Mutual Accountability in International Development:

The Pando Localization Learning System

2020

About us

Founded in 2009, **Root Change** is a non-profit organization based in Washington D.C. Root Change's mission is to bring people together to identify and test pattern-breaking approaches that challenge the systemic causes of poverty, injustice and vulnerability. Since 2018, Root Change has been developing and testing Pando. The concept of a systems analysis tool for social impact organizations, however, has been 15 years in the making. Root Change has worked with groups of organizations in over 14 countries around the world to promote locally owned development, surface structural network roadblocks, and carry out activities to build trust, increase coordination, and strengthen local systems.

Founded in 2004, **Keystone Accountability** is a non-profit organization with locations in the United Kingdom, South Africa, and the United States. Keystone helps organizations understand and improve social performance by harnessing feedback, especially from the people they serve. Using benchmarking surveys, feedback and analysis, Keystone consults NGOs, international development agencies, global companies, and grantmaking foundations to plan, measure and report social change. In 2009, Keystone blended participatory evaluation and customer satisfaction to create a new methodology referred to as Constituent Voice. In 2014, Keystone created the Feedback Commons (www.feedbackcommons.org), an online platform where users can design feedback surveys, analyze data against benchmarks, and generate insightful reports. As of 2020, Feedback Commons has over 17,000 survey responses for 103 users.

Table of contents

The Pando Localization Learning System

I. Executive Summary

"" An army of opposition will always arise against an accountability mechanism that works.

- Fred Reichheld and Rob Markey[1]

Introducing Pando LLS

Public and private providers of international development assistance have consistently affirmed that local ownership is a priority for the international development sector.[2] The public donors have codified these principles in formal commitments at periodic global meetings, culminating in the 2011 Busan Global Partnership for Effective Development Cooperation.[3] The INGOs from aid-giving countries are unequivocal that local participation and ownership are the core building blocks of effective development programs.[4] These commitments are frequently reflected by national agencies in signature policies, including, most recently, the US Agency for International Development's "Journey to Self-Reliance" initiative in 2018.[5]

Setting goals and implementing policies are necessary building blocks, but they are insufficient without an effective accountability mechanism, particularly where one party in the relationship provides money as "aid".

Based on decades of work in the aid system as agents for human-centered development, organizational capacity building, and mutual accountability, Root Change and Keystone Accountability informed the US Congress of the opportunity to use new communications technologies to create the first accountability mechanism that is based on the quality of relationships between aid actors. Congressional leaders appreciated this opportunity and subsequently passed an amendment to US foreign assistance to create a ring-fenced, five-year experimental program inside USAID to test these ideas.[6] The new aid accountability tool described in this white paper, **Pando Localization Learning System (Pando LLS)**, is the result of the work of Keystone Accountability and Root Change utilizing this innovation funding from USAID.

---

1   Fred Reichheld and Rob Markey started using this phrase around 2006 as they addressed the wave of resistance to their then new Net Promoter System, which at the time was radically disrupting the way companies measured and managed "customer satisfaction" (personal email between David Bonbright and Rob Markey).

2   This paper uses the terms international development assistance, international aid, and aid interchangeable. Similarly, references to the aid system and international aid system refer to the same thing. The main focus of this paper is how international development assistance affects national and local development systems with the specific objective to provide international aid with improved measurement and management tools to strengthen those systems.

3   The Busan conference affirmed that "partnerships for development can only succeed if they are led by developing countries, implementing approaches that are tailored to country-specific situations and needs" and that "openness, trust, mutual respect and learning lie at the core of effective partnerships, recognising the different and complementary roles of all actors."

4   Oxfam and Save the Children, The Power of Ownership: Transforming US Foreign Assistance, (Oxfam and Save the Children, 2016). Keystone Accountability and Bond, A Bond Approach to Quality in Non-Governmental Organisations: Putting Beneficiaries First, (Keystone Accountability and Bond, 2006).

5   USAID, "Journey to Self-Reliance": https://www.usaid.gov/selfreliance (accessed July 4, 2019).

6   Section 7080, Consolidated and Further continuing Appropriations Act, 2015 (P.L. 113-235) (FY 2015 Appropriations Act). The program created, led by USAID's Office for Sustainability, is called "Local Works", see USAID, "Local Works": https://www.usaid.gov/partnership-opportunities/ngo/localworks (accessed July 4, 2019)

What Pando LLS does is simple. It makes the totality of relationships between aid's organizational actors in any development intervention visible in real time. It shows who is connected to whom, how they are connected, and the quality of those connections as assessed by those on the receiving end of development assistance. Most importantly, it marks the changes in these relationships over time, thereby providing the first workable answer to the question every international aid worker must ask: Am I working myself out of this job and into a better job that is more helpful for my local partners?[7]

The type of accountability mechanism we have created is grounded in a concept of mutual accountability. In essence, mutual accountability says that those working in aid hold each other to account for equitable, inclusive relationships that are meant to enhance local leadership and self-reliance while realizing improvements to human wellbeing and habitat sustainability. What this means practically is set out in detail in this paper.

Pando is one of the world's oldest and most massive living organisms: a forest of Quaking Aspen trees. Known as the "Trembling Giant," it is connected by one sprawling root system that is estimated at over 80,000 years of age. Sadly, this ancient wonder, covering over 43 hectares and weighing collectively some 6,000,000 kilograms, is slowly dying.[8] Pando, like our aid system, is an example of how a whole ecosystem depends on the mutuality of many actors. Pando had a survival strategy that worked well over eighty millennia, sprouting new trees from expansive lateral roots. But now it is becoming unwound over a half a century by an accidental adversary: human beings.

To succeed, Pando LLS must be inclusive – meaning that everyone affected by aid is fully included, especially and most importantly, those meant to enjoy the benefits of aid. Pando LLS recognizes, however, that as of today the aid system has neither the will nor the capacity to listen and respond systematically to everyday people. Pando LLS is designed, therefore, to establish the enabling conditions to form that will. We aim to create the capacity to listen and respond to local voices through pilot projects that launch micro-experiments inside existing international aid projects. In that sense, Pando LLS is not an "add on" but an "add in", one that can easily be designed in at the beginning of any aid project, whether funded by government aid or private funding.

In its current form, Pando LLS is designed to take the first of two steps that are required of development aid to become fully inclusive and mutually accountable. In the first step international, national, and local organizations working in aid projects learn how to work in ways that are progressively more locally led. Pando LLS depends on its direct users – aid funders and implementers – having the capabilities to fully express themselves within projects through communications technologies.

The second step involves cultivating the voices of the people who are ultimately meant to benefit from aid, the so-called beneficiaries. We disfavor the term "beneficiary" as both disempowering and patronizing. We refer to the people in aid-receiving communities as the primary constituents of development. In the initial deployment of Pando LLS, the primary constituents of a project are not expected to be Pando LLS users directly. But they are seen as future users, and as aid organizations become ready, willing, and capable of doing

---

7 This form of the question suggests that the greater realization of local leadership and self-reliance in aid does not lead to the end of aid relationships, but to their continual movement to something better than what we experience today.

8 Rogers PC, McAvoy DJ, "Mule deer impede Pando's recovery: Implications for aspen resilience from a single-genotype forest", 2018. PLoS ONE 13(10): e0203619. https://doi.org/10.1371/journal.pone.0203619

so, Pando LLS makes it their explicit task to find the contextually appropriate ways to connect the "last mile" by listening and responding to the everyday people who are meant to benefit from aid and development projects. Only the broad outlines of this second step – to reorient the aid system to be directly responsive to the empirically valid expressions of what everyday people want – are set out in this paper. This is because it is for the local development system actors themselves to lead this work.

Our Vision for Pando LLS

In addition to directly rolling out Pando LLS through multiple partnerships over the next few years, Root Change and Keystone Accountability are committed to making Pando LLS available as an open source toolkit so that others can adapt and deploy it – or maybe something better – themselves. We are committed to carefully documenting and publishing all material elements of Pando LLS. We envision a vibrant, multi-stakeholder community of practice building onto and out of Pando LLS, launching their own platforms and collectively improving how we measure and catalyze local ownership.

How Pando LLS Works

Pando LLS combines data drawn from two sources: network mapping and feedback loops. Their order of presentation reflects the order they are introduced through Pando LLS, as explained in part III of this paper.

Network Mapping

To begin, local organizations working in and with aid, use the Pando LLS platform to design and launch a user-friendly, interactive network map that makes the dynamics of aid localization visible. It is the local actors themselves who define the information, ideas, and types of support that define what aid localization means for them on a given project map. This could include things like technical support, financial support, training, information, research, and so on. The initial actors on a map invite other system actors until all known actors that are collaborating in the defined ways are on the map, including non-local ones.

Feedback Loops

The Pando LLS platform supports local actors within a defined system (e.g., around a project or program and those addressing a related issue such as education reform or health services) in soliciting feedback from and contributing feedback to the local system captured in the network map. Micro-surveys, conducted online via computer or mobile phones, using Keystone's Constituent Voice™ (CV) method generate simple but accurate signals of key relationship qualities, that are then validated and interpreted through open dialogue and qualitative inquiry. An effective feedback loop follows a continual cycle of ask, analyze, dialogue, and course correct that system actors follow to turn feedback data and social network metrics into voice and solutions to advance local leadership in aid.

Pando LLS Metrics

The Pando LLS platform focuses on four local system strength and relationship measurements that are derived from social network analysis (SNA) and Constituent Voice micro-surveys:

Leadership

Leadership measures the degree to which local actors are able to: lead identification of challenges and opportunities, set priorities, define and assess success, and receive recognition as subject matter experts by outside donors and larger international institutions and organizations. It records the extent local actors feel empowered to make independent decisions about what they consider the best course of action.

Mutuality

Mutuality assesses the quality of connections and relationships within the system. It evaluates the degree to which there is trust, commitment, respect, openness, voice, and responsiveness across a local development system (donors, project actors, partners, and (eventually) communities and everyday people).

Connectivity

Connectivity assesses the diversity and density of relationships and collaboration between local actors. It examines the degree to which networks of local development actors have the motivation, opportunities, and incentives to work together to solve problems. It maps the extent local actors are connected to local resources, knowledge, and expertise. The connectivity dimension measures the degree to which aid programs foster increased collaboration and cohesion among local development actors.

Financing

Over time, Pando LLS financing measures reveal the degree to which the dependence of local system actors on external (international) financial resources is decreasing and whether connections to local funding opportunities are improving. It assesses the extent to which local development actors have access to the required financial resources to succeed and increase their autonomy. Questions about local development actors' confidence that the funding/resource environment is improving will be tracked and compared with research on locally available development financing. The extent to which a relationship with a particular organization has made an actor more resilient and less dependent on foreign aid may become a key leading indicator of progress.

II. Introduction

In 2004, Zimbabwean feminist activist Everjoice Win wrote an imagined open letter to her "Donor Friend Christine." Everjoice first met Christine when the American woman spent a year in Zimbabwe as a volunteer. Christine impressed local activists as she fully immersed herself in the local culture, dressing in local clothing and eating the local diet. She was then, "a lovely person, reading books asking questions." After Christine left Zimbabwe and Everjoice, she interned at a small organization and eventually joined a large donor foundation as "a gender expert, specializing in southern Africa." When Everjoice met her friend Christine again, gone was the enthusiastic young worker eager to learn from the local people. No longer a *friend*, Christine had become a *donor*.

Their relationship had changed. "You no longer ask questions," Everjoice wrote, "you have the answers." Once close friends and confidants, the dynamic had deteriorated. "I no longer feel relaxed, sharing information with you," she told Christine, "I now 'report' to you." Christine had, in the eyes of local actors, become more concerned with the bureaucracy of reporting than the success of the local people. The local activist and her donor counterpart needed to repair their relationship. They needed to "meet halfway." "All we are asking," Everjoice closed her letter, "is that you develop ways of listening to our language and our visions, and adapt some of your procedures to our way of doing things. You and I are only part of the story of development."[9]

Everjoice Win's allegorical letter shows the necessity of expressly surfacing the relationships and power dynamics between development actors in order to make aid more effective on its own terms. Aid relationships are inherently unequal and diverse – sometimes wonderfully so, and sometimes not so much. Each actor brings different gifts to the common enterprise. Some of these differences – especially ones thickly implicated by power and control, such as control over financial resources – can breed inauthentic relationships unless they are acknowledged and addressed.

Robert Chambers and Jethro Pettit see this clearly:

> "Viewed as a complex system, international aid can be understood as governed by the dynamics of power and relationships within and among key actors: governments, donor agencies, non-governmental organizations (NGOs) and other civil society organizations. These dynamics also shape the ways in which aid actors respond to and seek to influence, the context in which they operate. New key words used by aid agencies – *partnership, empowerment, ownership, participation, accountability and transparency* – all imply changes and levelling in the realm of power and relationships. Yet, these words are often applied in ways that do not acknowledge or address power...diverse experiences involving a range of actors and contexts have all identified power as a common obstacle to making the rhetoric real."[10]

---

9   Everjoice Win, "'If it Doesn't Fit on the Blue Square It's Out!' An Open Letter to my Donor Friend," in Leslie Groves and Rachel Hinton, eds., Inclusive Aid: Changing Power and Relationships in International Development (London: Earthscan, 2004), 123-127.

10 Robert Chambers and Jethro Pettit, "Shifting Power to Make a Difference," in Leslie Groves and Rachel Hinton, eds., *Inclusive Aid: Changing Power and Relationships in International Development* (London: Earthscan, 2004), 138.

Despite the common sense understanding among global development leaders and local activists that progress on local ownership and participation in aid is dependent on the quality of relationships amongst aid actors, few development actors exert to, first, understand their own unconscious biases and cultural baggage, and second, ask how they "show up" to those they work with within the aid system.

The **Pando Localization Learning System** (Pando LLS) cannot address the first issue (self-awareness) directly. But it provides a comprehensive answer to the second (how others see me) by visualizing relationship dynamics and quality in an aid intervention. By mapping all the relationships in a system, and creating a steady stream of feedback from local actors – "you don't do what you promise" or "you don't value what I bring to this effort" – Pando LLS encourages aid organizations to step back and do the needed exploration of their own cultural baggage.

Complex Challenges, System-Aware Solutions

All development interventions, whether incorporating international aid or not, contain major challenges of inclusiveness, ownership, and agency. Everyday people often require support and encouragement to exercise their own agency, to give themselves permission to lead their own development, or to stand up to hold others to account. Adding the prevailing international aid power dynamics to the mix often drives local civil society organizations to prioritize the delivery of prescribed aid outputs at the expense of fostering agency, power, and ownership amidst everyday people in communities. In many countries, government and businesses may not regularly engage citizens or actively support civil society organizations, increasing their dependence on international aid. In other cases, donors and the international development community may not systematically prioritize learning about better ways to implement local systems strategies, neglecting in particular new ways to deploy local human and financial resources. The prevailing reporting and evaluation tools and methods are designed to measure aid system preset priorities rather than relationship quality and aid's contribution to the strength, resilience, sustainability, and autonomy of local systems.

