for this reason that people were surprisingly enthusiastic about the raffle system for the allocation of NHA lots in relocation areas. Despite the fact that the raffle meant that extended families might be split up, people preferred this to government personnel deciding on the allocation. Beneficiaries were suspicious that housing units would not be allocated fairly if the authorities were in charge of the allocations.

Leadership is also an important issue for resilience. Resilience is about building both stability and the conditions necessary for successful adaptation therefore it is important that systems of command and control are visionary and efficient. However, the entrenched nature of patronage politics⁵⁷ in the Philippines meant that leaders (patrons) were unlikely to be effectively challenged. There has been no real shift in the governmental status quo since 2013. The mayors of Tanauan and Palo were re-elected in the 2016 national elections. Christina Romualdez succeeded her husband, Alfred Romualdez, as Mayor of Tacloban. There have been no barangay elections since Typhoon Yolanda⁵⁸ so barangay leadership remains the same unless the captains were replaced for some other reason. There have been some examples of visionary leadership in the areas that we studied however there has been no real change in the distribution of power.

At the national level President Rodrigo Duterte replaced President Benigno Aquino in 2016. Respondents in Tacloban reported that the change in presidential leadership marked a sea change in the relationship between the Tacloban and the national government whilst those in Tanauan reported no difference. The Mayor of Palo refused to discuss the issue. The poor relationship between the Romualdezs in Tacloban and the Aquino government are the legacy of the standing political differences between the Marcoses (former first Lady Imelda Marcos is the Aunt of Alfred Romualdez) and the Aquinos⁵⁹. Tacloban is Imelda's hometown⁶⁰. Philippine Senator Loren Legarda reported in November 2016 that, as of June 2016, (President Aquino left office in June) 20.7 billion PHP of the 25.6 billion PHP NHA budget for Typhoon Yolanda survivors was undisbursed. 18.433 billion PHP of the 188.96

⁵⁷ See: Hutchcroft, Paul (2012) 'Re-slicing the pie of patronage: the politics of internal revenue allotment in the Philippines 1991-2010' *The Philippines Review of Economics*, Vol. XLIX, No. 1, pps. 109-134; Hutchcroft, Paul and Rocamora, Joel (2003) 'Strong Demands and Weak Institutions: The Origins and Evolution of the Democratic Deficit in the Philippines' *Journal of East Asian Studies* Vol. 3, pps. 259-292; Lange, Andrew (2010) 'Elites and Local development in the Philippines' *Development and Change*, Vol. 41, No. 1, pps. 53-76.

⁵⁸ President Rodrigo Duterte postponed the elections saying that many barangay captains were involved in the drugs trade.

⁵⁹ Hamilton-Paterson, James (1988) *America's Boy: The Marcoses and the Philippines*, London: Faber and Faber; Overholt, William H. (1986) 'The Fall and Rise of Ferdinand Marcos' *Asian Survey*, Vol. 26, No.11, pps. 1137-1163.

⁶⁰ Navarro Pedrosa, Carmen (1988) *The Rise and Fall of Imelda Marcos*, Bookmarks.

billion PHP NDRRM budget was undisbursed as of 30 September 2016⁶¹. By accident or design the Aquino administration clearly failed to manage the financial logistics of the relief effort.

One of the other core ideas of resilience is that communities should be empowered to help themselves. But our survey results show that the general consensus was that communities did not come together efficiently in order to bring about their own rehabilitation. This consensus is due, at least in part, to the perception that goods and services were not allocated equally in the aftermath of Yolanda. When asked ‘what would you have done differently?’⁶², many respondents said that they would have ensured fairness in the distribution of aid. Equity matters for resilience. It matters for the distribution of aid, socio-economic opportunity and so that survivors have a voice in how their communities can adapt and improve.

However if communities are to be tapped for guidance on how their own resilience can best be brought about⁶³ then it is important that this is done in a meaningful fashion. Well-meaning but clumsy top-down interventions that fail to appreciate the institutional and cultural operation of local hierarchies can do more harm than good. Bill Cooke and Uma Kothari identify the following scenarios as being particularly problematic for participatory approaches in general development efforts:

- Participatory facilitators override existing legitimate decision-making processes.
- Group dynamics lead to participatory decisions that reinforce the interests of the already powerful.
- Participatory methods drive out others, which have advantages participation cannot provide⁶⁴.

