ISSUE BRIEF:
DISASTER RESILIENCE & LAND

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Habitat for Humanity®

SOLID GROUND

Executive summary

Disaster resilience is "the ability to manage change by maintaining or transforming living standards in the face of shocks or stresses – such as earthquakes, drought or violent conflict – without compromising [a community's] long-term prospects."[1] Informal settlements in developing country contexts can be particularly vulnerable to disasters because, in addition to their often precarious locations and exposure to natural hazards, the homes often do not comply with construction and safety standards. Building disaster resilience into community planning and housing infrastructure reduces vulnerabilities, which can mitigate potential damage to both people and the built environment. Where clear and strong land rights exist, people are encouraged to invest in improvements and disaster mitigation measures for their housing and land. **Solid Ground**, a global advocacy campaign of Habitat for Humanity, is strengthening land rights to help build disaster resilient and responsive communities around the world.

Solid Ground's Principles for Disaster Resilience

The Solid Ground Campaign has identified core principles that drive our advocacy and policy work in achieving disaster resilient communities globally.
- To improve resilience for vulnerable communities,
    - laws and regulations that protect security of land tenure across the continuum of land rights should be reinforced to provide protection from eviction;
    - the rights of vulnerable populations and women, especially in relation to land rights, should be given special consideration in the design of safe and affordable housing assistance programs.
- Policies for disaster response and resilience should
    - encourage Building back better (and safer) after disasters;
    - consider land rights intentionally and by design;
    - reinforce existing land rights;
    - prioritize onsite reconstruction over relocation, as feasible.
- Post-disaster reconstruction efforts must
    - reflect a holistic approach regarding land rights in each unique context and recognize various forms of tenure to inform recovery programs design, in an effort to increase a family's land security over time;
    - collect community input and community-led mapping – or enumeration – should be used to identify existing land tenure arrangements and conflicts along the continuum of land rights, as a first step to protect residents from eviction.

Benefits of Land Rights for Disaster Resilience

Each year, disasters affect about 188 million people.[2] Poor and marginalized communities, including those without secure tenure to their homes, are among the most vulnerable. In Africa and South Asia –

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[1] United Kingdom Department for International Development (2011), Defining Disaster Resilience: A DFID Approach Paper. Department for International Development. p. 6. available at: http://www.fsnnetwork.org/sites/default/files/dfid_defining_disaster_resilience.pdf

[2] U.N. International Strategy for Disaster Reduction, "General Information about Trends of Natural Disasters," at www.unisdr.org.

two regions greatly affected by climate change – women are most impacted by unpredictable rainfall and other natural hazards conducive to displacement and increased instability, hunger and poverty.[3] Securing land rights are vital to promoting and ensuring disaster resilience. When small farmers have secure rights to land, they are more likely to use soil conservation techniques[4] and make investments that prevent soil erosion.[5] These changes can help ensure the sustainability of both housing infrastructure and livelihoods.

Improving disaster resilience in urban areas can significantly improve outcomes and recovery times following a disaster. Poor people living in unregulated squatter settlements are more prone to death, injury and loss of housing after a disaster, as poor communities are often pushed to the periphery, and squatter settlements are often located in areas vulnerable to natural hazards, such as steep slopes and flood plains. In Metro Manila, for example, almost half of informal settler families report being affected by seasonal flooding.[6]

Effects of Tenure Security on Disaster Recovery

On-site reconstruction and planned relocation
After a disaster, recovery agencies and governments often need to quickly identify, make available or sometimes purchase land for resettlement projects, with the purpose of relocating people living in high risk or badly affected areas. Land available for relocation is often far from services and livelihoods and can disrupt community ties that may have been established over generations. To add further complexity, records of land ownership, occupancy or use of land are often incomplete or may be destroyed by disaster, which can lead to land disputes or breakdowns in the legal process for purchasing or claiming property. This can slow or prevent reconstruction assistance and stall recovery for affected families and communities.