These complex social problems require system-aware solutions. Pando LLS recognizes that development occurs within a complex local system with diverse agents and degrees of power and action. No single organization or actor can bring about lasting change on their own. The more authentic the relationships among actors in the system, the more they are consciously aligned and understand their work in relation to other actors in the system, the more likely it is that the system will deliver the results that everyday people want.

Pando LLS posits that by creating a practical, affordable way for aid system actors to see the whole system and see how they are working together, they will be more likely to realize their shared goals by holding each other to account by improving their Pando LLS measures. There is nothing inevitable or easy in this, and a great deal of creative fostering will need to be done by enlightened aid actors to create the enabling environment and incentives around Pando LLS metrics. At the same time, past experience makes it clear that meaningful progress on localization will not happen absent this kind of accountability mechanism.

Inclusive development experts Leslie Groves and Rachel Hinton support this thinking. "Presenting power and relationships as an entire system reveals the extent to which development is complex and dynamic...A complex systems diagram illustrates the diversity of relationships as well as their fluidity and interdependence. It

is also important to note that with each interaction, relationships evolve and all parties to the relationship are changed."[11]

Resource providers who want to support local development, in particular, need to enter the ecosystem with the intention of creating high-quality relationships of mutual accountability. This means understanding how the resources that they might provide to support one group of actors affects others in the system. As a recent study of local development notes, externally dominated distribution of resources may have a "number of damaging and distorting consequences for local agency and ownership, and it can lead to inappropriate and misconceived interventions that end up exacerbating the very problems they aim to solve."[12]

Keystone Accountability has surveyed over 5,000 local civil society organizations about what it is like to work with international aid actors over the past decade.[13] The feedback is strikingly consistent and may be summarized, "Stop instrumentalizing us. Treat us as equal partners. You don't appreciate what we know that you don't. You don't seek our input early and often enough." Shamefully, there is no measurable progress on these issues discernible in our decade long tracking of these issues.

Robert Chambers writes that relationships are of "paradigmatic significance...To shift from relationships which are distant, impersonal, auditing, and controlling to become more face-to-face, personal, trusting, and empowering takes time. It also needs staff and motivation. Instead of continually reducing staff and ratio of staff to finance, as so many funders have done, value for money will come out of augmenting staff and encouraging them to get closer, face-to-face with their partners, and more in touch with the ground and the action."[14]

While Pando LLS cannot directly address the resourcing, motivation, and deployment challenges funders must tackle for themselves, it can create a steady and reliable signal derived from those they mean to help, that funders may manage to, in order to realize their agreed objectives.

Pando LLS is a tool for the providers and receivers of international aid to visualize and understand the local ecosystem in which they are acting. With limited investment in logistics and infrastructure, they can see the local development project's system through a combination of a map of real-time relationship dynamics and qualitative feedback on relationship quality. It follows the precept from Participatory Rural Appraisal in the 1990s, "Start, stumble, self-correct, share."[15] It builds on the production of relationship metrics to create frequent online and face-to-face opportunities for actors to discuss their relationships and co-create ways to improve them.

---

11 Rachel Hinton and Leslie Groves, "The Complexity of Inclusive Aid," in Hinton and Groves, eds., *Inclusive Aid: Changing Power and Relationships in International Development* (London: Earthscan, 2004), 6.

12 Rosie Pinnington, "Local First in Practice: Unlocking the Power to Get Things Done," (London: Peace Direct, 2014), 7.

13 http://keystoneaccountability.org/kps/ (accessed July 4, 2019).

14 Robert Chambers, *Can We Know Better: Reflections for Development,* (Warwickshire: Practical Action Publishing, 2017), 169.

15 Robert Chambers, xi.

How We Got Here

Pando LLS has its roots in the long march of participatory development methodologies and locally owned development. In the immediate post-WWII period, western donor agencies helped drive the first wave of attempts at participatory development in post-colonial countries through the funding and promotion of co-operatives and an increased focus on decentralization and community-based development.[16] Dedication to localization diminished in the 1970s as donors balked at the system factors in localization – such as elite capture, the time and effort required to activate everyday people's agency, and the need for effective accountability mechanisms – and moved on to the next fad, in this case large-scale "top-down" investments in agricultural or industrial growth.[17]

By the mid-1980s, however, scholars and activists critiqued such approaches as fundamentally disempowering and biased against local actors, especially the marginalized. Advocates argued for a more "bottom-up" approach to international development and more attention to decision making power and the social capital of local communities. Informed by these critiques, international development organizations returned to approaches more rooted in community-based development, decentralization, and participation.[18] The assumption of these approaches was that if local actors and communities 'owned' a development activity they would voluntarily and actively participate in its design and implementation leading to improved sustainability, especially beyond a period of outside funding.[19] Simultaneous to these advances was the development of new participatory development models and tools. These include approaches like Participatory Rural Appraisal (PRA) and Participatory Learning and Action (PLA), which focus on facilitation, behavior change, local knowledge, learning, and pay close attention to dynamics of power and relationships.[20]

By the 1990s, donors increasingly embraced a language of local ownership with a stronger focus on nation-state participation as part of governance, accountability, and empowerment processes underpinned by an ideological commitment to citizenship and human rights.[21] This trend tended to see development through the lens of an expansion of democracy and governance and grounded local ownership of development in ideas like accountability (meaning the western liberal idea of citizens holding their governments to account for public services), empowerment, and citizen participation.

The 2000s saw a global consensus of the fundamental importance of local ownership codified in several global agreements. Building off agreements from earlier in the decade, the 2011 "Busan Global Partnership for Effective Development Cooperation" affirmed several significant principles guiding international development. Among those was that "partnerships for development can only succeed if they are led by developing countries, implementing approaches that are tailored to country-specific situations and needs"

---

16 Ghazala Mansuri and Vijayendra Rao, *Localizing Development: Does Participation Work?* (Washington, DC: The World Bank, 2013), 3.

17 Mansuri and Rao, 3.

18 Mansuri and Rao, 3.

19 Jeremy Holland, Stephen Jones and Andrew Kardan, "Understanding Participation in Development: Towards a Framework," *International Development Planning Review*, Vol. 37, Issue 1, (2015), 78-79.

20 Pinnington, "Local First in Practice," 9.

21 Holland, Jones, and Kardan, 79.

and that "openness, trust, mutual respect, and learning lie at the core of effective partnerships, recognizing the different and complementary roles of all actors."[22]

Informed in part by these agreements, donor countries revised policy and created more locally focused programming. One large donor country, for example, the United States, launched new initiatives like the Millennium Challenge Corporation that heralded recipient country-level priorities and cooperation. In 2010, spurred on by new development policy initiatives demanding local ownership from the Obama Administration, USAID formed USAID Forward and Local Solutions to meet these challenges. The primary goals of Local Solutions were to increase the proportion of program awards to partner-country based local organizations and the alignment of agency strategy with country priorities and interests through Country Development Cooperation Strategies (CDCS). Most recently, USAID has embarked on a "Journey to Self-Reliance" (JSR) that focuses the agency's attention and priorities on "the ability of a country, including the government, civil society, and the private sector, to plan, finance, and implement solutions to solve its own development challenges."[23]

This may bring USAID priorities into fuller alignment with Congress as The Foreign Assistance Act, Section 102, says: "[B]ilateral development assistance authorized by this Act shall be carried out in accordance with the following principles: (1) Development is primarily the responsibility of the people of the developing countries themselves. Assistance from the United States shall be used in support of, rather than substitution for, the self-help efforts that are essential to successful development programs and shall be concentrated in those countries that take positive steps to help themselves. Maximum effort shall be made, in the administration of this part, to stimulate the involvement of the people in the development process through the encouragement of democratic participation in private and local governmental activities and institution building appropriate to the requirements of the recipient countries. (2) Development planning must be the responsibility of each sovereign country. United States assistance should be administered in a collaborative style to support the development goals chosen by each country receiving assistance."

In addition to an interest in self-reliance, development organizations embraced more complexity awareness.[24] As USAID wrote in a recent report, "achieving and sustaining any development outcome depends on the contributions of multiple and interconnected actors...the focus needs to be on the system as a whole—the actors, their interrelationships and the incentives that guide them."[25]

A similar story could be told for most of the western donor countries, but at the level of official, and perhaps especially for the international development NGOs that are headquartered in these countries and which tend to pioneer international development thinking and practice for these donor countries. In sum, international development actors are looking at their programs and interventions holistically and with attention to

---

22 "Busan Global Partnership for Effective Development Cooperation," 2011.

23 USAID, "Journey to Self-Reliance Fact Sheet," (USAID, 2018).

24 USAID, "Local Systems: A Framework for Supporting Sustained Development," (April 2014); Kimberly Bowman, John Chettleborough, Helen Jeans, Jo Rowlands, and James Whitehead, "Systems Thinking: An Introduction for Oxfam Program Staff," (October 2015); USAID, "SPACES MERL: Systems and Complexity White Paper," (March 2016).

25 USAID, "Local Systems," 4.

power dynamics and impacts across a system.[26] One of the most interesting practical applications of these ideas was developed by the Family Independence Initiative in the United States as a response to decades of failure of domestic anti-poverty programs.[27]

To achieve these goals, changemakers are embracing methods and tools such as feedback loops, system mapping, social network analysis, peer support, asset-based approaches, and positive deviance to better understand how local actors live and express their own agency.

Despite the important public commitment to complexity and power awareness and local country ownership and participation, in the last 10 years or so there has been an evolving agreement among development academics and development workers that the concept of ownership, centered on governments, should not come at the expense of the participation of those who aid providers seek to help through development interventions. As one recent critique describes, "the parameters of what constitutes 'localising aid' are somewhat limited by its focus on the transfer of donor funds to recipient country entities."[28]

Complexity aware analyses, including Thinking and Working Politically and Political Economy Analysis, highlight the concern that governments and civil society organizations may incompletely represent the interests of development program target groups and that "when beneficiaries do not feel that they have ownership of an intervention, their lack of participation may undermine the effectiveness of aid programs."[29] They call for "new approaches and procedures that stress partnership and transparency."[30]

These critics advocate locally inclusive participation at all levels of development priority setting, design, and implementation. One of the leading scholar-practitioners in this thinking, Robert Chambers, advocates for a more local people-centered participatory paradigm. In his model, development should be focused on bottom-up approaches prioritizing empowerment over the pursuit of specific targets and disbursements of resources. He advocates for diverse contextually-aware approaches where external development actors act as facilitators, rather than supervisors of interventions. Outside participants should acquire knowledge through direct immersive experience and enable local initiatives, rather than exert out-right control of projects. This model prioritizes downward accountability to stakeholders and end-users, rather than upward accountability to donors or taxpayers.[31] Development practitioners have begun to take relationships between actors more seriously and advocate their fundamental importance to local ownership and self-reliance. As one USAID officer explains, "Assistance should focus at least as much on...helping to expand and strengthen

---

26 The literature on this has grown to such an extent it is being referred to now as a "second orthodoxy". Leading exemplars include Thinking and Working Politically (TWP): Tesky, Graham, "Thinking and Working Politically: Are we seeing the emergence of second orthodoxy?", Governance Working Paper Series, Issue 1, March 2017: https://www.abtassociates.com/insights/publications/white-paper/thinking-and-working-politically-are-we-seeing-the-emergence-of (accessed July 4, 2019).

27 For a book length exposition of an approach to localization that successfully teaches the providers of assistance to get out of the way and allow people to develop themselves, see Mauricio L. Miller, "The Alternative: Most of what you believe about poverty is wrong", (Lulu Publishing Services, 2017).

28 Pinnington, "Local First in Practice," 10.

29 Holland, Jones, and Kardan, 79.

30 Groves and Hinton, 5.

31 Robert Chambers, "Ideas for Development", (London: Earthscan, 2005), 212.

local networks of generalized trust and collaboration—as it does on improving human capital."[32]

Despite the increased knowledge and evidence of strong equitable relationships as a crucial component of sustainable development, typical frameworks and measures of local ownership and participation do not account for complex dynamics in systems of power and relationships.[33] As Hinton and Groves describe, this "points to the problem of program operations that are based on predicted outcomes planned with only partial knowledge of the system and without constant review and reflection. Such generalizations hide the fluid and interdependent nature of organizations over time and space and the consequence of this is poor programming and policy design, based on inaccurate understandings of the behavioral dynamics of the system."[34] External actors have ignored the existing incentives and pressures in a local system and simply imposed their own, then wondered why aid doesn't work as planned.

Even as development activists, scholars, and practitioners attempt to expand the quality and inclusivity of locally-led development, there is a lack of easily accessible and usable tools to capture, assess, and visualize the dynamics between development actors. "Measuring the relationship between participation and empowerment," a recent study reports, "remains a key challenge in the development sector, as does engagement in feedback mechanisms and genuine accountability."[35] Critically, present analytical frameworks do not adequately account for the importance of strong relationships and trust necessary for a strong local development system.

Pando LLS enters this space to provide an easy-to-understand and accessible tool and method, allowing diverse stakeholders across a local development value chain to visualize, measure, and analyze their system. As international development scholar, Andrea Cornwall warns, "Without a dynamic understanding of people's social networks and the institutions and dimensions of difference that matter in the pursuit of their livelihoods, naive efforts to bring about inclusive development may simply make things worse."[36]

Helpers and Doers

The overall strategy animating Pando LLS is to transform aid to be more effective at realizing its localization goals by providing a way for aid's organizational actors to hold each other to account for high-quality relationships with each other and, ultimately, to those meant to benefit from aid. It does this by making aid relationships visible in real time so that these measures may be used by all aid constituents to aspire to improvement.

It derives measures of how organizations relate to each other as a system around an aid intervention (the

---

32 John Ellis, "Revisiting Social Capital (And What to Do About it)," USAID.gov, https://2012-2017.usaid.gov/frontiers/2014/publication/section-2-revisiting-social-capital-and-what-do-about-it (accessed February 15, 2019).

33 Recent frameworks for evaluating local ownership and participation include the "Oxford Policy Management Framework," Holland, Jones, and Kardan (2015); "The Local Engagement Assessment Framework (LEAF), Oxfam and Save the Children, The Power of Ownership: Transforming US Foreign Assistance (2016).

