



Framework of Milestones and Indicators for Community-Based Adaptation

Community-based adaptation (CBA) is increasingly recognized as a vital approach to build the capacity of vulnerable communities and people to adapt to the impacts of climate change. The approach is grounded in good development practice, focusing on sustainable livelihoods, attention to differences within communities of impacts and adaptive capacities, integrating rights-based approaches, and addressing gender inequality and marginalization to ensure that the most vulnerable groups and people are able to adapt.

Development actors see CBA as a useful approach to reduce the climate change vulnerability of their target populations, who are often living in places that are highly exposed to climate impacts, and who are already grappling with the challenges of overcoming poverty and achieving social justice. However, they face challenges in determining how CBA projects differ from typical poverty reduction projects, and are seeking tools and approaches to aid in developing and implementing CBA projects. Monitoring & evaluation of CBA, and specifically the identification of appropriate results and indicators to plan and monitor CBA projects, has been identified as a particular challenge.

CARE's Community-Based Adaptation (CBA) Framework (Table 1) was first presented in the Climate Vulnerability and Capacity Analysis (CVCA) Handbook.¹ The CBA Framework presents a range of *enabling factors* which must be in place at different levels in order for effective community-based adaptation to take place. These enabling factors are linked to four inter-related strategies:

- Promotion of climate-resilient livelihoods strategies;
- Disaster risk reduction strategies to reduce the impact of hazards on vulnerable households;
- Capacity development for local civil society and governmental institutions; and
- Advocacy and social mobilization to address the underlying causes of vulnerability.

The Framework of Milestones and Indicators for CBA extends the CBA Framework with a set of proposed milestones and indicators to help project teams in planning activities and tracking progress towards achieving the enabling factors. The approach reflects the fact that adaptation is a process – the milestones and indicators are focused on monitoring and evaluating the adaptive capacity of target populations rather than fixed outcomes. They reflect the resources and conditions that must be in place for people to manage current climate variability and to adapt to longer term climate change, factoring in the uncertainty associated with future climate impacts.

As interventions focused at the local level, it is crucial to recognize that CBA involves not only action at the local level, but also the creation of a wider enabling environment. In order to account for the important factors for successful CBA across scales, suggested milestones and indicators are therefore provided for household/individual level (Table 2), local government/community level (Table 3), and national level (Table 4).

It is important to note that the framework is designed to show the wide range of results that adaptation projects could aim to achieve at household/individual, local government/community and national levels. No CBA project will be able to achieve all of these results. Rather, the framework is intended to provide a “menu” of milestones and indicators to guide project teams in selecting specific results and indicators that are within the scope and focus of their project.

This version of the Framework of Milestones and Indicators for CBA is a working draft, which will evolve and improve with testing and feedback from users. We strongly encourage users to provide feedback and additions to the Framework based on field experience. Please send feedback to: toolkits@careclimatechange.org.

¹ Please go to www.careclimatechange.org/cvca to download the CVCA Handbook.

