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# Stocktaking of local adaptation plans and initiatives in the changing political context in Nepal

Shree Kumar Maharjan<sup>1</sup>

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## Abstract

Climate change has multiple impacts on the people's livelihood. Adaptation is not new concept since multiple stakeholders including the communities have been coping and adapting to the changing climate. This paper explores the opinions and perceptions of climate experts on the local adaptation plans in the changing political context in Nepal. The Delphi research technique was applied to gather the information from the experts through the open-ended questions via online questionnaire survey. The local government units have more power and authorities in the new governance structure. The experts expressed the need for specific and evidence-based capacity building for the newly elected government officers at the local and provincial levels to successfully implement the local adaptation plans. It is also important to effectively utilize and track the climate finance allocated at the local level. The experts have mixed perceptions and observations on the Nepal Climate Change Support Programme in Nepal.

**Keywords** Climate change · Local adaptation · NCCSP · Climate finance · Nepal

## 1 Introduction

The concept of adaptation is not new anymore since the communities around the world have been continuously coping and adapting to the changing weather, climate, seasonality and associated variations based on their knowledge, skills, experiences and practices. However, it is important to understand the effectiveness of these coping and adaptation initiatives and strategies done by the communities (Ensor et al. 2019). Furthermore, these adaptation strategies have been supported by the institutions (either public, civic or private) in dealing with the climate impacts (Nightingale 2017). It is a continuous process of understanding and dealing with it for the improved livelihood and development. In the recent decades, the climate variabilities and vulnerabilities have been increased drastically. The major challenges faced by developing countries like Nepal are highly sensitive and exposed to the landslides, floods and droughts because of rugged terrains of geography,

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micro-climatic variations, high dependence on natural resources and agriculture for the livelihood and low adaptive capacities (Millner and Dietz 2014). Because of increased challenges, the knowledge and the past experiences of the communities are not adequate enough to deal with the current and future climatic variabilities and impacts.

The perceptions and conceptual directions of adaptation have altered since 1980s (Schipper 2006). Even after the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) as the global legal policy framework on climate change, very limited attention was given to adaptation till the Marrakesh Accords in 2001 (Schipper 2006; Spotlight 13 Sept 2016; Regmi et al. 2014), which motivated the Least Developed Countries (LDC) to develop National Adaptation Programme of Action (NAPA). The Government of Nepal (GoN) also developed the NAPA in 2010 as the first climate policy document. The GoN developed it as a foundation to lead adaptation and climate governance by effectively managing the available resources in a coherent and coordinated manner (MoE 2010a).

At present, the agenda relating to adaptation to climate change have gained the prominence in the policy debates locally, nationally and globally (Swart et al. 2014). Adaptation is always political and contested in the international negotiations and debates (Eriksen et al. 2015); however, it is in the national priorities in Nepalese context. The GoN has developed and implemented adaptation policies, plans, strategies and frameworks at the local and national level to support the communities in dealing with the impacts with the supports of the government, non-government and community-based organizations. The GoN has developed Local Adaptation Plan for Action (LAPA) and adaptation related sectoral plans in addition to NAPA and national climate policy. The discussion on LAPA emerged in Nepal as the by-products in the process of developing NAPA since Nepal has multiple microclimatic and geographical variations within districts, municipalities, rural municipalities and even village development committees (VDCs).<sup>1</sup> It was suggested to develop LAPA as an approach to effectively implement NAPA at the local level in a country-driven operational process (MoE 2010a). The non-government organizations and civil society organizations have been also implementing adaptation programmes/projects based on their own capacities, resources and thematic focuses (Spotlight 13 Sept 2016). Recently, the GoN is in the final process of developing National Adaptation Plan (NAP) for medium- to long-term adaptation plans at the national level. It has also emphasized on inclusive and integrated approach with the active participation of public, private and civic stakeholders (MoFE 2018).

Climate change is an important concern at the local level (MoFALD 2018). Furthermore, it is important to effectively and sustainably use and manage the locally available resources to cope with the changing climatic and political context at the local level (Maharjan and Maharjan 2018). Nepal Climate Change Support Programme (NCCSP) is one of the adaptation programmes being implemented by the GoN at the local level, particularly in mid- and far-western Nepal. The programme was supported by the UK's Department for International Development (DFID) and European Union with the amount equivalent to US\$ 5.24 million from the period of 2011 to 2015, later extended to July 2017 (UNDP 2016; Sharma et al. 2017). The programme mainly focused on enhancing institutional capacities to implement the local adaptation plans at the regional, district and

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<sup>1</sup> VDC used to be the lowest administrative unit in Nepal, which is now changed into rural municipalities and municipalities by combining more than one VDC after the declaration of Federal Democratic Republic Country.

community level. The programme anticipated in delivering technical assistance to the local and regional agencies to develop mechanisms to implement the adaptations (MoSTE n.d.). Regmi et al. (2014) emphasized that the LAPA process succeeded in mobilizing the local agencies and community groups in adaptation planning. MoSTE (n.d.) reported the development of 100 LAPAs in 14 districts of mid- and far-western region of Nepal under the NCCSP.