34 Groves and Hinton, 6.

35 Pinnington, Local First in Practice, 9.

36 Andrea Cornwall, "Unpacking 'Participation': Models, Meanings and Practices," Community Development Journal, Vol. 43, No. 3 (July 2008), 278.

network map) and the quality of those interactions (through feedback loops). Pando LLS measures, discussed in the next section, *III. Pando LLS in Practice,* are based on theory and practice principles described here.

The theoretical framework that we have found most explanatory posits aid relationships as between "helper" and "doer."[37] At the outset, it should be noted that the degree to which an actor is a helper or a doer may vary considerably by the relationship in question, and may even vary within a relationship depending on the context. An actor who is a helper in one context might be a doer in another. Placed in the frame of the relationship between development assistance and those implementing and benefitting from aid, the helpers are providing assistance and doers receive and act with the help. Effective helpers do not override, undercut, or substitute their own will and priorities for those of the doers. The goal, therefore, is to provide what David Ellerman calls "autonomy-respecting assistance" where helpers "find a way to help in a way that respects, fosters, and sustains the autonomy of the doers."[38] Respect for the autonomy of the doer extends to honest expression of opinion both ways, along with the willingness to respect the decision of those affected by the decision.

Pando LLS is a tool to help development actors visualize, measure, and sustain this type of helper-doer relationship. It provides data and evidence about the extent to which a given aid project advances localization objectives. It does so by creating opportunities for providers and recipients to strategize about how to make assistance more inclusive and equitable. As the local development system becomes more autonomous and self-reliant with respect to a particular intervention, the requirement for external help will change, certainly, but it need not disappear. Rather, high-quality helper-doer relationships will identify new and better helper roles. In this way, Pando LLS provides a continual improvement tool for development assistance.

Based on our learning from a decades-long pursuit of autonomy-respecting assistance and locally owned development, Pando LLS is designed around five central principles:

Prioritize Relationships

Focus on the context, nature, and quality of the relationships between aid providers, receivers, and between aid recipients themselves. How people work together in development assistance determines whether they transcend unidirectional dependency relationships to realize mutual inter-dependence.

Look Locally

Incentivize widespread local support and ownership of the development agenda. Define problems as everyday local people see them. This means privileging end-user voices through continual feedback loops by which constituents of any given development project give feedback and monitor how organizations improve based on their feedback.

---

37 For a comprehensive articulation of this line of thinking and social action, see David Ellerman's important work, *Helping People Help Themselves: From the World Bank to an Alternative Philosophy of Development Assistance* (Ann Arbor, MI: The University of Michigan Press, 2005).

38 Ellerman, Helping People Help Themselves, 11, *7.*

Embrace Mutual Accountability

Understand and guide individual activities of local development actors in alignment with wider networked efforts to achieve shared developmental outcomes. Have clear, agreed, public obligations for all constituents, especially those with more power. Promote a strong norm of reciprocated helpfulness and trust. Validate relationship measures through sense-making with those in the system and by testing corrective actions through more feedback. Encourage those with less power and status to proactively hold those with more power and status to account.

People-Centered Learning

Support local system actors in creating, validating, and using data for their own learning and improvement. Participants in the system must identify their shared purpose and then evaluate their own relationships and collective actions. The only failure in relationships is the failure to learn.

Encourage Experimentation

Utilize structured learning cycles to create an evidence-based "authorizing environment" for decision-making that encourages continual adjustment in how various actors are working together in light of patient, intentional experimentation and positive deviance.

III. Pando LLS in Practice

Pando LLS is designed to be flexible enough to work across sectors, projects, and program systems of all sizes. It is accessible to broad development actors, including donors, project partners (grantees and sub-grantees), and end-user constituents. The platform allows users to collect system and feedback data from actors across three different "spheres," or levels, of a development intervention:[39]

Project Actors (Sphere of Control): Those with direct power or control over the development project itself, including donors, and project partners (contractors and sub-contractors).

Boundary Partners (Sphere of Influence): Those with whom the project interacts directly but who are beyond the direct reach of project actors' control. These may be people that the project seeks to empower or enable in some way, or that the project relies on for the success of project activities at a local level. Examples of boundary partners might include civil society organizations (CSOs), citizen groups, community leaders, government officials, businesses, academic institutions, other international donors, and foundations.

End-Users (Sphere of Interest): Those whom a project ultimately seeks to impact and who are the foundation of sustainable development. They include, for example, patients of a health clinic, students in school, or farmers targeted by an agricultural project.
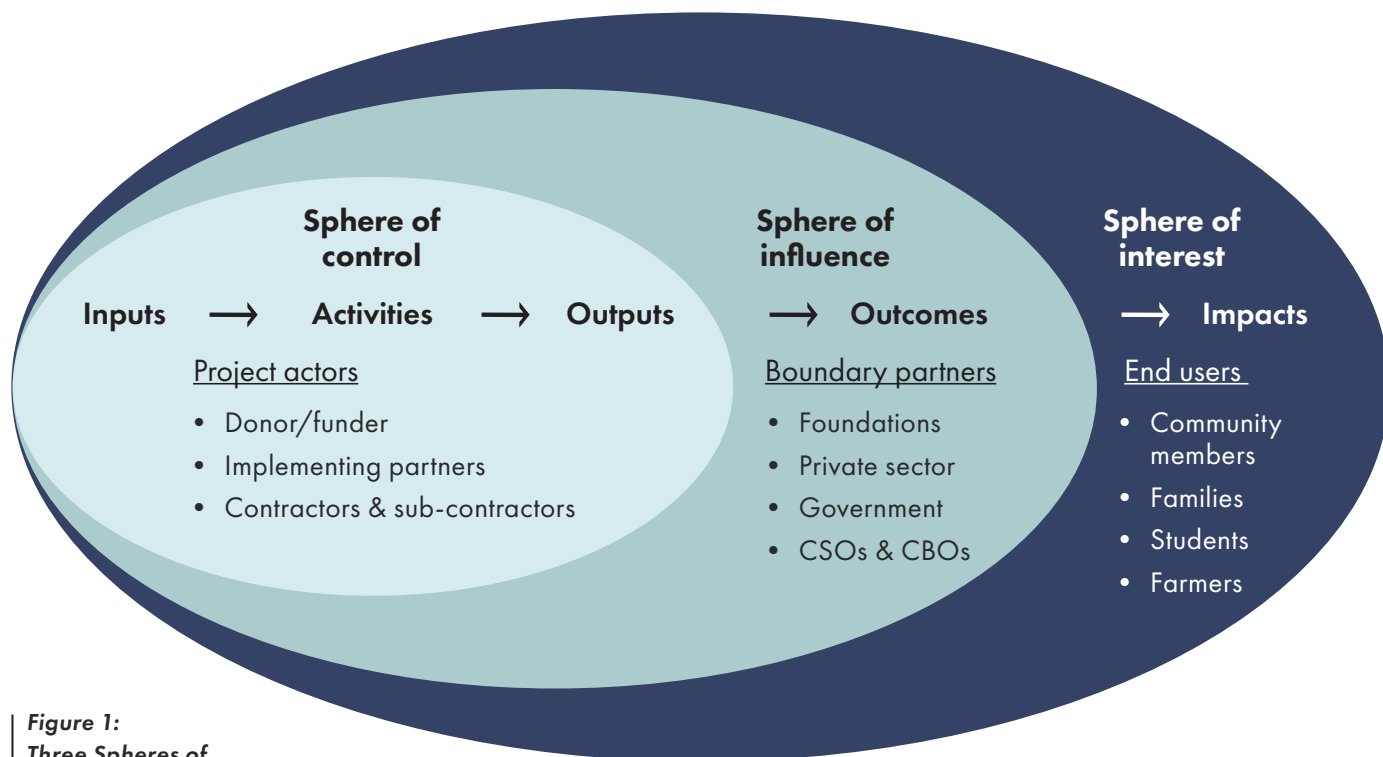
Figure 1:
Three Spheres of
Development Interventions

---

39 Pando LLS uses language of spheres and boundary partners from Outcome Mapping, see Sarah Earl, Fred Carden, and Terry Smutylo, "Outcome mapping: Building Learning and Reflection into Development Programs", (Ottawa, ON, Canada: International Development Research Centre, 2001).

Pando LLS is designed to support practitioners in improving local ownership and autonomy *within* and *across* these different levels.

Users interface with Pando LLS via an online platform. Data that supports the platform is drawn from two sources: (1) the network map that visualizes and, over time, tracks the relationships of key actors in the local system that the project is supporting and (2) regular feedback surveys that assess the quality of relationships between the project and the system actors or end users they are engaging.

How it Works: Seven Steps to Implement Pando LLS

Pando LLS is introduced in the context of a specific development project or program of any type – health, education, governance, agriculture, economic development – and rolls out in seven steps. Pando LLS is best introduced at the start or midway point of a project.

Use of Pando LLS requires a dedicated LLS team, and its implementation follows a set of progressive steps. The team, comprised of staff from organizations implementing the project, are trained to administer Pando LLS and introduce the platform to key stakeholders.

Step 1: Determine LLS Team

Project leadership (which may include the funder and/or implementing partners) establishes a team to administer and manage Pando LLS within a project or program. Team members may come from international and/or in-country staff from organizations involved in implementing the project at different levels. These actors become the "LLS team" and are responsible for the day-to-day implementation of Pando LLS, assisting users to navigate the platform, collecting regular network and feedback data, and engaging with system actors to help make meaning and identify actions the project can take to improve local ownership.

LLS Team	LLS Users	LLS Advisors
Who are they?	**Who are they?**	**Who are they?**
Project managers and officers, staff from organizations implementing the project at different levels	System actors, both local and international, who may or may not be directly involved in the project (e.g. NGOs, government agencies, businesses, academic instituions, etc.)	Pando LLS design team - Root Change and Keystone Accountability
What do they do?		**What do they do?**
Administer Pando LLS, including sending invitations, administering feedback surveys, regularly collecting data, analyzing results, facilitating dialogues with LLS Users	**What do they do?** Join and input information on Pando LLS; Participate in dialogue sessions and use Pando LLS to realize localization goals	Maintain the platfrom; technical support to LLS team; training, coaching, and guidance to LLS team and LLS user as they use Pando LLS to improve their relatiohships

Figure 2:
Pando LLS Roles

Step 2: Define the System

Once the LLS team is identified, the next step is to define and visualize the key actors and relationships for the system the project aims to track. The LLS team receives guidance from LLS advisors on how to customize a set of collaboration areas (see text box) and demographic information on the organizations and actors in the system.[40] The organizations and actors involved in the project are also named, along with an initial list of "boundary partners."[41]

Step 3: Map the System

Once the collaboration areas, demographics, project actors, and boundary partners are defined, these preselected groups are the first to be invited to the Pando LLS network map.[42] The network map captures information on whom key actors go to for resources, ideas, and support across a range of identified collaboration areas.[43] Maps can be created at a national (or multinational) level or for a specific sub-geography (district, province, municipality).

Invited organizations fill out an online account indicating the organizations (contacts) they work with along the identified collaboration areas. Pando then sends those newly identified contacts an automatic invitation to join Pando and to map their relationships.[44] All actors invited to Pando instantly see their relationship data as entered on the form visualized as a network map.[45]

The network map provides insight into the structure, potential roadblocks, and influential actors in the system.[46] Network maps often start with the relationships of project actors with each other and their immediate contacts in the system. As more system actors are invited in by others and map their relationships, the network maps grow to encompass many more system actors that are collaborating on related and relevant issues to the project. At this point in Pando LLS development, these system actors can include any *organizations* in the local development system with the technological capacity for email and web browsing. In order to make a complete and inclusive local development system map, these organization users will work together to listen and respond to the everyday people meant to benefit from development projects. This "last mile" work comes at step 6.

---

40 Examples of demographic information captured via the Pando LLS includes organization type (e.g. NGOs, government agencies, businesses, universities, media agencies, labor unions, social entrepreneurs, funders, community foundations, etc.), geographic locations where organizations work (e.g. states, provinces, municipalities), and areas of expertise.

41 See Figure 1: Three Spheres of Development Interventions.

42 Network maps are created using social network analysis (SNA) / organizational network analysis (ONA).

43 Collaboration areas are technical areas of assistance or support where system actors are collaborating, exchanging information, resources and ideas. They can be sector or issue specific depending on the project.

44 Relationship data that has been collected via other means, such as paper surveys, can also be added to network maps.

45 Please refer to the Pando LLS Online Platform section of this paper for additional explanation and images of how this works.

46 Root Change has worked alongside local NGOs, individual consultants, impact investors, social entrepreneurs, and CBOs to interpret and act on network maps in over a dozen countries, including the Philippines, Tanzania, Uganda, Kenya, Senegal, Nigeria, Mexico, Guatemala, Colombia, Serbia and Bosnia and Herzegovina.

Collaboration Areas Defined

Technical areas of assistance or support where system actors are collaborating, exchanging information, resources, and ideas. They can be sector or issue specific depending on the project. They represent sub-networks within a system. They are defined through questions, for example:

- Capacity Building:
  Which organizations have you gone to in order to create a new capability? Capacity support can include sector specific or advocacy related technical expertise.

- Financing:
  What organizations have you gone to for funding to advance your work? Financing can include grants, loans, in-kind donations, and more.

- Health Policy Research:
  What organizations have you gone to for the latest health policy research? Health policy research can include publications, research reports, and more.

Step 4: Measure the Quality of Relationships[47]

Once a network map is established (usually over 3-4 months), the LLS team designs and sends out anonymous feedback surveys via the Pando LLS platform to funders, project actors, and boundary partners. For example:

- Project funders can use Pando LLS to get anonymous feedback from project partners (these could be local project partners, contractors, sub-contractors formerly engaged in the project, delivering services, training, or other technical support);

- Project partners can use Pando LLS to get anonymous feedback from boundary partners;

- Project managers can use Pando LLS to get anonymous feedback from all system actors and can ask system-level questions to everyone in the map.