Security of tenure helps ensure the long-term success and sustainability of recovery efforts. For this reason and others, governments and disaster recovery organizations often condition assistance for permanent reconstruction on proof of formal land ownership. This condition leaves the most vulnerable groups, which may not have proof of ownership, without access to permanent housing solutions. Proof of land ownership is also used as the collateral necessary for families to secure credit for their rebuilding efforts.[7] Therefore, when families do not have proof of free-hold ownership, they are often excluded from traditional financing or grant opportunities made available to disaster victims. Finding alternative ways to document proof of right to the land can be a tool to accelerate recovery and allow for families to qualify for post-disaster assistance. When narrow requirements are upheld, it can result in

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[3] Landesa, Women Gaining Ground: Securing Land Rights as a Critical Pillar of Climate Change Strategy. Available at: https://www.landesa.org/wp-content/uploads/LCWLR_WomenGainingGround.pdf

[4] Klaus Deininger and Daniel Ayalew Ali, *American Journal of Agricultural Economics* 90 (4) (Nov., 2008), pp. 869-882

[5] Klaus Deininger and Daniel Ayalew Ali, *American Journal of Agricultural Economics* 90 (4) (Nov., 2008), pp. 869-882

[6] Philippines Urbanization Review: Fostering Competitive, Sustainable and Inclusive Cities, 2017, the World Bank.

[7] International Institute for Sustainable Development (IISD) (2006) Addressing Land Ownership After Natural Disasters—Agency Survey (O. Brown & A. Crawford) p. 5. available at: http://www.iisd.org/publications/pub.aspx?id=795

inequitable recovery, leaving the most vulnerable groups in less stable situations for longer periods of time.

It is essential that post-disaster reconstruction efforts better reflect the common practices regarding land rights in each unique context and recognize various forms of tenure that have increase a family's land security over time.

Fear of Eviction
Because the poor often lack documented, registered tenure rights to land and housing, disasters often bring new threats to their underlying claims.[8] Land may be lost through post-disaster land-grabbing and rural-urban migration. Disasters and conflicts can also destroy records of tenure by physically wiping out registration documents, personal identification documents, physical boundary markers and even the institutions charged with keeping track of tenure rights.[9] To avoid future eviction or permanent displacement, unregistered residents may refuse to evacuate during disasters, risking their lives in the attempt to hold onto their land.

Having a secure sense of home can help disaster victims deal with psychological trauma and allows individuals and communities to focus on rebuilding their homes and their livelihoods. Secure tenure also helps people to more quickly move away from life in displacement camps and dependency on humanitarian assistance. To ensure that victims can access much-needed relief, governments can reduce barriers to registering property titles before and after a disaster, or work to better recognize various form of tenure along the continuum of land rights.

Inheritance Rights
Disasters already affect women more adversely than men, and unequal property rights can exacerbate the impacts of disasters, leaving women less able to recover their land and livelihoods post-disaster.[10] Many countries do not have provisions allowing joint ownership of property by husbands and wives, and in such cases women may face problems gaining access to their rights to the land if their husband dies in a disaster.[11] In many places around the world, when a male head of household dies, the property is inherited by a brother or eldest son, leaving women and children without necessary access to assistance and further exposed to potential abuses in the aftermath of a disaster. In the wake of the 2004 tsunami, the Sri Lankan government only offered funding to male-headed households in several of the affected areas, leaving widows and single women ineligible for support.[12]

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[8] Oxfam cites improving tenure rights for the poor as one of the critical ways to avoid post-disaster chaos (Oxfam International 2005).

[9] International Institute for Sustainable Development (IISD) (2006) Addressing Land Ownership After Natural Disasters—Agency Survey (O. Brown & A. Crawford): 5.

[10] Eric Neumayer and Thomas Plümper, "The Gendered nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981-2002," *Annals of the American Association of Geographers*, 97 (3), 2007, pp. 554

[11] David Mitchell (2001), Assessing and Responding to Land Tenure Issues in Disaster Risk Management - Land Tenure Manuals #3, Food and Agriculture Organization of the United Nations (FAO), 37.

[12] Landesa, Women Gaining Ground: Securing Land Rights as a Critical Pillar of Climate Change Strategy. Available at: https://www.landesa.org/wp-content/uploads/LCWLR_WomenGainingGround.pdf

Inheritance claims can also be harder to prove after disasters with the sudden death of community elders or heads of families, or with damage to land records.[13] When a disaster damages or destroys tenure records, or when these records were not well-documented to begin with, governments, aid organizations and communities must act quickly to reestablish land rights. While systematic titling may prove useful in the long term, it is far too cumbersome and time-consuming to use as a prerequisite to post-disaster housing reconstruction, taking time and resources that should be used for more pressing and often life-saving needs.[14]