Despite political instability and lack of elected government bodies at the local level, the GoN has positively led the formulation and implementation of these adaptation policies, plans, strategies and programmes/projects. The GoN successfully mobilized the public, private and civic stakeholders for their contribution in this process at the national and local level (Regmi et al. 2014). Recently, the GoN successfully accomplished the elections in the central, provincial and local levels in 2017 after the declaration of the Federal Democratic Republic country. This has ended the long-time void situation of local governments with the additional governance structure of provinces and a shift of authority and responsibility to the municipalities and rural municipalities. It took more than a decade for this election after the Comprehensive Peace Agreement between the GoN and the Communist Party of Nepal (Maoist) in 2006. The frequent changes in the government often have bigger implications in the policy and governance in the Nepalese political history. The recent political change needs drastic political reform and governance mechanism, which is expected to be stable and long term, since it has changed the number, power and authority of local government units (LGUs) at the local level (Table 1).

We assume some implications either positive or negative on the climate governance and discourse including the LAPA process due to the change in the LGUs. In this regard, we have focused on the following research questions: (1) Are the existing climate policies/plans and strategies relevant in the changing political context? (2) Are the existing governance structures effective and applicable to the changing context? This paper analyzes the perceptions and opinions of climate experts on adaptation governance and its implementation in the changing context, implementation and success of Nepal Climate Change Support Programme (NCCSP) particularly at the local level and state of climate finance particularly for adaptation, its transparency and accountability in Nepal.

## 2 Methodology

The study applied the Delphi research technique through the online questionnaire survey with the climate experts in Nepal, which can be claimed as a climate friendly research methodology. Delphi research technique is popular among the researchers who focus on policy survey for generating the consensus among the experts; however, few researchers have used this method in climate change and environmental studies (Musa et al. 2015). The survey was conducted in 2 different phases. The first phase of the survey was concentrated in 2016 focusing on the state of climate policies, plans/strategies and frameworks, roles and contributions of stakeholders, factors affecting implementation of those plans/strategies and subjective indicators for success of its implementation (Maharjan and Maharjan 2017). This paper is based on the second phase of the survey, which was conducted in 2018. An extensive review of the papers and policies related to climate change facilitated the development of an open-ended and subjective questionnaire on state of climate finance, accountability and transparency of climate finance, the NCCSP and its emphasis on poor and marginalized communities, and the adaptation policies and plans in the changing

**Table 1** Local government units in Nepal in changing political context. Sources: [www.lgcdp.gov.np](http://www.lgcdp.gov.np) and <https://techsansar.com/vdc-nepal-list/>

Previous centralized government (May 2014)		New federal government (June 2018)			
Regions (headquarters)	# of districts	# of VDCs and municipalities	Provincial support unit	# of districts	# of local government units
Eastern (Dhankuta)	16	752/47	Biratnagar	14	128
Central (Kathmandu)	19	939/68	Janakpur	8	136
Western (Pokhara)	15	747/36	Dhulikhel	13	119
Mid-western (Birendranagar)	15	510/19	Pokhara	11	85
Far-western (Dipayal)	9	328/21	Nepalgunj	12	109
Total	75	3276 VDCs/191 Municipalities	Surkhet	10	79
			Dhangadi	9	88
			Total	77	744

context, especially in new federal government system at the provincial and local levels. The list of climate experts was generated from the Non-Governmental Organization group on Climate Change (NGOCC), a very loose network of climate experts in Nepal that strengthens a strong alliance and coalition among climate experts, researchers and practitioners in the country. It is a learning platform for the climate experts and practitioners including researchers, academicians, civil society groups, donors and governments on the issue at national and local levels (Nepal Climate Change & Development Portal 2010).

Altogether 53 climate experts were identified purposively in the first phase survey based on their continuous contributions and engagements in climate change debates and negotiations at the national and international levels. These experts were approached by email, Skype and LinkedIn. But only 26 experts in Phase 1 and 22 experts in Phase 2 responded the questionnaire despite the busy schedule. Only 3 of the respondents are female in both phases, rest are the male experts in climate policy and discourse in Nepal. Interestingly, most of the respondents have completed at least the master's level of education, but in different fields ranging from forestry, agriculture, environment management, science, arts, anthropology, health and others. This indicates involvement of experts from different sectors in climate discourse due to diverse impacts of climate change in these sectors in Nepalese context. Thus, the experts in these sectors have been contributing in addressing the impacts based on their knowledge and experiences. The experience of the experts' ranges from 2 to 30 years of work in the climate change sector both representing governmental and non-governmental sectors including media, private and independent experts. The details of the climate experts who responded the questionnaires in two different phases of Delphi research are presented in Table 2.

All the experts who responded the questionnaires have different perceptions and observations on the state of climate policies/plans and initiatives based on their experiences, engagements in the climate policies/plans and specific adaptation programmes/projects such as the NCCSP. The experts expressed their open and straightforward explanations and responses, exclusively based on their personal observations and experiences. In order to minimize the response bias, the analysis was done based on the composition of the experts, particularly on their affiliation following the approach of Agrawal and Perrin (2008). The experts were categorized into Public (representing government offices such as district agriculture and livestock offices, municipalities and rural municipalities), Private (representing media and independent experts) and Civic (INGOs, community and indigenous peoples' organizations) for the analysis of their perceptions and responses based on their affiliations.

