

Deconstructing Local Adaptation Plans for Action (LAPAs)

Analysis of Nepal and Pakistan LAPA initiatives

Working Paper No. 67

CGIAR Research Program on Climate Change,
Agriculture and Food Security (CCAFS)

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RESEARCH PROGRAM ON
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Abstract

This paper analyses the organizational and implementation design strategies of two ongoing Local Adaptation Plan for Action (LAPA) initiatives in Nepal and Pakistan. LAPA is considered an answer for institutionalized local-level adaptation planning that aims to capture local needs and direct resources to where, when and by whom these are most needed. While both Nepal and Pakistan LAPAs have similar objectives of bottom-up planning, the operational and structural designs of the two LAPAs are very distinct, leading to different outcomes. Different internal and external factors such as age and size of LAPA, technology, local institutional arrangements, core process and environment also exert significant structural tensions on the planned organizational design of LAPAs that may inhibit delivery of their objectives.

This paper explores what factors make certain organizational designs appropriate in certain circumstances and inappropriate in others. The paper comes at an important junction when the LAPA process in the two countries is at an incipient stage. It will provide useful contribution to LAPA managers, designers, implementers, funders, communities and policy makers alike looking at successful creation and deployment of robust LAPA frameworks in their countries. The paper may also ultimately serve to motivate south-south learning exchanges between implementing countries.

Keywords

Adaptation; climate change; Local Adaptation Plans for Action (LAPAs); agriculture; planning; organizational design; Nepal; Pakistan.

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Contents

Executive summary.....	1
Introduction.....	5
Local Adaptation Plans for Action.....	7
Theoretical and methodological analysis framework	9
Level 1 – Organizational analysis framework	10
Level 2 – Implementation design analysis.....	16
Analysis methodology	18
Nepal and Pakistan LAPAs	20
Nepal LAPA	20
Pakistan LAPA.....	27
Summary of Nepal and Pakistan LAPAs	34
Analysis and discussion	35
Level 1– Organizational analysis.....	36
Level 2 – Implementation design analysis – Kotter framework.....	49
Conclusion	57
References.....	58

Tables and figures

Table ES1. Summary of key features of the Nepal and Pakistan LAPAs	2
Table 1. List of contingencies and impact on structure	13
Table 2. Likert scale for Kotter analysis.....	19
Table 3. Questions for Kotter analysis.....	20
Table 4. Summary features of Nepal and Pakistan LAPAs	34
Table 5. LAPA toolkit categorization	42
Table 6. Summary of impact of contingencies on the structural design of LAPAs.....	45
Table 7. Rated responses - Nepal and Pakistan LAPAs implementation design	51
Table 8. Ratings of Kotter’s framework	55
Figure ES1. Implementation design analysis of Nepal and Pakistan LAPAs under Kotter’s framework	4
Figure 1. LAPA organizational and institutional analysis framework	9
Figure 2. Kotter’s 8-step framework.....	17
Figure 3. Nepal National Framework for Local Adaptation Plans for Action	23
Figure 4. Nepal LAPA steps in cyclic order.....	24
Figure 5. Categories of adaptation activities/options in LAPAs identified by communities ..	26
Figure 6. Pakistan LAPA management and integration framework.....	30
Figure 7. Pakistan six-step LAPA framework.....	31
Figure 8. Categories of adaptation activities/options identified by communities in LAPAs	33
Figure 9. Implementation design analysis of Nepal and Pakistan LAPAs under Kotter’s framework.....	55
Figure 10. Challenges in Nepal LAPA implementation.....	56

List of abbreviations

CADP-N	Climate Adaptation Design and Piloting Project – Nepal
CBO	Community-based organizations
CLEAR	Climate Leadership for Effective Adaptation and Resilience
COP	Conference of the Parties
DDC	District Development Committee
DEECCSs	District Energy, Environment and Climate Change Sections
DEEUUs	District Energy and Environment Units
DfID	Department for International Development, United Kingdom
EU	European Union
FGD	Focused group discussions
GoN	Government of Nepal
GoP	Government of Pakistan
INGO	International non-governmental organization
IPCC	Intergovernmental Panel on Climate Change
LAPA	Local Adaptation Plan for Action
LDCs	Least Developed Countries
LDCF	Least Developed Countries Fund
LEAD	Leadership for Environment and Development
MoAD	Ministry of Agricultural Development (Nepal)
MoFALD	Ministry of Federal Affairs and Local Development (Nepal)
MoFSC	Ministry of Forest and Soil Conservation (Nepal)
MoSTE	Ministry of Science, Technology and Environment (Nepal)
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NCCSP	Nepal Climate Change Support Programme
NGO	Non-governmental organization
NPC	National Planning Commission (Nepal)
UC	Union Councils
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VA	Vulnerability Assessment
VDC	Village Development Committee

Executive summary

Context of paper

- National Adaptation Programmes such as National Adaptation Programme of Action (NAPA) and National Adaptation Plan (NAP) represent broad top-down country adaptation needs and plans that are often considered disconnected from local-level realities. Local needs and risks dramatically change from one village to the other based on geographic locations, local coping capacities and resource availability, requiring localized action plans.
- Local Adaptation Plans for Action (LAPAs) are a response to address local needs and support operationalization of the policy objectives of national adaptation plans, by developing, integrating implementation and monitoring village/community-level adaptation plans.
- While the LAPA concept in both Nepal and Pakistan is at an incipient stage, early lessons from the organizational design process of these LAPAs will provide valuable insights for LAPA development in other countries.

Brief introduction

This working paper analyses the factors that shape the organizational structure and implementation design of Nepal and Pakistan LAPAs under a designed analytical framework using organizational and management theory. It looks at what factors make some structures appropriate and desirable in some circumstances and inappropriate and undesirable in others.

Both Nepal and Pakistan LAPAs focus on bottom-up, local-level adaptation planning; however, the operational and structural designs of the two LAPAs are very distinct. The resulting outcomes from the LAPAs in the two countries may thus be very different. The Nepal LAPA follows a planned national-to-local implementation strategy of official ratification of the process at national level, followed by creating structured downstream implementation channels. Pakistan LAPA follows a more organic process of local-to-national implementation approach of devolving the development process to local partner organizations, followed by official buy-in through evidence-based learning in the future.

Summary of the Nepal and Pakistan LAPA frameworks

Table ES1 presents a summary of key features of the Nepal and Pakistan LAPAs. For instance, while the Nepal LAPA is a national framework and the Pakistan LAPA is a donor-funded project, continuity of both LAPAs is contingent on availability of future donor funding. The Pakistan LAPA development process is at an earlier development stage with 6 LAPAs completed to date compared to 70 LAPAs completed in Nepal with additional 30 LAPAs advanced for implementation. Despite the different stage of maturity of the LAPAs, adaptation in the agriculture sector has emerged as the top ranked thematic priority in both countries, emphasizing the sensitivity and importance of the agriculture sector to local communities.

Table ES1. Summary of key features of the Nepal and Pakistan LAPAs

LAPA Features	Nepal	Pakistan
Legal form	Government-ratified national framework - 2011 with focus on mainstreaming LAPA in official local development planning	Stand-alone donor-funded project - 2012 (planned to be promoted as a national programme)
Funding commitment and source	USD 22.38 million - donor funded	USD 0.85 million - donor funded
Duration	Perpetual (contingent on continued funding availability)	5-year project (contingent on continued funding availability)
LAPA framework development	Developed by international and national organizations under Climate Adaptation Design and Piloting (CADP) Project	Developed by Leadership for Environment and Development (LEAD) Pakistan - National non-profit organization
Lead organizations	Implementing organization: Ministry of Science, Technology and Environment (MoSTE) Coordinating organization: Ministry of Federal Affairs and Local Development (MoFALD)	LEAD Pakistan
Policy linkage	LAPA operates under Nepal NAPA Framework 2010 and National Climate Change Policy 2011	Stand-alone project with no formal policy linkage (although guided by priorities under National Climate Change Policy 2012)
Key LAPA target beneficiaries	Vulnerable local communities (resources), local government officials and service providers (capacity building)	Vulnerable local communities (resources), local government officials (capacity building) and partner organizations (capacity building and resources)
Current geographical focus	Mid- and far-western regions of country (poorest regions of the country)	Southern region of country (highly vulnerable to floods)
Number of LAPAs	70 LAPAs in 14 districts (further 30 in progress)	6 LAPAs in 6 districts (further 6 in progress)
LAPA formulation on ground	Developed by three national NGOs	Developed by LEAD Pakistan in collaboration with local partner organizations (local service providers)
Key delivery and implementation agents	Local government entities (Village Development Committee [VDC] and District Development Committee [DDC]) in coordination of MoFALD	Local partner organizations guided by LEAD Pakistan

(continues)

(continued)

LAPA Features	Nepal	Pakistan
LAPA framework	Seven-step process - Sensitisation, vulnerability assessment, prioritization of adaptation options, formulation of adaptation plans, integration of adaptation plans in planning process, implementation and progress assessment	Six-step process - Capacity building, research, scientific verification, LAPA formulation (prioritization of adaptation options), LAPA implementation and annual assessment
Tool kit for LAPA development	15 participatory tools deployed Assessment of risks, design of strategy and methods and implementation	17 participatory tools deployed Assessment of risks, design of strategy and methods and implementation
Top ranked LAPA thematic priority	Agriculture and food security (43% of the total identified priorities)	Agriculture and food security (68% of total identified priorities)

Organizational structure analysis

The LAPA structures are designed to achieve the organizational objectives of local-level adaptation planning. However, different internal and external factors (contingencies) exert structural tensions on the planned organizational design of the LAPAs that may inhibit the bottom-up planning objectives of national LAPAs. Table 6 on page 45 in the main text summarizes the impact of the various contingencies on the structural design of the Nepal and Pakistan LAPAs. These are summed up as:

Nepal LAPA structure: The structure has been designed as hierarchical to link various formal agencies from national to local level for delivery of adaptation resources. The official ratification of the framework pushes for a more bureaucratic structure; however, low capacity of staff and high competition for official funding pushes the structure towards a flatter structure with more oversight.

Pakistan LAPA structure: The strategy and goals of the LAPA push towards creating a formal and stable structure and environment; however, project-based approach pushes towards flatter, organic and informal structure with strong oversight.

Implementation design analysis

Kotter's (1999) eight-step transformation framework is used to rate and analyse the implementation design potential of the Nepal and Pakistan LAPAs. Successful uptake of the LAPA as national framework strongly depends on how effectively the framework links local planning units responsible for implementation of the LAPAs on ground with the national and regional units responsible for planning, coordination and resource mobilization.

Figure ES1 shows that Nepal’s ratification of the LAPA has created a stronger sense of urgency nationally for adaptation action, and has mobilized a powerful group of actors from state and non-state actors, but the LAPA has been weak in empowering others and creating demonstrable wins. This is reflected by a lack of implementation of the LAPAs designed in Nepal. Pakistan with its implementation-focused approach has empowered local implementing actors through a devolved process but has been weak in institutionalizing the process by not utilizing existing government channels. Combined, the two implementation design strategies provide useful insights for LAPA developers about actions and processes that lead to stronger outcomes.

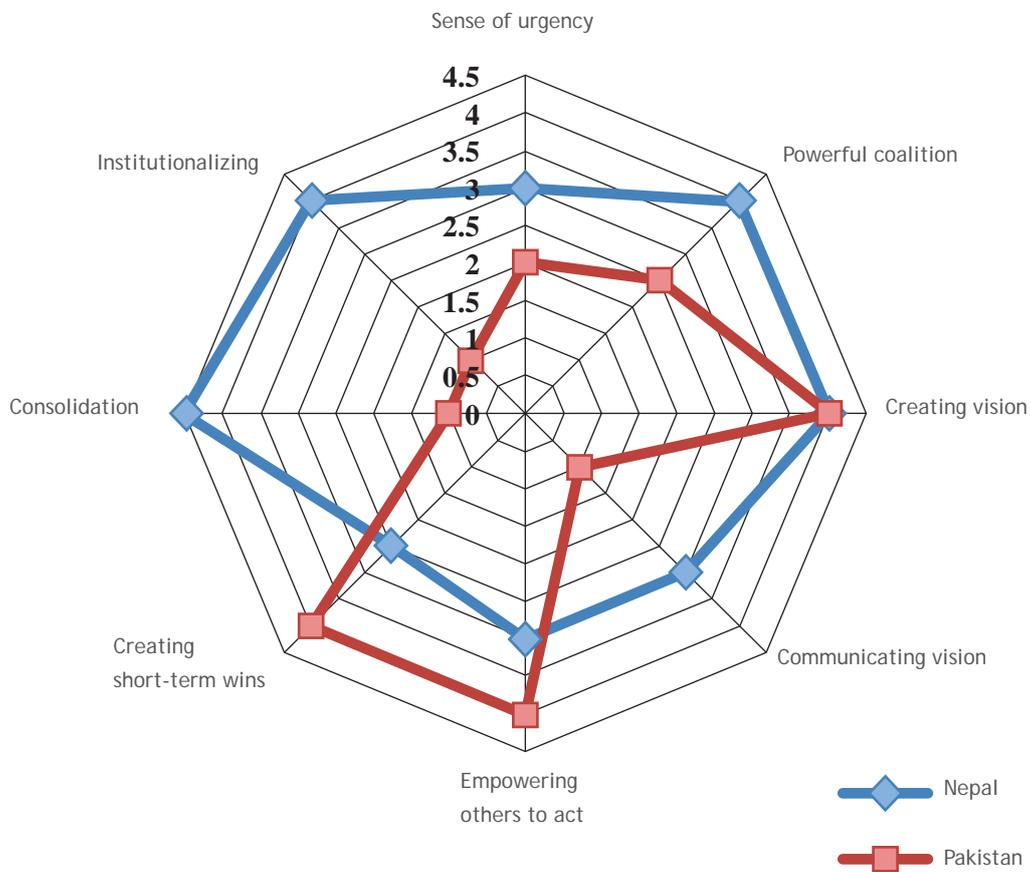


Figure ES1. Implementation design analysis of Nepal and Pakistan LAPAs under Kotter’s framework

Introduction

Climate change is a global phenomenon that extends beyond national boundaries. Yet, its impacts are felt locally by populations residing in small rural communities to mega urban cities within these boundaries. The world is heading to surpass the threshold of 2 °C rise by the end of the century. A warmer world is likely to experience more intense rainfalls, droughts, floods, sea level rise and other extreme events (IPCC 2013). Households, communities and planners will thus have to put in strong adaptive initiatives locally in order to cope with, and reduce, the ‘vulnerability of natural and human systems against actual and expected climate change effects’ (IPCC 2013). Since the signing of the Rio Declaration in 1992 – the first global consensus on climate change – significant scientific progress has been made in expanding our understanding of climate systems and their potential impacts on vulnerable populations. The recently released fifth assessment report (AR5) of the United Nations Intergovernmental Panel on Climate Change (IPCC) attributes human influence as the extremely likely ‘dominant cause’ for the observed warming since the mid-20th century (IPCC 2013). This increased awareness backed with credible scientific research has led to climate change adaptation gaining prominence on global and national development agendas. The right to adapt to adverse impacts of climate change by vulnerable communities is an accepted norm alongside more traditional development goals of health, clean water and other basic human needs.

The agriculture sector, in particular, is highly vulnerable to the adverse impacts of climate change. Higher temperatures reduce yields of desirable crops while encouraging weed and pest proliferation, and changes in precipitation patterns increase the likelihood of short-run crop failures and long-run production declines (Nelson et al. 2009). The agriculture sector occupies roughly 40 to 50% of the Earth’s land surface (IPCC 2007) and is the single largest source of income and jobs for poor rural households, providing livelihoods for 40% of today’s global population. Nearly 500 million small farms worldwide, most still rain fed, provide up to 80% of food consumed in a large part of the developing world (UN 2012). Adverse impacts to this sector are not only likely to threaten global food security but also push millions into poverty. Consequently climate change adaptation in the agriculture sector is a growing priority for national governments in the developing world (FAO 2012).

However, adapting to adverse impact of climate change carries huge global costs with estimates ranging well over USD 100 billion annually (Margulis et al. 2010). Despite having not materially contributed to global climate change, developing countries, especially Least Developed Countries (LDCs) are hardest hit by climate change, owing to their geographic location, their reliance on resources sensitive to climate change, such as agriculture, forestry,

tourism and fishing, and their low adaptive capacity both financially and institutionally (Adger et al. 2003, Reid and Huq 2007, UNFCCC 2007). The commitment to raise adaptation funds from the industrialized nations, on the other hand, can best be described as lackluster. The much-publicized Green Climate Fund is yet to be capitalized with commitments from industrialized nations, a fraction of the total adaptation funding needs. In the backdrop of this increasing funding gap, there is also an obligation of national governments to effectively and equitably distribute the scarce resources to their most vulnerable and needy populations. National planners thus have this additional and critical responsibility to create effective national plans while respecting local needs.

