



Introduction

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Advocates of Locally Led Adaptation (LLA) often assume its benefits are self-evident. Of this, I must admit, I am guilty. So I was surprised to learn, at a recent meeting, that even institutions that have long championed locally led action—and generated extensive evidence for it—expressed the need for more evidence that LLA can work at scale, cost-effectively.

I am not convinced that a lack of sufficient evidence is the main barrier to scaling LLA. More often, entrenched power structures—global, national, and local—stand in the way. Still, this conversation took me back to my own journey, from sceptic to firm believer that communities are essential custodians of their environment, and architects of their own development and future.

That shift came from witnessing community-led efforts that succeeded, and centralized systems that failed. Among many such examples, stories of community-led natural resource management efforts—water management, in particular—have deeply shaped how I think about adaptation. Among them, the story of Ralegan Siddhi in India has entered the realm of legend.

Ralegan Siddhi, a small village in Maharashtra, was once emblematic of India's dryland challenges: erratic rainfall, soil degradation, indebted farmers, recurring migration, and widespread poverty. When Anna Hazare returned there in 1975 after his army service, he found a community fractured by environmental decline and a social order weakened by alcoholism, weak governance, elite capture, and institutional neglect. Government initiatives to mitigate the impacts of a severe drought in 1972—for instance, by building a water storage tank—had ended in failure.

Watershed management, the integrated care of land, water, forests, and pastures to sustain both livelihoods and ecosystems, had been a cornerstone of Indian policy since before Independence. Ministries of water, agriculture, rural development, and environment invested heavily in it. Yet, despite good intentions, the results were disappointing.

Projects were fragmented across ministries, implemented through one-size-fits-all blueprints that ignored local hydrology, and lacked community ownership and engagement. The “beneficiaries” saw little reason to maintain assets once projects ended. Benefits were skewed toward landed farmers, leaving the poor and landless excluded.

Although NGOs had demonstrated that participatory, tailored watershed management could deliver better results, especially for the poor, these were small-scale and considered too expensive to replicate widely.

Anna mobilized the villagers to transform the destiny of Ralegan Siddhi through voluntary labor and structured systems to ensure accountability and fairness. The villagers built check dams, contour bunds, and percolation tanks to slow runoff and recharge groundwater. Failed infrastructure (like the tank supported by the government) was redesigned and rebuilt. Cooperative wells and shared irrigation systems were built to give smallholders access to water. The users decided water quotas, penalties for overuse, and governance rules for cooperatives. The villagers also agreed to bans on tree felling and overgrazing and worked to reforest hillsides to support ecological resilience.

The results were truly transformative. Over a decade, the per capita income of the village increased eight-fold; net agricultural income rose nine-fold, through a five-fold increase in agricultural productivity and double cropping; groundwater levels rose from 20 meters to 6.5 meters; and milk production increased four-fold. Villagers who had migrated in search of wage labor returned to a village that was now a net food exporter, not importer.

Studies have since shown that because villagers themselves executed and monitored the works, costs were lower, misuse was minimized, and maintenance was internalized. The rules they agreed on were equitable, ensuring that access to water and benefits were shared fairly so poorer households were not excluded—and this inclusion amplified overall gains.¹

Similar gains are recorded in other locally led watershed management pilots in India. In Pimpalgaon Wagha, one of the first villages supported by the Watershed Organisation Trust (Chapter 3), community efforts in watershed management in the 1980s doubled crop production; increased milk production ten-fold; secured drinking water year-round; and diversified the local economy beyond agriculture. Social gains included a locally owned development fund and reduced out-migration.²

From the outset, Pimpalgaon Wagha was designed with scaling in mind. Government, NGOs, and communities each had defined, complementary roles from the start, grounded in true partnership. Local capacity needs were prioritized alongside infrastructure, social equity was embedded in project design, and rigorous monitoring created the evidence needed for political and financial support.

Pilots such as these led to the creation of the world's largest and best funded watershed management program in India. Now called the Pradhan Mantri Krishi Sinchai Yojana, the program, which was revised to include climate resilience in 2021, has supported locally managed efforts in tens of millions of hectares of degraded land across thousands of watersheds in India. While technical, financial, and institutional challenges continue to limit how "locally led" the implementation is in practice, the story offers multiple lessons for LLA.