## 3 Results

### 3.1 Adaptation in the present context

The climate experts have different perceptions and observations in relation to adaptation policies/plans, strategies and practices in the changing political context. It is a new Federal Democratic Republic Country with the elected government bodies in the central, provincial and local levels. There were not any elected government bodies at the local level for almost 2 decades (from 1996/1997 to 2017) and the additional government unit of province/state in the new governance structure after the election in 2017. A civic expert emphasized on "pushing the climate change agenda from national to local level by the newly formed central and provincial government." The success in achieving the

**Table 2** Composition of climate experts (respondents) in online questionnaire survey

By gender	By qualification		By experiences		By affiliations	
	Phase 1 (N#26)	Phase 2 (N#22)	Phase 1 (N#26)	Phase 2 (N#22)	Phase 1 (N#26)	Phase 2 (N#22)
Male—23	Male—19	Ph.D./Post Doc—7	1–5 years—2	1–5 years—1	Government—5	Government—4
Female—3	Female—3	Masters/M Phil—15	6–10 years—16	6–10 years—9	CSOs/IPOs—7	CSOs/IPOs—5
			11–15 years—5	11–15 years—9	Research and academics—3	Research and academics—1
			16 and more years—3	16 and more years—3	Independent experts—4	Independent experts—3
					INGOs—5	INGOs—6
					Donors—1	Donors—2
					Media—1	Media—1

national climate and environmental targets largely depends on the state/provincial and local governments through the effective implementation of activities and wise use of resources including climate finance addressing the local climate risks and vulnerabilities. An expert representing private sector revealed “the unfamiliarity with the process and considerations based on the government prioritized various issues including the climate change issues particularly at the provincial level.” However, all experts representing public, private and civic have emphasized on the awareness and capacity building of the newly elected government bodies on adaptation and climate resilient development, which is very crucial and the biggest concern for the successful adaptation planning and execution, mainstreaming adaptation into development process at all levels. It is also revealed that some of the elected government bodies and supporting staffs, especially in the NCCSP implemented sites, have been involved in the adaptation planning and execution.

The experts advised to conduct the comprehensive capacity building/strengthening dedicated to the newly elected government officials particularly focusing on integrated annual, short-term, medium-term and long-term planning and execution, effective management and monitoring of the finance for effective adaptation planning and execution in line with climate policies, plans and strategies. An independent expert emphasized on “evidence-based capacity building at the local, provincial and national level on climate adaptation.” The evidence-based capacity includes strengthening the skills and capacities sufficiently to manage the available resources including the workforce and institutional structures to plan, execute and evaluate the effectiveness of interventions (Brownson et al. 2018). Brownson et al. (2009) further clarified evidence-based capacity for *process* (to improve the adoption of policy), *content* (to strengthen the specific policy components) and *outcome* (the impacts and policy results). It, additionally, includes the skills for effective communication, analysis and policy surveyance and monitoring the outcomes. Furthermore, the expert underlined “capacity enhancements for the concerned government staff at local and provincial level are necessary to maintain the accountability and transparency. If there is an institutional mechanism for proper monitoring at all level, it will be easier to maintain the transparency and accountability.” The expert representing civic group emphasized the capacity building activities concentrating to “the micro-institutions and user groups such as community forest user groups, irrigation user groups, water user groups, micro-credits and cooperatives and local agrovets for integration of climate adaptation at the local level.”

The experts further emphasized on the requirement of new governance structure including institutional and finance mechanisms at the state/provincial level and change of structure at the local level. Some even emphasized on the state-/provincial-level adaptation plans for actions (SAPA) like NAPA and LAPA since the separate state-/provincial-level environmental ministry would be established, which may further complicate the governance structure including institutional and financial mechanism. An expert representing civic category underlined “the necessity of provincial level policies and laws to provide the technical support and also to carry out adaptation research and documentation of effective approaches and technologies to the provinces and local government.” One of the experts expressed that “the SAPA would be guided by NAPA and national climate policy based on analysis of the risks and vulnerabilities at the local and state/provincial levels which would certainly lead to better institutional and financial structure and mechanisms.” The capacity of the elected government bodies and supporting staff could be crucial in developing adaptation planning and devolving the climate finance successfully. The state-level government has the full authority and power on its implementation, mechanism to support the LAPAs at the local level.

An expert emphasized that “new governance structure must prioritize climate adaptation policies at the provincial and local level, in addition to the national level, which should be backed up by necessary action plan.” In this connection, Karki (3 Mangsir 2074 B.S.<sup>2</sup>) proposed the new government structure in the central and provincial level by merging the ministries of forests, environment and science/technology as one ministry. However, the newly formed government merged only ministries of forest and environment. The newly formed ministry, however, lacks the clear objectives, functions, guidance, organizational structure, divisions and departments in line with combination of these two ministries, since it is still in transitional phase. It is expected to be sorted out by the Honorable minister and the staffs under the ministry at the central and state/provincial levels. It can be assumed that forest has strong connection with environment and climate change. Reducing emission from deforestation and forest degradation (REDD and REDD+) is an example of such connection between climate change and forests. However, environment and climate change issues are cross-cutting by its nature. It would be interesting to know how other ministries such as agriculture, land management, cooperatives and poverty alleviation; education, science and technology; energy, water resources and irrigation; health and population among others address the issues of environment and climate change individually and in coordination with the ministry of forest and environment. The ministry of environment was the most unstable ministry in the history as it was sometimes amalgamated with different ministries based on the changes in the government. Private and civic experts in the survey also raised the issues of lack of coordination and collaboration among the ministries and departments in the past. One of the experts representing the private sector highlighted that “the ministry of environment did not have vertical linkages since there were no local units in the past.” But a civic expert revealed that “the new federal system might have better coordination and vertical linkage since the ministry of environment has merged with ministry of forests which has local government units at the district level. Furthermore, it is also important to use the networks of forest user groups including the women, Dalits, indigenous peoples and farmers to identify the affected clusters and villages.”