The response for national adaptation planning came through the establishment of the National Adaptation Programme of Action (NAPA) in 2001 for the LDCs, considered as the most vulnerable to impacts of climate change, under the LDC Work Programme of the United Nations Framework Convention on Climate Change (UNFCCC). The onus was placed on national planners of the LDCs to identify their country's immediate needs through detailed NAPA preparation. To date 50¹ NAPAs have been developed and submitted to UNFCCC for funding projects by the dedicated LDC Fund (LDCF) established in the Seventh Session of the Conference of the Parties (COP 7) held in Marrakesh, Morocco, in 2001. The experience of NAPAs at the global stage has been mixed. While NAPAs have had success in raising national awareness about climate change and improving local ownership through their country-driven approach, they have lacked sufficient financial support for timely implementation of their objectives. Against an approximate USD 2 billion cumulative funding demanded under NAPAs by the LDCs for sectoral adaptation projects including food security, health, water, capacity building, ecosystems and disaster management, less than 10% has actually been disbursed by the LDCF². As a result, many LDCs are turning to project partners for funding, a development that the LDC Expert Group found to slow down the process and disbursements of funds. The NAPA technical teams charged with developing the policies in each country are also often disbanded after initial planning stages, slowing the momentum for action further. Additionally, the huge variation in the funding needs of the individual countries in LDCs, with over USD 700 million identified by Ethiopia compared to only USD 4 million identified by Afghanistan, highlights the often superfluous nature of these plans. As a consequence, most NAPAs have not translated into clearly defined functioning programs. Nonetheless, NAPAs are considered as a step towards the long and challenging path of adaptation planning.

¹ As of June 10, 2014 – For detailed country list refer to:

http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/4585.php

² Source: <http://www.climatefundsupdate.org/data>

While NAPAs are dedicated to address current needs of LDCs, National Adaptation Plans (NAPs) are envisioned as a policy framework to provide for medium- and long-term adaptation responses for both LDCs and non-LDCs. They have been developed, in part, based on lessons learned from NAPA development and implementation, which focused on ‘urgent and immediate’ adaptation requirements. In Cancún (COP 16), it was agreed that NAPs should be developed to address some of these indicated shortcomings in the NAPA process. Guidelines were drafted and agreed upon in Durban (COP 17). In addition to the new policy timeframe (that is, medium and long term versus ‘urgent and immediate’), NAPs were also intended to integrate more robustly into existing development and sector planning processes. The ‘mainstreaming’ or ‘climate-proofing’ approach was promoted, in part, to improve the processes for revisiting the NAP on a regular basis. As such, NAPAs and NAPs can be thought of as ‘living documents’ that, through a process of policy and social learning (that is, adaptive management), evolve to meet ever-changing on-ground realities.

Local Adaptation Plans for Action

Nepal, in 2010, became the 45th LDC to develop and submit its NAPA to the UNFCCC with an estimated total cost of USD 350 million spread over six thematic groups and two cross-cutting themes. Although a late adopter of the NAPA, Nepal benefited from the experiential learning of previous NAPAs. However, early on in the Nepal NAPA development process, the national planners recognized the limitations NAPA represented with its broad top-down estimation approach of national needs, mimicking global plans. Such top-down plans are often generalized to have broader appeal but fail to adequately capture local-level needs. Climate change disproportionately impacts communities depending in part on the geographic location, local coping capacities and resource availability. Since these impacts can dramatically change from one village to the other, NAPA was considered ill-equipped to cater for meeting local needs.

During the Nepal NAPA consultation process, suggestions were made by participants to localize NAPA and the idea of a Local Adaptation Plan for Action (LAPA) emerged. LAPA, as its name suggests, supports the operationalization of the policy objectives outlined in the NAPA, by facilitating the integration of “climate adaptation activities into local and national development planning processes and to create a situation for climate-resilient development” (Nepal 2011, p. 6). In 2011, the Government of Nepal (GoN) approved the National Framework on LAPA, thus becoming the first country to formalize LAPA as a national planning framework. LAPA is considered as Nepal’s answer for bottom-up institutionalized planning that aims to capture community needs at the lowest level of official governance and to direct resources to where, when and by whom these are needed.

In 2012, Pakistan introduced its own version of the LAPA, at a project level, through the Climate Leadership for Effective Adaptation and Resilience (CLEAR) project undertaken by Leadership for Environment and Development (LEAD) Pakistan, a non-profit organization. The LAPA is focusing on the most vulnerable districts in the southern part of the country prone to floods, cyclones and drought. CLEAR is taking a decentralized bottom-up approach by engaging local partner organizations from the inception of the process to develop the LAPAs to address the impacts of the most pressing climate change challenges relevant to local communities. LEAD facilitates the process by creating an enabling environment and providing technical backstopping.

Although the LAPA concept is still at an incipient stage, many developing countries are taking similar approaches or expected to replicate the existing LAPA frameworks in some form or the other for local-level adaptation planning and implementation. Countries such as Kenya and the Caribbean nations have already developed their own versions of bottom-up local adaptation planning programmes. Early lessons from the design process of the LAPA and on-ground implementation are thus invaluable not only to highlight successful features but also to flag potential areas of concern for future LAPA development initiatives by other countries.

Understanding organizational designs of local planning programmes is thus an important area of analysis. Different country programmes may promote similar objectives of bottom-up planning; however, differences in the actual organizational design may lead to different outcomes. It is important to be cognizant of each country's unique context as local challenges, priorities and external environment will influence the design of the adaptation initiatives and hence the outcomes. For country planners and funders, along with evaluating the effectiveness of the design, it is necessary to analyse the appropriateness of the design, that is, how well the design fits with the local circumstances. Organizational design and fit is a well-researched area in the management and operational fields. Business organizations around the world spend millions of dollars in designing their organizational structures. The right structure offers competitive advantage and can be the difference between successful organizations and failed ones. There is, however, a dearth of research on the new forms of organizational arrangements that are evolving in climate change regimes, LAPAs being one. Much of the recent focus on climate change has been on exploring the institutional dimensions of environmental and climate regimes (Young 2002), as the field is evolving and gaining attention of national policy makers and other key actors.

This working paper aims to contribute to this existing gap in the structural analysis of climate-focused organization. It deconstructs the organizational designs and implementation strategies

of the two ongoing LAPA development initiatives in Nepal and Pakistan under organizational, institutional and management frameworks. It explores what factors make certain organizational designs appropriate in certain circumstances and inappropriate in others.

The paper comes at an important junction when the LAPA process in the two countries is still under development. It will provide useful contribution to LAPA managers, designers, implementers, funders, communities and policy makers alike looking at successful creation and deployment of a robust LAPA framework in their countries. The working paper may also ultimately serve to motivate south-south learning exchanges between implementing countries.

The following sections develop the framework for analysing the LAPA organizational and implementation designs; present the research methodology and methods; introduce the Nepal and Pakistan LAPA frameworks; and discuss the results of the analysis and key insights. The paper concludes with a way forward and areas of further research.

Theoretical and methodological analysis framework

The paper develops a two-tier approach for analysing the LAPA frameworks as shown in Figure 1. The first level covers the organizational analysis of the LAPA comprising the structural and political aspects of the LAPA frameworks. The second level covers the implementation design analysis to evaluate the mainstreaming approach of the LAPA frameworks in each country.

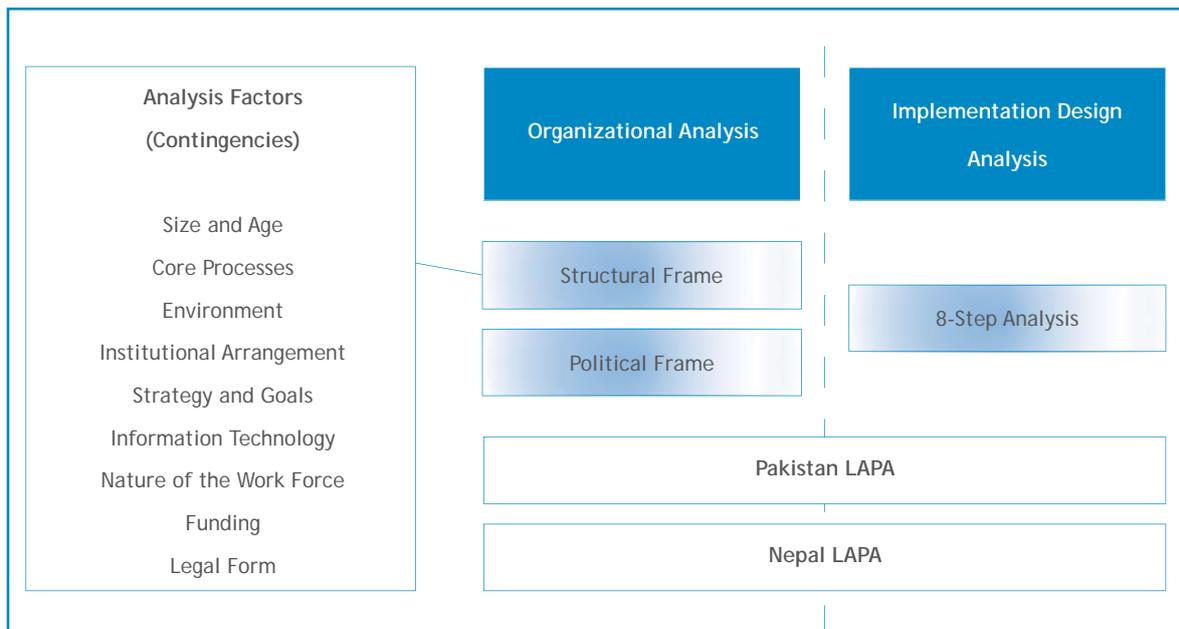


Figure 1. LAPA organizational and institutional analysis framework

Level 1 - Organizational analysis framework

Before presenting Level 1 – Organizational analysis framework, it is helpful to understand how organizations are constructed and what their key constituents are. Organizations are defined as social entities that have a collective goal and a deliberate design structure to enable them to achieve their objectives (Daft et al. 2010, Jones 2004). They are generally complex entities, comprising many departments, goals, tasks, inter-organizational interactions (Bolman and Deal 2013). Organizations do not operate in isolation, they exist within a wider context and set of conditions and are linked to an external environment comprising many other organizations and actors (Daft et al. 2010). They simultaneously adapt to and shape the environment they are part of, and hence trying to figure out what is happening within an organization is often challenging. To achieve their established goals and objectives and create value for their stakeholders, organizations bring many forms of resources together, promote specialization and clear division of labor, strive for economies of scale, manage their external environment, economize on transaction costs and exert power and control (Bolman and Deal 2013, Daft et al. 2010, Jones 2004).

The basic tenets of the modern organization can be traced back to the industrial revolution of the 20th century, and hence present form of organizations is strongly influenced by the rational production and economic goals function (Shafritz et al. 2011, Taylor 1914). While still underpinned in this economic efficiency tenet, organizations have evolved over time and now come in many shapes and configurations from top-down bureaucratic hierarchical model (Weber 2009) to much leaner learning and virtual organizations of the present day. Organizational forms are created to fit the organizational circumstances of goals, technology, workforce and environment. Giving careful thought to the organizational design of climate change entities is critical as, according to Bolman and Deal (2013), the right formal arrangements minimize problems and maximize performance.

Structural framing approach

In a rapidly changing world, forms of management and organization that were effective a few years ago may no longer be appropriate. This is especially true for organizations operating in climate change field as they not only have to constantly make sense of an uncertain discipline but also have to equip themselves to balance the needs of present-day populations with the needs of future generations. Organizations seek rationality of continuity but that is not easy because of central challenge of uncertainty (Thompson et al. 2003). To address this inherent tension, organizations are becoming more complex and have to increasingly rely on professional

resources and technology to simplify their operations. The designed organizational structures and administrative processes have to reduce uncertainty but at the same time offer flexibility to deal with the changing environment.

This paper uses the structural framing approach promoted by Bolman and Deal (2013) to analyse the organizational complexity underpinning the Nepal and Pakistan LAPA initiatives. The framing approach builds on sociologist Erving Goffman's (1974) definition of frames as ways of organizing personal experiences and a means for people to understand the types of activities taking place. Relating this in organizational context, frames can be considered as analytical tools. "A good frame makes it easier to know what you are up against and what you can do about it" (Bolman and Deal 2013, p. 10).

Bolman and Deal (2013) promote the use of structural, political, human resource and symbolic frames to analyse an organization as multiple perspectives allow for better comprehension of the situation. While each frame is a powerful tool of analysis in its own right, this paper focuses on the structural frame for comparing the two country LAPAs. The political, human resource and symbolic frames are important aspects for organizational analysis; however, at this incipient stage of the LAPAs, these frames are not considered mature enough to offer meaningful analysis. Nonetheless, a brief analysis on the political frame is presented in the discussion section.

The structural frame is based on the intentional organization architecture, strategy and structures to advance the organization's objectives. Dawson (1996, p. 111) defines structures as "a social creation of rules, roles and relationships, which at best facilitates effective co-ordination and control as far as corporate governors are concerned." The structural frame emphasizes achieving productivity through setting clear goals, policies and roles and coordinating the efforts of individuals within the organization to follow these defined structures of operations. These are commonly represented by organizational charts, standard operating procedures and departments. The structural leader assumes the role of an architect to design and analyse the structures, strategies and implementation. Challenges arise when structure is poorly aligned with current circumstances (Bolman and Deal 2013).

There is no ideal structure but what is important is finding the right fit with the organization's technology and environment (Bolman and Deal 2013). Structures come in many shapes and forms from hierarchical, rule oriented to more evolving structures that emphasize flexibility and participation. A formal hierarchical structure may be more appropriate for a mature manufacturing organization with well-defined operations, while the same structure may be a

constraint for a fast moving sector such as information technology. In the current changing landscape, how a firm is organized can be a source of advantage and, as Bolman and Deal (2013, p. 66) put it, “if structure is overlooked, an organization often misdirects energy and resources.”

Many factors, such as size, technology and external environment, impact the organizational structure and are a source of complexity in the organizations. These aspects are discussed in more detail later in this section. However, at this outset it is important to recognize that increased coordination aids in managing organizational complexity. “Clear and well-understood roles and relationships and adequate coordination are essential to performance” (Bolman and Deal 2013, p. 44). The result is that organizations with rationalized formal structures tend to emerge (Meyer and Rowan 1977). The question then arises how responsibilities are allocated across different units and roles. And once allocated, how diverse efforts are integrated in pursuit of the common goals.

Organizations tend to allocate responsibility to its participants through breaking down processes, followed by creating rules, policies, procedures and hierarchies to coordinate diverse activities into a unified strategy. These elements can be grouped into two key design structures of differentiation (allocation of work) and integration (coordination of roles and units) once responsibility is allocated (Bolman and Deal 2013, Donaldson 2001). Following a clear rule-based approach and dividing goals into specific tasks of operations to achieve specialization helps reduce uncertainty and resolve equivocality (Daft and Lengel 1986).

While roles and units create specialization, these also cause problems of coordination and control, as there may be competing interests or gaps in the organizational structures. The integration aspect of the structure focuses on specifying relationship elements, such as the reporting structure, delegation of duties and grouping of individuals in teams and departments. These encompass setting up rules and systems of operations including control system, communication system, rules governing terms of employment, rules governing processes of planning and decision-making processes (Donaldson 2001). Coordination can be in many forms but generally falls under either vertical coordination, that is, formal chain of command or horizontal coordination – cross-cutting linkages to connect vertical coordination gaps (Bolman and Deal 2013).

In setting up climate-focused organizations, managers have to decide in drawing a balance between allocation of tasks and coordination structure that offers a better fit with their organizational circumstances, desired goals, workforce quality and resource availability.

Contingency theory

While it is important to evaluate the structural design of organizations, it is equally important to explore the conditions under which certain structures emerge. Contingency theory looks at what makes some structures appropriate and desirable in some circumstances and inappropriate and undesirable in others. This, according to Dawson (1996), depends on the complexity and uncertainty surrounding the organization. “The more uncertain and complex the context (as determined by factors such as age, size, technologies, product, capital and labor markets), the more organic and flexible the structure needs to be and the more need there is for information to flow vertically between levels and horizontally between functions” (Dawson 1992, p. 124). What is important for an organization is to have a good fit with its environment (Jones 2004). This is supported by arguments from Lawrence and Lorsh (1967) that emphasize how companies in different industries differentiate and integrate their structures to fit the industry.

Research on contingency theory identifies several factors that impact the structural design of organizations. Table 1 identifies these key contingencies and their impact on the organizational structures. The LAPA organizational structures are analysed for these key contingencies.

Table 1. List of contingencies and impact on structure

Contingency	Impact on structure
Size and age	Complexity and formalization increase with size and age. Large organizations are more specialized, hence are more departmentalized and vertical. The number of hierarchical levels tend to flatten out as size increases because of costs, complexity and motivation of key personnel (Blau and Schoenherr 1971, Child 1972, Gooding and Wagner 1985, Greiner 1997, Pugh 1973).
Core processes (formalization)	These are written documents, rules, procedures, instructions, communications and processes of the organization. These must align with structure to offer stability. (Christensen 1997, Henderson and Clark 1990).
Environment	Environment refers to institutions and forces outside the organization that potentially affect the organizational performance. These impact the structure because of environmental uncertainty. Some organizations face stable environment such as no regulations or competitors. Others operate in a more dynamic environment where the technology and players are in constant flux and government regulations are changing. Three key dimensions to environment are capacity, volatility and complexity. Capacity deals with the degree to which the environment can support organizational growth. Volatility is the degree of unpredictable change and complexity is the degree of heterogeneity and concentration among environmental elements. The more scarce, dynamic and complex the environment is, the more organic the structure should be as there is little room for error. The more abundant, stable and simple the environment is, the more mechanistic the structure is. (Robbins and Judge 2010).
Institutional arrangement	This is a subset of the environment contingency but warrants a separate section due to the distinct nature of institutional arrangements in climate change adaptation in Nepal (NAPA) and Pakistan (Non-NAPA). Research states that institutions are not just a sum of the organizations that form part of it but also influence how organizations react to these institutions, hence influencing their structural design (Powell and DiMaggio 1991, Young 2002).

