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ABSTRACT

Adapting to the impacts of climate change is one of the most urgent priorities of our time. Given that the impacts of climate change are experienced at local scales, it makes sense that adaptation should occur locally, and yet, despite this, locals often have little control over how adaptation is funded, designed and delivered in order to climate-proof their places and futures. Increasingly competitive access to funding and limited progress towards sustainable adaptation outcomes prompts our call to rethink adaptation at the local scale. Drawing from grounded research with locals, we explore three case examples from the Asia-Pacific region, ranging from the coastal belt of Bangladesh, to a peri-urban informal settlement in the Philippines, and to a small rural island in Vanuatu. These examples help illustrate how locally led adaptation (LLA) gives us hope for more equitable, effective and sustainable adaptation outcomes. We show how LLA can help to reduce dependency and support local autonomy, diverse capabilities and creativity. We propose nine mutually reinforcing drivers of LLA to improve grassroots initiatives. These drivers focus on locally led decision-making, local strengths and resources (e.g. institutions, social networks, local knowledge and coping mechanisms), local realities, local vulnerability contexts and inequalities, local metrics for measuring "success", and local agendas which should be supported or enabled by external agencies. These drivers support local people to determine their own adaptation futures and ensure finite funding resources are utilised in meaningful ways.

Introduction

Given the importance of adaptation, we cannot risk exceeding adaptation limits as the impacts of climate change heighten in scale and magnitude (IPCC 2014). And yet, despite this urgency, exposed communities are burdened by adaptation funding inefficiencies and unsustainable adaptation outcomes (Westoby, Rahman et al. 2020). Although the UN summit in Copenhagen committed to US$100 billion per year for adaptation by 2020, this has not been met (Yeo 2019). As we have it, less than 10% of global climate finance is used for adaptation (CPI 2019), and only 10% of this allocated funding reaches locals at the vanguard of adaptation (Soanes et al. 2017). Exacerbating this situation is an expected further decline in future funding for developing (and often the most

exposed) countries as donors start facing exorbitant costs to climate proof their own countries (Nunn and Kumar 2019).

Equally concerning is the limited progress towards intended adaptation objectives to date (Nunn and Kumar 2019). A well-documented contributing factor to poor progress at the local scale is the tendency to overlook local realities and contextual nuances, which are critical for effective and sustainable outcomes (McNamara et al. 2020). Climate change impacts are not uniform, and their complex manifestations must be addressed by learning from those experiencing it firsthand (Resurrección 2019). Despite genuine attempts to better integrate the local context through approaches like community-based adaptation (CBA), there remains a tendency for adaptation to be driven by, and over-reliant on, external "experts" and resources, which can diminish local self-efficacy, agency and overall adaptive capacity (McNamara et al. 2020). Capacity building initiatives, for example, are too often using "fly-in-fly-out" models whereby foreign consultants or "experts" provide short-term, project-based technical assistance that are ineffective and can harm local capacities (Khan, Mfitumukiza, and Huq 2020). These are symptoms of an imposed "deficit discourse" through which outsiders frame the Global South and highly exposed regions like the Pacific as indigent victims devoid of self-efficacy, resources and autonomy (Westoby, McNamara et al. 2020). It is in these ways that adaptation practice might be "corrupted" (Westoby, McNamara et al. 2020), undermining local autonomy as well as stymying creativity and diverse capabilities at a local scale (Mathie and Cunningham 2003). It is important to acknowledge here that adaptation should also be multiscalar (i.e. occurring at and relevant to local, national and international scales) (Conway and Mustelin 2014), albeit multi-scalar assessments were beyond the scope of this paper which only focuses on the local scale.