In terms of institutional mechanisms, an expert emphasized on “the district, municipal and village level climate coordination committee (DEECCCC and M/VEECCCC)<sup>3</sup> formed under the NCCSP as the appropriate and functional mechanisms at the local level even in the changing political context.” However, the guidance, objectives and working modalities might need to be revised and adopted to the local contexts based on the prioritization of the respective states/provinces, districts, municipalities, rural municipalities and villages since the climate variabilities and vulnerabilities within the states/provinces, districts, municipalities/rural municipalities are different based on the differentiate exposure, sensitivity and adaptive capacities. An expert revealed that “the community adaptation plan for actions (CAPA) and village level adaptation plans for actions (VAPA) play significant roles in effective local level adaptation planning and implementation supporting the district and municipal/rural municipality level adaptation plans.” It might be encouraging to develop household or hamlet level adaptation plans for actions (HAPA) as well (Fig. 1). The skills

<sup>2</sup> B.S.—Bikram Sambhat is a national Nepali calendar which starts from 14 of April. It is an ancient and original era of Nepal started by the emperor Bikramaditya as the official calendar of Nepal which differs with English AD by 57 years.

<sup>3</sup> DEECCCC and M/VEECCCC—District Energy, Environment and Climate Change Coordination Committee and Municipal/Village Energy, Environment Climate Change Coordination Committee.

GESI—Gender and Social Inclusion.

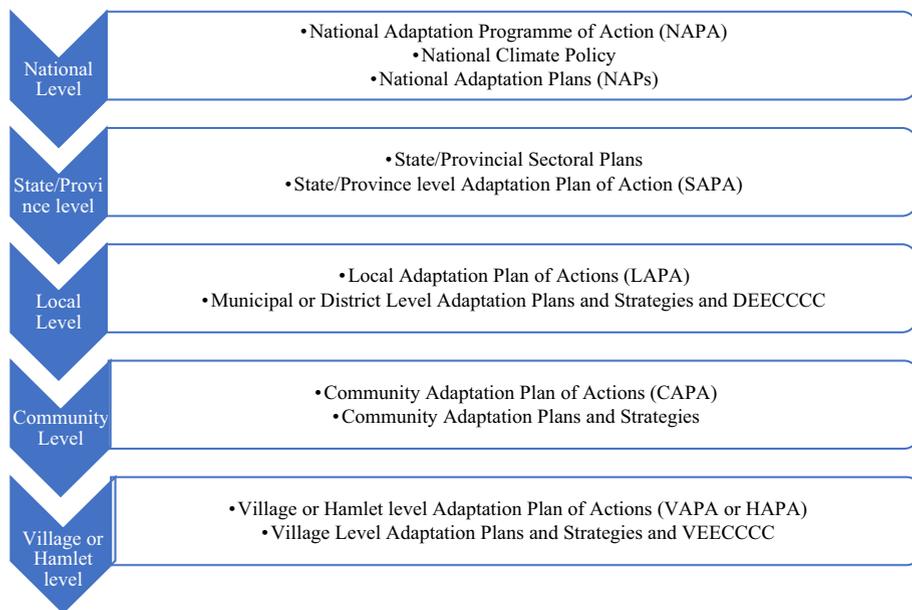


Fig. 1 Relationship between adaptation plans at different levels

and capabilities of the communities and people need to be strengthened for the inclusive and effective adaptation plans and strategies at the grass root level in the principle of reach-up and draw down.

### 3.2 Implementation and effectiveness of Nepal Climate Change Support Programme (NCCSP)

The NCCSP is one of the 23 programmes/projects funded by the bilateral and multilateral sources of climate finance in Nepal as recognized by National Adaptation Programmes of Action (NAPA). The assessment and evaluation of any policy, programme and project is comparative based on its targets and achievements. An expert representing private sector revealed that “it is always comparative assessment, however, overall implementation of the NCCSP phase I is satisfactory despite some issues and challenges on assessment and planning of specific and long-term climate risks.” The expert further recommended to review the NCCSP achievements, lessons and successes vis-à-vis its targets for the next phase. Based on the targeted indicators of the NCCSP, most of the experts agreed on its achievements in trickling down of climate finance to the local level. However, private and civic experts have criticized its implementation and achievements, which needs to be taken as the lessons for NCCSP Phase II since it is still in the planning stage, whereas public experts highlighted it as the successful programme in supporting local adaptation to climate change in the remote districts of Nepal. One of the experts representing civic sector highlighted that “NCCSP was a good learning project in terms of integrating and taking climate actions at the local level. It gave positive recognition and impression at the international level, however there are many rooms for its improvement in the next phase.” An expert underlined “the necessity of development new local adaptation plans in Mid- and