(continues)

(continued)

Contingency	Impact on structure
Strategy and goals	<p>Strategy and goals are purposes to be achieved and competitive techniques that set the organization apart from other organizations (Galbraith 1995). "Goals define where the organization wants to go and strategies define how it will get there" (Daft et al. 2010, p. 57).</p> <p>Organizational objectives are derived from its strategy, so strategy and structure are closely linked (Robbins and Judge 2010). Structure is hence shaped by the strategy employed by the organization. A major task for the organization is to have clear and consistent goals (Amburgey and Dacin 1994, Chandler 1990). There are also counter arguments that structure may also influence the strategy of the organization.</p> <p>Choice of strategy has implications on the organization's design characteristics. High-growth-oriented organizations will look different from stable-growth-oriented organizations.</p>
Information technology	<p>Information technology refers to how organizations transfer inputs into services and goods. Improving the flow of information and improved technology reduce uncertainty. This helps create self-contained units. It permits flatter, more flexible and decentralized structures, as fewer levels of management are needed than traditional command and control units.</p> <p>The relationship between technology and structure is not overwhelmingly strong. Routine tasks are associated with taller and more departmental structures. Pugh et al. (1969) concluded that relationship of technology to structure in manufacturing is secondary to size and interdependence.</p>
Nature of work force	<p>This is measured by the level of education and training of employees. More educated and professional workers need more autonomy and discretion built in the structural design.</p>
Legal form	<p>The entity's legal form impacts the structural design. Whether an organization is a government entity, private sector or project will impact its structural design. For example, government organizations are more formalized than other organizations (Pugh 1973).</p>

The contingency theory is not without limitations as an analytical tool. There is debate in theory about the relative strength and importance of the various contingencies of technology, environment and size on the structural design of the organization. It is difficult to exactly pinpoint which contingency is the most important in determining the structure or how the fit between contingencies and structure may be the result of some explicit choices or financial constraints. The link of structure and performance is also debatable as the performance of the organization may be influenced by many other external factors including values, beliefs and qualities of people involved (Dawson 1996).

The organization is also faced with ongoing structural tensions of balancing between opposing forces of differentiation and integration, centralization and decentralization, standardization and mutual adjustment, and control and flexibility. Different structures emerge as a result of balancing these tensions leading to mechanic and organic structures (Daft et al. 2010). The following section discusses the types of commonly observed structures that emerge from the influence of various contingencies discussed before to put context around the LAPA structures.

Structural configuration

Mintzberg's (1993) five-part organizational analysis is widely referred to in organization theory to explain the different types of structural configurations in organizations. According to Mintzberg, at the bottom of the organization sits the operating core that carries all operations and processing activities. They are supervised by middle line, which includes line managers comprising departments, such as sales, marketing and operations. At the top is the strategic apex that is responsible for ensuring that the organization maintains focus on its objectives and meets the needs of its stakeholders. The remaining part of the organization comprises members of two techno structures that maintain administrative and technical control of specific activities such as engineers and controllers and members of support staff that are entrusted with internalizing the operating activities such as legal and administrative services. Each part represents a pull on the organization to increase its power and importance. Strategic apex pulls to centralize, techno structure pulls to standardize, operating core pulls to professionalize, the middle line pulls to distribute and the support pulls to collaborate (Dawson 1996). As the organization grows, the importance of the strategic apex increases to give direction, and the role of the middle line becomes vital to provide the link between the core and the apex. As the operations of the organization standardizes, the role of the techno structure ramps up to institutionalize the process. The organization designers need to determine how much authority to centralize at top, middle and lower levels of the organization and the process to delegate authority (Robbins and Judge 2010).

Different patterns of relative dominance emerge between the five parts of the organization based on the degree of complexity and certainty generated by specific configurations of the key organizational variables. Mintzberg (1993) suggests five configurations of internal structure and function as most appropriate to deal with the different set of contingency factors discussed in the preceding section such as age, size, strategy and environment.

Simple configuration is adopted by organizations in their early stages that have little or no techno structure and few support staff. There is loose division of labor with low specialization, and direct supervision with hierarchical control is typical.

Machine bureaucracy is typical in large and mature organizations that operate in stable and simple environments. Standardization of work and division of labor is key for a coordinated mechanism based on rules, regulations, formal communication, hierarchical chains of authority and decision-making.

Professional bureaucracy configuration employs large scale of educated professionals such as in universities or research organizations. The professionals dominate the organization with a high degree of vertical and horizontal decentralization.

Divisional organization configuration is mostly seen in large organizations with mature products and operations in multiple markets to capitalize from economies of scale. Middle managers' reign is relatively high, and control is exerted through standardization of outputs and measurement of performance.

Adhocracy configuration flourishes in complex and dynamic environments. Coordination is exerted through mutual adjustment, and control exercised in personal or un-obstructive way.

In a rapidly changing environment, many new types of organizations and structural configurations are also emerging such as functional, knowledge- or skill-based and virtual and learning organizations. According to Daft et al. (2010), many managers are redesigning their organizations to become learning organizations. "The principle of the learning organization is for communication and collaboration to be actively promoted so that everyone is engaged in identifying and solving problems, enabling the organizations to continuously experiment, improve and increase its capability" (Daft et al. 2010, p. 29). This type of organization is more aligned with addressing climate-focused challenges.

In short, under the organizational analysis step, the Nepal and Pakistan LAPA structural designs are evaluated for impacts of the contingencies discussed in Table 1 and the organizational structural push under Mintzberg's five organizational configurations.

Level 2 - Implementation design analysis

Having an appropriate structure that matches with the organizational circumstances and context improves the effectiveness of the organization in meeting its strategic goals and objectives. However, a structurally sound organization is only part of the successful approach for managing climate change adaptation. Successful uptake of LAPA as a national framework also depends on how effectively the framework links local planning units responsible for implementing LAPAs on ground with national and regional units responsible for planning, coordinating and allocating resource. The implementation design strategy of LAPAs is thus critical for facilitating climate change adaptation action. This step uses Kotter's (1999) eight-step-transformation framework (See Figure 2) to analyse the implementation design potential of the Nepal and Pakistan LAPAs.

Kotter's eight steps (adapted) are:

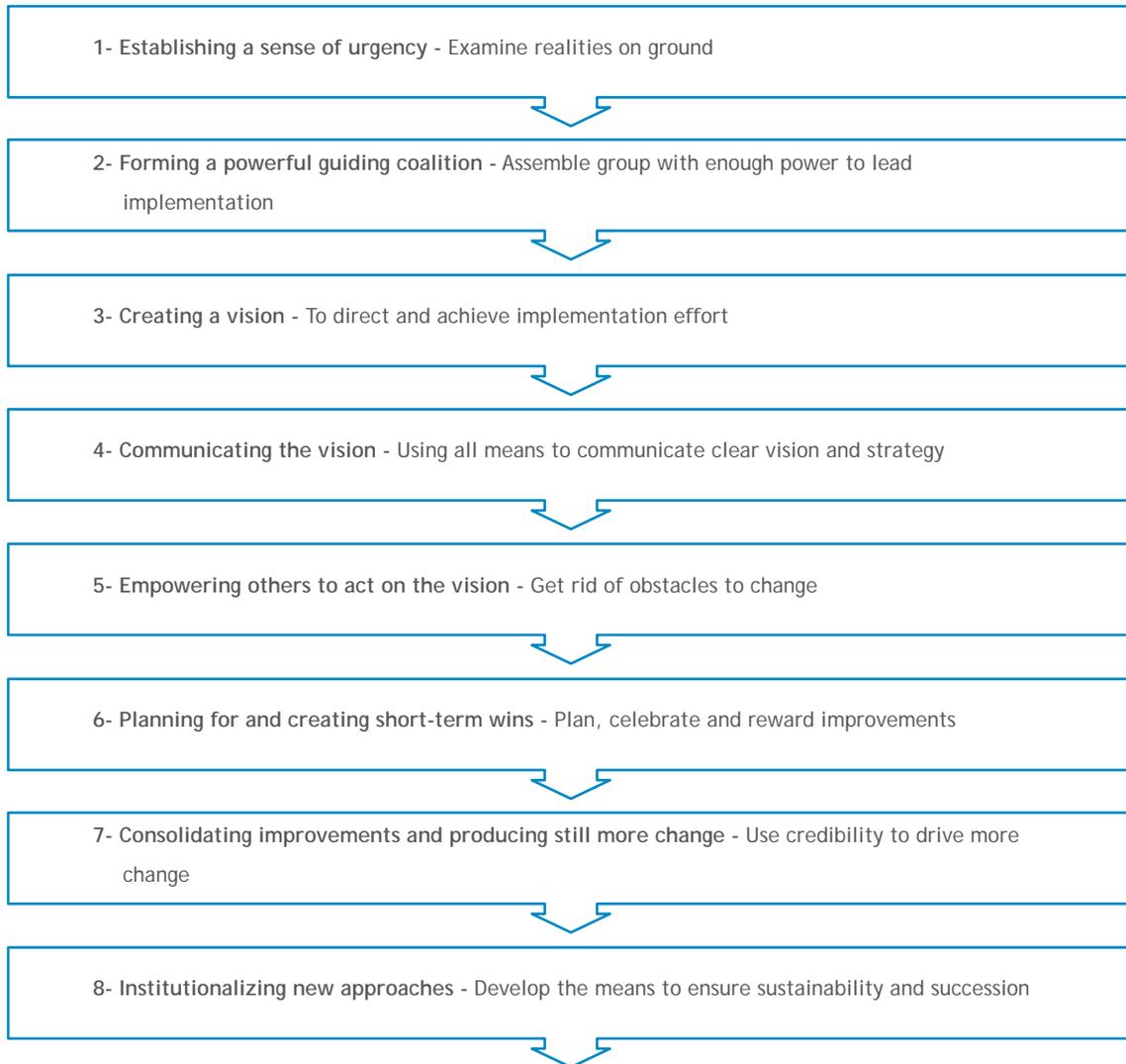


Figure 2. Kotter's 8-step framework

Kotter's eight-step process follows an implementation design that requires a sense of urgency and purpose from the top management to act. Then, a core group of people from within the organization is assembled, responsible for implementation action with appropriate level of authority and power to be taken seriously across the organization. This group is tasked with creating a clear implementation vision and strategy that is communicated effectively to all actors and individuals within the organization. The implementation team has to generate momentum to empower other key members within the organization to act and address implementation barriers and organizational obstacles. Planning and celebrating short-term wins along the processes is critical to maintain high level of moral of the core team and other members of the organization. Caution is required to not declare an implementation successful and complete without first

consolidating and embedding the improvements in the designed process from implementation learning. Finally the implementation has to be institutionalized so it becomes the ‘way things are done’ and is able to withstand pressures from future regime and policy changes.

Analysis methodology

The focus of this paper is to deconstruct the organizational and implementation designs of the Nepal and Pakistan LAPAs. As the two LAPAs are at different implementation and maturity stages, a strict comparable analysis is not meaningful at this time. Instead, the paper focuses on identifying and analysing key elements that impact the organizational and implementation designs of the LAPAs. Where appropriate comparisons of the design elements are presented, however, these are best used to enrich and inform the discussion rather than force a comparative assessment of the quality of the two LAPAs. A descriptive approach is used for introducing the LAPAs and their design elements. Results and insights from the field application of the LAPAs are used to support the discussion and analysis.

The methodology adopted for analysing the LAPAs’ organizational and implementation design uses a mixed-method approach of qualitative and quantitative analysis (Silverman 2013) supported by direct observations of LAPA field sites and content analysis. The attempt has been to keep the analysis as structured as possible so that the methodology can serve as a template for parallel studies in the future (King et al. 1994).

The primary research applies semi-structured and exploratory interviews of key experts engaged in Nepal and Pakistan LAPA development process comprising members of LAPA project development team, consultants and community members. Finalized LAPA documents at operational level in the two countries are used to discuss the LAPA frameworks. Detailed content analysis of the Nepal and Pakistan LAPA frameworks, relevant national policies and other ancillary documents is conducted to support the analysis and discussions. The methodology and analysis build on primary field data and on-ground interviews of approximately 100 key actors conducted by the authors in Nepal in 2012. This is further supplemented by primary data and insights collected from field evaluation in 2013 of the LAPA development process in a pilot community in Nepal. Finally Pakistan LAPA project managers have shared primary data and process documents for the LAPAs completed in Pakistan to date. The specific methods for the LAPA analysis are:

Level 1 – Organizational analysis

- Review of the LAPA frameworks for Nepal and Pakistan, with descriptions presented in the country sections covering country background, LAPA objectives, funding methodology and identified priorities.

Analysis of the structural design of the Nepal and Pakistan LAPA frameworks in light of the contingencies previously discussed (see Table 1 for size, processes, environment, institutions, information technology, strategy, work force and legal structure). The links between various contingencies are explored to make qualified statements about the impact of the contingencies on the evolved framework and to match LAPA structures with Mintzberg’s structural configurations.

Level 2 – Implementation design analysis

- Application of Kotter’s eight-step analysis to the Nepal and Pakistan LAPA frameworks to analyse the designed diffusion and implementation objectives. Ratings from 0–5 are given using the Likert scale (1932) for each step based on the following criteria.

Table 2. Likert scale for Kotter analysis

To what extent has the LAPA achieved the questions stated in Table 3?
Please rate from 0-5 using the scale below:
5 - To a large extent
4 - To a moderate extent
3 - To some extent
2 - To little extent
1 - Not at all
0 - Not applicable / or too early to comment

Using Kotter’s analysis, the following questions are formulated and posed to the Nepal and Pakistan LAPA project team members. These questions were triangulated with other expert interviews, literature review and primary field observations:

Table 3. Questions for Kotter analysis

- 1 - Has the LAPA created a sense of urgency for action in the country (by key actors - government, project planners or community members to act)?
- 2 - Has the LAPA mobilized a powerful group of actors to lead the planning and implementation process?
- 3 - Has the LAPA created a clear vision and developed strategies for successful deployment of vision?
- 4 - Has the LAPA communicated its vision to the relevant actors?
- 5 - Has the LAPA empowered other actors to act?
- 6 - Has the LAPA planned for and created short-term wins along its deployment process (planning for visible improvements)?
- 7 - Has the LAPA consolidated process improvements and learnings from field action in its design?
- 8 - Has the LAPA developed a formal process for institutionalizing the LAPA programme? (that is, ensuring continuity of process in the future through leadership development and clear succession planning - even when government changes)?

The responses for these questions from the two countries are presented in a spider diagram to compare the similarities and differences in the LAPA implementation design. It is important to recognize that some differences arise from the different stage of implementation and maturity of both LAPAs. The objective of this step is to offer a broad understanding of the two LAPA implementation designs.

Nepal and Pakistan LAPAs

Nepal LAPA

As a signatory to UNFCCC, the Government of Nepal (GoN) endorsed the NAPA framework in 2010 as part of global effort, which provides a process for LDCs, such as Nepal, to identify priority activities that respond to their urgent and immediate needs to adapt to climate change. NAPA is an overarching document for addressing climate variability, its impact and adaptation practices that identified nine integrated projects as immediate and urgent adaptation needs (Nepal 2010). However, to address urgent needs of local communities, GoN in 2011 endorsed the national framework of LAPA to support the priority area 1 of the NAPA of promoting community-based adaptation through integrated management of agriculture, water, forest and biodiversity sectors in line with National Climate Change Policy 2011. The LAPA involves integration of top-down and bottom-up approaches to mainstream adaptation into development planning from local to the national level through public participation, ensuring an inclusive,

responsive and flexible process of development and implementation of action plans (Nepal 2011).

Country background

Mountain environments, especially those serviced by snowmelt and glacial lakes run-off, are sensitive to even small changes in waterfall, and as such, are especially vulnerable to climate change. Nepal, being a mountainous country with extreme topographic and microclimatic variations in elevations (70 to 8848 meters in a span of 800 kilometers) in a relatively smaller land mass (147,181 square kilometers), is especially sensitive. Indeed there is perhaps no facet of life that remains untouched by the impacts of climate change, be it agriculture, industry, energy and even service sectors like tourism; all are being threatened by climate change in varied proportions. The unprecedented forest fires, delayed monsoons, fast-emerging glacial lakes, and frequent flash floods and landslides are all indicative of the worsening climate. Maple Croft has categorized Nepal as the fourth most climate-vulnerable country in the world (Maple Croft 2011).

LAPA objectives, coverage and funding

The LAPA framework supports the operationalization of the policy objectives outlined in the NAPA, by facilitating the integration of climate change resilience into local-to-national development planning processes and outcomes. According to the published guidelines (Nepal 2011), LAPA framework supports:

1. The development of local adaptation plans, which reflect location- or region-specific climate change hazards and impacts and the adaptation needs of the most vulnerable communities.
2. The integration of local adaptation priorities into village, municipality, district and sectoral planning processes in accordance with the Local Self Governance Act.
3. The implementation of local adaptation plans by supporting timely and sustainable delivery of adaptation services to the most climate-vulnerable populations.
4. Iterative adaptation planning through constant monitoring, evaluation and feedback.