The shift to locally led adaptation

We define LLA in the following way: LLA is controlled by local people, grounded in local realities, ensures equity and inclusivity, and is facilitated by local networks and institutions. LLA is rooted in an existing shift in the development field, whereby practitioners and academics alike are moving away from both "externally led" and "community-based" approaches in different ways (The Movement for Community-led Development 2019). It is increasingly clear that externally driven projects and an over-reliance on insufficient and ineffective donor funding is unhelpful, unsustainable and, at its worst, harmful. We, therefore, need assistance that is delivered in ways that reduces dependency and increases autonomy (Nunn and Kumar 2019). After all, despite what the deficit discourse infers, local communities in exposed areas have valuable local knowledge and coping mechanisms that outsiders should learn from and support through LLA.

LLA also provides the opportunity to shift away from "community-driven" approaches, whereby external agencies "partner" with communities and put resources in the community's control. Despite good intentions, this "partnering" often still comes at the price of agency and ultimately has the unintended consequence of eroding local capabilities. As a result, instead of being "driven" by communities, the newer vision of being "led" by communities provides an important shift towards increased agency (Asugeni et al. 2019). We also focus on "local" over "community" framings as we strive for an approach for adaptation that is less charged with problematic assumptions. The normative notion of "community" as a homogenous, unified, harmonious and stable geographically bound unit detached from its socio-political context has encroached on the effectiveness, equity and sustainability of many past initiatives (Buggy and McNamara 2016; Titz, Cannon, and Krüger 2018). This is not to say we necessarily need to abandon the use of "community" framings altogether, but the "local" framing provides an opportunity to find creative "alternative entry points" at the local scale that can expand on, complement but also help us move beyond the existing bounded unit of "community" (Westoby, Clissold, and McNamara 2021). It is in response to these concerns that we put forward LLA as a beacon of hope, although we must also always be wary of and tackle any potential "corruption" of LLA. In the section below (following Methods), we explore three diverse examples

that demonstrate why we need adaptation that is wholly led by locals and their values, strengths and adaptation agendas.

Methods

Our case examples come from grounded research with locals in Bangladesh, the Philippines and Vanuatu. The case examples are based on research projects (Philippines and Vanuatu) or formed part of the planning stage for a project (Bangladesh). Data were collected across different time-frames: between 2013 and 2015 in the Philippines and in 2018 for Bangladesh and Vanuatu. Participants were local community members across different villages[1], and in the Philippines there was a specific focus on local women. Qualitative data collection methods were used for all case examples. This largely involved individual interviews (formal, informal, in-depth and structured), and in Bangladesh and Vanuatu, the interviews were combined with a series of focus group discussions. Several local gatekeepers and translators, and other researchers, were also involved in these projects.

Findings and evidence from across Asia and the Pacific

Our first example comes from the coastal belt of Bangladesh, a region that is increasingly facing salinity intrusion on both the land and in the water. We focus on the coastal sub-district of Munshiganj where, due to high salinity in the dry season, locals have harvested rice only once a year while also suffering from a lack of work opportunities. Over the years, many projects have been implemented to provide livelihood support in response to this (e.g. skills training, improved seed supply, micro credit loans, and alternative farming tools and techniques), yet conditions have largely remained unchanged with few individual success stories. Poor progress has largely been attributed to the tendency for external agencies to favour predefined agendas over local solutions which, based on several needs assessments conducted by non-governmental organisations (NGOs), involved the re-excavation of existing local canals that once provided fresh water. After the failure of external projects, villagers started re-excavating the dead canals themselves with support from a local organisation [which highlights LLA drivers #1 and #5, detailed below]. Subsequently, local NGOs then facilitated the excavation process further and helped protect the canal from elite capture to ensure access for everyone [#4,5,8]. In one area, the two-kilometre-long freshwater canal engendered substantial positive change locally, improving the resilience of almost everyone in diverse ways [#9]. Primarily, the canals created work opportunities for all, both directly and indirectly, by acting as a public resource that local people could avail to combat rising salinity as well as revitalise fishing and agricultural livelihoods [#3,8]. Local farmers are now, for example, able to harvest rice thrice a year. We are reminded here that what is considered "successful" and appropriate adaptation by external agencies does not always match local solutions and perceptions of what "successful" adaptation involves on-the-ground [#9]. Key to this success story was that the activities were locally led and driven by local aspirations and decision-making that best considered the local problem context while requiring minimal funding [#1,2,3]. Had external agencies committed, from the onset, to locally led agendas based on situated resources and knowledge, precious and finite funding resources may have been conserved and utilised in more meaningful ways [#6].