**Table 3** Positive and critical points raised by the experts on NCCSP

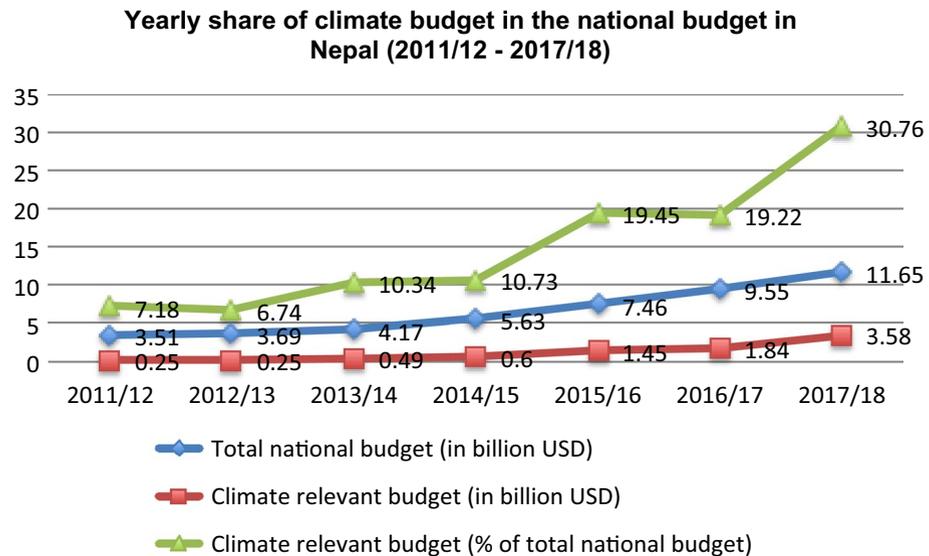
Positive points	Critical points
Milestone in terms of practicing and mainstreaming adaptation at the ground level and opportunity to learn insights for future policy and planning	Regional bias in its implementation, as many districts in other regions are also highly vulnerable as per vulnerability map
National and international recognition of local level adaptation	Weak in conceptual framework in defining the targets and beneficiaries
Locally focused and targeted to the disadvantaged and vulnerable regions and communities	Could not fulfill the 80% budget trickling down to grass root level
Some of successful examples of climate adaptation actions at the local level	Elite capture on the resources at the local level
Claimed or planned for trickling down of the budget to the grass root level	Needs modification in its implementation framework
Enhanced capacities of Ministry and local counterparts/stakeholders	The procurement process and accountability mechanisms at the local level
Followed the principle of poor and marginalized people including GESI in vulnerability categorization (V1, V2, V3 and V4)	Weak coordination among the stakeholders
Awareness and capacity development of the communities and stakeholders on climate change at the local level	Needs to be more inclusive and effective in targeting the most vulnerable people in terms of social and cultural aspects (including GESI in addition to economy and environment)
Strengthening of GoN's institutional and financial mechanisms to support adaptation	Programme not yet institutionalized within the government system
	Less innovativeness and contribution toward building resilience

#### *GESI* gender and social inclusion

Far-western region and other regions as well.” The expert argued that “local adaptation plans developed in Mid- and Far-western Nepal under the 1st phase of NCCSP project was concentrated to the Village Development Committees (VDCs) that used to be the previous local government unit (LGU), which now has changed to municipality and rural municipality. Thus, it is necessary to develop new local adaptation plans under the changed local government unit.”

Most of the experts affirmed the NCCSP as the pioneering initiative of the government which is recognized both at national and international level, whereas the private and civic experts criticized it as regional bias since it only focused in mid- and far-western region; however, there are vulnerable districts in other regions (MoE 2010b). The independent expert has also argued “why there are no sites selected for NCCSP implementation in the eastern Nepal since the vulnerability map during MoE (2010a) recognized most of the vulnerable districts in the eastern side?” The detail of positive and critical points highlighted by the experts is presented in Table 3. The annual progress reports and review done by UNDP and DFID also affirmed the progresses and achievements of the programme. The programme has specifically highlighted 3 key outputs—implementing LAPAs in 14 districts of mid- and far-western Nepal; promoting local adaptation actions and people’s resilience through local and regional mechanisms and developing institutional and financial mechanisms for adaptation actions. Furthermore, the specific targets on adaptation actions, beneficiaries and thematic areas have been reported by the UNDP (2016). It was also claimed that the DEECCCC and M/VEECCCC are functional institutional mechanisms.

Furthermore, some of the experts especially representing public and civic sectors highlighted that “NCCSP has successfully prioritized and targeted the poor and marginalized people in the region its implementation since the mid- and far-western Nepal has comparatively high poverty incidence and inaccessible hills and mountains.” A public expert



**Fig. 2** Climate budget share in the national budget in Nepal (2011/2012 to 2017/2018). *Sources:* NPC (2011), MoF (2013, 2014, 2015, 2016, 2017), MoFALD (2018)

specifically underlined that “NCCSP has the principle of gender and social inclusion with specific emphasis to the poor and marginalized people including the single women and women headed households. It has also followed the vulnerability categorization of V1, V2, V3 and V4 based on the vulnerability indices.” In contrary, the expert representing civic sector argued that “the poor and marginalized people are often excluded and do not have access to the policies, plans and resources, thus unable to tap the opportunities. Despite the inclusive policy document, the current leadership at the national and local level are very exclusive and do not have the skills, attitudes and motivation to reach the poor and marginalize people.”

### 3.3 Climate finance for adaptation

Climate finance basically means the funding for addressing the issues of climate change impacts through adaptation and mitigation programmes and projects. However, this study has only concentrated on the climate finance for adaptation. Multiple sources of climate finance including bilateral, multilateral, international and national sources have reported by the experts in their responses, however, no clear mechanism for stocktaking of these sources. Especially after completion of NAPA, the climate finance has been flowing to Nepal through different bilateral, multilateral and international funding sources. The national government has also allocated the climate finance up to 30% in the fiscal year 2017/2018. The expert representing the private group revealed “30.6% of budget allocation relevant to climate finance by the government in 2016/2017”. Figure 2 presents the climate budget share in national budget. Whatever sources it may be, the most important aspect emphasized by the experts is the best use of it for the welfares and benefits of the poor, marginalized and vulnerable people in more transparent and accountable manner. The

expert representing private sector emphasized “transparency and accountability of climate finance are the basic requirement, however, there is no clear direction on how it should be maintained at the national and local levels”. An expert reported that “about 52% of the development budget is spent by the local government and not any assessment and evaluation of such budget spent by the civil society groups and private sector.” The main issue as highlighted by the experts is the human capabilities to utilize the allocated budget at the local level, which lead to the critical points highlighted by the experts in Table 3.