The LAPA framework is designed through piloting the LAPA process in 2010 in ten districts, supported by the United Kingdom Department for International Development (DfID) under the Climate Adaptation Design and Piloting Project – Nepal (CADP-N). To date 70 LAPAs have been prepared in the start-up phase (with 30 more under finalization), ready for full-fledged implementation in 69 Village Development Committees (VDCs) and one municipality of

14 districts of mid- and far-west Nepal, facilitated by the Ministry of Science, Technology and Environment (MoSTE) – Nepal Climate Change Support Programme (NCCSP). Three national NGOs are involved in the preparation of 70 LAPAs.

Against projected funding requirements of USD 40 million for implementation of the LAPA priorities, DfID and the European Union (EU) have committed funding of approximately USD 23 million. Out of the funds allocated by the government for LAPA implementation, 80% will be used for local-level activities, while the remaining 20% will be dedicated to institutional capacity building and coordination at the national level. Simultaneously, enhanced capacity of national and local government and various other service providers has been expected. To date implementation of the LAPA priorities has not commenced.

LAPA methodology

The LAPA framework has deemed VDCs and municipalities – the lowest level of official governance structures – as the most appropriate units for integrating climate change adaptation and resilience into the national development planning process. In doing so, it ensures that both bottom-up and top-down processes are employed to produce the most appropriate adaptation plans.

The United Nations Development Programme (UNDP) provides technical assistance to the government at central and local levels to implement LAPA, while District Energy and Environment Units (DEEUs) (to be reorganized as District Energy, Environment and Climate Change Sections [DEECCSs]) of the District Development Committees (DDCs) are the delivering agencies. LAPA implementation is envisioned through government line agencies, service providers and local community groups based on their strength and competitive advantages. DDC will have the ultimate oversight and supervisory role at the local level. It should be noted here that DDC falls under the Ministry of Federal Affairs and Local Development (MoFALD) and DEEU falls under MoSTE although DEEU is hosted inside DDC.

As shown in Figure 3, Nepal's LAPA framework is guided by National Climate Policy 2011 and based on the priorities set out in NAPA. The framework has been distinctively divided into climate vulnerability assessment phase and adaptation and resilience planning phase, integrating both top-down and bottom-up approaches. The most climate-vulnerable VDCs, wards and communities are identified, and adaptation assessment (both challenges and possible interventions) is done with full participation of local communities, including all relevant local government bodies along with other stakeholders. Thereafter, those adaptation options are

prioritized again with similar participatory approach, thus forming the LAPA. These LAPAs are integrated into local and national plans in accordance with Local Self Governance Act, 1999 of GoN, and guided by the principles of bottom-up, inclusive, responsive and flexible planning. Although not represented in Figure 3, the most appropriate service delivery agents (NGOs, community-based organizations, private sector or other suitable agencies) are identified based on their perceived competitive strength, and are mobilized to implement LAPAs.

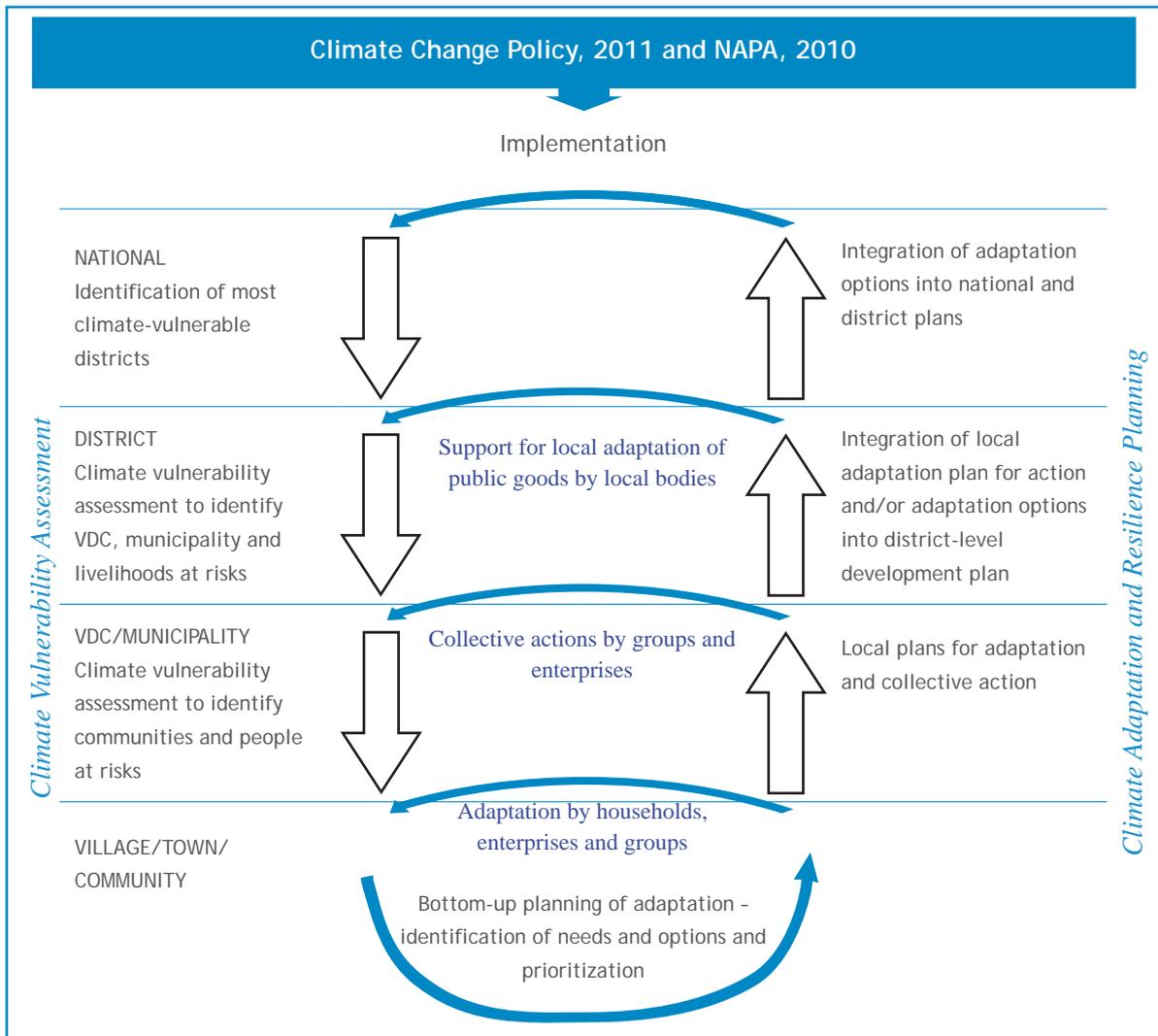


Figure 3. Nepal National Framework for Local Adaptation Plans for Action. Integrating climate change resilience into local-to-national development planning

SOURCE: Nepal 2011, p. 6.

The LAPA framework consists of seven steps as shown in Figure 4 for its formulation and implementation (Nepal 2011):

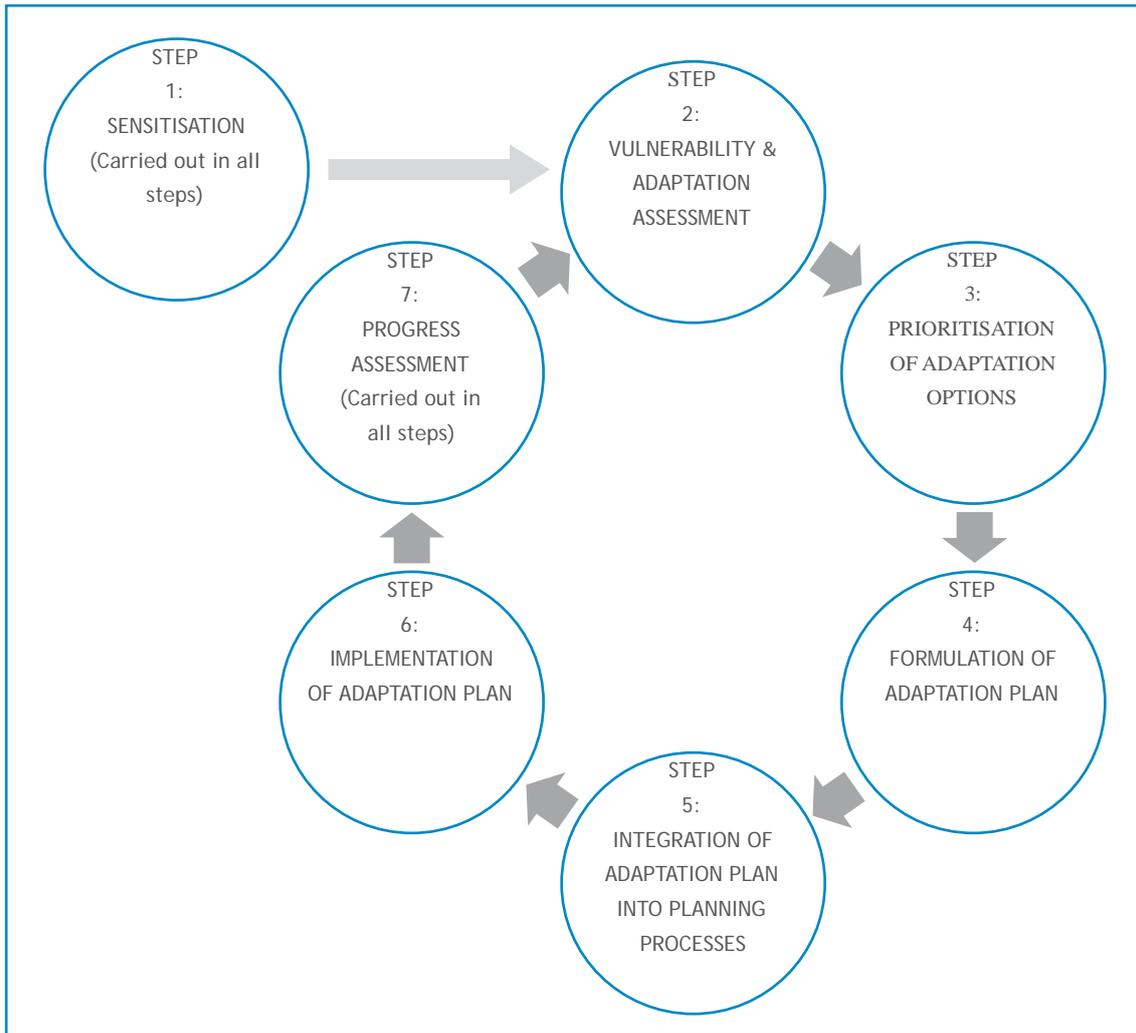


Figure 4. Nepal LAPA steps in cyclic order

Source: Nepal 2011, p. 7.

Step 1 - Sensitisation

Sensitisation is the first step of the process but is used throughout the formulation and implementation process (next 6 steps) whereby stakeholders at all levels (from community to national) are informed about the impacts of climate change, made aware about the identifiable adaptation options to adapt to those impacts, and also supported to identify the most appropriate institutions for implementation and monitoring of those adaptation options.

Step 2 - Vulnerability and adaptation assessment

This step is carried out using a systematic approach of locating the most climate-vulnerable hotspots and communities, and identifying adaptation options that will lessen the impacts of climate change and help them tackle the future impacts as well.

Step 3 - Prioritisation of adaptation options

This step prioritises the most urgent and cost-effective adaptation activities based on a ranking system devised through the involvement of local communities themselves. The process takes into consideration the needs of most vulnerable households while finalising the list of possible adaptation options.

Step 4 - LAPA formulation

The following 7 'Wh/H' approach is used to develop an adaptation plan (Nepal 2011, p. 15) based on the prioritised activities from the previous step.

1. What actions?
2. Where to implement?
3. What approach to use?
4. Who will implement?
5. When to implement?
6. What will it cost?
7. How to monitor progress?

A detailed roadmap that systematically answers each of the above questions guides the final LAPA formulation.

Step 5 - LAPA integration into planning process

The adaptation plan formed from the previous step is integrated into sectoral, local and national development planning process so that the identified adaptation activities are effectively implemented leveraging the resources from government, non-government and private sectors alike. This also helps in institutionalizing the LAPA planning process.

Step 6 - LAPA implementation

This step is the most crucial one. It involves the implementation of integrated LAPAs from previous step by ensuring effective participation of all stakeholders (communities, local government bodies, local NGOs, private sector and other agencies).

Step 7 - LAPA progress assessment

This step evaluates the progress and outcomes of LAPA by gathering evidence so that any learning, reflection and feedback from it guides the future trajectory of LAPA formulation and implementation. This step ensures the iterative and flexible approach of LAPA.

For carrying out each of the steps, the framework has recommended a formidable array of core tools developed mostly by various NGOs. The Results and Resources Framework (UNDP 2012, p. 37) is deployed to measure the LAPA outcomes and indicators.

Outcomes:

The planned outcomes for the LAPAs are enhanced capacity of the government and non-government institutions to implement climate change policy, and most urgent and immediate adaptation actions to increase the resilience of climate-vulnerable poor.

Indicators:

- National climate change strategy is financed and implemented in ways that support the delivery of adaptation priorities of the poorest and most vulnerable
- Number of DDCs delivering effective adaptation benefits with the integration of adaptation priorities into planning and budgeting processes
- Percentage of households adopting adaptation actions to address climate change
- Local service providers have capacity to provide effective adaptation services to vulnerable households using funds channeled through DEECCSs

LAPA identified priorities

In total, 2998 LAPA prioritized action plans have been identified in the 70 LAPAs, out of which 60% of action plans (the most urgent and immediate actions) are identified for implementation by NCCSP over the course of three years 2013–2015 – 600 LAPA priority actions each year (UNDP 2012). These represent local priorities around agriculture, livestock and food security, forest management and biodiversity, water resource and energy, climate hazards and physical infrastructure, human resources and livelihood and health. Figure 5 shows that of the total LAPA action priorities, almost half of the priorities indicated by local communities relate to agriculture ecosystems that directly support rural livelihoods. Agro-ecosystems are one of the most climate-sensitive sectors largely influenced by natural resources such as water and forests, and human

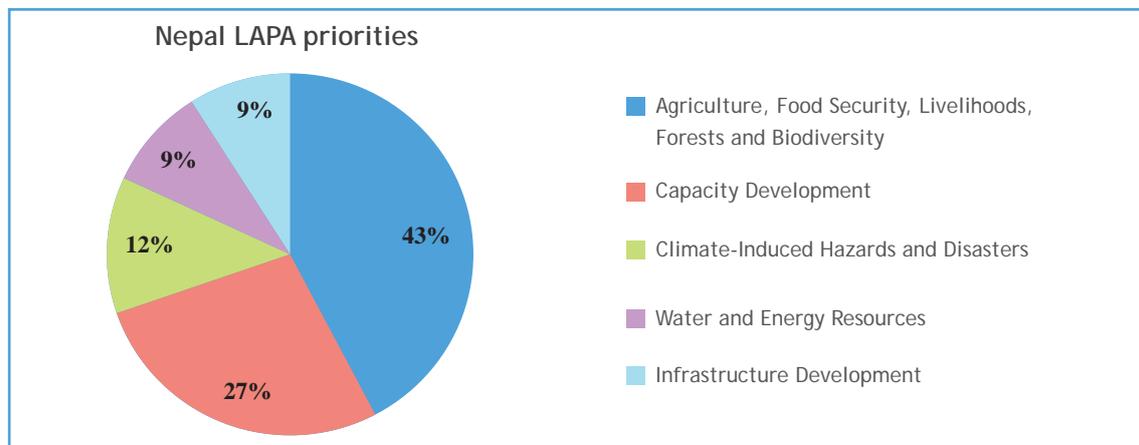


Figure 5. Categories of adaptation activities/options in LAPAs identified by communities

Source: UNDP 2012.

interventions. The communities whose livelihoods are dependent on these systems are likely to be at the highest risk and, therefore, highly vulnerable to increasing climatic hazards.

Pakistan LAPA

Being a lower middle-income country, Pakistan is encouraged to develop and adopt the National Adaptation Plans (NAP) under UNFCCC guidelines rather than the NAPA that is focused exclusively on LDCs (UNFCCC 2012). In 2012, Pakistan launched the First National Climate Change Policy, to address the impact of climate change. Although formal implementation of the policy is yet to start, various subnational initiatives for climate change are taking shape that would eventually link to the national policy. While there is no explicit mention of the interplay between LAPAs and NAPs in the official UNFCCC NAP guidelines, there is great potential for local adaptation planning processes to contribute to the NAP process. In particular, regular assessment of local-level adaptation planning needs can contribute both to mainstreaming adaptation into established local planning processes, and to regular revisiting of NAP objectives and priorities over time.

Recognizing the need for local action, the Pakistan LAPA was launched in 2012 through a 5-year UK Aid-funded project – CLEAR. LEAD Pakistan, a local not-for-profit organization, is developing and implementing the LAPA project that is focusing on the most vulnerable districts in southern Pakistan prone to floods, cyclones and drought. Floods ravaged these districts in 2010 and 2011, causing large-scale displacement and destruction worth billions and threatening the food and water security of the region. The Pakistan LAPA is taking an implementation-centric approach by involving local partner organizations in the development process of the LAPAs to address the most pressing climate change challenges relevant to local vulnerable communities.