Our second example comes from a small island in Vanuatu. Here, an externally implemented project focused on securing potable water for two local villages proved ineffective and unsustainable by catering to prescriptive funding conditions rather than the local context and people [#1]. In response to water insecurity, the project involved a piping system and a series of water tanks between two neighbouring villages. These two villages were united in this project for project purposes (rather than what might be most appropriate for the local context) and because strict funding criteria (e.g. how many people were to be supported) defined how such a project should look on-the-ground. While the external agency considered the project a success when it was handed over to the villages, it ultimately failed in the eyes of locals [#9]. This was because, once

the water supply was turned off up-stream, disputes and conflicts between the two villages ensued, leading to the tanks and pumps no longer being used. In this way, the project was not adequately driven by what was most appropriate for the local context or community and, in fact, had the unintended consequence of inflaming internal disputes [#2]. Adaptation "solutions" must be wary of assumptions surrounding how homogenous, unified and stable the "community" unit is. To best avoid and manage these kinds of issues, we need projects to be led by those who best understand the problem and socio-political context [#1,2]. Not only should projects be locally led to mitigate and manage potential externalities, but one of the villages in this example also demonstrated the ingenuity and capacity of locals to use local knowledge and situated resources (pre-existing resources as well as the infrastructure of the failed project) to lead effective adaptation [#1,3]. After it became clear to locals that the externally implemented project was failing, the downstream village resourcefully used local networks and connections [#4] as well as their own capital and local knowledge to have bores sunk in their village [#3]. The bores feed into the existing piping and tanks, and have been successful in providing the downstream village with enough potable water for all locals [#8]. Had locally led solutions been funded in the first place, both upstream and downstream villages could have developed their own appropriate water supply systems while avoiding costs to social relations [#6].

Our final example comes from a peri-urban informal settlement in the Philippines where the local government's adaptive solution to drought and water scarcity for local people involved installing a water provision facility. The effectiveness of this government led solution was hindered due to its limited scope. The initiative attributed water insecurity in the area to solely climatic sources (i.e. drought) and, by doing this, overlooked the wider vulnerability context and everyday realities of local people who simultaneously face multiple dynamic – non-climatic and climatic – pressures that lead to water insecurity. For example, the project sidestepped local issues of resource competition, whereby huge industrial estates that use water for their massive operations are a major driver of water insecurity in the area [#7]. In a similar vein, lack of consideration for land tenure arrangements meant that poor peri-urban women who were not recognised as legal residents (but as informal settlers) were excluded from government-run water facilities [#2,8]. The women were forced to lead their own solution which involved tapping on illegal water connections, albeit having access to water in this way does not fully ensure well-being or sense of security [#1,3]. We are reminded here of two key concerns. First, we must remember that inequities still exist at the local scale, and that different groups of people (e.g. peri-urban women compared to other groups) within a "community" will have different experiences and understandings of how "successful" a certain adaptation strategy is. This necessitates authentic dialogue around whose interests are being represented in adaptation [#9] and reminds us that we need rights-based approaches that ensure initiatives are equitable for all [#8]. Second, we are reminded that drivers of local vulnerability are often rooted beyond just climate change by itself. We need adaptation that goes beyond merely "learning to live with" issues like water insecurity, but that addresses and transforms the multitude of pressing livelihood concerns, political economic drivers, power relations and broader social, cultural and institutional structures that give rise to vulnerability in everyday lives in the first place [#7]. To do this effectively, we need to be empowering and learning from those who best understand the complex manifestations of climate change, the local vulnerability context, and the interrelated pressures and processes that make up everyday realities: the local people themselves, in all their diversity [#1,2].