The points raised above are relevant for participatory disaster relief and rehabilitation. If outside agencies forcibly override existing systems of command and control then this may undermine local hierarchies. Whilst these hierarchies might not be perfect they may be legitimate, undermining them could lead to destabilizing power struggles. Alternatively ‘participatory’ approaches may just be hijacked by the already powerful leading to resentment in communities or effective leadership may be sacrificed as the altar of participation. The danger of everyone having their say; is that nothing gets done. Leadership is important for resilience building however this leadership needs to

⁶¹ Ager, Maila (2016) ‘P20B ‘Yolanda’ housing fund for 2016 not released by Aquino administration’ *Philippines Daily Inquirer*, 8 November. Available at: <http://newsinfo.inquirer.net/842063/p20b-yolanda-housing-fund-for-2016-not-released-by-aquino-admin>. Accessed 6 October 2017.

⁶² We avoided the question ‘Were you happy with the relief efforts?’ as people would potentially have just said yes in order to be polite and avoiding risking the flow of any potential relief goods that they might have perceived that we were associated with. As relief agencies frequently conducted data gathering exercises before the distribution of goods this was a real possibility, even though we made it clear that our surveys were an academic exercise.

⁶³ See: e.g. Mangada, Ladylyn Lim (2017) ‘Why Community Participation Works: The Inclusive Housing Strategies of Humanitarian Organizations’ *IAPS Dialogue*, 4 April. Available at: <https://iapsdialogue.org/2017/04/04/why-community-participation-works-the-inclusive-housing-strategies-of-humanitarian-organizations-post-typhoon-yolanda/>. Accessed 6 October 2017.

⁶⁴ Cooke, Bill and Kothari, Uma, eds. (2001) ‘The Case for Participation as Tyranny’ in Cooke, Bill and Kothari, Uma, eds., *Participation: The New Tyranny*, Zed Books: London and New York, pps. 1-15, pps. 7-8.

be legitimate, accountable and capable of adapting for the greater good.

Conclusion

Over the course of this project we came to the growing realization that the term resilience was being thrown around somewhat carelessly in the media and policy circles. We also realized that Typhoon Yolanda survivors referred to themselves as resilient even when the conditions of their existence were miserable. Resilience was even bandied about as a national characteristic. This led us to the conclusion that the terminology of resilience was potentially being used as a type of ‘disclaimer’ for the failings of the relief effort. That is: survivors are used to these type of disturbances therefore they will have an innate ability to cope. This effectively reduced resilience to a state of mind. However resilience is more than an attitude or the ability to survive at a basic level of existence. It is about adapting socio-economic institutions and the natural environment in order to mitigate future disturbances.

Resilience is not achieved through survivors adopting negative coping strategies such as a reduction in food or education. It is brought about by access to material and social resources that bring about an improved ability to absorb, adapt or transform in the face of future disturbances of stressors. However in societies where the already powerful are well served by existing power configurations transformation or even certain adaptations may be resisted. Certain adaptations may also be adopted over others if there is a profit to be made. In most of the communities that we examined people had adapted but conditions of life were not necessarily improved. Material adaptations were made, such as the development of new communities, but these were often poorly planned, crippled by red tape and under resourced. Livelihood is an ongoing problem with many survivors being un or underemployed. Survivors also designated themselves as resilient even when their grasp of the concept was weak.

However disaster risk reduction has improved in terms of psychological attitudes and material resources in Typhoon Yolanda affected areas. Early warning systems have been enhanced, typhoon resistant evacuation centers have been physically improved and people are psychologically attuned to the need to evacuate when there are typhoon warnings. Nevertheless disaster relief agencies need to think more carefully about what it means to be resilient and how this can be measured in social and material terms. Indicators of resilience such as access to livelihood, safe housing or confidence in community and trust in ‘leaders’ intersect and impact upon one another. Therefore the relationship between indicators as well as their volume is important.

Resilience has become a policy narrative for disaster relief agencies at international, national and local levels however technical and social understandings of what it means to be resilient are vague. As such technical standard operating procedures for resilience, that could be adapted for differing contexts, remain elusive. Non-tangible variables such as faith, trust, equity and community cohesion add to the complexity of what it means to be truly resilience. Disaster relief practitioners also need to be realistic about what they can achieve. Disaster rehabilitation efforts are unlikely to ‘fix’ disaster prone societies characterized by inequality, poverty, corruption and weak or unstable governance even before disasters hit or stressors reach crisis point.

Policy Relevance:

- Resilience is material, social and difficult to measure.
- Resilience is an over used and poorly understood term.
- Negative coping strategies should not be used to designate resilience.
- Leadership is important, but leaders should be transparent and accountable.
- Community participation should be meaningful, result in sustainable ways of operating and efficient. It should not be entered into just for the sake of it.