Global Commitments to Action

The Sendai Framework for Disaster Risk Reduction, a 15-year agreement adopted by UN Member States in 2015, identifies the urgent need "to anticipate, plan for and reduce disaster risk in order to more effectively protect persons, communities and countries, their livelihoods, health, cultural heritage, socioeconomic assets and ecosystems, and thus strengthen their resilience."[15] One of the priorities identified in the Sendai Framework is "investing in disaster risk reduction for resilience," which includes the "mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, land degradation assessments and informal and non-permanent housing."[16]

The Sustainable Development Goals, or SDGs, and the New Urban Agenda both recognize the connections between land, shelter, poverty, and disaster resilience. SDG 1, "reduce poverty in all its forms" includes a target to "build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related events and other economic, social and environmental shocks and disasters" (target 1.5). [17] The New Urban Agenda, which was adopted in October 2016 at Habitat III, includes a commitment to "explore and develop feasible solutions to climate and disaster risks in cities and human settlements, including [...] investments in urban and metropolitan infrastructure, buildings and other urban assets as well as for local populations to secure their shelter and economic needs."[18]

These commitments are essential cornerstones of the global dialogue on resilience and disaster mitigation for national governments, local governments, civil society organizations and citizens. They signal a commitment and a prioritization by member states to ensure that their citizens are prepared for and can rehabilitate quickly after disaster. Habitat for Humanity International recognizes the importance of these international agreements and has integrated disaster resilience into its programs and advocacy efforts.

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[13] David Mitchell (2001), Assessing and Responding to Land Tenure Issues in Disaster Risk Management - Land Tenure Manuals #3, Food and Agriculture Organization of the United Nations (FAO), 7.

[14] Fitzpatrick, D. (2007) Access to Housing for Renters and Squatters in Tsunami-Affected Aceh, Indonesia (Asia Research Institute, Aceh Working Paper No. 2, published in conjunction with Oxfam International): 7.

[15] General Assembly resolution 69/283, *Sendai Framework for Disaster Risk Reduction*, A/RES/69/283 (3 June 2015), available from http://undocs.org/A/RES/69/283.

[16] General Assembly resolution 69/283, *Sendai Framework for Disaster Risk Reduction*, A/RES/69/283 (3 June 2015), available from http://undocs.org/A/RES/69/283.

[17] United Nations, "Transforming our world: the 2030 Agenda for Sustainable Development", Sustainable Development Knowledge Platform, https://sustainabledevelopment.un.org/post2015/transformingourworld.

[18] UN-Habitat, *New Urban Agenda*, para. 144, available at: http://habitat3.org/the-new-urban-agenda/

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A GLOBAL ADVOCACY CAMPAIGN OF

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Solid Ground: Country examples from a global advocacy campaign

Responding after disasters strike is not enough. Recognizing this, Habitat for Humanity International and its national organizations around the world, especially those located in disaster-prone regions, have been working to reduce vulnerability and build community resilience. Habitat's work to mitigate and improve recovery from disaster has included efforts to affect systems and policies that would improve laws and increase resources for families and communities. Through the Solid Ground Campaign, Habitat for Humanity has focused on security of tenure as a means of improving a community's stability in the face of disaster. In countries like Jamaica, India, and Nepal, Habitat for Humanity has worked closely with communities to initiate change that will have lasting impacts in the face of future disasters.

Jamaica: Disaster resilience through increased tenure security
Jamaica has a population of approximately 3 million people, a quarter of which live in over 700 informal and unplanned communities. Many of these informal settlements have evolved at the periphery of Jamaica's growing cities as the country began to urbanize. 45 percent of land in Jamaica is unregistered, including much of the land within informal communities. Those living in informal settlements without secure tenure face greater risk during and post-disaster; without secure tenure, most find it difficult to invest in disaster resilient materials to secure their homes against disasters, and the government may be slower to assist those without land documentation. Since 2015, Habitat for Humanity has implemented a disaster risk reduction pilot project called BRACED, or Building Resilience and Capacities against Emerging Disasters, in Portmore, Jamaica. In collaboration with local actors, including youth, stakeholders at all levels of the government and the Portmore Municipality BRACED focused on a comprehensive approach to building neighborhood resilience.

The BRACED project utilized an innovative approach of blending proven methods of community engagement and technology to reduce the risk of disasters at the source for families living in hazard-prone, marginalized or vulnerable urban neighborhoods. It included a comprehensive approach that improved the quality of and access to water and sanitation systems, and waste management. The project built public-private partnerships, demonstrated how to upgrade human settlements, established redevelopment plans and identified critical micro-infrastructure interventions. All interventions were identified through a neighborhood approach, including a participatory approach for safe shelter awareness, also referred to as PASSA, and participatory risk assessments and mapping in the selected sub-communities. This was a collective effort between Habitat facilitators and the communities where the project was being implemented and resulted in the establishment of community-based service hubs led by members of the community.