Country background

Pakistan, owing to its particular geographical circumstances, is highly impacted by any changes in climate, making it one of the most vulnerable countries (Aslam et al. 2011). The potential to adapt to these changes is a major challenge for the country's development. The most significant climatic changes have been long-term reduction in rainfall in the semi-arid regions of the country and higher glacial melts that contribute to over 70% of the river flows. Droughts and floods are common and because vulnerable areas are already severely degraded, resulting food and water shortages cause heavy human losses every year. Severe floods hit Pakistan in 2010, 2011 and 2013, affecting over 30 million people (Ocha 2011). This recurring flooding is likely

to have severe impacts on food security, natural resources and water, especially in the subsistence agropastoral systems.

LAPA objectives, coverage and funding

The LAPA framework is designed by LEAD as an outcome of a multipronged process, which involves research, planning and consultations. The overarching goals of the LAPA are:

- Facilitate and train communities and community-based organizations through trained partner organizations to work together with local government officials in developing and implementing LAPAs.
- Achieve multistakeholder participation, capturing the voices of women, youth, elderly, disabled people and other groups vulnerable to climate change, while addressing the loss of livelihood sources and opportunities.
- Address the lack of capacity and information, low and ineffectively articulated public demand for government action, and lack of awareness among vulnerable communities about the impacts of climate change in their livelihoods especially on agriculture and water management.

The LAPAs are under development in 12 vulnerable districts in Southern Pakistan. Based on field research findings and application of LAPA tools, the issues and solutions are finalized on what is most important, local, feasible, approachable, realistic and affordable for each district. The communities in the districts are ultimately developing, executing and monitoring 45 microprojects for climate adaptation ranging from desalination to irrigation projects. While the initial focus of the LAPA is on planning and implementation at the district level down to community scale, ultimately the process seeks to establish a vertical link between the national-scale, top-down assessments of current climate risks and future climate risks, with bottom-up assessments from community members themselves, informed by local knowledge and geographical specificity.

The LAPA project is funded to the amount of approximately USD 0.85 million primarily by UK Aid, under Civil Society Challenge Fund – CSCF 554 as a specific project. Each LAPA spans over one year in which all the activities approved in its work plan are conducted accordingly. Quarterly progress reports are collected and maintained by LEAD to ensure accountability, transparency and accuracy in the LAPA functioning.

LAPA methodology

The LAPA design aims to empower, organize and enhance the capacity of local communities to adapt to climate change impacts at a Union Council (UC) level – the lowest official administrative unit – and, to create a conducive policy, legislative and financial framework for community-based adaptation. Pilot communities are selected for LAPA implementation based on detailed vulnerability assessments. Supported by comprehensive participatory tools, local consultations and multistakeholder workshops, the LAPAs aim to empower local people to undertake their own analysis, take command, gain confidence and make their own decisions. LEAD facilitates the process by creating an enabling environment and providing technical backstopping.

Figure 6 represents the management and integration of the LAPA framework in Pakistan. LAPA activities are primarily undertaken at UC level to promote a sense of ownership and encourage communities to adopt a protective stance of their assets. At the same time, by addressing community needs, the approach aims to enhance livelihood security and reduce community reliance on natural environment. However, the project refers to the LAPAs as district-level LAPAs because of two reasons. First, the partner organizations represent different geographical areas of the district. And second, the district government departments are involved in LAPA consultation right from its planning, implementation and monitoring. LEAD as project manager does not conduct direct activities at grassroots level. All field-level activities, such as consultation with government, linkages development, district meetings, implementation of microprojects, focus group discussions and outreach activities, are conducted by the partner organizations in the respective districts. The LAPA project is steered by a project advisor group, comprising members focused on issues pertaining to policy, institutional collaboration, project performance, etc. The day-to-day management of the project is entrusted to a project management unit established by LEAD. However, day-to-day implementation in the field is the core responsibility of the local partner organizations to provide meaningful participation opportunities at the community level.

Project Advisory Group (PAG)		
Actor	Scale	Action
Project management unit	National level	LAPA methodology development and monitoring
Partner organizations	District level	LAPA development and implementation
Communities	Union Council level	LAPA activities implementation

Figure 6. Pakistan LAPA management and integration framework

The LAPA methodology has four components: identification of core climate issues, engaging community, developing actions and gauging effectiveness of actions. These translate into the six-step LAPA framework as shown in Figure 7. To identify climate change issues and current practices of the local communities, a comprehensive vulnerability assessment and a series of focus group discussions are conducted in the targeted areas. Two types of workshops including LAPA development workshop and the LAPA consultation workshop are conducted to ensure the active participation of multiple stakeholders. Formulated LAPAs are also reviewed on a yearly basis by bringing the stakeholders involved in development back together to test whether the plan still covers the needs of the district. Stakeholder consultations are the first experience of its kind for most participants from the community. Besides detailed discussion on a range of key climate change issues of the district and development of the LAPA, the stakeholder workshops are also instrumental in breaking the misinformed stereotypes about the distinct roles of government and community.

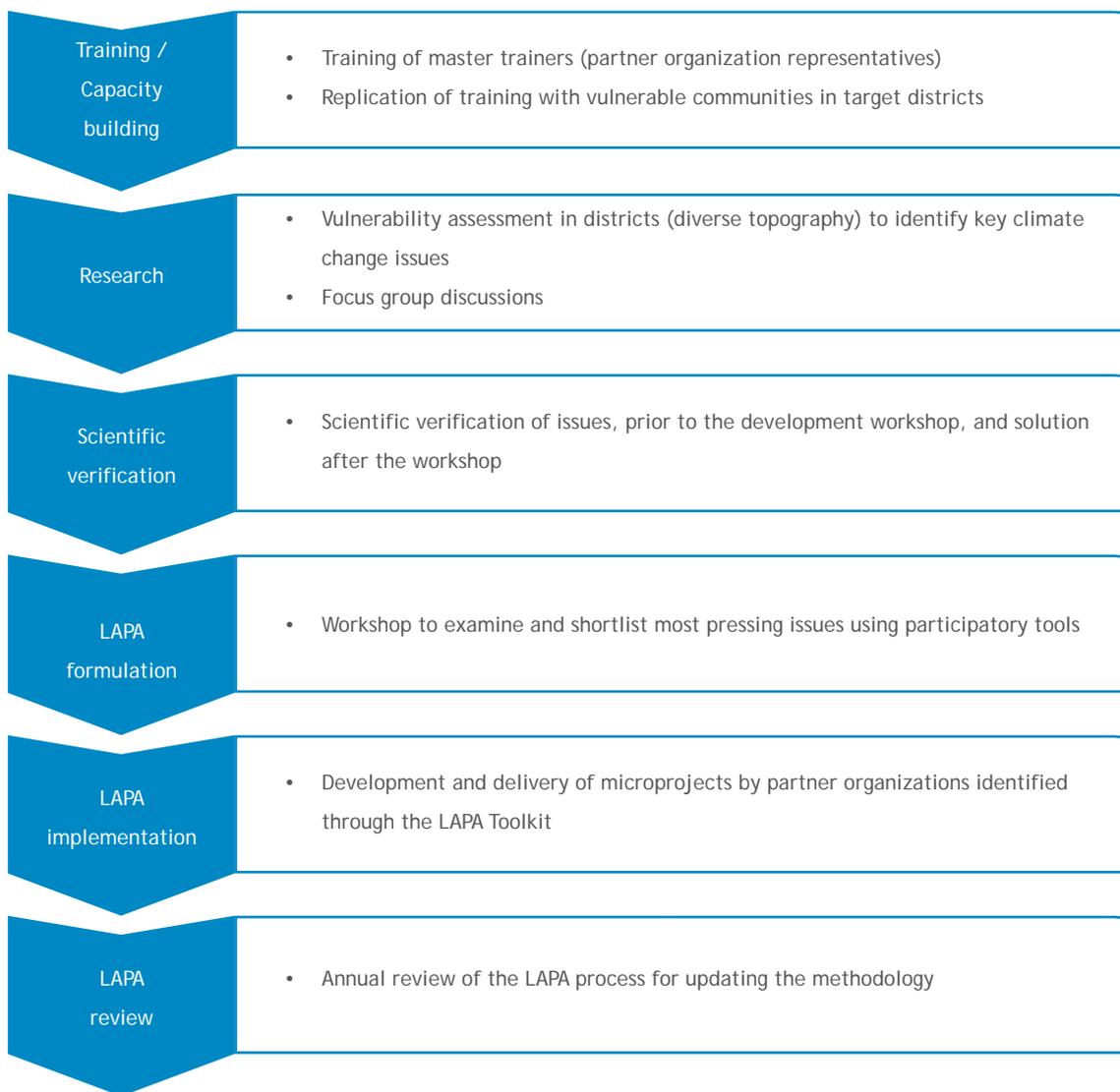


Figure 7. Pakistan six-step LAPA framework

Step 1 - Training/Capacity building

This action aims to create, facilitate and promote meaningful interaction between community institutions and relevant government entities by establishing ‘program coordination committees’ at UC levels that coordinate activities with district-level authorities, including the Deputy Commissioner, the District Disaster Management Authority and the representative of the newly established Rehabilitation Department. The established committee capacity support needs are assessed and tailored training support is offered under the capacity building step. Capacity building of community-based organizations is achieved through demonstration and modeling of participatory planning and project cycle. Targeted training is based on their capacity needs assessment in a range of basic organizational and technical skill areas.

Step 2 - Field research

To identify climate change issues and current practices of local communities, a comprehensive vulnerability assessment (VA) and a series of focus group discussions (FGDs) are conducted in the targeted areas. The VA research report highlights the types, level and impact of vulnerabilities on a variety of climate change areas directly related to the lives and livelihood of the people. FGDs are carried out in the district with local stakeholders to evaluate climate change issues more closely and to strengthen the findings of VA.

Step 3 - Scientific verification

The LAPA project partners with the Pakistan Meteorological Department to conduct scientific review of their LAPAs. The scientific review provides information regarding changes in cropping patterns, temperature variations, drainage patterns and several other variables that have a significant bearing on the local population residing in these areas. Such coordination helps to authenticate the information in devising proper adaptive measures.

Step 4 - LAPA formulation

The LAPA development methodology consists of two types of workshops including the LAPA development workshop and the LAPA consultation workshop. Learning, sharing and consultations are the basic pillars of the LAPA development methodology as it is embedded in participatory approach with involvement of multiple stakeholders.

The LAPA formulation process, led by the partner organizations, is developed with engagement of officials from the local government departments including agriculture, forestry, livestock and irrigation, Pakistan Meteorological Department, community members and civil society organizations, whilst a broad range of stakeholders are involved in the consultation process once the draft LAPA is developed. A LAPA toolkit, comprising 17 participatory tools covering project cycle management is applied in the participants workshop to identify LAPA priorities and reduce personal biases, interests, benefits and other related factors that may mold the LAPA to a specific interest group.

Step 5 - LAPA implementation

After development of the LAPAs, the LEAD team conducts training workshops for master trainers from each partner organization to strengthen their implementation skills. The partner organizations are responsible for implementation of the LAPA activities as per the approved work plan and budget lines. Funding is tiered with the achieving of timely milestones. The process also incorporates monitoring field visits to keep check on functionality, transparency and progress of the LAPAs.

Step 6 - LAPA review process

To maintain relevancy of action in a fast changing environment, the LAPA framework has set out a mechanism of ongoing yearly review by bringing stakeholders involved in the LAPA development together to test whether the plan still covers the needs of the district. This is a modified version of the development workshop, using the existing LAPA as a base for discussion and revision. While detailed review indicators are currently under development, timely submission of progress reports, completion of set objectives within the respective time frame and capacity building of partner organizations' master trainers are considered good indicators of LAPA's success.

LAPA identified priorities

To date only 6 of the 12 planned LAPAs have been developed in Pakistan, compared to 70 LAPAs in Nepal. The community-identified priority list is hence not very dense for detailed analysis. As more LAPAs are developed, detailed priorities will be populated to reflect thematic areas of focus for local and national planning. Nonetheless based on the 6 LAPAs, approximately 30 priorities are identified (each LAPA limited priorities identification to 3–4 actions). These represent local priorities around agriculture, aquaculture and food security, water resource, climate hazards and disasters, physical infrastructure, livelihoods and health. Figure 8 shows that of the total LAPA action priorities, over two-thirds (68%) indicated by local communities relate to agriculture ecosystems that directly support rural livelihoods. Agro-ecosystems are one of the most climate-sensitive sectors in Pakistan largely influenced by natural resources such as water and soil, and human interventions.

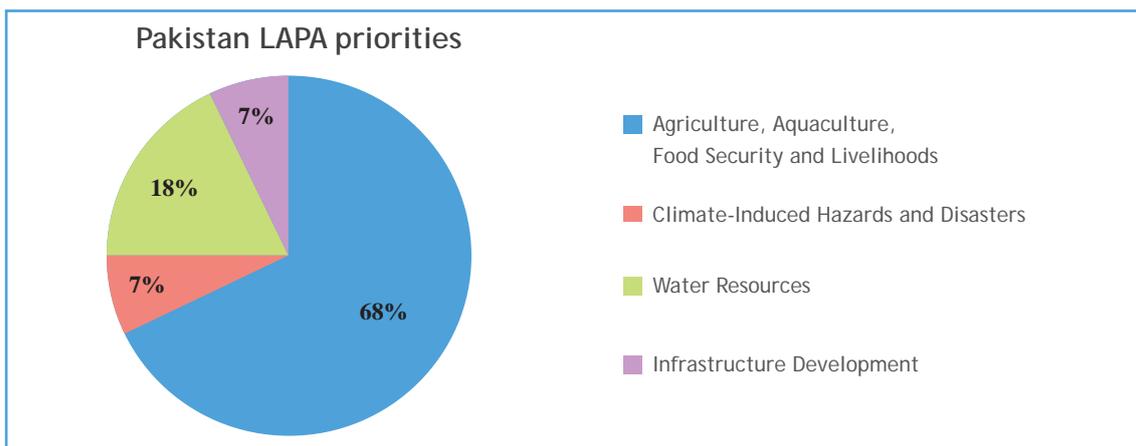


Figure 8. Categories of adaptation activities/options identified by communities in LAPAs

Source: Pakistan LAPA Documents.

Five, out of the 6 LAPAs developed so far, identified threat from unpredictable rains as their top challenge for local communities in the districts. While unpredictable rains may be a shared challenge across the LAPA districts highlighting the significance of this threat, the solutions proposed by the community under the LAPAs are varied. The communities identified over 10 distinct solutions for the same common challenge, highlighting that there is no silver bullet for effective adaptation but many different local solutions can be combined to offer the farmers the best chance to address the risks. If one solution fails, there may be examples of others that worked. The identified solutions ranged from rehabilitation of salinity drains, development of crop calendars based on shifting cultivation, promotion of low-delta crops to on-farm water management practices, to name a few.

Summary of Nepal and Pakistan LAPAs

Table 4 presents a summary of the key features of the Nepal and Pakistan LAPAs. For instance, while the Nepal LAPA is a national framework and the Pakistan LAPA is a donor-funded project, continuity of both LAPAs is contingent on availability of future donor funding. The Pakistan LAPA development process is at an incipient stage with 6 LAPAs completed compared to 70 LAPAs completed in Nepal with additional 30 LAPAs advanced for implementation. Despite the different maturity of the LAPAs, adaptation in the agriculture sector has emerged as the top ranked thematic priority in both countries, emphasizing the sensitivity and importance of the agriculture sector to the local communities.