The experts representing civic and private sectors explained that “climate finance in Nepal is in the infant or early stage”, whereas others stated it is evolving and increasing over years. However, almost all agreed the increased climate finance over the years (Freedom Forum n.d.), as shown in Fig. 2. Thus, transparency and accountability of the finance at all level is crucial. The experts particularly representing governments have emphasized on the effective utilization of climate finance for the poor and vulnerable people, whereas other representatives have raised the issue of not reaching to the poor and marginalized people. The public sector experts have underlined the existence and channelization of climate finance through the Red Book/budget code developed by Ministry of Finance (MoF) and national Planning Commission (NPC) in 2012. Furthermore, the expert representing private sector also highlighted the Green Climate Fund National Designated Authority (NDA) in the MoF as the additional mechanism. However, most of the experts agreed the importance of fund channelizing to the local level and difficulty to track it at the local level, especially the fund utilized by the private and civic sectors. It is also underlined by the private and civic experts on lack of access and influence of the poor and marginalized people in the climate finance, despite the provision of 80% of climate finance at the local level in the policies and plans in Nepalese context. An expert raised the issue “whether the climate change related programme have actually received and used the 80% resources in the field level activities. In most of the cases, the funds are being used for the similar types of activities that used to be done before NAPA and LAPA.” All the experts emphasized on strengthening capacities of the local stakeholders and communities to effectively utilize the budget allocated and disbursed in the local level. Civic and private experts further emphasized on the necessity of effective mechanisms for proper monitoring and tracking the finance at the local level. One of the private experts underlined that “LAPA framework encouraged development partners to work on climate change adaptation at the local level, which is instrumental for adaptation planning and decision making at the local level.”

The Legislative Parliament (2017) recently published the report under the technical support of the United Nations Development Programme (UNDP) with different sources of climate finance in Nepal, which has highlighted the domestic sources of climate finance mainly from the national, provincial and local governments utilizing the public and private sources in addition to the multilateral and bilateral sources. The methods of delivery are mainly through the state/provincial and local budget and public private partnership. The international sources of finance highlighted are global multi-lateral funds, adaptation fund, climate investment fund, global climate change alliance+ (GCCA), Global Environment Facility (GEF), Green Climate Fund (GCF), Least Developed Countries Fund (LDCF), and International Climate Fund (ICF). All these funds have specific procedures and mechanisms for accessing the funds/grants for developing and developed countries.

While reviewing the total number of projects relating to adaptation, a total of 37.6 million USD was approved under multilateral sources, whereas only 14.2 million USD was disbursed, and 7.7 million USD was approved under bilateral sources. The civic and private experts emphasized more on finding and mobilizing the internal sources of funding in addition to the external sources. The main sources of internal funding highlighted are

budget allocated by the national government, federal and local governments and some of private sector sources through the public–private partnership. In recent years, the World Bank, GoN and Alternative Energy Promotion Center (AEPCC) have jointly initiated enhancing climate/disaster resilient renewable energy project (WB 2019). The report of World Economic Forum also emphasized the strategic public–private partnerships in Nepal among GoN, private sector, civil society and international communities to manage the current and future risks and epidemics (WEF 2015). Legislative parliament (2017) also highlighted these sources of funding, but the detail modality of its mechanisms is still uncertain. However, the effective utilization of the available sources of funding through effective mechanisms for monitoring, evaluation and continuous improvements are still needed in Nepalese context. It is very crucial for the newly elected governments after the long transition phase as there is lack of proper governance structure and the special attention to enhance the capacities of the newly elected government officers.

## 4 Discussion

The Nepalese politics moved into the new phase after the Comprehensive Peace Agreement in 2006 ending the decade long civil war between the government and Maoist party. However, it took a decade to set up a stable government in the central, state/provincial and local level. Most of the people are hopeful for the political stability, improved governance, economic growth and sustainable development now onwards. The environmental and climate policies/plans and strategies have been also influenced by the politics both at the national and local level. One of prominent examples is the repeatedly changes of the focal ministry itself in the past, sometimes merging with the ministry of science and technology, sometimes with the ministry of population. Despite the political instability, the responsible ministry has successfully executed and initiated climate policies and plans including NAPA, national climate policy, LAPA and now on the process of NAP. However, it could be more effective with enhanced human capacities and better institutional set-up in stable government (Maharjan and Maharjan 2017).

The GoN has initiated and executed the number of adaptation policies/plans, strategies and programmes/projects in Nepal despite the unstable political situation. The new political and federal governance structure has comparatively more power and authority at the local level than the previous government. However, it is impractical to expect the rapid progress on implementation of these policies/plans, strategies and programmes/projects. As highlighted by the experts, the new government need to develop the institutional mechanisms and strengthen the human capitals especially in the provincial and local levels for the evidence-based policy implementation emphasizing the process, content and outcomes. Evidence-based policy is well established in the public health policy for qualitative and quantitative policy relevant evidences (Brownson et al. 2009). Since it has specifically focused on evidence-based policy interventions, it is relevant and crucial in the climate policies/plans in the changing political contexts in Nepal. Maharjan and Maharjan (2017) have also emphasized on the integration of adaptation and adaptive capacities within the development processes, policies and practices. MERCY CORPS (2019) also stressed on the capacity at the local level to effectively implement the adaptation plans and effectively utilize the budget. Furthermore, Nagoya and Nightingale (2017) underlined the importance of participation of local people, stakeholders and their issues and concerns in the policy formulation and programmes/projects implementation at all levels. Many of the

programmes/projects have not successfully incorporated the issues and concerns of the poor and marginalized people at the local level. The climate policies/plans and strategies including the new national climate policy-2019 have always prioritized the poor and marginalized people in the policy document; however, the programmes/projects regularly fail to achieve the priority during the implementation.