Table 1: Community-Based Adaptation (CBA) Framework

	Climate-Resilient Livelihoods	Disaster Risk Reduction	Capacity Development	Addressing Underlying Causes of Vulnerability
National Level	<ul style="list-style-type: none"> - Government is monitoring, analyzing and disseminating current and future climate information related to livelihoods - Climate change is integrated into relevant sectoral policies - Climate change is integrated into poverty reduction strategy and/or other development policies 	<ul style="list-style-type: none"> - Government is monitoring, analyzing and disseminating disaster risk information - Government is engaged in planning and implementing disaster risk management (prevention, preparedness, response and recovery) - Functional early warning systems in place - Government has capacity to respond to disasters 	<ul style="list-style-type: none"> - Government has capacity to monitor, analyze and disseminate information on current and future climate risks - Government has mandate to integrate climate change into policies - National policies are rolled out at regional and local levels - Resources are allocated for implementation of adaptation-related policies 	<ul style="list-style-type: none"> - Government recognizes specific vulnerability of women and marginalized groups to climate change - Policy and implementation is focused on reducing these vulnerabilities - Civil society is involved in planning and implementation of adaptation activities
Local Government/Community Level	<ul style="list-style-type: none"> - Local institutions² have access to climate information - Local plans or policies support climate-resilient livelihoods - Local government and NGO extension workers understand climate risks and are promoting adaptation strategies 	<ul style="list-style-type: none"> - Local institutions have access to disaster risk information - Local disaster risk management plans being implemented - Functional early warning systems in place - Local government has capacity to respond to disasters 	<ul style="list-style-type: none"> - Local institutions have capacity to monitor, analyze and disseminate information on current and future climate risks - Local institutions have capacity and resources to plan and implement adaptation activities 	<ul style="list-style-type: none"> - Local planning processes are participatory - Women and marginalized groups have a voice in local planning processes - Local policies provide access to and control over critical livelihoods resources for all
Household/Individual Level	<ul style="list-style-type: none"> - People are generating and using climate information for planning - Households are employing climate-resilient agricultural practices - Households have diversified livelihoods, including non-agricultural strategies - People are managing risk by planning for and investing in the future 	<ul style="list-style-type: none"> - Households have protected reserves of food and agricultural inputs - Households have secure shelter - Key assets are protected - People have access to early warnings for climate hazards - People have mobility to escape danger in the event of climate hazards 	<ul style="list-style-type: none"> - Social and economic safety nets are available to households - Financial services are available to households - People have knowledge and skills to employ adaptation strategies - People have access to seasonal forecasts and other climate information 	<ul style="list-style-type: none"> - Men and women are working together to address challenges - Households have control over critical livelihoods resources - Women and marginalized groups have equal access to information, skills and services - Women and marginalized groups have equal rights and access to critical livelihoods resources

² NOTE: Local institutions refers to both government and civil society organizations at the local level.

Table 2: Household/Individual Level Milestones and Indicators for CBA³

Enabling Factor	Milestones	Indicators	Definition of Indicators
<i>Climate-Resilient Livelihoods</i>			
People are generating and using climate information for planning	People are aware of future climate projections for their locality	- % of people able to describe broad future climate trends	- Local knowledge on climate change is important in catalyzing action on adaptation - Raising awareness of expected trends in future climate gives people a base of information upon which to plan and analyze risks
	People are monitoring key climate variables	- Mechanisms in place to monitor key climate variables (e.g. rainfall, temperature, extreme events) - Observations of climate change are recorded	- Monitoring of climate variables is an essential step in managing climate variability and in preparing for longer-term climate change - Local observations of climate change are important to complement scientific information which is often available only at large scales
	People are using climate information in planning livelihoods strategies	- % of people using climate monitoring information to plan their livelihoods strategies (e.g. shifting to early maturing crops) - % of people using seasonal forecasts to plan their livelihoods strategies (e.g. timing of planting) - % of households adopting new, climate-resilient livelihoods strategies based on climate information	- When available, climate monitoring information and seasonal forecasts can help in planning and analyzing risks to agriculture and other livelihoods strategies - When households are adopting new livelihoods strategies, it indicates that they are in a better position to manage climate risks
Households are employing climate-resilient agricultural practices	Households are producing crops that are resilient to climate hazards	- % of households growing crops that are resilient to climate hazards affecting the target area (e.g. drought-resistant varieties)	- Crops and varieties that are suited to the changing climate must be introduced and adopted in order to reduce risk of crop loss
	Households are practicing conservation agriculture	- % of households using conservation agriculture practices	- Conservation agriculture practices conserve soil moisture and increase fertility, thereby increasing resilience to erratic rainfall

³ NOTE: At this level, indicator data should be disaggregated based on important determinants of vulnerability such as gender, age, poverty level or livelihood group.