Table 4. Summary features of Nepal and Pakistan LAPAs

LAPA features	Nepal	Pakistan
Legal form	Government-ratified national framework - 2011 with focus on mainstreaming LAPA in official local development planning	Stand-alone donor-funded project - 2012 (planned to be promoted as national programme)
Funding commitment and source	USD 22.38 million - donor funded	USD 0.85 million - donor funded
Duration	Perpetual (contingent on continued funding availability)	5-year project (contingent on continued funding availability)
LAPA framework development	Developed by international and national organizations under Climate Adaptation Design and Piloting (CADP) Project	Developed by Leadership for Environment and Development (LEAD) Pakistan - National non-profit organization
Lead organizations	Implementing organization: Ministry of Science, Technology and Environment (MoSTE) Coordinating organization: Ministry of Federal Affairs and Local Development (MoFALD)	LEAD Pakistan
Policy linkage	LAPA operates under Nepal NAPA Framework 2010 and National Climate Change Policy 2011	Stand-alone project with no formal policy linkage (although guided by priorities under National Climate Change Policy 2012)

(continues)

(continued)

LAPA features	Nepal	Pakistan
Key LAPA target beneficiaries	Vulnerable local communities (resources), local government officials and service providers (capacity building)	Vulnerable local communities (resources), local government officials (capacity building) and partner organizations (capacity building and resources)
Current geographical focus	Mid- and far-western regions of the country (poorest regions of the country)	Southern region of the country (highly vulnerable to floods)
Number of LAPAs	70 LAPAs in 14 districts (further 30 in progress)	6 LAPAs in 6 districts (further 6 in progress)
LAPA formulation on ground	Developed by three national NGOs	Developed by LEAD Pakistan in collaboration with local partner organizations (local service providers)
Key delivery and implementation agents	Local government entities (Village Development Committee [VDC] and District Development Committee [DDC]) in coordination of MoFALD	Local partner organizations guided by LEAD Pakistan
LAPA framework	Seven-step process - Sensitisation, vulnerability assessment, prioritization of adaptation options, formulation of adaptation plans, integration of adaptation plans in planning process, implementation and progress assessment	Six-step process - Capacity building, research, scientific verification, LAPA formulation (prioritization of adaptation options), LAPA implementation and annual assessment
Toolkit for LAPA development	15 participatory tools deployed Assessment of risks, design of strategy and methods, and implementation	17 participatory tools deployed Assessment of risks, design of strategy and methods, and implementation
Top ranked LAPA thematic priority	Agriculture and food security (43% of the total identified priorities)	Agriculture and food security (68% of total identified priorities)

Analysis and discussion

The Nepal and Pakistan LAPAs share similar underlying goals of supporting and developing bottom-up local-level planning for adaptation; however, the organizational design of the two LAPAs are very distinct. The Nepal LAPA takes a national-to-local approach of mainstreaming LAPAs in national development planning by first developing a government-ratified framework, followed by linking national agencies with regional and local units to create planning, funding and resources channels for local communities. Pre-implementation buy-in for the process is considered critical at all levels of administration to gain legitimacy for successful roll-out of the LAPAs. The Pakistan LAPA, on the other hand, takes a local-to-national approach by first generating on-ground implementation learning without any formal national-level legislation linkage. Official buy-in of the LAPA framework at the national and regional levels is planned through post-implementation demonstration and dissemination of on-ground lessons and learning. From the project inception, local partner organizations are engaged as master trainers and project implementers, as their close proximity to local communities and on-ground experience of local challenges is expected to improve implementation success of the LAPAs.

This section analyses and discusses the organizational design of the two country LAPAs under the structural and political frames and the implementation design analysis using the Kotter framework.

Level 1- Organizational analysis

Structural frame

Under the structural approach, each LAPA framework is analysed for the structural contingencies presented in Table 1 (page 13) and their impacts on the structural design.

Size and age

Complexity and formalization increase with size and age of an organization leading to more vertical structures. The Nepal LAPA structure, despite its nascent stage (less than three years old) has imposed a more formal hierarchical structure. This is not a function of the LAPA reaching maturity and requiring a stable operational structure. The LAPA has been deliberately designed as a formal structure to horizontally connect the numerous ministries (that is, environment, local development, health, agriculture, planning commission) and national agencies involved in the LAPA development and implementation process. Each entity is an organizational unit in its own right with its independent formal bureaucratic structure, mandate, reporting and accountability framework that adds to the complexity of the LAPA programme. This, according to Young (2002), is horizontal interplay that aims to cut through this complexity by forging structural coordination to link these various independent units. The LAPA framework also vertically links these national planning and implementing agencies with the district (DDC) and village (VDC) agencies. This vertical interplay is supported through existing decentralized channels of national-to-local development planning and funding under the Local Self Governance Act (1999). Using the existing channels implies that while the LAPA avoids creating parallel and duplicate structures with their own bureaucratic and structural challenges, it is embedded in existing legacy structural systems that often fall short of meeting local needs. The demand-driven approach of the existing local decentralized structures, however, further compounds the structural complexity. The existing structures are designed to meet current development needs of local communities that may not precisely translate into the flexible long-term needs of adaptation planning. In the absence of an awareness-raising process, communities are often not informed of the long-term impacts of climate change and instead focus on their immediate development needs. This limitation in existing structures was aptly summed up in a reply of a VDC secretary on why there is a dearth of adaptation projects in local plans – “if the community does not demand adaptation interventions, how can we provide these in our plans.”

The Pakistan LAPA is also at an incipient stage (two years old), but has a much flatter hierarchical structure, which Mintzberg (1979) describes as a simple configuration with direct control and supervision of the project manager. This is a function of the LAPA operating as a project with few formal vertical reporting layers. While LEAD is the project manager, on-ground management of the LAPAs is devolved to local partner organizations active in the implementing districts. These partner organizations are trained and empowered to engage directly with LAPA communities and other local stakeholders for the LAPA formulation and hence are distanced and relatively independent from the formal structure of LEAD. Accordingly, the LAPA project faces much lower structural complexity at this stage than the Nepal LAPA. Going forward as the LAPA project matures and is scaled up to the national level, complexity in the operational process is expected to increase. This would entail the LAPA project adding vertical layers to connect with other regional and national actors relevant to the LAPA process. The present structural design, while efficient for current needs, may no longer be suitable for the new challenges of formalization in scaling up. The Pakistan LAPA managers hence need to be cognizant of these challenges and accordingly need to plan early on in the process to address the structural adjustments needed for institutionalization of the LAPAs.

Core processes

Core processes for operations must align with the structure to enable an organization to deliver on its stated objectives. The Nepal LAPA framework was designed through a tiered process of pilot study by several NGOs in four districts of Nepal followed by ratification of the LAPA framework by GoN. Seventy (70) LAPAs have so far been prepared under the start-up phase across 14 districts by three selected local NGOs, extendable to 100 LAPAs. LAPA is termed as a living document that envisions updates based on the experiential learning from the LAPA roll-out across Nepal. However, formalizing the core processes, along with delivery channels through ratification by GoN before commencement of the start-up phase, means that a specific organizational structure has emerged to fulfill the planning and implementation objectives. Any changes in the framework's core process may require further government acceptance that, even if minor, is often time consuming and takes away the flexibility in adaptation of the structure. The Nepal LAPA is deployed through existing official district and village structures. These structures are well established and rigid, meaning that any misalignment of the core processes with existing structures would create gaps in the deployment of the LAPAs. Matching formalized core processes with existing structure is not an easy task that often requires realignment of both processes and structure to find an optimal and efficient fit. Since neither the core processes nor the existing structure has this immediate flexibility, finding the right match is challenging. Climate change adaptation is an uncertain field that requires flexibility of the interventions and in the systems to adapt to the evolving needs. Having preset stringent

structures may result in core processes becoming redundant and ineffective in dealing with on-ground realities. This tension in structures and processes is apparent at the DDC and VDC levels, where the personnel at these decentralized units are expected to push the agenda of MoSTE for which they are neither accountable nor reportable to. There is an inherent risk that these personnel may not prioritize requests of LAPA implementation where it competes, or in any way impedes, with their existing development plans. As one official from the National Planning Commission of Nepal pointed out, “none of the ministries other than MoSTE has felt the ownership of LAPA, thus making mainstreaming of LAPA very challenging.”

Pakistan LAPA has also adopted formal core processes for development and implementation of the LAPAs using the six-step methodology, but the LAPA process is still evolving. The LAPA has focused on a decentralized structure by engaging local partner organizations as implementation partners for the LAPAs. This approach is based on the premise that local organizations with their close proximity to local communities are better placed to understand local realities and appreciate cultural intricacies. The LAPA aims to gain a wider reach by applying train-the-trainers approach to replicate the LAPA development process in other districts. Local-level implementation and development of the LAPA is expected to generate ground knowledge on the effectiveness and practicality of the core processes. The Pakistan LAPA is a project and hence retains the flexibility of structural adjustments and alignment of core processes without attracting consent of outside actors, except the funders. LEAD as a project manager is empowered to restructure as needed; however, this flexibility and discretion is likely to reduce as the project scales up. Hence it is imperative to plug gaps and overlaps in the structure and the core processes at this early project stage.

Environment

Environment comprises all the institutions, actors and forces that are outside of the organization but potentially impact the organization’s performance and actions (Daft et al. 2010).

Organizational structures are as much shaped by the environment they are part of as these structures shape the environment. In a complex and broad field – such as climate change – knowledge and action often reside outside individual organizational boundaries (Young 2002, Powell et al. 1996), hence linkage with actors and activities in wider environment is imperative to tackle the challenge of climate change.

Nepal has a very active and dense climate change environment comprising many actors, activities and policies. It has seen a host of environmental and climate change policies over the past 15 years including the Nepal Environmental Policy and Action Plan (2003), the Environmental Protection Act (1996) and National Climate Change Policy (2010). In 2012,

Nepal was elected to chair the LDC Coordination Group of the UNFCCC with the mandate to raise the LDC concerns during UNFCCC negotiations in a more coordinated way. Nepal has several ongoing climate change programmes including the Poverty-Environment Initiative (2010), the World Bank-funded Pilot Project for Climate Resilience (2010), National Adaptation Programme of Action (2010) and the Local Adaptation Plans for Action (2011). There are numerous climate- and development-focused NGOs, multilateral and bilateral, operating within the climate change domain. These actors interact with the NAPA and LAPA programme bringing in their own set of expertise from vulnerability assessments, planning, funding to implementation. This adds to the prevailing complexity in the LAPA structure of balancing the competing interests of these multiple and influential actors. In short, Nepal has a very dynamic and complex climate change field with interplay of many actors, projects and policies. To operate in such dynamic and complex environments, organizational structures need to be organic and fluid (Robbins and Judge 2010). Nepal has adopted a formal LAPA structure, which is likely to create tension with the more organic need of managing the multiple needs of numerous actors and policies in the country. An example of this tension is reflected in the over emphasis on the planning cycle in the LAPA process. Instead of moving towards implementation on completion of the start-up phase of 70 LAPAs, the project managers have initiated a further planning cycle of 30 LAPAs. This may be a reflection of the wider availability of planning expertise in the Nepal environment than on-ground implementation skill that may ultimately dilute the momentum of the LAPA programme.

Pakistan, on the other hand, has a relatively sparse external environment with few climate change actors, activities and policies. Under the existing constitutional structure, climate change is a devolved provincial matter, with no official coordinating national ministry. Instead, a national climate change division has been created for coordinating climate change initiatives with the provinces and to act as the lead agency for international agreements. The department lacks official status, power and resources, normally enjoyed by a national ministry (Shahid 2014). This relegates climate change as secondary to other development priorities, such as health and education, and inhibits roll-out of national-level programmes. Most climate initiatives are donor-driven projects focused on specific vulnerable locations. The risk of knowledge and project learning remaining restricted to fewer organizations is high. In 2012, Pakistan launched the National Climate Change Policy; however, no formal implementation plans have been developed to date to operationalize the priorities. Much of the attention is diverted towards post-disaster relief from climatic challenges. The Pakistan LAPA too is following a project approach, as there is little external pressure or incentive to link it with any formal policy or department. While this allows the LAPA to take on a more organic structure, it may ultimately suffer from lack of official ownership and will face difficulties in scaling up the programme nationally.

Institutional arrangement

The organizational structures are influenced by the surrounding institutional arrangement. According to Powell and DiMaggio (1991), institutions are not just the sum of the organizations that form these institutions but institutions also develop independent identities that influence how organizations react to them. Hence entities in various industries differentiate and integrate their structures to fit the industry environment (Lawrence and Lorsh 1967).

Being an LDC, Nepal was expected to develop the country's NAPA framework as a precondition to access the UNFCCC-dedicated LDC adaptation funding. The Nepal NAPA (Nepal 2010, p. 6) is a "means of prioritizing urgent and immediate adaptation action." The GoN expects that any and all climate change adaptation support programmes will carefully consider the NAPA outcomes as a first step, making the NAPA a foundational institutional framework in Nepal's national adaptation planning. The Nepal NAPA is further formalized through creation of two additional structures of Climate Change Knowledge Management and Learning Platform and the Multistakeholder Climate Change Initiatives Coordination Committee. Being an offshoot of the NAPA, the LAPA structure is significantly influenced by the hierarchical institutional design of the NAPA. This has resulted in a formalized government-ratified LAPA framework even before commencement of formal implementation stage.

Pakistan is a lower-middle-income country and is not officially bound by any formal adaptation framework. Although UNFCCC encourages developing countries to adopt NAPs under the UNFCCC to create formal medium- and long-term adaptation plans, it does not prescribe any formal standardized structure. As a result, the emerged organizational structure of the Pakistan LAPA is more organic without any external institutional pressure. This void of institutional structure also means that the Pakistan LAPA does not benefit from experiential learning from setting up NAPs. Further, legitimacy of the LAPA is low especially in the official government system in the absence of any formal institutional framework support of the LAPA framework. Having no clarity on the implementation plan of the National Climate Change Policy (2012) and the stand-alone project approach of LAPA implies that the project developer will need to put in substantial efforts to institutionalize the process and hence create legitimacy for LAPA. Given the current environment, this is a challenging task of bringing many competing and disparate stakeholders under one platform to scale up the LAPA. It requires specific managerial skills and resources that may not necessarily be available with the project developer.

Strategy and goals

A major task for organizations is to have clear and consistent objectives (Amburgey and Dacin 1994, Chandler 1990) as it will shape the structure of the organization. Organizational

objectives in turn are derived from the organizational strategy, so strategy and structure are closely linked (Robbins and Judge 2010).

Both Nepal and Pakistan LAPA frameworks have developed clear well-defined objectives for bottom-up participatory adaptation planning. However, in Nepal, these objectives are disseminated to local communities through various existing national, regional and local channeling agencies. Each agency has its own objectives, priorities and strategies. Climate change adaptation is infused with each agency's strategy that in an ideal situation is complementary but in reality often competes with existing agency priorities. At the policy level, efforts have been made to mainstream and align adaptation objectives with national development objectives through setting up Multistakeholder Coordination Committees at the project level and Climate Change Council at the national level to bring relevant ministries and departments under one platform. However, such formal coordination at the district and village level is missing. Business-as-usual development is still the main focus for decentralized bodies of DDC and VDC that adds complexity of coordination and alignment of strategies in introducing adaptation priorities at the local level. As one interviewee stated, "unless guided by proper government policy and objectives in writing, which do not exist, nothing will happen by individual efforts in districts."

The Pakistan LAPA has employed a strategy of decentralized planning using partner organizations. Partner organizations, while guided by the developed LAPA objectives, also have their own strategic objectives and goals that in turn shape their operational structures. There is a risk of expertise bias of the partner organizations seeping into the LAPAs' goals. For example, if a partner organization has thematic expertise in health, chances are that health may be prioritized as an adaptation option over other objectives. In some cases, this strategic expertise may be a source of advantage but in other cases it may raise conflict of interests. At the current project scale, because of a simple configuration, this bias can be mitigated through direct supervision of the project developer. However, as the LAPA program scales up and out across other districts and takes on more mature organizational configurations (Mintzberg 1993), ensuring alignment between partner organizations' objectives and LAPA objectives may be challenging. The project managers have to be cognizant of the strategy and structure alignment challenges early on in the LAPA development process to put in appropriate counter measures.

Information technology

Information technology in the context of organizations refers to how organizations transfer inputs into services and goods. Enhanced flow of information and improved technology reduce uncertainty. This allows for flatter, more flexible and decentralized structures, as it needs fewer levels of management than traditional command and control units.

The LAPA frameworks in both Nepal and Pakistan apply detailed participatory tools to capture and translate the complex and varied nature of local information into meaningful LAPA development inputs and actions. The LAPA toolkits provide a consistent, transparent and verifiable process for capturing local needs. This push for standardization leads to more mechanic and divisional organizational structures where division of labor prevails to create stable operating environments (Mintzberg 1993).

Table 5 presents a comparison of the respective tools used by each team for LAPA development, under specific categories as popularly applied by development practitioners namely (1) risk assessment and ranking tools, (2) design of strategy and methods (including prioritization of options), and (3) implementation (including monitoring and evaluation).

Table 5. LAPA toolkit categorization

Nepal	Pakistan
Risk assessment and ranking tools	
Gateway system analysis Shared learning dialogue Visuals and stories Climatic hazard trend analysis Seasonal calendars Disaggregated vulnerability matrix hazard and impact risk assessment	Issue priority grid Issue intensity-level tool Issue support tool Issue reasoning tool (Prioritize three issues)
Design of strategy and methods	
Envisioning future climate scenarios Climate-adapted well-being assessment Visioning high adaptive capacity Multicriteria analysis Participatory cost-benefit analysis	Force field analysis Resource analysis Risk assessment (of solutions) Socioeconomic assessment Stakeholder analysis Action planning
Implementation	
Service provider analysis (institutional analysis) Self-monitoring and evaluation Behavioural changes journal Most significant change technique	Work plan template Budget template Reporting template Beneficiary database Change record template Case study template Indicators tool

Nature of workforce

A certain level of scientific, social and management knowledge is required for planning climate change adaptation. This entails a more educated and professional staff to manage the LAPA development and implementation process. Formal structure, as envisioned in the LAPAs, enhances morale of employees if it helps to get work done, but it can have a negative impact if it impedes their work (Adler and Borys 1996). Accordingly, the organizational structure needs to be flexible to allow autonomy to the skilled workforce to operate within defined operational boundaries.

Finding skilled workforce has been a challenge identified by both Nepal and Pakistan LAPAs. In Nepal, the local government bodies have limited staff and little technical knowledge of climate change, adaptation and mainstreaming process. The existing institutional arrangement is not sufficient to implement ambitious projects like LAPA. Although new sectional structure and regional technical hubs to support LAPAs are being planned through establishment of DEEUs, budget availability remains a key determinant on sustainability of these support units.

Pakistan LAPA is addressing this gap in skilled workforce by introducing a ‘master training’ programme. Personnel within the partner organizations are trained to develop the LAPAs with key stakeholders. However, the master training approach has to be scaled up to the official government system to harmonize and build capacity of different stakeholders instrumental to the LAPA success.