Discussion: key drivers of locally led adaptation

All three examples point to, in diverse ways, the importance of LLA for effective and sustainable adaptation outcomes. The examples illustrate how initiatives driven by external agencies can be inflexible and inappropriate due to pre-defined agendas, prescriptive funding conditions and insufficient consideration for local realities (see also Westoby, McNamara et al. 2020; McNamara et al. 2020). Too often, local interventions are a mere technical solution based on the "expertise" of implementers

(Titz, Cannon, and Krüger 2018; Khan, Mfitumukiza, and Huq 2020) and work with short timeframes that do not foster longer-term transformations (Conway and Mustelin 2014). Our examples, however, illustrate the creativity, ingenuity and capacity of local people who designed their own (more effective and sustainable) solutions using their own networks and tacit knowledge and resources, often as a response to the inadequacy of externally implemented projects. In several of these cases, had locally led solutions been funded at the onset, locals may have adapted faster and unintended consequences (such as inflamed community disputes or wasted resources) may have been avoided. It is clear, therefore, that LLA, whereby local people pursue their own diverse adaptation aspirations and outcomes, may ensure adaptation funding is deployed in more meaningful and effective ways.

This is not to say, however, that implementers and donors do not continue to play a key role. External actors, in partnership with local institutions, should act as "enablers" that develop the capabilities of local actors to be self-sufficient and achieve diverse local objectives themselves, equitably and effectively (Dilling et al. 2019). As highlighted by Murtinho et al. (2013, 1113), "[external] funding must be perceived to be supportive, not controlling". Policy and practice by external actors needs to create and facilitate the "head room" for adaptation (that is, creating the "space" for appropriate, innovative and creative adaptation), while also carefully providing guidance so that fair and just outcomes are achieved (see Thomas and Twyman 2005).

Our findings also support a greater focus on "locally led" as opposed to "community led" framings for adaptation. As illustrated in our three examples, local communities, however defined, are often stratified, hierarchised and contain processes of exploitation and oppression that should not be overlooked (Titz, Cannon, and Krüger 2018). We cannot assume, as often has been in past "community" framings, that the adapting unit is unified, harmonious and stable. "Local" framings, which are less charged with automatic assumptions, may better account for and work around nuanced social/cultural dynamics, inequities, patterns of social domination and marginalisation (Resurrección 2019), which is critical if adaptation is to avoid being maladaptive and unsustainable (Buggy and McNamara 2016; Titz, Cannon, and Krüger 2018).

Interestingly, we also found that definitions of adaptation "success" can also be embedded in systems of power, whereby the views and interests of local, less-powerful groups can be obscured by those with the capacity to participate at national and international scales (e.g. in Vanuatu, what was a "success" from the perspective of the external agency, failed in the eyes of locals who had to resort to their own solutions) (see Dilling et al. 2019). External agencies and local institutions must act as facilitators that guide and support local initiatives with holistically targeted equity framings, as seen in the Bangladesh example, while also recognising local metrics of "success" and facilitating authentic dialogue around whose interests are being represented (Dilling et al. 2019). Again evident from the Bangladesh example, capable local institutions are also particularly critical for LLA as they can mediate and facilitate particular actions and outcomes (Agrawal and Gibson 1999), help mobilise local resources and better use traditional knowledge (Nalau et al. 2018; McLeod et al. 2019).

LLA also provides the opportunity to go beyond climatic vulnerabilities. Initiatives like the one in the Philippines demonstrate how overlooking the multiple and dynamic sources of vulnerability (e.g. land tenure arrangements, resource competition) means adaptation can perpetuate or even worsen the vulnerability of specific groups (e.g. peri-urban women). Through being led by local people and institutions who best understand everyday realities and hold knowledge of local processes (Nalau et al. 2018), the wider vulnerability context (with climatic and non-climatic processes) and livelihood priorities are more likely to be integrated in LLA. This is critical as too often external implementers have rapidly upscaled adaptation activity at the local scale that is not responsive to the local priorities most pertinent to beneficiaries (Conway and Mustelin 2014).