Ralegan's story illustrates why centralized interventions often falter because of information asymmetry—the gap between what policymakers know from a distance and what local actors experience on the ground. This disconnect leads to poorly targeted actions, indifferent community engagement, and ultimately, a waste of scarce resources. By contrast, locally led responses can be more cost-effective and adaptive because they draw on context-specific

knowledge, align incentives among stakeholders, and improve allocative efficiency, directing resources to where they generate the greatest marginal gains in resilience, wellbeing, and impact.

The two examples also showed that rigorous monitoring, evaluation, and learning is essential—to demonstrate economic, social, and environmental (and in the case of adaptation, resilience) results in terms that speak to national policymakers, but also to build a credible evidence base, inform policy, and support continuous learning and innovation.

Scaling LLA ultimately requires shared ownership. Communities must feel empowered to act, but equally, local governments, national institutions, and technical partners need to see themselves as integral to the process. In Pimpalgaon, this inclusive coalition was key: policymakers and technocrats were brought into the fold, and capacity gaps at the community level were addressed in ways that were both sustainable and empowering.

From Projects to Power

In a top-down world where decisions on what to fund and how to fund are taken by external stakeholders (national governments, multilateral, or bilateral funders), success and scale are measured in service outputs and numbers: number of beneficiaries, number of trainees, number of sea walls, length of roads, or number of schools.³

These outputs are easy to count and report, to satisfy funders—but less substantial to the kind of systemic, transformational change that LLA seeks to achieve. The most significant outcomes for LLA are related to governance: better responsiveness to local needs and circumstances, especially in the face of climate uncertainty; stronger voice and agency for the vulnerable; enhanced public accountability; and stronger local institutions. Scale and success are measured by the extent to which entire ecosystems of governance, finance and knowledge are transformed for long-term and sustainable change.⁴



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LLA strengthens governance from the ground up, ensuring decisions respond to local realities and amplify the voices of the most vulnerable.

Decades of research, from Elinor Ostrom’s work on common-pool resource management to contemporary studies on climate governance, show that polycentric systems of decision-making, where local institutions operate autonomously within broader frameworks, are more adaptive and resilient. LLA operationalizes this principle: it aims to connect the micro-level (community action and local knowledge) with the macro-level (policy, finance, and systems) through mutual accountability and trust.

In practice, this means creating bridging systems—mechanisms that translate community priorities into policy language and integrate local data into national planning. Examples include the People’s Adaptation Plans (Chapter 1) which link evidence-based locally led planning to national planning and investments; initiatives such as LIFE-AR and LoCAL (Chapter 2) and modalities such as Enhanced Direct Access (Chapter 10), which channel flexible and patient funding to local governments and communities. It means fostering inclusive governance, ensuring that adaptation is not just about surviving climate shocks, but reshaping the structures that determine vulnerability in the first place.

Governance reforms in Nepal and Kenya (Chapter 7) illustrate how macro-level policies and institutions are important to enable and scale LLA. National frameworks must enable, rather than constrain, local agency through predictable climate finance, subsidiarity in governance, and inclusive institutional design. Without such enabling environments, local adaptation initiatives remain isolated successes rather than the foundation for more fundamental change.

Coordination for Efficiency

In an era of constrained resources, embedding adaptation within existing national systems of decentralization and devolution (including fiscal devolution) is vital. This approach strengthens efficiency, while supporting these systems to overcome existing shortcomings and capacity constraints.

Integrating adaptation into existing development plans—such as local development plans or urban masterplans, as the GCA People’s Adaptation Planning process aims to do—helps avoid fragmentation and projectization. Efforts to coordinate across models, for instance between LIFE-AR and LoCAL (Chapter 2), can help governments merge best practices and lessons to reinforce national systems.

Importantly, new pilots may not be necessary for adaptation, if evidence of their success already exists from learning and practice from the development sector. Chapter 4 highlights lessons from “localization” efforts in humanitarian action, that empowering local responders improves quality, equity, and timeliness of disaster management efforts because they possess the contextual knowledge, cultural familiarity, and community trust that can make responses more relevant, cost-effective, and sustainable. It also indicates that lack of evidence is not the main barrier to scaling LLA or localization: despite strong evidence of cost efficiency and local capacity, only 0.8% of UN-tracked humanitarian funding goes directly to local and national responders.

Another example of adaptation responses riding on the success of the development sector is discussed in Chapter 5. Climate change became an urgent concern for the Self-Employed Women's Association (SEWA) in India when it found that climate-related illness was the leading cause of loan defaults among its 3.2 million members (all women working in the informal sector). SEWA's response built on the intimate knowledge of its members' needs, to design and deliver responses that went beyond simply cure or even prevention, to include financial support during key periods of vulnerability.