Although BRACED was making strides in improving the disaster resilience of communities, progress was being stymied at the household level, since so many families did not have security of tenure and lived in fear of eviction. Habitat recognized that securing land tenure increased a families' interest in investing in their homes and would formalize their land as a marketable asset that could create access to credit, providing opportunity for wealth creation. At the community level, the formalization of community land increased investment in infrastructure by the municipality, and public services formerly denied to informal settlements, such as water piping, electricity and drainage could be developed. In Jamaica the cost of regularization, or the legalization of informal or illegal occupancy of land, is so burdensome and

costly that it was prohibitive for communities in need of it most. Moreover, the policies and laws governing land ownership and use in Jamaica were written in the 1800s, and long overdue for a review.

Through the Solid Ground advocacy campaign, Habitat Jamaica hosted a series of workshops and forums to train community members and government officials on secure tenure and disaster resilience measures. BRACED connected community leaders and municipal authorities to work together on improving policies and processes, particularly around complex and expensive land regularization processes. As a result, trained community advocates continue to seek policy change around land rights even after the project ended.

Additionally, drone technology was introduced to map these informal communities, replacing the need for expensive land surveys. Enhanced with the use of the Territorial Information Management System Platform, (TIMSP), the community's ability to track and predict land tenure security options along the continuum of land rights was introduced. These efforts led to reduced time and cost for establishing tenure security and resulted in excess funds which were used to build and renovate homes for improved safety and preparedness for disasters.

The BRACED project has directly impacted over 6,000 people with the expectation that approximately 65,000 people will be indirectly impacted by the work. Through community engagement efforts, community members now have extended roles as community advocates. The formation of a youth BRACED media team—making, editing and distributing videos and content via social media on the resilience efforts—was established. The engagement community hub operators (volunteers) are now able to record land conflict cases in the TIMSP, mediate land disputes and advocate for the rights of each resident to benefit from these mediation processes. While the project has set up community and private sector parties to continue these efforts, it is expected that the government, after conducting an agreed upon pilot project, will implement several aspects of the BRACED project throughout the country, which would positively impact additional at-risk communities and build resilience throughout Jamaica.

India: Disaster response to housing and land for an indigenous community
More than 73 million families in India do not have access to decent shelter. In line with the national vision of housing for all, Habitat for Humanity India works with low-income families to access stability through housing by building new homes, supporting incremental construction, repair or rehabilitation and advocacy.

Throughout India, rural populations have systematically inadequate documentation of land titles. Moreover, indigenous communities and female headed households are often denied the right to own land. Habitat India has worked to support the Irula tribe in Cuddalore, India, a particularly marginalized community in need of land for housing. There are approximately 240,000 members of the Irula tribe in Tamil Nadu, a state in southern India, and approximately 64 percent of them live in extreme poverty. They constitute 99 percent of the bonded labor from Tamil Nadu and generally live in more remote locations, exposed to natural hazards, with limited infrastructure.

Forced from their traditional forest homes in the 1980s by the state, most Irula families now live along riverbanks and floodplains, prone to the risks of flooding and disaster with homes built from materials that cannot withstand these risks. Without security of tenure, they are repeatedly excluded from

resilience or recovery projects. Although the government of India has pro-poor policies around land tenure in place, these policies have not been consistently implemented as deep-rooted perceptions, religious and cultural practices as well as traditions continue to dictate how land is used, transferred or accessed by individuals and communities.

Through the Solid Ground campaign, Habitat India worked with governments at all levels, civil society, practitioners and the private sector to address these gaps and understand the benefits of security of tenure for vulnerable populations. Through community committees, district meetings and a state-level forum, Habitat for Humanity India mobilized over 60 organizations to address access to land for the Irula community — both those displaced by major flooding as well as those unable to access land because of their caste. Habitat India acted as a bridge between communities and the government, providing education and resources for community members. Mechanisms are now in place to educate members of the Irula community of their rights and implement existing policies.