Drawing on our grounded experiences, we propose nine mutually reinforcing drivers of LLA that complement recent findings from the Global Commission on Adaptation (Mfitumukiza et al. 2020) and hold hope for more effective adaptation outcomes at a grassroots scale:

1) Decisions need to be controlled and led by local people rather than "outsiders"
2) Local people in situ are the best litmus test of local realities and their context on-the-ground
3) Local people have valuable tacit local knowledge and coping mechanisms that are critical for adaptation
4) Local people's networks are important and should be nurtured to enhance adaptation outcomes
5) Local institutions such as community organisations and local non-government organisations are rich resources for adaptation support and investment
6) If outsiders are to play a role, it should be as an "enabler" of the desired adaptation agendas and futures of locals, equipping them with any additional skills, knowledge and resources
7) Local people often have multiple sources of vulnerability including non-climatic livelihood pressures that need to be addressed
8) Inequities and marginalisation can still exist at the local level and, as such, any locally led initiatives need to be equitable, inclusive and beneficial for all
9) Success should be measured by local framings and realities rather than "external" metrics

While the above nine LLA drivers are complementary and often build on one another, each of them also offers a distinct area of focus and direction for LLA initiatives. Additionally, while all nine of these LLA drivers are not required for all initiatives, as the above examples have shown, several of them are required for LLA initiatives to be delivered successfully.

Conclusion

This paper has demonstrated the need for a reset in framing of adaptation at the local scale. Local people are capable and resourceful, and often just need funding or other support to deliver their own effective adaptive solutions. Precious and finite resources need to be directed away from deficit framings – problematising from the outside what's wrong or missing, and pathologising people and places. We urgently call for a reframing around the strength of local people, their knowledge, networks and capabilities, and their deep understanding of their own complex and multidimensional realities so that they can determine their own adaptation futures facilitated through theses nine drivers of LLA at a grassroots scale.

Note

1. Specific villages in Bangladesh included Kultoli, Kochukhali and Jelekhali in the Munshiganj Sub-district of Satkhira District. In the Philippines, the focus was on women from Santa Rosa in the Laguna Province. In Vanuatu, the specific villages of focus were Woreau and Piliura on Pele Island.

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References

Agrawal, A., and C. C. Gibson. 1999. "Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation." *World Development* 27 (4): 629–649.

Asugeni, R., M. Redman-MacLaren, J. Asugeni, T. Esau, F. Timothy, P. Massey, and D. MacLaren. 2019. "A Community Builds a "Bridge": an Example of Community-led Adaptation to sea-Level Rise in East Kwaio, Solomon Islands." *Climate and Development* 11 (1): 91–96.

Buggy, L., and K. E. McNamara. 2016. "The Need to Reinterpret 'Community' for Climate Change Adaptation: a Case Study of Pele Island, Vanuatu." *Climate and Development* 8 (3): 270–280.

Conway, D., and J. Mustelin. 2014. "Strategies for Improving Adaptation Practice in Developing Countries." *Nature Climate Change* 4: 339–342.

CPI. 2019. Global Landscape of Climate Finance 2019. https://climatepolicyinitiative.org/publication/global-climate-finance-2019/.

Dilling, L., A. Prakash, Z. Zommers, F. Ahmad, N. Singh, S. de Wit, J. Nalau, M. Daly, and K. Bowman. 2019. "Is Adaptation Success a Flawed Concept?" *Nature Climate Change* 9: 572–574.

Intergovernmental Panel on Climate Change. 2014. Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Edited by C. B. Field, V. R. Barros, D. J. Dokken, J. K. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, and L. L. White. New York: Cambridge University Press.