Chapter 6 explores how international scientific institutions can better coordinate with local needs, combining Indigenous knowledge with modern climate risk management tools to bridge the gap between global science and community realities.



Women working in the informal economy, such as waste pickers, face the intersecting pressures of climate stress, economic insecurity, and exclusion.

Funding LLA

While public sector finance—national and global—is critical to help the poor adapt, not all scalable LLA responses lie within the public sector. As Chapter 9 shows, vulnerable households and micro and small enterprises rely heavily on Inclusive Financial Service Providers (IFSPs)—microfinance institutions, cooperatives, banks, and mobile money providers—to adapt to, and recover from, climate shocks. They lend around US\$ 1.5 trillion annually to low-income communities and small enterprises and have deep reach into vulnerable areas. Yet, most remain climate-agnostic.

More worryingly, this trusted source of funding for vulnerable communities is in danger of collapsing under the weight of the demand generated by climate shocks. In Pakistan, for instance, 40% of IFSPs have reduced lending to certain sectors (mainly agriculture and livestock/poultry), and 20% halted it entirely, because of climate-related challenges.

Concessional funding is urgently needed to derisk their operations and sustain this vital financial lifeline.

Chapter 11 further explores how private sector finance can be leveraged for LLA. Many commodity-based multinationals have a vested interest in helping the smallholders they depend on to adapt and in protecting shared natural assets. Adaptation is also an emerging market—some estimate it could become the next trillion-dollar sector. But meaningful private investment must respect community rights and resource sovereignty. Governance again becomes critical to ensure equitable platforms where community voices are not secondary to economic interests.

In this edition we look at the important role of philanthropy, particularly in shifting practice among funders. Chapter 8 describes the remarkable efforts of the Climate Justice Resilience Fund which has pioneered participatory grant-making and internal governance aligned with LLA principles—transferring decision-making power to activists and community leaders. Similarly, the Quadrature Climate Foundation recognizes that addressing institutional weakness and inequality is fundamental to long-term resilience.

Even before the LLA Principles were developed by the Global Commission on Adaptation in 2018, the Green Climate Fund’s Enhanced Direct Access (EDA) modality sought to devolve flexible climate finance to local actors. The modality, since operationalized by the GCF Board, has had limited uptake due to multiple reasons explored in Chapter 10. Efforts to rescue it are now recasting it as a mechanism to provide small grants to communities through non-government entities. However, this misses the incredibly important opportunity of using EDA to scale LLA through national systems of local governance, while reinforcing fragmentation and projectization of adaptation.

Moral Imperative

Beyond the evidence, beyond the arguments of efficiency and effectiveness, LLA represents climate justice in practice. It is a moral imperative because it restores fairness in a world where those least responsible for the climate crisis suffer its harshest consequences. By shifting power, finance, and decision-making to local actors, LLA enacts distributive justice: it ensures that communities disproportionately burdened by global emissions gain the agency and resources to shape their own resilience.

Justice is not only about outcomes—it is also about who decides. LLA advances procedural justice by allowing those most affected by climate impacts to participate meaningfully in the choices that determine their futures. It challenges the paternalism of external planning and reframes adaptation as self-determination, not charity.

LLA also delivers epistemic and equity justice. For too long, local and Indigenous knowledge has been dismissed as informal or secondary. By recognizing it as legitimate and essential, LLA restores dignity to lived expertise and gives people the freedom to act on what they value. It also addresses structural inequities between the Global North and South, and within societies, by redistributing power, finance, and voice.

At its heart, LLA calls for transformative rather than project-level fairness. It seeks to dismantle historical patterns of exclusion and extraction, replacing them with systems that enable local sovereignty, dignity, and long-term resilience. Investing in local institutions and ecosystems ensures that future generations inherit not degradation, but opportunity.

Finally, LLA embodies relational and restorative justice. It rebuilds trust and respect between communities, governments, and donors, turning relationships of control into partnerships of reciprocity. And because it centers inclusion—especially for women, youth, and Indigenous peoples—it advances intersectional justice, addressing the overlapping inequalities that deepen vulnerability.

Supporting LLA is therefore not just a practice that needs proof of effectiveness; it is a moral and ethical necessity. It transforms adaptation from an act of assistance into an act of justice.

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