---

47 Pando LLS relies on Keystone Accountability's Constituent Voice method to measure relationship quality. Keystone is a global leader in feedback loops for development and has developed detailed approaches to protect anonymity, ensure data representativity, win high response rates, and earn respondent candor. It has extensive experience in creating effective and inclusive feedback loops across diverse contexts and cultures, including and especially the hardest-to-reach people (disabled, refugees, populations. For more on the technical aspects of measuring relationship quality in development see Constituent Voice: Technical Note, Version 1.1 (September 2014) (downloaded 5 July 2019 http://keystoneaccountability.org/wp-content/uploads/2009/08/Technical-Note.pdf)

Project partners voice to project funders	• the extent that they feel involved in shaping the project's goals and strategy (*0 = not at all, 10 = very much*) • the extent that they feel safe to speak out to funders when they disagree or feel dissatisfied (*0 = not at all, 10 = completely*)
Boundary partners voice to project partners	• whether the project communicates clearly, regularly and in good time (*0 = not at all, 10 = completely*) • the extent that the project facilitates better collaboration among local development actors (*0 = not at all, 10 = very much*)
All system actors voice to project funders	• whether the project is making good progress towards its localization goals (*0 = not at all, 10 = very much*) • please tell us why you gave this score (*Open text box*)

Figure 3:
How system actors voice relationship measures

Step 5: Review and Engage

Pando LLS automatically analyzes and visualizes the results of the network map and feedback data for different types of actors involved in a given development project. The LLS team regularly reviews the aggregated information, produces reports, and shares reports back with the key actors involved for transparency and validation. The LLS team facilitates in-person relationship review and meaning-making sessions where funders, implementers, and boundary partners can discuss and work openly on their relationships. Problems identified in the surveys would be raised and "cleared." The emphasis will be on agreeing to corrective actions that can be implemented and assessed quickly. These dialogue sessions will begin by agreeing on objectives and will conclude with a review of progress against the objectives. The primary outcome of this step is an understanding among system actors of how Pando LLS is enabling them to identify and work on their relationships and to experience immediate relationship improvements. The LLS advisors have extensive experience in this kind of relationship work and will provide coaching and practical support materials to LLS teams facilitating this work.

Step 6: Experiment and Discover

Based on network and feedback data from the Pando LLS and dialogues conducted with system actors, the LLS team and project partners identify proposed actions to take to advance the project's localization goals. These are separate from and could build on, the work on improving relationships discussed in Step 5. The idea here is working out of a context of growing mutual accountability and more authentic relationships, system actors would develop initiatives to advance specific and measurable localization objectives. These might target different dimensions of localization, such as financial self-reliance, local knowledge creation, or peer-to-peer support structures. They would be structured as small-scale experiments that could be fully tested within 3-6 months. The experience and results of these experiments would be widely shared with all system actors, whose responses would be collected to develop possible mandates for further experimentation.

One priority area for localization experiments will be to create feedback loops between the everyday people meant to benefit from the project and those system actors involved in working with them directly. These

primary constituent feedback loops cannot, by definition, happen on the Pando LLS platform, and will need to be devised and tested locally. The LLS advisors, Root Change, and Keystone Accountability, will provide expert support to these Constituent Voice experiments.

Within a few more months, one would expect to see the effects of relationship corrective actions and localization experiments showing up in network map analytics and feedback responses (localization scores).

Step 7: Monitor and Repeat

The LLS team gathers updated network map data (Step 3) and collects regular system feedback data (Step 4) 3-4 times a year. Data is reviewed, and relationship sessions are conducted after each data collection period (Step 5). Relationship course corrections and localization experiments are initiated as necessary (Steps 5 and 6), and the process repeats (as shown in the figure below). The aggregate results produced by Pando LLS after each data collection period are used to track progress over time in the form of an Improvement Rate for Pando LLS. The LLS advisors will support the LLS Team to develop this Improvement Rate.

4. Adapt

Adjust interventions in response to what you discover, repeat the cycle

1. See/Listen

Map the current system and collect feedback to understand system performance
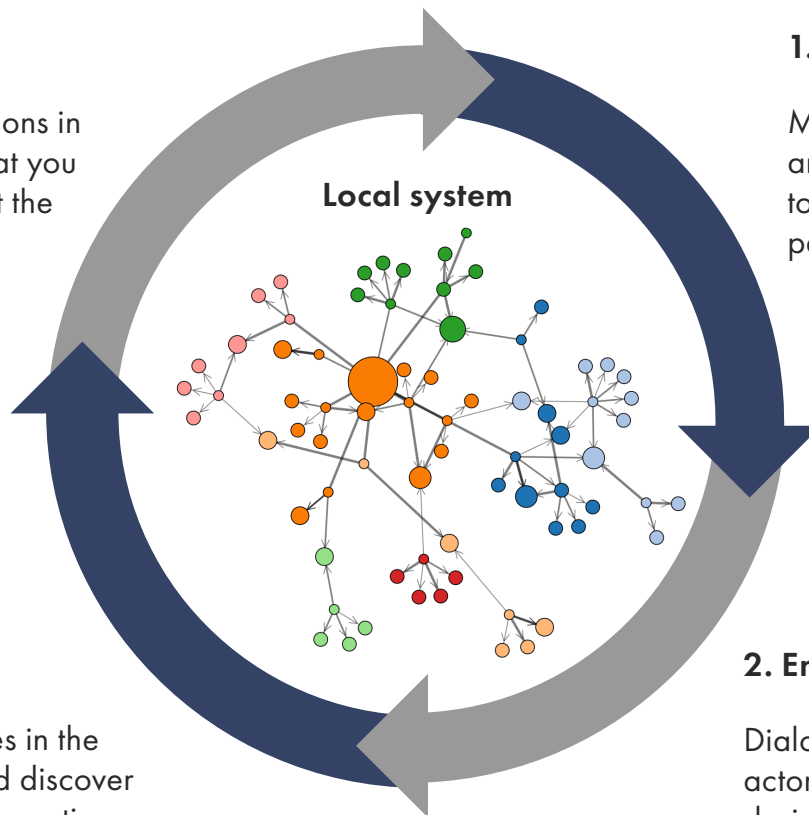
Local system

3. Discover

Monitor changes in the local system and discover the effect of interventions

2. Engage

Dialogue with system actors on results, design and test system strengthening interventions

Figure 4:
The Cycle of System Practice

The Cycle of System Practice

The steps for implementing Pando LLS closely follow the cycle of system practice[48]

- Collecting network and feedback data to measure the quality of relationships is about *listening* to the system and understanding its current state (the "as is" system).

- Through review and relationship work, the project team *engages* with project actors and system actors to make meaning of the results and identify ways to promote relationship improvement.

- After a period of experimentation, feedback surveys are conducted again and network map data is updated to *discover* the actual effects of the actions taken.

- Lastly, the project *adapts* to continue interventions that yield improved results over time, and the cycle repeats.

---

48 The cycle of system practice is outlined by USAID's Learning Lab; "The 5Rs in the Program Cycle", USAID Bureau for Policy Planning and Learning, published on USAID Learning Lab: https://usaidlearninglab.org/library/5rs-framework-program-cycle

The Four Measures

The four measures, analysis, and visualizations of Pando LLS are based on the theory and principles introduced earlier. Theory, principles, and these four measures are proposed as the starting point for testing and iterative improvement through future use of Pando LLS. The elements inside the four measures sometimes overlap. Together they offer a first approximation for the self-reliance, vitality, and autonomy of a local development system. As the network map is created and feedback surveys conducted, the platform generates an aggregate score for each of the four measurements, which is displayed transparently for all system actors and is shared through regular Pando LLS reports generated by the Pando LLS team. They will be discussed, challenged, and improved by system actors through regular dialogue sessions. Scores for these measures will be tracked over time to highlight improvement and change over time (or its absence). Also, as noted above, the LLS team will create an Improvement Rate for the Pando LLS itself.

Leadership

Leadership measures the degree to which local actors are encouraged and able to: set priorities, influence direction, lead decision making, define success, and receive recognition as subject matter experts by outside donors and larger international institutions and organizations. It asks to what extent local actors feel empowered to make independent decisions about what they consider the best course of action.

Local leadership measures for the emergence of local knowledge resource hubs and intermediaries (as opposed to international sources) and overall project alignment to local priorities. It also measures the extent to which individuals feel involved in or excluded from shaping strategy and decision making.

Mutuality

Mutuality assesses the quality of connections and relationships within the system. It evaluates the degree to which there is mutual trust, "good faith," respect, openness, voice, and responsiveness across all spheres of a local development system (donors, project actors, boundary partners, end users, etc.). Mutuality implies accountability – transparency and formal activities in which less powerful people, including women and the traditionally underrepresented, can and do hold those with more power to account for their decisions and behaviors.

The Mutuality measurement includes the strength of ties between actors and the extent to which parties feel comfortable expressing disagreements, responding to concerns, or working together equally.[49]

Connectivity

Connectivity assesses the diversity and density of relationships and collaboration between local actors. It examines the degree to which networks of local development actors have the motivation, opportunities, and incentives to work together to solve problems. It asks to what extent local actors are connected to local resources, knowledge, and expertise. The connectivity measure looks to the degree to which external programs foster increased collaboration and cohesion among local development actors.

---

49 The Mutuality measurement is closely related to the concept of social capital. As one advocate of using social capital identifies it, social capital is formed on the basis of generalized trust and 'obligations of reciprocity within a social network.' See Ellis, "Revisiting Social Capital."

Financing

Financing measures the degree to which dependence of local system actors on external (international) financial resources is decreasing and whether connections to local funding opportunities are improving. It assesses the extent to which local development actors have access to the required financial resources to succeed and increase their autonomy. It measures local development actors' confidence that the funding/resource environment is improving and the extent to which a relationship with a particular organization has made an actor more resilient and less dependent on foreign aid.

Financing is measured through a systematic assessment of the dominance of a few key actors, the evaluation of local funding sources, and connectedness to local resources.

In a Perfect World...Pando LLS promotes desired states for each of its measurements:

Leadership

Local organizations and actors set strategic priorities, lead decision making, define success, and enjoy enhanced status among external actors and their peers as subject matter experts. They feel empowered and take on the roles and responsibilities of central actors, decision makers, and opinion leaders in the development system.

Mutuality

Connected actors develop strong bonds of mutual trust and respect. Increasingly comfortable working on their relationships, and not just in them, they are open with one another and responsive across all spheres of the development network as they work together to solve problems.

Connectivity

Local system actors develop purposeful linkages and leverage current relationships to reach out to a broader network of prospective partners and resources as they work together to solve problems. External actors prioritize increased local partnership, collaboration, and cohesion.

Financing

Local development system actors have confidence in the local funding landscape and ready access to local forms of financing and financial resources. There is a growing range of local financing options, and actors are becoming less dependent on external or international sources of money.

Uses of Pando

Features	Users	How?
Create a shared vision of Localization	**LLS Team**, which can include staff from project funder and/or project lead implementers	Pando LLS helps projects create a shared vision and approach for measuring local ownership among project partners and system actors, making these goals explicit and transparent. Pando LLS measures articulate the principles of local system ownership and self-reliance, and the role external projects should play in supporting localization.
Visualize the larger system	Project leadership, partners, grantees, sub-grantees System actors, such as boundary partners, influencers, project end users	Pando LLS supports adaptive management of programming through real-time learning about the local system and how the project is influencing the local system towards localization goals. Automatically generated network maps visualize the organizations, relationships, and communities within a local system. Data filters and analysis tools uncover key actors, areas of collaboration, network structures, and dynamics.
Assess the quality of relationships	Project funders, project leaders, project partners, and system actors (boundary partners and end users)	Pando provides a set of feedback questions to assess the quality of critical relationships within the project value chain and compare results across different system actors, interventions and projects. Pando tutorials and survey questions make it easy for projects to collect feedback, benchmark results, and report back to system actors, and show change over time.
Validate results with stakeholders	Project funders, project leaders, project partners, and system actors (boundary partners and end users)	The Pando LLS approach engages in dialogue with system actors. It pushes development practitioners to develop project activities and M&E plans that involve local actors. Pando LLS supports regular engagement and dialogue with project and system actors on results of the localization measures to validate the results and uncover opportunities to strengthen the local system.
Test solutions to strengthen the local system	Project funders, project leaders, project partners	Pando LLS incorporates tested solutions that strengthen local systems back into project programing and celebrates failures as progress. The Pando LLS map, measure, reflect and adapt process repeats 3-4 times a year to ensure the discovery of tested solutions are small and manageable, and can be easily integrated into program practice.

Pando LLS Online Platform

The heart of the Pando LLS is the online platform that gives users an easy and accessible way to visualize, learn from, and engage with the social systems in which they work. In this section, we share how the platform supports the seven implementation steps discussed above.

Once users have registered, they fill out a relationship survey on their "Relationship Manager" to list the organizations they work with along the identified set of collaboration areas. They identify the organization name, the collaboration area in which they work with that organization, and how frequently in a 12-month period they interact. They also have the option of providing an email address for their contact within that organization. If an email address is provided, Pando sends those contacts an automatic invitation so that these new actors can also join Pando and map their relationships. The process continues for new actors identified by the second group of actors, and so on (see Step 3).[50]

Figure 5:
Relationship Manager on Pando LLS [51]

---

50 Relationship data that has been collected via other means, such as paper surveys, can also be imported to network maps. If email addresses are included, the map can be "activated" once imported, meaning that Pando LLS can send out email invitations alerting those actors that their data is available on Pando LLS. From there, actors can add to and edit their information directly on the online platform.