The new government after the 3-tier elections at central, provincial and local levels have specific authority, mandates and priorities under the new constitution. The policies/plans and strategies developed in the previous governance structures are applicable and relevant in the changing context or not. Most of the experts including the representatives of the public sector perceived the requirement of new policies/plans and governance structures especially at the provincial and local levels. The provincial level governance structures need to be set up including the adaptation policies/plans under the specific ministry, whereas the local level structure and policies/plans are context specific. In some districts and municipalities, the ongoing governance structures and policies/plans might be still feasible, whereas some districts may need to develop completely new governance set-up and new policies/plans. GoN has progressed well in terms of developing and executing the policies, plans, strategies and establishing institutional mechanisms and frameworks in the past, despite the long-term political instability (Mahat et al. 2019).

As emphasized by the experts, the capacities of the newly elected bodies, government staffs, local stakeholders and local communities are crucial for the formulation, execution and monitoring the progresses of adaptation policies/plans, strategies and programmes/projects at all levels. NAPA and LAPA formulation processes involved multiple stakeholders from start to end (MoE 2010a), which need to be continuous in the implementation as well. Adaptation planning and policies in Nepal have strongly emphasized the participation of local communities and stakeholders, but they have least influence in the process (Nagoya and Nightingale 2017). There are multiple reasons of least influence of the local communities and stakeholders. One of these reasons is the capacity. It is necessary to focus on institutional strengthening and building the skills and capacities of newly elected government bodies, staffs and local stakeholders/communities to effectively implement and monitor the adaptation policies/plans and programmes/projects at the local level. It also enhances the effective utilization and monitoring of 80% budget allocation in the adaptation policies/plans. But Nightingale (2017) argued that the institutional strengthening alone may not effectively assure the adaptation needs and priorities. The adaptation needs and priorities supported by politics and power in the local socio-political context may be successful.

All the stakeholders either public, private or civic have own interests and influences in the local adaptation planning and implementation processes. Maharjan and Maharjan (2019) revealed the higher influences of public sector in adaptation policies and plans, whereas the civic and private sectors have more influences in adaptation practices. They further revealed the medium influences of local political leaders in the local climate policies and plans. These local adaptation plans are mostly guided by the LAPA framework in bottom-up, inclusive, responsive and flexible processes. The whole LAPA development process included the sensitization, assessment of local risks, vulnerabilities and also adaptation, prioritization of adaptation needs and options, formulation of adaptation plans and integration in the planning and development processes, implementation and assessment of the progresses (GoN 2011). The influences of the stakeholders could be at any of these phases; thus, the institutional strengthening and skills and capacities of the elected governments are crucial for successful LAPA implementation processes.

The public, private and civic groups of stakeholders have concentrated on forest conservation, livelihood enhancement, climate and disaster risks management and enabling

favourable environment in the past decades (Mahat et al. 2019). Formulation and execution of climate policies, plans, strategies and frameworks including NAPA, national climate policy, LAPA and NAP are also included in this process; however, it draws huge attention among the stakeholders at the local to the national and international levels. Furthermore, the programmes and projects such as NCCSP and ASHA (Adaptation for Smallholders in Hilly Areas) have directly worked with the local government, as appropriate, at the local level. These programmes/projects led the policies, plans, strategies and frameworks to the evidence-based actions at the local and community levels. However, this paper concentrated only to the NCCSP since it covered wider geographical coverage than the ASHA although there are multiple perceptions, observations and arguments on the geographical priorities relating to the NCCSP as highlighted in the results section. Most importantly, the adaptation plans and frameworks developed in the previous government may not be appropriate in the newly formed government since the village development committees (which was the main entry point) have been abolished in the changed political context. The new plans and frameworks would have wider geographical coverage at the rural municipality, municipality and district level. The skills and confidence gained by the government staffs and the stakeholders in the first phase would be certainly beneficial and useful to efficiently execute the evidence-based policy and plans at the local level in coming days.

Multiple adaptation and climate-related programmes and projects have been implemented even prior to the formulation of adaptation policies/plans and strategies. For instance, the programmes/projects relating to Sloping Agricultural Land Technology (SALT), transhumance system of livestock movement, community seed bank, among others have been practiced by farmers with the support of public, private and civic stakeholders prior to the adaptation policies and plans. However, the programmes and projects have become more focused and targeted to the specific sectors in line with the precise climate impacts after the development and endorsement of NAPA-2010, climate policy-2011 and LAPA-2011 in recent years. Many of such new programmes and projects have been developed and implemented as appropriate to tackle the specific climate issues and impacts. The GoN has recently endorsed new national climate change policy-2019, to effectively address the climate and environment related issues in the national, provincial/state and local level. These climate and adaptation policies/plans and strategies developed at the national level further guide the local and provincial level adaptation plans, programmes and projects. Maharjan and Maharjan (2017) provided and emphasized on the hierarchical, but positive relationship between policies/plans, strategies and programmes/projects.