Other contingencies

There are various other contingencies such as funding, legal structures and cultural context that also influence the organizational structure of LAPAs. While the relationship of these contingencies with the organizational structure may not be very clear in research, it is useful to briefly discuss these.

For development of NAPA, UNFCCC allocated USD 200,000 to each LDC. This clearly is not enough funding to develop a comprehensive national plan based on primary empirical data. Despite securing additional funding, several interviewees involved in the preparation of the NAPA deemed Nepal NAPA development as superficial arguing that it did not adequately capture local adaptation needs. The LAPA, although a more rigorously prepared framework, builds on the NAPA priorities and hence incorporates many of the NAPA limitations in its organizational design. Another funding challenge in Nepal is that the estimated budget for LAPA activities in the mid- and far-west region ranges from USD 0.2 million to USD 1.1 million per VDC (UNDP 2012), whereas the average annual government budget for each VDC is approximately USD 15,000–30,000 (GoN’s VDC Block Grant). Managing budgets tenfold in size at the VDC level will create governance and capacity issues. The existing organizational structures hence have to be adapted to cater for increased funding.

Being a non-LDC, Pakistan is not eligible for dedicated adaptation funds. Much of the focus of global climate funding in non LDC is skewed towards mitigation with only 15% of total funding committed to adaptation (Caravani et al. 2013). Mitigation is primarily justified by international agreements and the ensuing national public policies, but most adaptation is private motivated by interests of affected individuals, households and firms (IPCC 2007). This raises a challenge for

Pakistan LAPA in securing committed, scalable and long-term adaptation funding. There is also the risk that the LAPAs may lose direction and adapt their structures to fit in activities that offer funding rather than solving the most pressing adaptation needs of communities on ground.

Ownership structures also influence the organizational structures. For example, government organizations are more formalized than other organizations (Pugh 1973). The Nepal LAPA is a government-ratified programme with ownership and accountability resting in the official system. It uses formal government structures for operations and hence is influenced by its bureaucratic structural form. The Pakistan LAPA is a donor-funded project managed by a local development NGO. The LAPA structure will thus be influenced by the reporting and accountability structures of the funders and the project manager. While it is difficult to specify the extent of influence ownership structures impose over organizational structures, it is important to recognize and acknowledge this link for better planning.

Finally local cultural aspects may also impact how climate change adaptation is viewed and framed in a particular context. If, for example, adaptation is perceived as a development challenge, then the resulting structural configuration may be different to if adaptation is taken as an environmental challenge, as the level of expertise required to address these challenges is distinct.

Summary of impact of contingencies on structural design

Table 6 summarizes the impact of the discussed contingencies on the structural design of the Nepal and Pakistan LAPAs. While the LAPAs are structured to achieve the desired organizational objectives, pressures from different contingencies may inhibit this. For example, the Nepal LAPA pushes towards hierarchical and bureaucratic structure through legislation; however, staff capacity and competition for official funding push the structure towards a flatter structure with more oversight. The Pakistan LAPA aims for a more formal and stable structure through setting a clear strategy and goals; however, the project-based approach pushes the structure towards flatter, organic and informal structure with strong oversight. Recognizing these inherent tensions and their impact on the planned organizational structures early on in the planning process will facilitate LAPA developers in creating more sustainable and effective organizational structures.

Table 6. Summary of impact of contingencies on the structural design of LAPAs

Factors	Nepal	Push on structure	Pakistan	Push on structure
Size and age	3 years old, framework linked with formal government structure	Hierarchical and bureaucratic	2 years old, project based, and externally funded	Simple and flatter
Core processes	Formal - Ratified by government	Hierarchical with multiple reporting lines	Organic	Thin layered with few reporting lines to external funder
Environment	Dense environment with many external state and non-state actors	Departmentalization to link with external actors	Thin with few external state and non-state actors	Simple structure
Institutional arrangement	Linked with NAPA	Formal - Influenced by NAPA goals	No formal institutional link	Informal and organic
Strategy and goals	Clear goals	Stability of structure	Evolving goals	Push towards stability
Information technology	Well-defined toolkit	Stability and formality of structure	Well-defined toolkit	Stability and formality of structure
Nature of the work force	Weak staff capacity	Simple structure with strong oversight	Small project team	Technocratic structure with push to professionalise
Legal form	Government programme	Hierarchical and bureaucratic	Donor-funded project	Flatter and influenced by reporting needs of donor and project manager
Funding	Linked with districts and village budgets	Bureaucratic and influenced by competing nature of funding	External project funded with no official formality	Flatter structure

Political frame

Where the structural frame views the deliberate design of organization, the political frame sees organizations as arenas, contests or jungles. People within the organization compete for power and scarce resources. Coalitions form around specific interests and change as issues come and go. Challenges arise when power is concentrated at the wrong place or is broadly dispersed so that nothing is achieved. Solutions arise from political skill and acumen (Bolman and Deal 2013). This section briefly discusses the political aspects of the Nepal and Pakistan LAPAs.

Nepal

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) has conducted research into the power and influence dynamics within Nepal's broader climate change adaptation regime (Sova and Chaudhury 2013). The results yield fruitful considerations for strategic entry into climate change policy regimes in Nepal, and key areas for improving equity within the policy stages. Specifically, the MoSTE, MoFALD and National Planning

Commission (NPC) are perceived to be among the most influential actor groups in the climate change adaptation regimes in agriculture. International non-government organizations (INGOs) also rank consistently high in their perceived influence, suggesting, as other authors have pointed out, that a robust donor and INGO network has emerged in Nepal due to persistent instabilities in government and poor service delivery of development resources (Hargadon and Douglas 2001). Geopolitical considerations identified in the mapping suggest that the Indian government's policy portfolio is highly influential on Nepal's agricultural sector. Particularly in the border regions, subsidies and other input distortions for Indian farmers impact directly on Nepal's rural producers given the open border and free movement of goods between the two countries. These are key political economic considerations for LAPA development and implementation.

Leaders of the LAPA process and from MoSTE in Nepal must bargain and compromise with other ministries, departments and agencies to carry out their climate change adaptation mandate. This is especially true of the relationship between MoSTE and MoFALD. 'Improved biodiversity and natural resource management,' 'capacity development' and 'vulnerability assessments' are among the most frequent of Nepal's stated adaptation policy objectives. Wide, sweeping policy objectives like these are a necessity at this constitutional planning level. However, unlike 'traditional' sectors, institutions that transform these high-resolution objectives into recognizable actions at lower user levels do not yet exist for climate change. MoSTE, Nepal's UNFCCC focal agency is a central-level coordinating body, which has no bureaucratic or political representation beyond the capital city. Consequently, it relies on support from DDCs and VDCs, under the purview of MoFALD. LAPA envisions its financial and human resource service delivery to pass through the DDC and VDC offices. Yet the roles of such bodies have never been clear in Nepal's constitution, leading to power voids at local administrative voids.

"...such ambiguities in the legal provisions are also creating the problems of overlapping powers/roles of the different tiers/layers of governing units or possibility of dual exercise of governing powers. There are other more ambiguous provisions for the roles and power of VDC and DDC in different areas and sectors as well. The major contradictions and confusions exist in the sector of resource management, such as agriculture, water, forest, environment, irrigation and hydropower." (Rai and Paudel 2011).

Additionally, in the GoN budgetary process, VDCs and DDCs are each allocated a certain development budget by the NPC and Ministry of Finance (via the MoFALD) to fund projects at the local level. Those projects that extend beyond the capacity of the VDC or DDC to fund (for example, a bridge or irrigation system) are eligible to compete for a limited pool of central-level

funds. Key informants suggest, however, that without a political connection at the central level, large-scale projects are rarely funded.

A critical assumption in the implementation of LAPAs is that sufficient capacity exists within local bodies (for example, VDC and DDC offices) to incorporate climate resilience planning and project implementation. Spread thin by the lack of local elections (abolished in 2002), VDC secretaries and other local staff lack the strategic capacity and resources necessary for this climate policy integration process. Following the elimination of local-level political elections (due to fallout from village-level violence, and central-level political infighting over the ratification of a new GoN Constitution and a modified federal administrative structure), the duties of VDC bureaucrats have expanded to cover the roles previously held by publicly elected officials. This has led to an overextension of VDC secretary duties and reduced ability to determine local-level development needs. Although there has been no local election since 1997, decisions about annual projects and government budget disbursement in those projects are highly influenced by local politicians. However, there is no modality for their legitimate involvement in the decision-making process in the current government system. One interviewee stated that designing, implementing and sustaining projects without support of local politicians is impossible and VDC/municipality secretaries have been consulting with them, going beyond the system.

The country has been embroiled in ongoing political conflict, which has led to violent revolt, frequent changes of leadership and, at present, has left the country void of a working parliament and “between” constitutions. At the heart of this conflict is an entrenched caste system, which breeds a sense of fatalism among Nepal’s indigenous, Dalit and ‘untouchable’ classes (Paudel 2010, Rai and Paudel 2011). As such, the proliferation of climate change policies and institutions since 2010 has occurred in the context of technocratic and bureaucratic rule, providing space (and opportunity) for civil society, multilateral donors and INGOs to fill a critical decision-making void. In the LAPA framework, this has led to tension between various non-governmental organizations (NGOs), as there are decisions to be made by the LAPA project team as to which NGOs remain active in the LAPA development and which do not.

Pakistan

Discourse surrounding the political structure of Pakistan, particularly the climate change regime, centers around three critical themes; the 18th amendment (Article 140 A) to the Constitution of Pakistan, the Indus Water Treaty and transboundary issues, and the formulation of a National Climate Change Policy. The passing of the 18th amendment by the Senate in 2010 led to ‘Environmental pollution and ecology’ to become the legislative domain of the provincial

assemblies. As a result, there is a lack of funding commitment by the Government of Pakistan (GoP) with only USD 250,000 committed for environmental projects in the 2014 federal budget (Shahid 2014). Another major concern stemming from this is that although power and authority have been devolved to the provinces, there is, especially in terms of climate change and the environment, a lack of capacity and resources to address it at a local level.

The majority of Pakistan's climate-related discourse surrounds water; be it water-related hazards or simply a lack of potable water. Water has remained a controversial topic throughout Pakistan's history. Nearly 78% of Pakistan is dependent upon the Indus River for its water, particularly for agriculture, the backbone of the economy. This has led to much transboundary conflict, with the Indus shared with many of its neighbors. The Indus Water Treaty, a water-sharing treaty between India and Pakistan, which already harbours much political tension, was at its core a measure to reduce potential conflict surrounding water between the two countries. Decisions made in India regarding water, therefore, impact the downstream water users in Pakistan. With this resource increasingly scarce due to climate change, tensions between the two countries are on the rise.

Extreme disasters in the past five years, particularly floods that ravaged the country in 2010 and 2011, spurred the GoP to developing a 'National Climate Change Policy,' led by the Ministry of Climate Change (which has since been demoted to a division) in 2012. Whilst this was a landmark event in the history of the country, a first in formally stating the intent of the country to mitigate and adapt to the impacts of climate change, the policy has yet to yield results, although action plans are in formulation. The funding for the formulation of the policy was provided by a donor agency, which leads to questions about whether or not the policy was demand driven or simply a result of donor demand. The role INGOs and donors play in the shaping of the climate change arena in Pakistan is massive and the driver behind GoP's interest in the theme. In many cases, the Climate Change Division has partnered with donor agencies to deliver climate change adaptation/mitigation projects. This is due to a lack of capacity of government officials coupled with a lack of will to address climate change. The downsizing of the Ministry of Climate Change to a division illustrates the lack of will by GoP to recognize climate change as a legitimate threat.

Climate change ranks low on Pakistan's list of priorities in terms of sustainable development. The reason for this is its low socioeconomic indicators. Education, health and infrastructure are perceived to be more pressing development issues than climate change, for that reason the GoP, due to its status as a low emitter, absolves itself of responsibility for action. Political tension

within the country, particularly relating to sectarian conflict and religious fundamentalism, has led to divisions within the leadership of the country, which hinder progress and development.

LAPAs can represent themselves as building blocks for NAPS where the same practices and methodology can be replicated and implemented at a greater scale, hence taking climate change adaptation to a national level. Despite methodological and institutional innovation, integrating LAPAs with the national adaptation framework and the various local government processes is a challenge. Integration of climate change into development policy and planning at district level is one of the objectives of the LAPA project that will be addressed in the near future; however, linking it with NAP (yet to be devised) or national as well as provincial policies needs more concerted efforts.

Sustainability can be ensured through strong linkages and coordination with the relevant government departments. For this purpose, the LAPA project is engaging with EU's coastal areas project and has signed memoranda of understanding with Pakistan Poverty Alleviation Fund and Provincial Disaster Management Authority, Punjab. If the identified lessons can be learned and applied, and the mistakes avoided, the LAPA framework can be replicated even on wider scale in Pakistan. Like-minded organizations in collaboration with professionals and the academia are needed to identify the loopholes of the ongoing initiatives and to try to provide recommendations to further strengthen the interventions, procedures and institutional arrangements required for climate change considerations.

Level 2 - Implementation design analysis - Kotter framework

Tables 7 and 8 and Figure 9 present the results from the rated responses of the implementation and diffusion analysis using the Kotter framework. The ratings are based on the limited interviews with experts attached with the Nepal and Pakistan LAPA development, supplemented with on-site observations and expert consultation. These ratings do not represent an average of the responses as the interviewee numbers are limited, but represent a consensus view of experts. The ratings may change based on a larger sample size. Further, the two LAPAs are at different stages of maturity and progress and hence are not strictly comparable. The rating approach for the implementation design analysis is considered appropriate, as the purpose of this analysis is to emphasize the different elements in each country LAPA.

The ratings reflect that both countries' LAPAs have focused on creating clear visions. This is an important aspect as the LAPAs promote adaptation measures that are additional to the standard country development initiatives in terms of resources and efforts. The vision needs to ensure

that the purposes of the LAPAs are clearly understood by the key stakeholders. Whilst the Nepal LAPA has focused on creating a powerful coalition through its top-down approach of engagement with the national stakeholders, the Pakistan LAPA has focused on more downstream implementation stakeholders. With an implementation-heavy focus of engaging local partner organizations from the LAPA development stage, the Pakistan LAPA is creating more short-term wins, but with a lower focus of institutionalizing the process in the government systems. The Nepal LAPA has struggled with local-level implementation, as the focus of the LAPA development team has been on continued formulation of additional 30 LAPAs after completion of the 70 LAPAs under the start-up phase, rather than roll out implementation of the developed plans. Lack of celebrating and creating short-term wins has been a form of frustration in the Nepal LAPA that can potentially delay the process. Finding and involving credible implementation service partners, only after development of plans, may lead to low buy-in, as these partners are not involved in the development process. This leads to lower empowerment of key partners to act and contribute effectively. This is an area on which the Pakistan LAPA has focused more. Table 7 highlights each country's progress and comparison of the implementation stages.

Framing questions: To what extent has the LAPA achieved the questions stated in Table 5?

Please rate from 0-5 using the scale below:

5 - To a large extent

4 - To a moderate extent

3 - To some extent

2 - To little extent

1 - Not at all

0 - Not applicable / or too early to comment

Table 7. Rated responses - Nepal and Pakistan LAPAs implementation design

		Nepal LAPA		Pakistan LAPA	
Question	Rating (0-5)	Comments - Please explain the reason for your ratings	Rating (0-5)	Comments - Please explain the reason for your ratings	
Has the LAPA created a sense of urgency for action in the country (by key actors - government, planners or community members to act)?	3	The LAPA has created some vibrations at central and local levels. The LAPA has been able to raise awareness among some key stakeholders, including concerned government officials, I/NGOs and community members. However, it has not created a sense of 'urgency,' especially among government agencies, validated by the fact that LAPA implementation has been really slow because of issues within the government ministries. The top priority of the government, currently, is political stabilization, peace, economic growth and job creation. Community members, especially in the selected 14 districts of Mid and Far West Nepal, have felt 'urgency' for action because LAPAs have already been made with their considerable involvement but implementation is way too slow; and they are definitely not happy about it.	2	The LAPA has created some sense of urgency in communities and relevant stakeholders where it has been developed and implemented. The local stakeholders appear to be aware of the benefits of climate change adaptation. They are now thinking more proactively of the resource rather than simply of their immediate needs; they are also more amenable to balancing their needs with those of the ecosystem so as to ensure the latter's survival. Despite the methodological and institutional innovations, integrating LAPAs with the national climate policy and various district government processes is an ongoing challenge. Creating any urgency of action in national as well as provincial level still requires substantial efforts and resources.	
Has the LAPA mobilized a powerful group of actors to lead the planning and implementation process?	4	At central level, actors are quite familiar with the process but not at the local level where action is expected. It is difficult to evaluate until implementation happens on ground. LAPA has been able to bring on board two of the most important ministries for climate change adaptation activities - MoSTE and MoFALD. The former is the focal ministry for climate change programmes, while the latter is the most influential ministry at the local level for regular development because of its presence in all districts. Through MoFALD, DDCs and VDCs have been mobilized in LAPA preparation and implementation. Similarly, locally capable NGOs and other groups have been brought on board as service providers during the implementation. However, other key ministries like the Ministry of Agricultural Development (MoAD) and Ministry of Forests and Soil Conservation (MoFSC) have not been directly involved in the LAPA process although both have strong presence at district and community level.	2-3	Collaboration among different agencies during planning, and especially implementation of LAPAs, is an important thrust of the project. At grassroots level, relevant stakeholders are involved in different capacities. LAPA has successfully mobilized a powerful group of actors at UC level, including but not limited to men, women, farmers, fishermen, labourers, students, civil society organizations and government representatives. Although concerned federal ministries and provincial government departments are aware of the LAPA efforts and in some cases were/are involved in formulating its methodology and providing valuable inputs during the review process, mobilization at national and provincial levels is an ongoing challenge.	