51 The relationships in Figure 4 are illustrative and do not reflect real relationships.

All actors invited to a map on Pando see instantly a visualization of the relationship data entered from the surveys, which forms the network map. As users add relationship data, the network map grows and updates in real time.
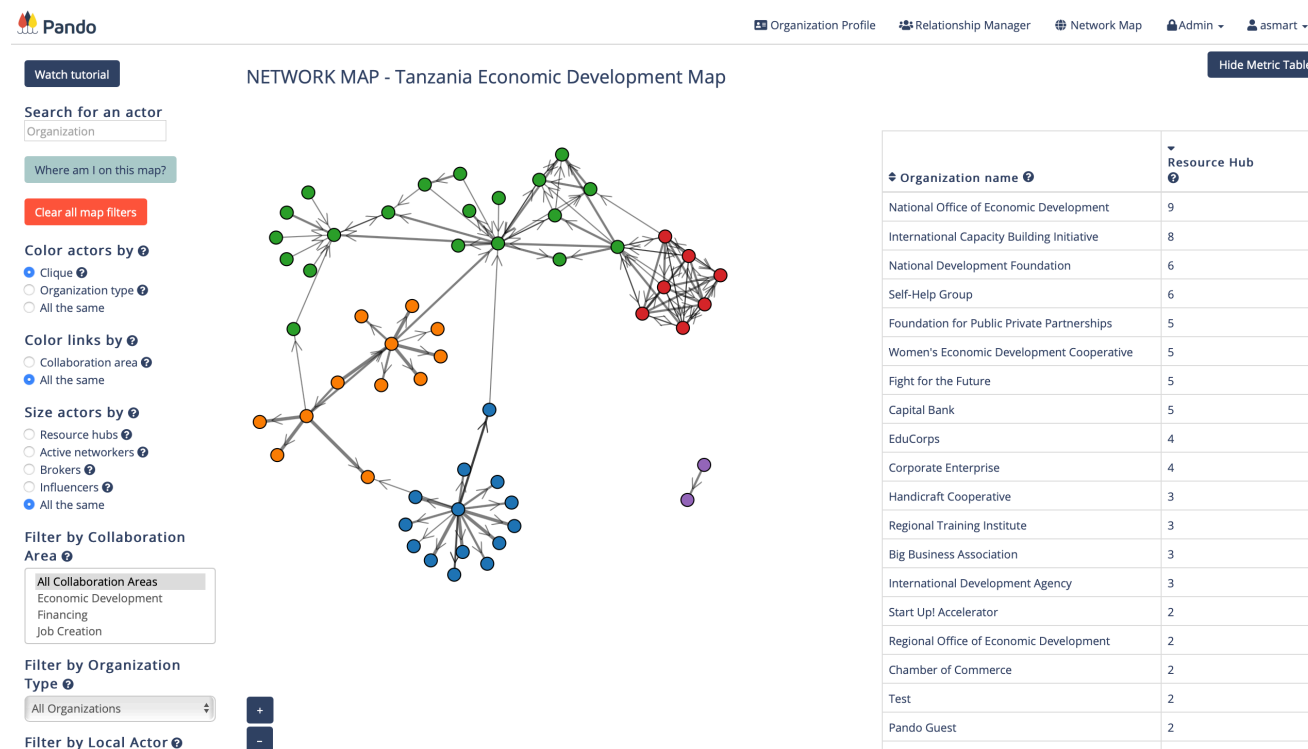
Figure 6:
Network Map on Pando LLS

The network map interface contains basic analysis and filtering functionality to help actors learn more about their system and the roles that they and other actors might play. It allows actors to visualize connections around specific collaboration areas, explore demographics, and identify emerging/established resource hubs,[52] active networkers,[53] brokers,[54] and influencers.[55] The LLS team will play an active role interpreting the visualizations for system actors, whose feedback on ease of use and usefulness of the platform will be closely monitored by the LLS team and LLS advisors.

---

52 Resource hubs are actors that have been nominated by others in the map as a source of expertise, ideas, or support.

53 Active networkers are actors that have identified many relationships with others in the map.

54 Brokers are positioned between groups of actors in the map and have the ability to connect these groups as well as pass information from one group to the other.

55 Influencers have a central position in the network and many relationships with other key actors in the network.

Demographic information is collected on the "Organization Profile," where actors fill out information about their own organization. They also have the option of providing contact information so that others in the network can directly connect with them through Pando LLS (see Step 3).

Figure 7:
Organization Profile on Pando LLS [56]

Pando LLS pulls contact information so that the LLS team can target key segments of the project system with anonymous online surveys to solicit feedback and assess the quality of relationships. These are simple surveys comprised of questions tested by Pando LLS advisors. The LLS team and other key actors may also create their own custom questions (see Step 4).

Questions are aligned with the four localization measures so that the LLS team and other key actors can ask questions related to a specific measure. Questions from multiple measures can also be combined into one survey.

56 The information in Figure 6 is illustrative.

Figure 8:
Survey Builder on Pando LLS

Once actors complete a survey, Pando LLS generates real-time reports of the feedback survey responses and network map data. These are organized by the four localization measures and can be disaggregated by demographic and collaboration area data. These visualizations are compiled into reports to be shared widely and used in offline sessions to improve relationships and generate experiments to improve local autonomy (see Steps 5 and 6).

The LLS team supports the work on agreed-upon relationship improvements and experiments and then returns to Pando LLS to see how the network map and feedback responses have changed as a result of their actions. This may require sending an additional survey and reminders for actors to update their relationships and should be done 3-4 times a year (see Step 7).

Through repeated use and adaptation of Pando LLS, the LLS team tracks progress towards localization using an aggregation of each of the four measurements: Leadership, Mutuality, Connectivity, and Financing, and develops an overall Improvement Rate for Pando LLS (see Step 7).

With greater knowledge of the entire system, as well as information about the relationships themselves, users of Pando LLS can see in real time not only where they fit in a broader network, but also how relationships are evaluated and improved throughout the system.

IV. Conclusion

Pando LLS seeks to prevent the deterioration of relationships between development partners like Everjoice Win and Christine through a model of mutual accountability by systematically surfacing their assumptions and behaviors and creating positive settings for generative, structured, measurable improvement efforts.

Aid system actors from donor country capitals to the everyday people meant to receive aid benefits agree on the importance of mutual and inclusive relationships as the crucial bedrock for positive outcomes and long-term sustainability and self-reliance. Yet, they lack the metrics and management tools and empirical methods necessary to map their system and measure internal dynamics. Without a sound and usable way to measure trust and relationships, it is difficult to identify and agree on actionable ways to improve local ownership and inclusive participation in development aid.

Working with the Pando LLS platform, system actors assist a funder or implementing organization in visualizing the system in which they are working and identifying their multiple and mutual connections. This shows not only the connections between one organization and the donor but also those with other local organizations. With this map, all partners begin to see hubs of resources and the flow of information and expertise. They can see that the aid system is more than a linear, top-down hierarchy, but rather a broader web of connections within which they should be the central actors.

Based on Pando LLS derived information, funders adapt their project approaches to strengthen trust and enhance partnerships. Using the LLS platform's information, they improve exit strategies and increase the likelihood of continued self-sustained progress at the conclusion of their project.

International development happens in complex local ecosystems, with each actor playing a crucial and necessary role. It is only by understanding the networks and relationships between actors that the local development system can be strengthened for a positive independent future. Ending the need for foreign assistance is only possible if all actors understand the terrain and relationship dynamics of the system in which they work.

Pando LLS alone cannot resolve the complex, structural inequalities in the aid-receiving local development systems. But it is difficult to imagine making significant progress on these wicked problems without establishing a guided process of mutual accountability that allows all actors to improve their relationships and systematically test new ways to advance localization objectives.

Root Change and Keystone Accountability are moving ahead with a Pando LLS program of action that will:

1. Present this paper in symposia at appropriate venues around the world with a particular intent to work with subject matter experts to expand the application of the platform and operation in a range of development project models.

2. Test the metrics as set out in Annex 2.

3. Pilot Pando LLS with small-scale development projects to assess usability and develop case studies and user support materials.

4. Develop two top-line metrics of usability and effectiveness. For usability, we will look to user satisfaction and trust in the platform and its features. For effectiveness, we are developing the Improvement Rate measure based on the extent to which Pando LLS is seen by users as actually improving relationships and advancing localization.

V. References

Bowman, Kimberly, John Chettleborough, Helen Jeans, Jo Rowlands, and James Whitehead, "Systems Thinking: An Introduction for Oxfam Program Staff," (October 2015).

"Busan Global Partnership for Effective Development Cooperation," 2011.

"Centrality," Wikipedia, https://en.wikipedia.org/wiki/Centrality (accessed July 5, 2019).

Chambers, Robert, "Can We Know Better: Reflections for Development", (Warwickshire: Practical Action Publishing, 2017).

Chambers, Robert, "Ideas for Development", (London: Earthscan, 2005).

Chambers, Robert and Jethro Pettit, "Shifting Power to Make a Difference," in Groves, Leslie and Rachel Hinton, eds., *Inclusive Aid: Changing Power and Relationships in International Development*, (London: Earthscan, 2004), page 138.

Consolidated and Further Continuing Appropriations Act of 2015, Pub. L. No. 113-235, § 7080 (2015).

Cornwall, Andrea, "Unpacking 'Participation': Models, Meanings and Practices," Community Development Journal, Vol. 43, No. 3 (July 2008).

Cunningham, Daniel, Sean F. Everton, and Philip Murphy, "Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis", (New York: Rowman Et Littlefield, 2016).

Earl, Sarah, Fred Carden, and Terry Smutylo, "Outcome mapping: Building Learning and Reflection Into Development Programs", (Ottawa, ON, Canada: International Development Research Centre, 2001).

Ellerman, David, "Helping People Help Themselves: From the World Bank to an Alternative Philosophy of Development Assistance", (Ann Arbor, MI: The University of Michigan Press, 2005).

Ellis, John, "Revisiting Social Capital (And What to Do About it)", USAID.gov, https://2012-2017.usaid.gov/frontiers/2014/publication/section-2-revisiting-social-capital-and-what-do-about-it (accessed February 15, 2019).

Gargiulo, Martin, and Mario Benassi, "Trapped in Your Own Net? Network Cohesion, Structural Holes and the Adaptation of Social Change", Organization Science, Volume 11, Issue 2, March-April 2000: pages 123-261.

Groves, Leslie and Rachel Hinton, eds., "Inclusive Aid: Changing Power and Relationships in International Development", (London: Earthscan, 2004).

Hanneman, Robert, and Mark Riddle, "Introduction to Social Network Methods", (Riverside: University of California Riverside, 2015). http://faculty.ucr.edu/~hanneman/nettext/C8_Embedding.html#reciprocity.

Holland, Jeremy, Stephen Jones and Andrew Kardan, "Understanding Participation in Development: Towards a Framework," International Development Planning Review, Volume 37, Issue 1, January 2015: pages 77-94.

Jacobs, Alex and Robyn Wilford, "Listen First: A Pilot System For Managing Downward Accountability In NGOs," Development in Practice, Volume 20, Number 7, 2010: pages 797 - 812.

Keystone Accountability, "Constituent Voice: Technical Note," Volume 1.1, September 2014, http://keystoneaccountability.org/wp-content/uploads/2009/08/Technical-Note.pdf (accessed July 5, 2019).

Keystone Accountability, "Feedback Commons", https://feedbackcommons.org (accessed April 11, 2019).

Keystone Accountability, "Keystone Performance Survey," https://keystoneaccountability.org/kps/ (accessed July 4, 2019).

Mansuri, Ghazala and Vijayendra Rao, "Localizing Development: Does Participation Work?" (Washington, DC: The World Bank, 2013).

Maxmeister, Marc, "When Donors And Beneficiaries See Things Differently," Keystone Accountability, December 12, 2016, https://keystoneaccountability.org/2016/12/12/when-donors-and-beneficiaries-see-things-differently/ (accessed April 11, 2019).

Miller, Mauricio L., "The Alternative: Most of What You Believe About Poverty Is Wrong" (Lulu Publishing Services, 2017).

Morris, Lynn, "Closing The Loop," Keystone Accountability, August 18, 2017, https://keystoneaccountability.org/2017/08/18/closing-the-loop/ (accessed April 11, 2019).

Newman, M. E. J., "Mathematics of Networks," The New Palgrave Encyclopedia of Economics, 2nd edition, 2008, living reference work entry, December 14, 2016, https://link.springer.com/content/pdf/10.1057/978-1-349-95121-5_2565-1.pdf (accessed April 11, 2019).

Oxfam and Save the Children, "The Power of Ownership: Transforming US Foreign Assistance" (2016).

Pinnington, Rosie, "Local First in Practice: Unlocking the Power to Get Things Done," (London: Peace Direct, 2014).

Pham et al., "DEPP Evaluation Summative Phase Report", Harvard Humanitarian Initiative, Jan 2019. https://hhi.harvard.edu/publications/depp-evaluation-summative-phase-report

Reichheld, Fred and Bob Markey, "The Ultimate Question 2.0", (Boston: Harvard Business Review Press, 2011).

Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.centrality.eigenvector_centrality.html#networkx.algorithms.centrality.eigenvector_centrality (accessed April 11, 2019).

Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.centrality.in_degree_centrality.html#networkx.algorithms.centrality.in_degree_centrality (accessed April 11, 2019).

Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.reciprocity.reciprocity.html#networkx.algorithms.reciprocity.reciprocity (accessed April 11, 2019).

Read the Docs, NetworkX, https://networkx.github.io/documentation/stable/reference/algorithms/generated/networkx.algorithms.cluster.clustering.html#networkx.algorithms.cluster.clustering (accessed August 2, 2019).

Read the Docs, NetworkX, https://networkx.github.io/documentation/stable/reference/algorithms/generated/networkx.algorithms.centrality.local_reaching_centrality.html (accessed April 11, 2019).

Rogers PC, McAvoy DJ, "Mule Deer Impede Pando's Recovery: Implications for Aspen Resilience from a Single-Genotype Forest," (2018) PLoS ONE 13(10): e0203619. https://doi.org/10.1371/journal.pone.0203619

Smart, Alexis, "Can Social Labs Repair Trust In Two Malawi Districts?" Root Change, October 25, 2018, https://www.rootchange.org/2018/10/25/can-social-labs-repair-trust-in-two-malawi-districts/ (accessed April 11, 2019).

Tesky, Graham, "Thinking and Working Politically: Are We Seeing the Emergence of Second Orthodoxy?", Governance Working Paper Series, Issue 1, March, 2017, https://abtassocgovernancesoapbox.files.wordpress.com/2017/06/abt-associates-working-paper-series-issue-no-1-final-010617.pdf (accessed July 4, 2019).

USAID, "Journey to Self-Reliance Fact Sheet," (USAID, 2018).

USAID, "Local Systems: A Framework for Supporting Sustained Development," (April 2014).

USAID, "Local Works," Office of Sustainability, https://www.usaid.gov/localworks (accessed July 4, 2019).

USAID, "SPACES MERL: Systems and Complexity White Paper," (March 2016).

USAID, "The 5Rs Framework In The Program Cycle: Technical Note," Version 2.1, October 2016, https://usaidlearninglab.org/sites/default/files/resource/files/5rs_techncial_note_ver_2_1_final.pdf (accessed July 5, 2019).

Win, Everjoice, "'If It Doesn't Fit On The Blue Square It's Out' An Open Letter to My Donor Friend," in Groves, Leslie and Rachel Hinton, eds., *Inclusive Aid: Changing Power and Relationships in International Development*, (London: Earthscan, 2004), pages 123 - 127.

Woolcock, Michael and Deepa Narayan, "Social Capital: Implications for Development Theory, Research, and Policy," *The World Bank Research Observer*, Vol. 15, No.2 (August 2000).

VI. Acknowledgements

VII. Annexes

The following annexes describe how we propose to calculate the four LLS measures: Leadership, Mutuality, Connectivity, and Financing. In Annex 1, we share our indicators, which are derived from social network analysis (SNA) and the Constituent Voice™ method. In Annex 2, we describe how we will test these foundational indicators against real-world datasets collected by Root Change and Keystone Accountability. This testing phase will help us to determine the appropriateness of the indicators, and inform selection of additional indicators if necessary. In Annex 3, we share our illustrative graphics for reporting, which cover network and feedback results captured through Pando LLS.