Households have diversified livelihoods strategies, including non-agricultural strategies	Households are employing a mix of agricultural and off-farm livelihoods strategies	<ul style="list-style-type: none"> - % of households with non-agricultural income sources - % of households with three or more different income sources 	<ul style="list-style-type: none"> - Households that are completely dependent on agriculture are more vulnerable to climate change, therefore having other, less climate-dependent sources of income can build resilience - Having a range of income sources spreads risk
	Households have increased income from sale of products	<ul style="list-style-type: none"> - % of households with increased incomes - % increase in income 	<ul style="list-style-type: none"> - Households that are earning income from products (agricultural and non-agricultural) are in a better position to save - In order for people to be less vulnerable, they must have savings, therefore a significant increase in income is generally needed
People are managing risk by planning for and investing in the future	People are engaged in savings and credit groups	- % of people engaged in savings and credit groups	- Savings and credit provide people with start up capital for new livelihoods activities, and encourage saving for the future
	People are putting money into savings	<ul style="list-style-type: none"> - % of people with savings - % increase in savings per household 	<ul style="list-style-type: none"> - If people have savings, it provides a buffer against shocks, so savings are an important indicator of resilience - Increased savings is an indicator that people building up their asset base
	Collective ownership of assets to reduce costs and risks*	- % of households participating in shared ownership of assets	- Collective ownership of assets such as land, agricultural tools, etc. reduces up-front investments and spreads risk
	People are investing in insurance	- % of households with micro-insurance for key assets	- Micro-insurance can provide a measure of protection against loss of crops and other assets
<i>Disaster Risk Reduction</i>			
Households have protected reserves of food and agricultural inputs	Households have flood/cyclone proof food and input storage facilities	<ul style="list-style-type: none"> - % of households storing food and inputs in safe storage facilities - Kgs of food stored 	- Reserves are important to minimize the impacts of extreme weather events, but they must be stored in safe places in order to be useful in times of crisis
	Households have increased agricultural production	- % increase in production of key crops	- Increased production is critical to establishing reserves in food-insecure areas
	Households are saving seeds	<ul style="list-style-type: none"> - % of houses that are saving seeds - # of varieties of seeds saved 	- Traditional seed saving practices are important to reduce costs for farmers, to conserve varieties that may be adapted to climate variability, and to allow farmers to diversify their crop base

Households have secure shelter	Raised houses in flood-prone areas	- % of households with raised households	- As floods become more frequent, it becomes more cost-effective to raise households
	Cyclone shelters exist in areas at risk of cyclones	- % of households with access to a cyclone shelter	- In combination with early warning systems, shelters are important in protecting people from cyclones
	Houses constructed with storm- and cyclone-resistant building techniques	- % of households with cyclone-resistant housing	- Improved construction techniques (using local materials where possible) can reduce impact of storms and cyclones
Key assets are protected	Livestock have shelter from floods and storms	- % of households with livestock sheltered in safe places and/or a safe evacuation point	- Loss of livestock due to floods and storms has a major impact on household economic security, so protection of these assets is important
	Reserves of fodder and water for livestock exist	- % of households storing fodder and water for livestock - % of water and fodder storage facilities that are protected from floods and storms	- Related to the above, reserves of fodder and water are important to preserve livestock through times of crisis
People have access to early warnings for climate hazards	People are aware of local disaster management plan	- % of community members (vulnerable/non-vulnerable) who are aware of disaster management plan - % of community members (vulnerable/non-vulnerable) who are aware of emergency procedures	- In order for a disaster management plan to be effective, it must be communicated to community stakeholders - These stakeholders must understand procedures to be followed in an emergency situation
	People have radios or other means of communications	- % of community members (vulnerable/non-vulnerable) who have access to a radio or other form of communication to receive early warnings	- Early warnings must be able to reach all members of the community by some form of communication
People have mobility to escape danger in the event of climate hazards	Disaster management plan recognizes special needs of people with reduced mobility	- % of community members who would require assistance for evacuation who have a plan in place	- Community evacuation planning must recognize that some community members may not have the mobility to escape without assistance and plan accordingly