Khan, M., D. Mfitumukiza, and S. Huq. 2020. "Capacity Building for Implementation of Nationally Determined Contributions Under the Paris Agreement." *Climate Policy* 20 (4): 499–510.

Mathie, A., and G. Cunningham. 2003. "From Clients to Citizens: Asset-Based Community Development as a Strategy for Community-Driven Development." *Development in Practice* 13 (5): 474–486.

McLeod, E., M. Burton-Adams, J. Förster, C. Franco, G. Gaines, B. Gorong, R. James, G. Posing-Kulwaum, M. Tara, and E. Terk. 2019. "Lessons from the Pacific Islands - Adapting to Climate Change by Supporting Social and Ecological Resilience." *Frontiers in Marine Science* 6 (289): 1–7.

McNamara, K. E., R. Clissold, R. Westoby, A. Piggott-McKellar, R. Kumar, T. Clarke, F. Namoumou, et al. 2020. "An Assessment of Community-Based Adaptation Initiatives in the Pacific Islands." *Nature Climate Change* 10: 628–639.

Mfitumukiza, D., A. S. Roy, B. Simane, A. Hammill, M. F. Rahman, and S. Huq. 2020. Scaling local and community-based adaptation. Global Commission on Adaptation Background Paper. Rotterdam and Washington, DC. Available online at www.gca.org/global-commission-on-adaptation/report/papers.

The Movement for Community-led Development. 2019. Accessed August 31, 2020. https://mcld.org/.

Murtinho, F., H. Eakin, D. López-Carr, and T. M. Hayes. 2013. "Does External Funding Help Adaptation? Evidence from Community-Based Water Management in the Colombian Andes." *Journal of Environmental Management* 52 (5): 1103–1114.

Nalau, J., S. Becken, J. Schliephack, M. Parsons, C. Brown, and B. Mackey. 2018. "The Role of Indigenous and Traditional Knowledge in Ecosystem-Based Adaptation: A Review of the Literature and Case Studies from the Pacific Islands." *Weather, Climate and Society* 10 (4): 851–865.

Nunn, P. D., and R. Kumar. 2019. "Cashless Adaptation to Climate Change: Unwelcome yet Unavoidable?" *One Earth* 1 (1): 31–34.

Resurrección, B. P. 2019. "Water Insecurity in Disaster and Climate Change Contexts: A Feminist Political Ecology View." In *People and Climate Change: Vulnerability, Adaptation and Social Justice* (pp. 51–67), edited by L. R. Mason and J. Rigg. New York: Oxford University Press.

Soanes, M., N. Rai, P. Steele, C. Shakya, and J. MacGregor. 2017. Delivering real change: getting international climate finance to the local level (International Institute for Environment and Development).

Thomas, D. S. G., and C. Twyman. 2005. "Equity and Justice in Climate Change Adaptation Amongst Natural-Resource-Dependent Societies." *Global Environmental Change* 15: 115–124.

Titz, A., T. Cannon, and F. Krüger. 2018. "Uncovering 'Community': Challenging an Elusive Concept in Development and Disaster Related Work." *Societies* 8 (3): 71–99.

Westoby, R., R. Clissold, and K. E. McNamara. 2021. "Alternative Entry Points for Adaptation: Examples from Vanuatu." *Weather, Climate and Society* 13 (1): 11–22.

Westoby, R., K. E. McNamara, R. Kumar, and P. D. Nunn. 2020. "From Community-Based to Locally led Adaptation: Evidence from Vanuatu." *Ambio* 49: 1466–1473.

Westoby, R., F. M. Rahman, K. E. McNamara, S. Huq, R. Clissold, and M. R. Khan. 2020. "Sharing Adaptation Failure to Improve Adaptation Outcomes." *One Earth* 3: 1–4.

Yeo, S. 2019. "Where Climate Cash is Flowing and why It's not Enough." *Nature* 573 (7774): 328–331.