Annex 1: Indicators for LLS Measures

SNA Indicators

The first set of indicators for each LLS measure are derived from social network analysis (SNA). The metrics draw on standard mathematical algorithms used to express findings about key actors and network dynamics for project actors and the system as a whole.[57] Among the SNA indicators, we have included two types of metrics: actor-level metrics and system-level metrics.

Actor-level metrics measure organizational and individual roles and influence within the system. These metrics take into account all relationships between all actors but give information about each specific actor and how it relates to others in the system. Actor-level metrics are useful in determining which organizations or individuals are playing key roles. The roles actors may or may not be playing provides insight into how they can better contribute to localization and systemic change. When tracked over time, they can also reveal changes in roles, influence, and power dynamics between and among actors as relationships and collaboration changes.

Examples of actor-level metrics include centrality measures, which are used to assess an actor's position in the system.[58] Examples of centrality measures include eigenvector centrality and in-degree centrality. Definitions and interpretations of these measures are provided below, under the relevant localization measure.

System-level metrics measure the overall structure formed by the actors and relationships in a system. In other words, they look at the overall shape and size of the system. These metrics are useful in assessing system health, including how connected actors are to one another, whether or not the system has many relationships, and how concentrated these relationships may be around a few actors versus spread out across everyone. Particularly when tracked over time, system-level metrics allow us to assess the broader development ecosystem by giving insight into equality, power imbalances, and collaboration.

---

57 Algorithms used by Pando LLS include a python program called NetworkX (https://networkx.github.io/) that has SNA algorithms built into its data processing capabilities.

58 https://en.wikipedia.org/wiki/Centrality

Examples of system-level metrics include cohesion and average degree, which are used to make generalizations about the entire system. Definitions and interpretations of these measures are provided below, under the relevant localization measure.

For each social network analysis metric, the results can be collected and analyzed along different levels or pieces of the system. For example, actor-level metrics can be compared across groups to assess one group's performance compared to the other group. System-level metrics can be run only on relationship data for specific actor types or types of relationships, such as the system comprised of only local actors or only the finance system. Unless otherwise specified under the specific metric, the metric will be run on the entire system or using all actors and all relationships.

System Overview Measures

In addition to SNA indicators for each LLS measure, we will also calculate a set of basic summary statistics for each network map. These system overview measures are not connected to specific LLS measures, but rather are used to help contextualize the network size and structure. The measures to be used include:

- Number of actors and number of relationships, both total relationships (including redundancy across collaboration area networks) and unique relationships;
- Average degree[59];
- Demographic counts for the number of local/non-local actors, project actors, organization types;
- Percentages of actors for each area of expertise and location; and
- Number of actors, number of relationships, and average degree for each collaboration area network.

Feedback Indicators

The second set of indicators for each measure are tested feedback questions that draw on Keystone Accountability's Constituent Voice™ (CV) method.[60] To gain comparability over time and across Pando maps, Pando presents standard menus of tested questions derived from Keystone's work over the past decade. Standard questions may evolve over time, but always at the expense of historical comparability.

Standard feedback questions come in two types: Experience questions and enabling environment questions.

Experience questions measure organization and individual experience of project services, relationships, and emerging outcomes, and probe to understand whether these contribute to or inhibit localization.

Users of the Pando LLS can ask a wide range of actors for their experience and perceptions of the project as a whole, or they can ask specific constituents for their experience as actors within the project, and how the project can be improved through mutual action.

---

59 Average degree calculates how many relationships actors in a system have to one another by dividing the total number of relationships by the total number of actors to get an average.

60 Keystone Accountability, *Feedback Commons*, https://feedbackcommons.org (accessed July 4, 2019).

Examples of standard experience questions include:

- To what extent does {the project}[61] foster better collaboration and cohesion among local development actors? (0 = not at all, 10 = very much)

- To what extent do you feel involved in shaping {the project's} purpose and strategy? (0 = not at all, 10 = very much)

Enabling environment questions ask about the broader development ecosystem in which local development actors and project actors operate. They provide insights on the state of the system in relation to the four measures and localization more broadly.

Examples of standard enabling environment questions include:

- How confident are you that the funding environment is improving? (0 = not at all, 10 = very much)

- To what extent do you have access to the technical knowledge and skills to succeed? (0 = not at all, 10 = very much)

For each question the results can be collected and analyzed comparatively along different levels of the system. This is illustrated, with examples of questions, in the table below:

Project partners voice to project funders	- To what extent do you feel involved in shaping {the project's} goals and strategy? (0 = not at all, 10 = very much) - Do you feel safe to speak out when you disagree or feel dissatisfied? (0 = not at all, 10 = completely)
Boundary partners voice to project partners	- Does {the project} communicate clearly, regularly and in good time? (0 = not at all, 10 = completely) - To what extent does {the project} facilitate better collaboration among local development actors? (0 = not at all, 10 = very much)
All system actors voice to project funders	- Is the project making good progress towards achieving its goals? (0 = not at all, 10 = very much) - Please tell us why you gave this score. (Open text box)

Figure 9:
Examples of Pando LLS Standard Questions[62]

---

61 In implementation on the online platform, these questions will auto-populate with the specific project's name. For the purposes of showcasing questions, we have left these generic in this document.

62 "All system actors" includes project partners, boundary partners, and end users/potential allies. In other words, it includes all actors in the system other than funders.
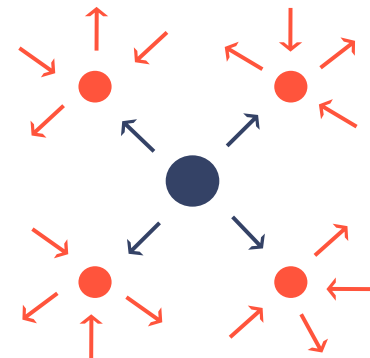
LLS Measure: Leadership

Leadership measures the degree to which local actors are able to: set priorities, influence direction, lead decision making, define success, adapt activities and strategies based on local learning, and receive recognition as subject matter experts by outside donors and larger international institutions or organizations. It asks to what extent local actors feel empowered to make independent decisions (for which they remain accountable) about the best course of action.

SNA Indicators

Eigenvector centrality ranking for local actors in the system:[63] Eigenvector centrality is an actor-level metric calculated using all relationships in the system to assess systemic influence of each actor. The metric is based on the underlying premise that not all ties are equally important. Therefore, few ties with very influential actors (those who are also prominent actors in the system) can be better than many ties with actors with little influence (those who might be on the periphery of the system and don't know many others) in the network (see figure 10).[64] As a project works to enhance local leadership by supporting local actors in connecting and building alliances and relationships with other influential local and international actors in the system, over time more local actors will appear on the list of actors with the highest eigenvector centrality scores in the network. In other words, by influential actors, such as a donor, taking the time to foster relationships with local actors who have less influence in the system, those local actors will benefit from the reputation and influence of the donor, resulting in an increase in their own reputation and influence.

Using this metric, we can rank local actors by the highest eigenvector centrality score. We can also track specific local actors of interest, such as local actors that are targeted by a project to see if their scores are improving, as well as track change in the benchmark or average of this metric for all local actors in the system, compared to that of non-local actors ranked by their eigenvector centrality score.

Figure 10: Eigenvector Centrality

In-degree centrality ranking for local actors in the system:[65] In-degree centrality is an actor-level metric that looks at direct influence between actors, meaning it is calculated using only that actor's relationships. This metric assesses influence based on how often an actor has

---

63 To calculate this, we will be using the NetworkX eigenvector centrality command run on the full network and then disaggregated by whether an actor is local or non-local Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.centrality.eigenvector_centrality.html#networkx.algorithms.centrality.eigenvector_centrality (accessed April 11, 2019).

64 M.E.J. Newman, "Mathematics of Networks," The New Palgrave Dictionary of Economics. Springer Link, December 14, 2016, https://link.springer.com/content/pdf/10.1057/978-1-349-95121-5_2565-1.pdf (accessed April 11, 2019).

65 To calculate this, we will be using the NetworkX in_degree_centrality command run on the full network and then disaggregated by whether an actor is local or non-local Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.centrality.in_degree_centrality.html#networkx.algorithms.centrality.in_degree_centrality (accessed April 11, 2019).

been nominated by others in the system. Actors with a high number of in-degrees represent resource hubs or subject matter experts within the system.[66]

By periodically ranking local actors by in-degree centrality, we can see over time if local actors are being more recognized and sought out by others for their expertise, knowledge, and skills. We can also compare the benchmark, or average, of this metric for local actors with that of non-local actors to see if more experts in the system are local or non-local. As localization improves, we would expect to see more local actors on the list of top resource hubs, showing that those local actors are being recognized and sought after by others for their input, ideas, and expertise.

Group external and internal ties (E-I Index) for non-local actors in the system:[67] E-I Index used to determine the tendency of actors to interact with those similar to them versus those different from them. Interaction is defined as having a relationship to another actor, and the index is calculated by looking at whether outgoing relationships are to someone in the same group or someone in the other group. E-I Index is typically calculated as a single score for all actors in a group, but can also be calculated for individual actors as an actor-level metric.[68] For the purposes of local leadership, the two groups we will use for calculation of this metric are non-local and local actors.[69]

E-I Index of non-local actors, or the tendency of non-local actors to interact with local actors versus only other non-local actors, will shed light on their integration into the local system and the degree to which local voices and opinion are solicited. As local actors gain ability to set priorities and non-local actors solicit more input from local actors versus only outsiders, non-local actors should see an increase in their group external ties or relationships with local actors. We can also track specific non-local actors, such as those involved in the project, to see how much they are soliciting local input.

Feedback questions that inform the Leadership measure

- To what extent do you feel involved in shaping {the project} purpose and strategy?
  (0 = not at all, 10 = very much)

- To what extent do you feel that you are involved in decisions around {project} activities?
  (0 = not at all, 10 = very much)

- To what extent do you feel that you are involved in decisions around funding allocation?
  (0 = not at all, 10 = very much)

---

66 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 6.

67 To calculate this, we will be using the following formula, pulling from the full network: # Non-local to local ties - # Non-local to non-local ties / Total ties from non-local actors.

68 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 4.

69 This information will be collected on the Pando Organization Profile. We have provided the following definition of local actors so that organizations can self-select into the correct category: "Local actors are individuals, organizations or institutions that are indigenous to the country. They do not include international organizations or private sector, even those registered in country with indigenous staff." This information can also be edited by the map administrator if needed.

- How much does {the project} try to address what is important to you?
  (0 = not at all, 10 = very much)

- Do leaders of {the project} act on the feedback that you and others give them?
  (0 = not at all, 10 = a lot)

- In {the project}, do you feel encouraged and supported to adapt plans and activities based on new evidence and learning? *(0 = not at all, 10 = very much)*

- In your experience with {the project}, which groups have the strongest influence over its design?
  (Open response question)

LLS Measure: Mutuality

Mutuality assesses the quality of connections and relationships within the system. It evaluates the degree to which there is mutual trust, "good faith," respect, openness, voice, and responsiveness across all spheres of a local development system (donors, project actors, boundary partners, end users, etc.). Mutuality implies accountability – transparency and formal activities in which less powerful people can and do hold those with more power to account for their decisions and behaviors.

SNA Indicators

Reciprocity score:[70] This actor-level metric examines the multi-directionality of relationships in the system. A reciprocal tie is when two actors both nominate each other as a source of information, ideas, or support, creating a bidirectional relationship (see figure 11). Prevalence of reciprocal relationships within a system show which relationships are stronger and where there is greater trust.[71]

The reciprocity score for each actor is calculated by looking at how many of that actor's total existing ties are reciprocal, or bidirectional (returned to them). By looking at reciprocal ties of actors that fall within specific collaboration area networks or for specific groups, such as project ac-

Figure 11:
Example of Reciprocal Ties

tors and potential allies, this metric provides insight into relationship strength and trust within those specific groups or relationship types. Results could be compared to feedback results to help track if project efforts are improving reciprocity among local development actors in the system. For example, how much reciprocity exists between project actors and boundary partners, or between project actors and systems actors. In addition, we could combine actors' reciprocity scores into an average to measure reciprocity in the overall system. Reciprocity scores could also be compared to the feedback scores for the same set of relationships.

---

70 To calculate this, we will be using the NetworkX reciprocity command run on the full network and then disaggregated by various attributes. We will also be running this between specific pairs of actors, such as project partners and boundary partners. Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.reciprocity.reciprocity.html#networkx.algorithms.reciprocity.reciprocity (accessed April 11, 2019).

71 Robert Hanneman and Mark Riddle. *Introduction to Social Network Methods* (Riverside: University of California Riverside, 2015), http://faculty.ucr.edu/~hanneman/nettext/C8_Embedding.html#reciprocity, Chapter 8.

Average strength of relationships:[72] Within Pando LLS, users indicate how frequently they go to or engage with the actors they nominate. We use frequency of ties as a proxy for strength of relationship. The average frequency score for the full network and each collaboration area network will provide insights into the strength of the relationships that exist between specific actor groups, such as project partners and project leadership, or project partners and local actors. With this information, a project might determine where groups of actors have stronger or weaker ties, and where more collaboration and relationship building are needed. As mutuality improves, we would expect to see the average strength of ties increase between project actors and between local actors working together across different collaboration networks.

Clustering coefficient scores for project actors:[73] Clustering coefficient scores measures the extent to which an actor's immediate relationships have relationships with one another. It does this by taking an actor in the system and looking at their immediate connections (to the first degree) and creating what is called an ego network. From there it calculates how many connections exist between those first-degree actors. Clustering coefficient scores for project actors will help to track the role project actors are playing as facilitators

Figure 12:
Clustering Coefficient for Project Actors

of local collaboration, which is a component of the Mutuality measure. Initially, when a project is starting, project actor's ego network might look more "hub and spoke", as the project is establishing relationships with local actors and allies. Over time, we would expect to see the project actor helping to facilitate relationships and connections between their local actor contacts, and for their ego network to show more cross collaboration. This indicator will help to measure the degree to which this is happening over time.

Feedback questions that inform the Mutuality measure

- Is it worth your effort to engage with {the project} to make it more effective?
  (0 = not at all, 10 = very much)

- How comfortable do you feel to question {the project's} knowledge or actions if you disagree with them? *(0 = not at all comfortable, 10 = very comfortable)*

- How clearly do you understand what {the project} means by localization?
  (0 = not at all clearly, 10 = very clearly)

- From your experience with {the project} so far, are you achieving a more equal way of working together? *(0 = not at all, 10 = very much)*

- To what extent do you feel {the project} involves you in defining your capacity development interests and needs? *(0 = not at all, 10 = very much)*

---

72 To calculate this, we are using a frequency score captured for relationships by users. On Pando, users are asked in the Relationship Manager to input how frequently they interact with actors they nominate. Frequency is reported as "Often (more than 6 times a year)," "Sometimes (3-5 times a year)," or "Rarely (1-2 times a year)". For analysis, these frequencies are changed to numeric representations 3, 2, and 1, respectively. Therefore, a relationship of frequency "Often" is weighted the same as three different relationships of frequency "Rarely".