At the community level, Habitat India facilitated the creation of block-level committees, collected applications and relevant documents from the Irula tribe members and presented them to the Grama Sabha, or village level meetings, with the intention for them to be forwarded to district authorities for further review. It also facilitated the creation of forums for discussion of issues around land needs at the block, district and state levels, and facilitated research on rural and urban land issues. Habitat India developed a Charter of Demands for implementation of existing laws and recommendations for new policy. They also demonstrated the need to address housing in an integrated way, ensuring livelihoods and financial inclusion were prioritized in land and housing programs.

Through Habitat India's advocacy efforts, 206 Irula families have been granted land to build a home and over 2,000 applications for land titles within one district have been submitted; 55 new disaster resilient homes have been built; 224 Irula families have been granted a multipurpose loan from national banks for the first time; and, 220 Irula families have been granted a subsidy to develop sanitation facilities. Moreover, decision-making bodies responsible for land titling are becoming sensitized to disaster risk and their impact on land use and management; communities are increasingly able to access informal and formal social protection schemes that support disaster risk reduction and recovery; and awareness is growing for the importance of hazard-resistant construction and formally trained construction and repair services. Now, Habitat for Humanity India is on its way to influence national level policy around land for shelter based on its efforts with the Irula tribe, which could positively impact the lives of millions of vulnerable people in need of decent shelter. As the next phase of the project begins, Habitat India will provide technical assistance to the Irula families as they integrate disaster-resilient technologies and features into newly built homes.

Nepal: Achieving disaster resiliency through evidence-based advocacy
Nepal is among the 20 most disaster-prone countries in the world. More than 80 percent of the total population is at risk from natural hazards.[19] Disasters like floods and earthquakes exacerbate land inequities and disproportionately impact economically and socially marginalized populations who lack secure tenure. Without security of tenure, it is difficult to rebuild a home after disaster strikes. When marginalized populations live on the most disaster-prone land, like riverbanks or on steep slopes, they

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[19] Government of Nepal's Ministry of Home Affairs. (2017) *Nepal Disaster Report.* Retrieved from http://drrportal.gov.np/uploads/document/1321.pdf

are even more likely to be affected by disaster. Following major flooding in August 2017, Habitat for Humanity Nepal began conducting surveys of the land and housing needs within the community impacted by disaster in Jhapa, Sunsari and Morang Districts of Province 1.

While Nepal's constitution provides a framework for land rights by safeguarding the interests of marginalized populations, significant disparities in land and housing access exist today. Engrained cultural norms and a lack of government resources have impeded land policy implementation. Women, for example, only own approximately 20 percent of private land, despite having equality under the law.

Considering these disparities, Habitat Nepal identified the need to assess hazards and vulnerabilities of the affected population. Habitat Nepal surveyed land in the province to determine which areas were most prone to future flooding and identified families living on disaster-prone land that would need access to safer land for housing. Habitat Nepal used a self-developed Geographic Information System, or GIS, to collect data, ensuring their methodology was pro-poor, gender-sensitive and participatory. They used this evidence to advocate to Biratnagar Metropolitan City authorities, urging them to allocate land and funding to the most vulnerable families. As a result, in 2019, Biratnagar Metropolitan City authorities allocated US $100,000 to support the construction of houses for 100 families, providing 500 people with security of tenure with occupancy rights.

Habitat Nepal also took their advocacy efforts to other cities in the country. Across Nepal's Jhapa, Morang and Sunsari districts, Habitat Nepal reached out to local authorities and advocated for the allocation of land and funding for flood-affected families. As a result of their analysis and advocacy, local governments allocated US $208,000 to support housing for 1,370 individuals, specifically poor, vulnerable, disaster-affected and highly marginalized families. Additionally, the municipal council of Biratnagar Metropolitan City developed and ratified policies and procedural guidelines to provide this type of land and funding to support vulnerable and landless families in future disasters.

Habitat Nepal is not only influencing provincial authorities to respond to flood and disaster victims, but also encouraging increased policy implementation of land rights at the federal level for socially and economically marginalized populations, including women and Dalit people, a group discriminated against due to caste system social stratification. Habitat Nepal, along with representatives from other nongovernmental organizations, met with federal government officials to discuss the current policies that aim to increase socially excluded communities' access to safer land and housing and explained the barriers to implementing them. With a new understanding of the hurdles to access land, government officials designated $1,200,000 for land and housing for ex-bonded laborers in Nepal. Through encouraging and assisting the government in implementing shelter-related policies and programs, Habitat Nepal has ensured access to housing for populations in the greatest need throughout Nepal.