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		Nepal LAPA		Pakistan LAPA	
Question	Rating (0-5)	Comments - Please explain the reason for your ratings	Rating (0-5)	Comments - Please explain the reason for your ratings	
Has the LAPA created a clear vision and developed strategies for successful deployment of vision?	4	<p>The LAPA is not actually driving the development process but is meeting some targets of the overall development agenda. It needs to incorporate other dimensions that are missing in the vision.</p> <p>The LAPA framework aims to integrate climate change resilience into local-to-national development planning processes and outcomes. The vision is, therefore, straightforward and clear. The individual LAPAs have been prepared following the seven steps that outlined the framework. These seven steps aim to design local adaptation plans with full participation of both communities and government, and with a clear strategy of integrating climate change adaptation into bottom-up development planning. Similarly, LAPAs try to mobilise the most important government agencies at central and local level to achieve these aims and objectives. Although how successful these strategies are is unclear at this moment because of delay in the implementation process, it can be argued that LAPA, in principle, has created a clear vision and developed strategies for successful deployment of vision.</p>	4	<p>The LAPA model has a clear vision to mainstream adaptation into local and national development planning process. To achieve this purpose, it adopts comprehensive mechanisms for raising awareness on climate change so that direct and indirect beneficiaries understand the long-term measures instead of solely focusing on immediate losses. Going forward, strong linkages will be developed at provincial and national levels to promote stronger acceptance of the LAPA. Currently, the LAPA focus is on developing separate climate change adaptation plans at UC level. However, going forward stronger integration between adaptation and ongoing development planning is envisioned.</p>	
Has the LAPA communicated its vision to the relevant actors?	3	<p>The question "who are the 'relevant actors'?" is important here. If MoSTE, MoFALD, DDCs, VDCs, donor agencies and some I/NGOs at the local level are 'relevant actors,' LAPA has been able to communicate its vision to those actors. At the local level, the communication has not gone that far. While GoN is engaged in the promotion of LAPA, there is no third party mandated to promote LAPAs. The vision is not communicated well where it is supposed to be. While donors understand the strengths, other local actors do not. The implementation process is delayed because of internal issues indicating that the communication is not productive enough or, more precisely, quick enough to roll out the implementation.</p>	1	<p>The project is conscious of the need to communicate its vision to relevant stakeholders and is trying hard to ensure the scaling up and replication of LAPAs in other areas of the country. For this purpose, engagement with EU's coastal areas project and linkage with Pakistan Poverty Alleviation Fund and Provincial Disaster Management Authority, Punjab, are a few important breakthroughs. Communication of the LAPA vision to relevant actors is an ongoing effort that needs efforts and resources to pursue and engage with like-minded organizations, professionals and the academia.</p>	

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		Nepal LAPA		Pakistan LAPA	
Question	Rating (0-5)	Comments - Please explain the reason for your ratings	Rating (0-5)	Comments - Please explain the reason for your ratings	
Has the LAPA empowered other actors to act?	3	The LAPA resources are in public domain and are being used for capacity building extensively. Several prominent actors are using it partly or fully such as multilateral and NGOs. LAPAs have focused more attention on government agencies and the community. The private sector, which can play a crucial role during both design and implementation, has largely been neglected. This is clear from the fact that no significant role of the private sector is visualized in the LAPA framework itself. This may lead to low buy-in when the LAPAs are rolled out. Similarly, the role of media is not very actively planned in the design and implementation phases, whereas media can play a much stronger role in raising awareness on climate change adaptation.	4	The LAPA model empowers local actors in devising implementation and monitoring of the LAPAs in the field. The project is working with 45 local partner organizations located in the targeted areas. These partner organizations take lead in facilitating the LAPA process to capture on-ground experiential learning and improvements in the process. The LAPA issues and some of their solutions are identified through continuous engagement with key stakeholders through field research methods. LEAD plays a role as a moderator in the LAPA model and the entire process of field research, action planning, implementation, and monitoring ensures active stakeholders participation. Partner organizations are taking the lead in implementing the resulting micro-adaptation project, working with communities. The LAPA also conducts experience-sharing visits between direct beneficiaries to promote good practices. It also involves local government officials to create ownership at their level and to generate a discourse on scaling up adaptation plans at local, provincial and national levels.	
Has the LAPA planned for and created short-term wins along its deployment process (planning for visible improvements)	3-2	The LAPA (precisely, the overall programme under NCCSP) has envisioned immediate-, medium- and long-term results. The overall Results and Resource Framework (See Part-III of UNDP's Project Support document [UNDP 2012]) has been designed along with intended outputs, itemized annual output targets, indicative activities, and tentative budget allocations together with funding sources and responsible parties. However, breakdown of intended yearly wins is not very clear. Further needs of the communities are immediate; hence balancing these needs along with long-term prescriptions would create stronger buy-in from all parties.	4	The LAPA project is working with 45 local partner organizations operating in the targeted areas for development of the LAPAs. Through these partners, the LAPAs are developing small models of implementation at villages and UC levels, which ensures and encourages stakeholders and beneficiaries to address short- and long-term impacts. The project conducts vulnerability assessments in the districts to identify climate change issues of the communities and its impact on their lives, including their livelihoods. These data contribute as short-term wins for the project.	

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		Nepal LAPA		Pakistan LAPA	
Question	Rating (0-5)	Comments - Please explain the reason for your ratings	Rating (0-5)	Comments - Please explain the reason for your ratings	
Has the LAPA consolidated process improvements and learning from field action in its design?	5-4	The LAPA considers seriously lessons learned from other frameworks and implementation of plans. The 30 additional LAPA plans are being built on these learning and improvements, from the start-up phase, hence reflect consolidation of learning. The current national framework for LAPA has come out of learning from field pilots in 2009. However, looking at the time frame in which 70 LAPAs have been prepared (less than a year), it looks a little unrealistic as to how that learning has been strongly incorporated into designing of the additional LAPAs.	1	The LAPA development process is at an early stage, hence it is premature to consolidate the field learning. The LAPAs are devised through a wider and more inclusive participation of stakeholders at UC level using a participatory process of identification and prioritization of local needs related to post-flood recovery, and the proposed planning of projects focused on infrastructure repair and rehabilitation. The LAPAs are a work in progress and open to new ideas, concepts and solutions.	
Has the LAPA developed a formal process for institutionalizing the LAPA programme? (that is, ensuring continuity of process in the future through leadership development and clear succession planning – even with government change)	4	The formal process for institutionalizing the LAPA programme is very clear from its national framework, approved and owned by GoN. The change of government should not have any significant impact on the formal process that has been set up. However, the future federal structure of Nepal (still being debated) will have a major impact on central-level institutional structure although the local-level set-up can continue to function currently. (Refer to LAPA framework for more clarification): MoFALD is taking stake in the LAPA process by managing and monitoring conditions of providing grants at district and local levels. It has institutional arrangements with environment energy assessment departments.	1	Again it is early to comment on this factor as the LAPA is in the local implementation phase. LAPAs take a decentralized, bottom-up local-level adaptation planning approach, by involving multiple stakeholders, including vulnerable communities, so any socio-political change should not significantly affect the formal LAPA process. LEAD is confident that stakeholders' continued involvement and development of an effective leadership team will ensure LAPA continuity despite political or governance changes.	

Table 8. Ratings of Kotter's framework

	Nepal - Rating (1-5)	Pakistan - Rating (1-5)
Sense of urgency	3	2
Powerful coalition	4	3-2
Creating a vision	4	4
Communicating a vision	3	1
Empowering others to act	3	4
Creating short-term wins	3-2	4
Consolidation	5-4	1
Institutionalizing	4	1

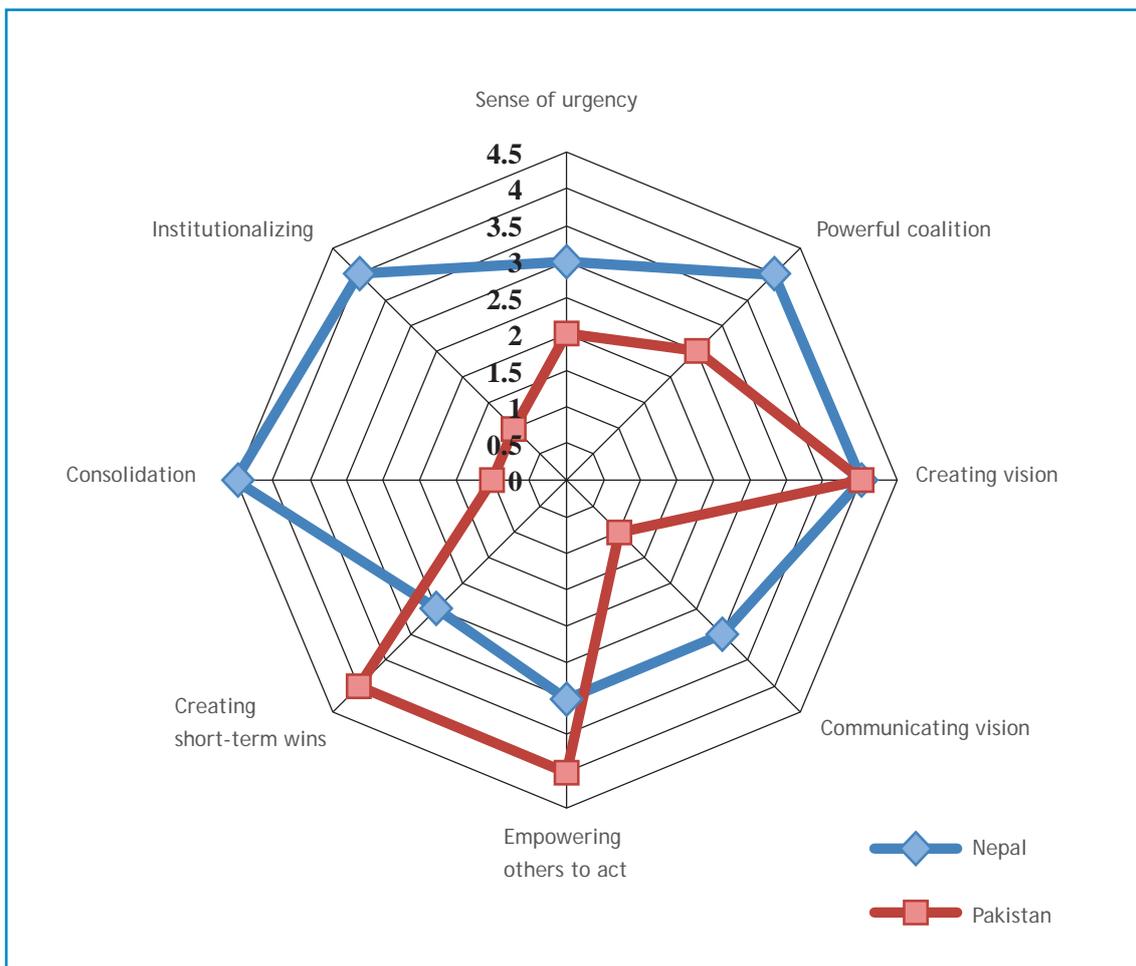


Figure 9. Implementation design analysis of Nepal and Pakistan LAPAs under Kotter's framework

Figure 10 presents results of a survey (Baral 2013) conducted by one of the authors in Nepal of representatives of I/NGOs, development agencies and government ministries to identify key challenges in LAPA implementation (n=33). Two-thirds of the participants identified low capacity of the local government bodies as a key impediment, followed by lack of ministerial coordination and influence of political parties.

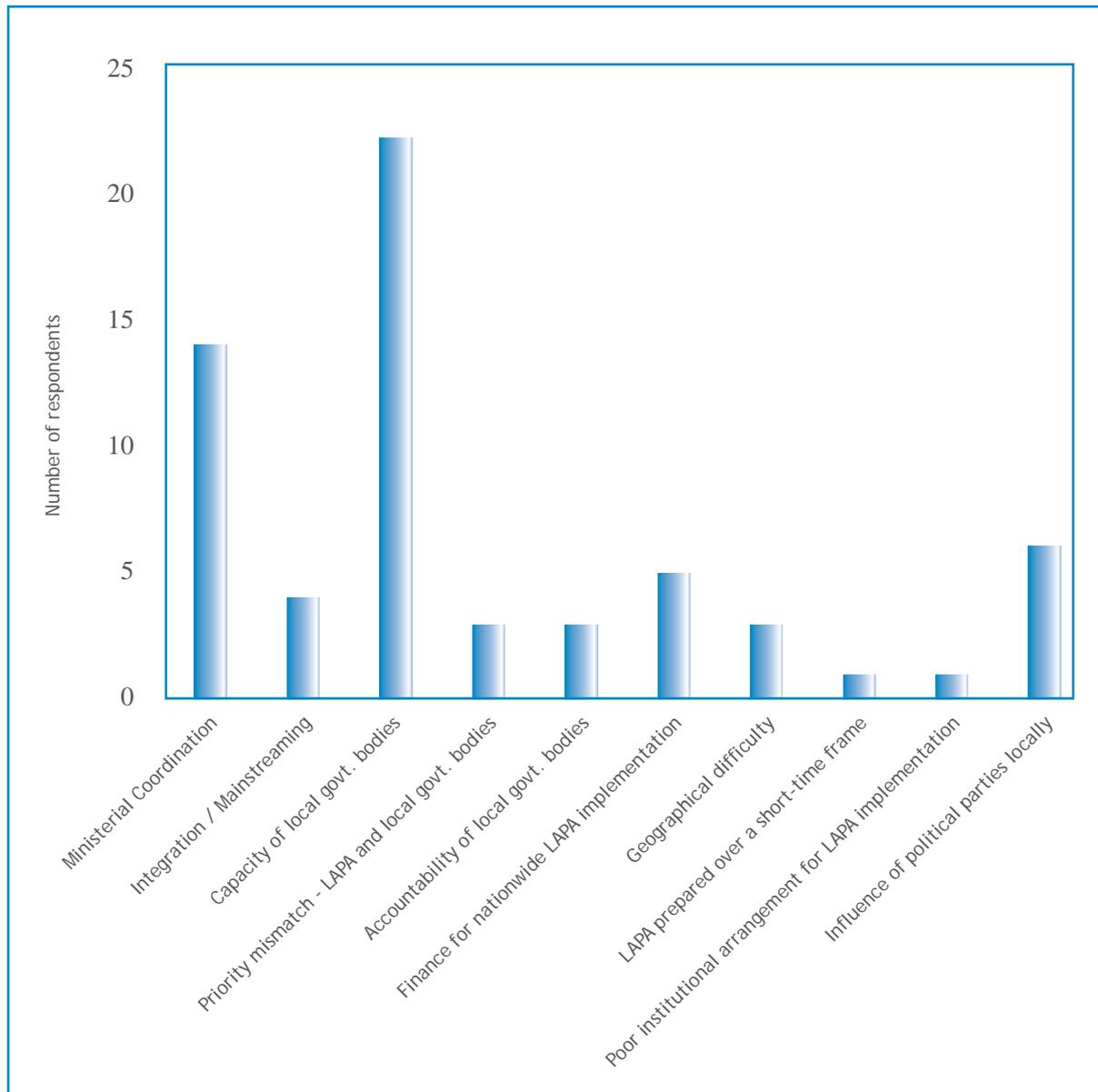


Figure 10. Challenges in Nepal LAPA implementation

Some of the challenges identified during the Pakistan LAPA development process are that women are under-represented in decision-making processes and the capacity of local institutions is weak in promoting adaptation. The LAPA project has had some success in raising awareness and building capacity of local communities on climate change adaptation, but has been weak in effectively engaging local institutions that remain under-resourced to promote adaptation. Significant time commitment and legislation support is needed to build capacity of local institutions, considered critical for LAPA success.

Conclusion

This paper deconstructs the organizational and implementation designs of the Nepal and Pakistan LAPAs. Both Nepal and Pakistan LAPAs have similar objectives and goals of bottom-up participatory adaptation planning; however, the organizational structures of the two LAPAs are very distinct leading to different planning and implementation pathways. Nepal's focus on official formalization of the process has come at the cost of delayed implementation, while Pakistan devolved implementation-centric approach lacks official buy-in to nationally scale up the LAPAs. These differences in organizational structure are attributed to the influence of various internal and external factors (contingencies) on the LAPA structural designs in the two countries. While the paper does not recommend an ideal organizational structure, what is important for project developers is to have a design that is tailored to local circumstances.

After analysing the structural and implementation designs of Nepal and Pakistan LAPAs, LAPA managers and programme developers in other countries can draw valuable design lessons for effective management of adaptation planning. The LAPA framework is at an incipient stage and will greatly benefit from further application and analysis of other local-level initiatives whether these are termed as LAPAs or not.

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