73 To calculate this, we will be using the NetworkX clustering command run on the full network and then pull out the scores for project actors. Read the Docs, NetworkX, https://networkx.github.io/documentation/stable/reference/algorithms/generated/networkx.algorithms. cluster.clustering.html#networkx.algorithms.cluster.clustering (accessed August 2, 2019).

- Does {the project} communicate clearly, regularly and in good time?
  (0 = not at all, 10 = completely)

LLS Measure: Connectivity

The connectivity dimension measures the degree to which external programs foster increased collaboration and cohesion among local development actors. Connectivity assesses the diversity and density of relationships and collaboration between local actors in a network. It examines the degree to which networks of local development actors have the motivation, opportunities, and incentives to work together to solve problems. It asks to what extent local actors are connected to local resources, knowledge, and expertise.

SNA Indicators

Average degree of local system:[74] Average degree is a system-level metric that calculates how many relationships actors in a system have to one another by taking the average. It is often used in place of network density to measure the increase in the number of overall relationships and collaboration in the network because it is more sensitive to changes, especially in larger networks where density can be very small due to a large number of potential relationships among the many actors in the system.[75] It can also be calculated as an actor-level measure, by looking at the total number of ties for each individual actor.[76]

Measuring the average degree in the system of only local actors, not including relationships with non-local actors, will give insight into how much collaboration and connectivity exists among local actors. The average also provides insight into how many links local actors should have to one another, which gives a good baseline for then looking into the number of relationships specific local actors hold to see if they are performing better or worse than their peers. With this information, a project can determine whom outreach should target to increase local collaboration, as well as who could connect others in the system because they already collaborate with many others.

Tracking average degree over time will show whether or not overall collaboration and number of relationships in the local actor system is increasing, which we would expect to happen as the local system thrives.

Cohesion (Reach) of local system:[77] Cohesion is a system-level metric used to determine how connected actors are to one another. In order to create a cohesion measure for the local system we are combining the

---

74 To calculate this, we will be using the following formula: # total ties between local actors only / # total local actors only.

75 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 4.

76 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 6.

77 To calculate this, we will be using the NetworkX local_reaching_centrality command run on only local actors and their relationships to one another. We will then take the average for all local actors and divide by (n-1), where n is the total number of local actors in the network, to determine the average number of actors each actor can reach. Read the Docs, NetworkX, *https://networkx.github.io/documentation/ stable/reference/algorithms/generated/networkx.algorithms.centrality.local_reaching_centrality.html* (accessed April 11, 2019).

reach of local actors. Reach calculates how far an actor's contributions (information, ideas, resources, etc.) can flow through the network. This indicator looks at an actor's outgoing relationships, the outgoing relationships of those actors, and so forth, to calculate the percentage of all network actors that could receive information, resources, or ideas from the first actor. The final output of this indicator is the average percentage of actors a single local actor can reach, calculated by averaging individual scores for each actor.
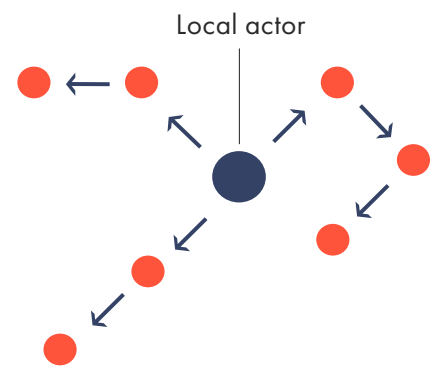
Local actor

Figure 13:
Cohesion (Reach)

Applying cohesion (reach) to the local system, we can see what percentage of the full network (or collaboration networks) local actors can reach. This provides insight into the flow of information resources and ideas among local actors in the system and how this compares to non-local actors. As a project works to increase connectivity among local actors, we would expect to see the cohesion (reach) of local actors within the system to increase.

Feedback questions that inform the Connectivity measure

- To what extent has {the project} support enabled you to strengthen your relationships with other local organizations? *(0 = not at all, 10 = very much)*

- To what extent does {the project} foster better collaboration and cohesion among local development actors? *(0 = not at all, 10 = very much)*

- To what extent do you have the relationships and connections you need to advance your work? *(0 = not at all, 10 = very much)*

LLS Measure: Finance

Finance measures the degree to which the dependence of local system actors on external (international) financial resources is decreasing and whether connections to local funding opportunities are improving. It assesses the extent to which local development actors feel like they have access to the required financial resources to succeed and increase their autonomy. It also measures local development actors' confidence that the funding/resource environment is improving and the extent to which a relationship with a particular organization has made an actor more resilient and less dependent on foreign aid.

SNA Indicators

For the finance measure, we will be using a similar set of indicators as mentioned above to analyze the finance collaboration area (sub-network) within the system. As mentioned previously on page 22, each network map created under Pando LLS will map relationships along with a customized set of collaboration areas (or sub-networks). Collaboration areas represent the key technical or issue areas where local actors are exchanging information, ideas, and support. Every Pando LLS network map will have one required collaboration area that will measure financing relationships for local actors within the system. For example, the collaboration area would ask: *which organizations or individuals have you gone to in the last year for fund-*

ing to advance your work? Actors and relationships identified in the financing collaboration area will make up the "finance network." By focusing on this collaboration area in LLS analysis, we can assess the funding landscape for local actors, the diversity of known funding sources available and accessible to local actors, and how it changes over the life of project interventions. The feedback indicators additionally will help to provide local perspectives and insights on confidence around the funding landscape and how it is being influenced by the project. The following indicators will be used to analyze the finance network.

In-Degree Centrality ranking for local actors in the finance network:[78] In-degree centrality is an actor-level metric that looks at direct influence between actors, meaning it is calculated using only that actor's relationships. In-degrees are links from other actors to an actor; therefore, this metric assesses influence based on how often an actor has been nominated by others in the system. Actors with a high number of in-degrees represent resource hubs or subject matter experts within the system.[79]

By ranking in-degree centrality for local actors in the finance network over time, we can see if local actors are being more recognized and sought out by others for their financial expertise, knowledge, and resources. We can also compare the benchmark, or average, of this metric for local actors with that of non-local actors to see if more experts in the finance system are local or non-local. As localization improves, we would expect to see more local actors on the list of top resource hubs within finance, showing that those local actors are being recognized and sought after by others for financial expertise and resources.

Group external and internal ties (E-I Index) for local actors in the finance network:[80] E-I Index is a system-level metric used to determine the tendency of actors to interact with those similar to them versus those different from them. Interaction is defined as having a relationship with another actor, and the index is calculated by looking at whether outgoing relationships are to someone in the same group or someone in the other group. E-I Index is typically calculated as a single score for all actors in a group, but can also be calculated for individual actors as an actor-level metric.[81] For the purposes of local leadership, the two groups we will use for calculation of this metric are non-local and local actors.[82]

---

78 To calculate this, we will be using the NetworkX in degree centrality command run on only the finance network and then disaggregated by whether an actor is local or non-local. Read the Docs, NetworkX, https://networkx.github.io/documentation/networkx-2.3/reference/algorithms/generated/networkx.algorithms.centrality.in_degree_centrality.html#networkx.algorithms.centrality.in_degree_centrality (accessed April 11, 2019).

79 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 6.

80 To calculate this, we will be using the following formula, pulling from the finance network only: # Local to non-local ties - # Local to local ties divided by Total ties from local actors.

81 Daniel Cunningham, Sean F. Everton, and Philip Murphy, *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis* (New York: Rowman Et Littlefield, 2016), Chapter 4.

82 This information will be collected on the Pando Organization Profile. We have provided the following definition of local actors so that organizations can self-select into the correct category: "Local actors are individuals, organizations or institutions that are indigenous to the country. They do not include international organizations or private sector, even those registered in country with indigenous staff." This information can also be edited by the map administrator if needed.

E-I Index of local actors within the finance network, or the tendency of local actors to interact with non-local actors versus only other local actors, will give us insight into availability and access to local financial resources and expertise versus dependence on international actors. As local actors increase relationships and access to local resources (such as those from government, community foundations, and other local funders), we will see an increase in their group internal ties, or those with other local actors, within the finance network. We can also track specific local actors of interest to see who has knowledge of and access to local financial resources.

Clustering coefficient scores for funding organizations in the finance network:[83] For the same reasons stated on the use of clustering coefficient scores for Mutuality above, we will be using the same indicator under the Finance measure for specific actors. For Financing we will be analyzing clustering coefficient scores for funding organizations. Funding organizations are those with organization types such as donors, funders, foundations, and grant-making organizations, attributes which are collected on Pando. By analyzing clustering for funding organizations, we will be able to

Figure 14:
Cluster Coefficient for Donor/Funders

learn whether organizations are forming exclusive groups around those funding organizations, if funders are continuing to support the same sets of local actors over time or "usual suspects". We will include this indicator in the first iteration of Pando LLS, and continue to work with LLS adopters and use cases to determine what balance of collaboration and connections with new actors is the best indicator of a healthy finance system.
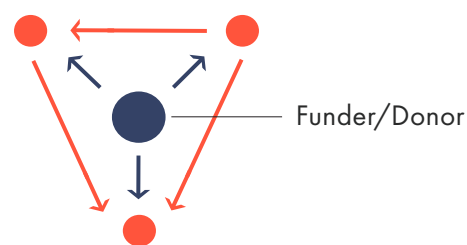
Feedback questions that inform the Finance measure

- To what extent has your relationship with {the project} made you more resilient financially?
  (0 = not at all, 10 = very much)
- To what extent has your relationship with {the project} made you less dependent on foreign aid?
  (0 = not at all, 10 = very much)
- To what extent has {the project} assisted you in accessing alternative means of funding?
  (0 = not at all, 10 = very much)
- How confident are you that the funding environment is improving?
  (0 = not at all, 10 = very confident)
- To what extent has your relationship with {the project} made you more prepared to best manage the changes in foreign aid or other external shocks that are beyond your control?
  (0 = not at all, 10 = very much)
- To what extent do you have access to the technical knowledge and skills to succeed?
  (0 = not at all, 10 = very much)
- To what extent can you demonstrate the active support of your constituents?
  (0 = not at all, 10 = very much)

---

83 To calculate this, we will be using the NetworkX clustering command run on the full network and then pull out the scores for project actors. Read the Docs, NetworkX, https://networkx.github.io/documentation/stable/reference/algorithms/generated/networkx.algorithms.cluster.clustering.html#networkx.algorithms.cluster.clustering (accessed August 2, 2019).

Annex 2: Methods used for Testing LLS Measures

To test the appropriateness of the SNA indicators and feedback questions explained in Annex 1, we used the following methods with existing data from both Root Change and Keystone Accountability. Indicators and survey questions provided in Annex 1 represent the current set of indicators that were finalized based on results of this testing process.

SNA Indicators

For the SNA indicators, Root Change used an existing real-world dataset based on an external evaluation conducted of START Network's Disasters and Emergencies Preparedness Programme (DEPP), a global capacity building program that aimed to strengthen the networks and collaboration among local actors working in humanitarian assistance.[84] Harvard Humanitarian Institute (HHI) conducted the evaluation with support from Root Change.

The DEPP theory of change was built on the premise that increased collaboration, including strengthened networks, is critical to improving humanitarian preparedness and response. Initiated in 2014 by the Government of the United Kingdom (UK), one of the defining features of DEPP was the use of collaboration. Specifically, the program aimed to facilitate collaboration between different public and private actors to improve the humanitarian preparedness and response capacities of countries prone to natural disasters and conflict. Collaboration was also intended to improve localization, specifically in building the capacity and leadership of national-level organizations as a longer-term strategy for disaster preparedness.

For the DEPP evaluation, a survey instrument was used to capture quantitative and qualitative data on program results across four countries (Myanmar, Kenya, Ethiopia, and the Philippines) for two time periods in 2016 (over 12-months). Integrated into the survey were questions used to capture relationship data among DEPP participants and system actors across 32 different collaboration networks. Root Change used this data to create country-level network maps representing the DEPP actors and the larger system of civil society, government, and international actors working on disaster response.

Root Change selected to use this data set to test the LLS SNA indicators. The DEPP network data offered many benefits for this purpose:

1. DEPP as a program was working to strengthen the local humanitarian response system by engaging with and building the capacity of national, regional and local level organizations to drive humanitarian response and emergency preparedness across a range of sectors. Root Change analyzed the level

---

84 Phoung Pham et al. *DEPP Evaluation Summative Phase Report.* Harvard Humanitarian Initiative, 2019, https://hhi.harvard.edu/publications/depp-evaluation-summative-phase-report.

of localization across the 32 collaboration areas for each of the DEPP country-level networks. Actors were identified as local versus international in the same way we intend to distinguish local actors under the LLS. One of the collaboration areas was on finance relationships, providing us with a proxy "finance network" to support testing of indicators for the LLS Finance measure.

2. When examining the degree of localization for the four country networks, we discovered quite a range. For example, the Philippines humanitarian assistance network was found to be highly localized, with approximately seventy percent of the top fifty most connected organizations being local organizations. Myanmar was found to be on the lower end of this spectrum, as a more internationally-dominated humanitarian assistance network with local actors being more isolated and with fewer connections; the Kenya and Ethiopia humanitarian response networks fell in the middle of this spectrum. The different stages of localization represented in DEPP countries provide us with a good use case for testing the SNA indicators for the four LLS measures and determining if they are appropriate and effective in predicting these different localization states.

3. Additionally, we have data over two time periods for each country and a range of network sizes. Across 32 collaboration areas (sub-networks) they range in size from twenty nodes (actors) to thousands. This again represents an opportunity for us to test the appropriateness of the SNA indicators to provide a reliable signal for different sized networks and to depict change over time.

The first step to testing the LLS measures was to align the data to match with LLS specifications. Much of this already existed in the DEPP data. For example, the DEPP evaluation captured whether organizations were local or international, as well as which actors represented project leadership and project partners. Using secondary data from the evaluation, we labeled additional actors as boundary partners within the DEPP context.

Next, Root Change examined data on the DEPP country networks. We selected a set of collaboration area networks that best represented a spectrum of local system vitality, creating example networks for high, medium and low localization. This allowed us to set some hypotheses for our SNA indicators and how we expected them to perform for each representative network. We then calculated each of the network indicators for these three network states, and disaggregated the data as described in Annex 1 by key attribute information based on local actors and project actors.