Most of the policy documents in Nepal including the climate policies, plans, strategies and frameworks such as NAPA, LAPA and national climate policy have specifically emphasized on the poor, vulnerable and marginalized people. It needs to be assured during its implementation as well, which is not always the case in Nepal. The experts representing public sector have claimed the priority given to the poor and marginalized people in the policies, plans and their improved access through participatory and inclusive approaches. Nagoya and Nightingale (2017) argued the participatory approaches and processes also failed to effectively include the poor and marginalized people and address their needs and priorities. Ojha et al (2014) further stressed that the voices and concerns of the poor and marginalized people are often ignored and excluded in the decision-making process, even they actively participate in the process. On the other hand, the poor and marginalized people are not well organized and confident enough to effectively participate and contribute in the policies, plans and strategies as most of the poor and marginalized people in Nepal are illiterate and less influential. Some of the experts in the survey also highlighted the high influence of elite and high caste people

and elite capture of the resources at the local level. Nagoya and Nightingale (2017) have also affirmed the dominance of high castes, well-off households and local leaders at the local level.

Climate finance, itself, is very contested, complicated and highly political topic in the international negotiations (Mahat et al 2019), which is also difficult to understand and execute at the national and local level. The budget code developed by the Ministry of Finance (MoF) in 2012/2013 was portrayed as the effective initiatives of the government. MoALMC (2018) affirmed the prospect of the code in tracking the climate finance in Nepal. However, it doesn't track the climate finance of local government, civil society groups and private sectors. It doesn't include the climate finance at the sub-national level. Thus, the GoN has carried out the district level climate public expenditure and institutional review (d-CPEIR) for integrating the climate change in local planning, budgeting and understanding the strengths and gaps in local level planning in the selected districts (Legislative Parliament 2017). NPC (2012) and Baral and Chhetri (2014) affirmed the limitations of budget code to track the climate finance of other sources except public finance. Nevertheless, the system of tracking and monitoring climate finance could be strengthened with adoption of successful initiatives and practices of public hearing, publishing audit reports, joint and multi-stakeholder monitoring and assessment have become common practice in Nepal. Most of these are done at the organizational and at the local governmental level to some extent to ensure the transparency and accountability and to gain the trust of the public and donors.

Most of the experts revealed the infancy stage of climate finance despite the allocation of up to 30% budget at the national level. This 30% budget also included the reconstruction and renovation projects of earthquake 2015 and the grants for the newly established local government units in addition to the strategic programs/projects focusing on climate resilience, capacity enhancement, ecosystem-based adaptation, community-based and local adaptation and risk management such as NCCSP and ASHA. But the allocation of budget under the category of "environment and disaster management" at the local level, especially at the municipal level, "ranged from 0.7 to 3.4% of the total annual budget. It increased to 7.8% when the infrastructure projects are included" (MERCY CORPS 2019, pp 4), which is drastically less as compared to the national level budget allocation. The main reasons for this argument are lack of institutional mechanisms to trickle down the finance, lack of proper monitoring and tracking systems at the sub-national and local levels, and lack of absorption capacity to effectively utilize the finance at the local level. More importantly there is no mechanism to systematically assess and analyze the effective utilization of allocated budget at the national and local level as it's only possible to track the finance at the national level which is utilized by the government in the budget code. In fact, there may be risks of corruption, elite capture and conflicts over the resources at the local level. MERCY CORPS (2019) identified the existing gaps in the skills and capacity and lack of incentives in the newly formed local government structures.

The institutional mechanisms with the enhanced capacity of the newly elected government officers and concerned staffs would efficiently implement the adaptation policies, plans and track the climate finance at the local level. The GoN need to rationalize and expand multiple programmes/projects like NCCSP and ASHA throughout the country in order to address the climate impacts. The newly formed LGUs and newly elected government officers have to understand the local climatic contexts, develop specific adaptation plans and execute with the support of public, private and civic stakeholders in a collaborative manner. MERCY CORPS (2019), further, emphasized on the importance of understanding the risks, vulnerabilities and identification of needs, gaps and suitable adaptation

practices at the local level through the detail assessment of climate vulnerabilities (exposure, sensitivity and adaptive capacity) including the analysis of available resources.

## 5 Conclusion and way forward

Climate change policies and plans are crucial to effectively manage the climate change impacts at national and local level. The GoN is attentive in this regard, in taking lead at the national and local level. The initiatives of the government in local adaptation plans have been appreciated and recognized at the international level. However, the climate experts in Nepal have different opinions and observations on the climate policies/plans and their implementation at the national and local levels based on their experiences and engagements. These perceptions and observations of the experts representing public, private and civic sectors help the government and the implementers to learn and move forward with better implementation strategies, monitoring and tracking the progresses.

The GoN of Nepal has moved to the new political phase after the declaration of the federal democratic republic country, which poses both opportunities and challenges to address the climate change issues. The new government system has given more authority and power at the local level; however, the skills and capacities of the people at the local level still need to be strengthened drastically to effectively implement the programmes/projects, to effectively utilize the available resources and climate finance/budget allocated and effectively monitor/track the progresses. The government needs to focus on building human capitals, skills and capacities at the local level in addition to setting up institutional mechanisms and systems. The programmes like NCCSP are important to address the climate change impacts and enhance the livelihood of poor and marginalized people at the local level. However, such programmes/projects need to be sensitive in identifying the poor and vulnerable people and develop specific plan and activities based on local climatic and vulnerable contexts. Such programmes/projects must build and strengthen the skills and abilities of these people to address the issues by themselves with additional guidance and technical supports at the local level. These are based on the perceptions and opinions of the climate experts at the national level. Furthermore, additional researches and documentations of the perceptions and influences of local people and stakeholders at the local level are necessary to understand the location specific climate and adaptation contexts.

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