As mentioned, each DEPP country network contains 32+ collaboration areas or sub-networks. These sub-networks ranged greatly in size and density. As part of our testing process, we ran the SNA indicators across these various collaboration areas or combinations of collaboration areas to test the robustness and appropriateness of the indicators and how they performed for different network sizes and density levels. The top collaboration areas (those which consistently had the most actors/relationships across countries and time periods) were analyzed. Lastly, we tested the LLS SNA indicators across the DEPP datasets for the two time periods

Exploration of our LLS metrics with the DEPP data gave greater insight into the appropriateness and potential

limitations of the metrics that we have chosen. From this analysis, we made a final decision on the proposed metrics, adjusting or changing them if needed through the methods described, and adding any additional indicators if needed. See Annex 1 for descriptions of the final SNA metrics selected based on this testing process.

Feedback Indicators

Over the last 5 years, Keystone Accountability has developed an online survey toolkit called the Feedback Commons.[85] It includes a database of hundreds of survey questions from real-world relationship surveys among international development actors and local development actors.[86]

The vast majority (66) of the feedback surveys in this database were derived from an anonymous Keystone Performance Survey (KPS) conducted on behalf of international development organizations (INGOs) collecting feedback from their multiple local implementing partners. Over the last ten years, Keystone has used the KPS with local implementing partners for over 125 funders, INGOs, and international support networks. Over 108 international NGOs have used the survey, including CARE International, Oxfam, Save the Children, and Concern. Funders who have used the partner survey include Ford Foundation, Aga Khan Foundation, and an anonymous Fortune 500 Company. Leading social investors such as Grassroots Business Fund, Root Capital, Acumen Fund, and Social Investment Business have also run the survey. Finally, international social change networks like Transparency International, CIVICUS, International Land Coalition, Aflatoun, and Open Contracting Partnership are among the KPS subscribers.

Through the journey of the KPS, Keystone has documented changes to the wording of the questions. In 2018, Keystone undertook an analysis of the full 128 questions with a view to producing a core set of questions to take forward. This exercise discovered the 26 questions sufficient to capture the most important strengths and weaknesses in development aid system relationships. To derive the 26 Universals, as Keystone calls them, various statistical techniques were used, including cluster analysis for both patterns in answers and correlations in answers. Ideally, we wanted a small set of orthogonal questions, but as it stands, the 26 Universals represents the most efficient way to characterize development aid system relationships. The findings from the 2018 question cull can be used to ascertain the extent to which a given question can act as a proxy for a broad range of similar questions around a particular theme. The data for these questions now serves as the established benchmarking tool for international development organizations and funders seeking to get feedback from their local partners. We can use this analysis to help develop benchmarks for the questions used in each of the four LLS measures.

The majority of the CV questions selected for the LLS were refined from pre-existing questions in our KPS database that have been developed and tested over ten years, making it an excellent real-world dataset to

---

85 Keystone Accountability, *Feedback Commons*, https://feedbackcommons.org (accessed April 11, 2019).

86 You can review the full list of questions by typing keywords into the Question Search Bank on the Feedback Commons website Keystone Accountability, *Feedback Commons*, Keystone Accountability, *Feedback Commons*, https://feedbackcommons.org (accessed April 11, 2019).

assess how these questions will perform under the LLS. In the database, we have a technical history of how many times and in what contexts each CV question (in earlier and latest formulations) have been used, the range of scores given in different relationships, and changes in scores over time.

The first step to test the feedback questions was to extract the existing responses and data for each question selected for the four measures. If the exact question was not in the database, we pulled from similarly worded questions for corresponding CV indicators. Once the data was collated, we examined the results to determine if we had the most useful and appropriate questions. For example, from the broad range of questions selected for each LLS measure, we looked to see if there is a more concise set of distinct questions that represent the measures more accurately based on the previous cluster analysis and correlations with other questions.

Additionally, we examined the existing data to establish ideal high, medium, and low benchmarks for the LLS measures. This was done for each individual LLS feedback question selected and for the questions in aggregate to develop an overall benchmark result for each LLS measure (e.g., Leadership, Mutuality, Connectivity, Finance). This process involved taking an aggregate of net performance scores (NPS) for each group of questions under each LLS measure (see Annex 3 for more on NPS and how it is calculated).

In our experience, benchmarks are necessary for interpreting the results of feedback questions and can provide insight into ideal ranges of performance. They are particularly important when assessing the performance of a local development system as a whole. They allow for development projects to not only measure their performance internally but against reliable external measures, helping to inform best practices. For example, from our KPS database, we have learned that feedback scores for internationally sponsored capacity building support are generally low. This benchmark is helpful when interpreting results for similar feedback questions. If you were to interpret the results of individual questions in isolation you might conclude that capacity development support is performing poorly, however when compared to the benchmark scores in the 'low' range can indicate higher or better performance.

Of the four LLS measures, we had a high number of comparable questions for Leadership, Mutuality, and Finance within the KPS database. Connectivity was the one LLS measure with the smallest set of comparable questions historically – and where our analysis was most tentative. The LLS presents an opportunity to fill this gap and create a powerful dataset and benchmark for Connectivity of local actors, which, as we have described in the main paper, is an essential dimension of local ownership.

Additionally, we did not have existing data on the *enabling environment* questions described in Annex 1 that are included in some of the LLS measures. Root Change and Keystone tested these questions along with all the *standard experience* feedback questions selected for the LLS measures with local development actors participating in Social Labs in Malawi. The Malawi Social Labs is another locally led initiative currently being led by Root Change and Keystone Accountability under USAID Local Works.[87]

---

87 Alexis Smart, "Can social labs repair trust in two Malawi districts?" Root Change, October 25, 2018, https://www.rootchange.org/2018/10/25/can-social-labs-repair-trust-in-two-malawi-districts/ (accessed April 11 2019).

Annex 3: How Pando LLS Data Will Be Prepared and Presented

Both network and feedback data will be collected using the Pando LLS approach (see pages 20-25 for a description). This process, in short, involves establishing a network map on the web-based Pando platform that will collect and visualize relationship data along with a set of key collaboration areas relevant to the project. Project leadership and designated project partners will send regular feedback surveys along with the four LLS measures to boundary partners and other end users or potential allies identified in the network map. Network map and feedback surveys will be updated at least three times a year. During these time stamps, the LLS measures will be analyzed (as described in Annex 1) and the results presented back to project and system actors in a Pando LLS report. The process used to test the indicators that make up the LLS measures (as described in Annex 2) was used to inform the design of the first version Pando LLS report.

We have used the following principles to guide the design of the Pando LLS report:

1. Pando LLS users must be able to use the results to inform data-driven insights for different types of system actors and track their perceptions of the project and its ability to promote localization. Data should be disaggregated by project leadership, project partners, boundary partners, and end-users reflecting the spheres of project control, influence, and interest (see page 20 for a description).

2. Data is information. It is not (yet) knowledge. Both network and feedback measures must function as clear, timely, and actionable signals of how and to what extent actors feel the project is fostering localization. The data is intended to inform reflection and shared sense-making among actors in order to understand the full range of experience and to explore options for mutual corrective action by constituents.

3. The measures must also be applied and presented in a way that allows users to compare their performance. We are proposing to do this in a few different ways. Results can be filtered by demographic groups. The LLS team will be able to set their own targets for each of the measures to track their performance over time. Benchmarks calculated for each measure will allow projects to compare their performance to others like them working in similar systems and contexts.

4. The most sophisticated measures are only as good as people's ability to use them for action. The final design principle is low cost and ease of use of the Pando LLS platform, enabling project leaders and managers with busy schedules to gain meaningful insights at a glance. The system must not only be time-effective but also cost-effective, allowing project staff to gather useful localization metrics within their program budgets.

Net Promoter Analysis (NPA)

In considering how best to present the results of the LLS measures, we have chosen to use net promoter analysis (NPA). This is a commonly used form of data analysis for evaluating feedback data.[88] Over the last 20 years, NPA has been adopted by thousands of companies, government departments, and non-profits as the simplest and most effective measure for understanding customer or client experience and improving relationships and loyalty. Keystone Accountability for the last 10 years has used NPA to analyze and display feedback and concluded from user feedback that this is a clear and effective way to communicate results. Root Change will be adapting this data analysis technique to display the results of the SNA indicators alongside feedback results in the Pando LLS Report.

How NPA Is Calculated

For the majority of feedback questions, respondents rate their experience on a scale of 0 – 10, where 0 means totally negative, and ten means totally positive.[89] NPA segments respondents into three simple categories:

- Those who score 9 and 10 clearly feel very positive about their experience. They are referred to as "positive".
- Those who score 7 and 8 feel okay. They may not have major concerns, but they are not delighted. They are referred to as "okay".
- All respondents who give a score of 6 or less have doubts or concerns and are referred to as "negative." A project should be concerned with all negative responses.
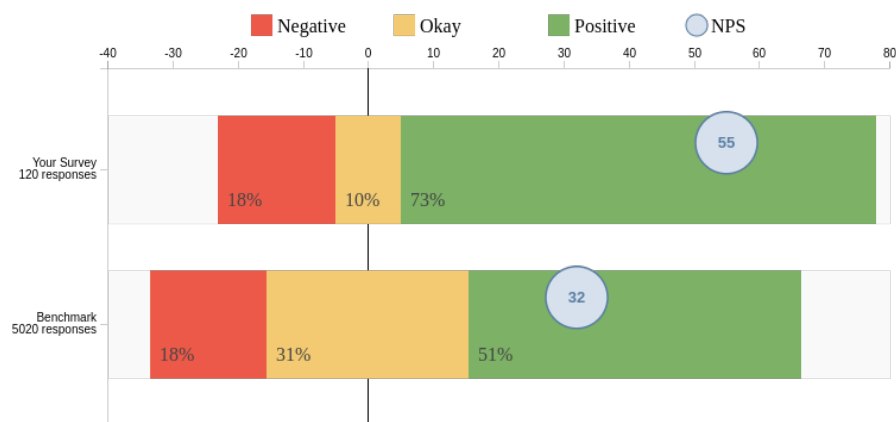

Figure 15:
Categorization of Scores Under NPA

---

88 Fred Reichheld and Bob Markey, "The Ultimate Question 2.0" (Boston: Harvard University Press, 2011).

89 Open text questions are used in combination with 0-10 scored questions. Open text is a useful way to follow up with feedback questions to understand why a respondent gave the score they did. This is a technique we offer for the Pando LLS measures.

The 0-10 scores for feedback questions are turned into a net performance score (NPS). It is calculated as the percentage of positive scores minus the percentage of negative scores. NPS analysis can produce scores that range from -100 to +100. If the NPS is a positive number, it means that there are more positive scores than negatives. If it is a negative number, there are more negatives than positives. An NPS above 30 is generally seen as a reasonably good score and above 70 as excellent.[90]

Under NPA, the results are displayed using a stoplight style red, yellow, green bar graph designed by Keystone Accountability that depicts percentages of negative, okay, and positive scores, as seen in figure 16. In this example, the number of positive scores for the survey is 73, and the number of negative scores is 18, making the NPS 55, which is shown in the grey circle. In this example, you can see how the NPS for the survey taken differs from the benchmarked responses, where the NPS is 32.

Figure 16:
Example Results From Feedback Survey Using NPA Graph

The power of the NPA is that it provides an aspirational single number that projects can use to compare perceptions between different units in an organization, to benchmark perceptions against an organizational average, or, when repeated, to compare perceptions and experience over time. NPA graphs are designed to be simple, easy to interpret and foster inclusive dialogue – especially in situations where some people may be less data-literate than others.

---

90 This range is derived from internal analysis of feedback data on the Feedback Commons platform conducted by Keystone Accountability. This analysis is described here: Marc Maxmeister, "When donors and beneficiaries see things differently," Keystone Accountability, December 12, 2016, https://keystoneaccountability.org/2016/12/12/when-donors-and-beneficiaries-see-things-differently/ (accessed April 11, 2019).
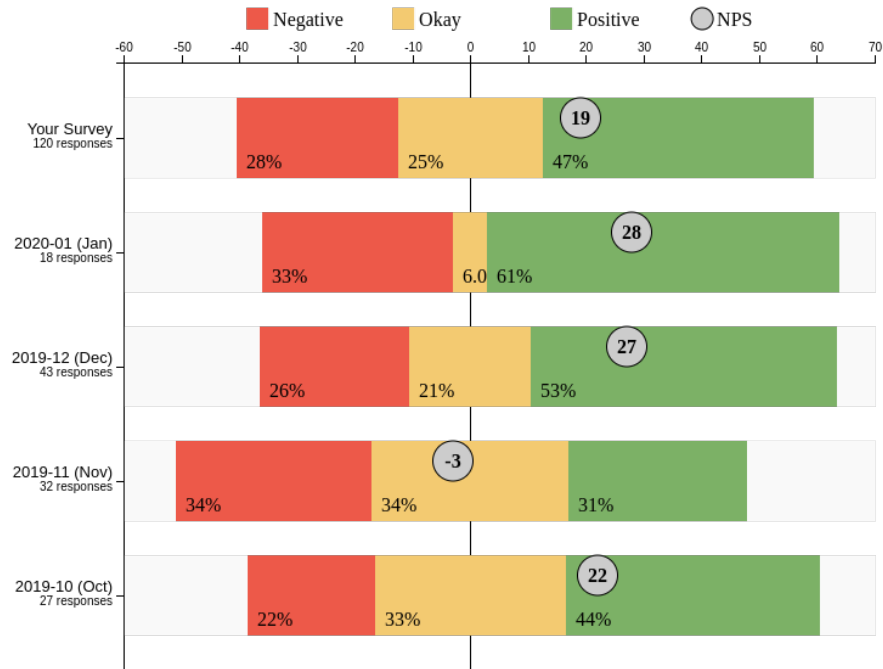
Figure 17:
Example of NPA Results Over Time

NPA can also be used to track the change in NPS over time. Figure 17 demonstrates this for an illustrative feedback survey. Here we can see that NPS improved in February and then dropped back down in January.

By showing the range of scores in a simple way, all constituents can understand the range of perceptions and experiences and can participate in a conversation to explore the reasons behind different respondent experiences and agree on priorities and actions to improve.[91]

---

91 Lynn Morris, "Closing the Loop," Keystone Accountability, August 18, 2017, http://keystoneaccountability.org/2017/08/18/closing-the-loop/ (accessed April 11, 2019); also see: Alex Jacobs and Robyn Wilford, "Listen First: a pilot system for managing downward accountability in NGOs," Development in Practice 20, no. 7 (2010).