<i>Local Capacity Development</i>			
Social safety nets are available to households	Social protection schemes in place	<ul style="list-style-type: none"> - % of people registered for social protection schemes* - % of vulnerable populations receiving social protection benefits 	<ul style="list-style-type: none"> - Social protection is an important strategy in protecting people, particularly the most vulnerable, from increasing climate hazards
	Community disaster fund exists*	<ul style="list-style-type: none"> - Funds available at community level to support disaster risk reduction, response and recovery* 	<ul style="list-style-type: none"> - The existence of a community disaster fund can facilitate risk reduction activities and/or faster and locally-driven response
Financial services are available to households	Functional micro-finance institutions exist	<ul style="list-style-type: none"> - % of community members (vulnerable/non-vulnerable) accessing micro-finance services - Institutional capacity of micro-finance institutions 	<ul style="list-style-type: none"> - Access to financial services has proven important in facilitating adaptation
	Micro-finance institutions provide a range of services	<ul style="list-style-type: none"> - % of micro-finance institutions offering a range of services - Services offered 	<ul style="list-style-type: none"> - To increase resilience, people will need access to a range of different services including savings, credit, and insurance*
People have knowledge and skills to employ adaptation strategies	People are aware of adaptation strategies	<ul style="list-style-type: none"> - % of target population (vulnerable/non-vulnerable) aware of climate-resilient livelihoods strategies appropriate to their context 	<ul style="list-style-type: none"> - People need to know that there are alternatives in order to plan for adaptation
	People have technical skills to implement adaptation strategies	<ul style="list-style-type: none"> - % of target population trained in technical skills - % of target population demonstrating application of skills 	<ul style="list-style-type: none"> - Some adaptation strategies may require new technical skills for implementation - Application of skills demonstrates proficiency
People have access to seasonal forecasts and other climate information	Mechanisms exist for sharing seasonal forecasts and climate monitoring information	<ul style="list-style-type: none"> - % of communities where seasonal forecasts and climate information are shared - Means of sharing (e.g. radio, community meetings) 	<ul style="list-style-type: none"> - People need information about climate in order to analyze risks and plan accordingly - A variety of communication means may be needed to reach a wide population
	People are aware of how to access this information	<ul style="list-style-type: none"> - % of target population aware of information sharing mechanisms 	<ul style="list-style-type: none"> - In order for communication to be effective, people must be aware of how and when information is shared

<i>Addressing Underlying Causes of Vulnerability</i>			
Men and women are working together to address challenges	Women are empowered to make decisions within the household	<ul style="list-style-type: none"> - % of women who feel empowered in household decision-making - % of men who feel it is important to involve women in decision-making 	- In many contexts, household decision-making is dominated by men, reducing the ability of women to influence the adaptive capacity of their families
	Workload is shared between men and women	- Time spent by men and women on livelihoods activities (agriculture, child care, fetching fuel and water, etc.)	- Women's workload often increases with environmental change and with the need to pursue a range of livelihoods activities, so sharing the workload becomes increasingly important
	Control of family income and savings is shared	<ul style="list-style-type: none"> - % of women who have independent sources of income - % of women who have control over the income they make themselves - % of women who have shared control of family income - % of men who feel that family income belongs to both partners 	<ul style="list-style-type: none"> - Women are empowered by having their own sources of income and having control of how it is used - Shared control of family income can lead to increased family well-being as men and women tend to prioritize differently - Men must recognize the role of women as family decision-makers
Households have control over critical livelihoods resources	Households have secure land tenure	- % of households with secure access to land for livelihoods purposes	- It is difficult for people to invest in sustainable land management strategies when they do not have secure land tenure
	Households have access to common property resources for livelihoods purposes	<ul style="list-style-type: none"> - % of households with secure access to a water source - % of households with access to pasture, forests or other common property resources 	<ul style="list-style-type: none"> - Secure water access is key for household and agricultural purposes - Sharing of benefits from sustainable management common property resources can facilitate adaptation

Women and marginalized groups have equal access to information, skills and services	Women and marginalized groups have access to information	<ul style="list-style-type: none"> - Women and marginalized groups are engaged in community-based organizations - Community information sharing uses appropriate messaging and means of communication for women and marginalized groups 	<ul style="list-style-type: none"> - CBOs will only be effective in promoting appropriate community development if women and other marginalized groups are active participants - Information must be shared in communities in a way that it is accessible to all
	Women and marginalized groups have access to skills	<ul style="list-style-type: none"> - Literacy rates for men, women, marginalized - Existence of targeted skills development programs for women and marginalized groups - % of women and marginalized groups accessing these programs 	<ul style="list-style-type: none"> - Literacy rates can demonstrate inequalities in education - In a context where women or marginalized groups have limited access to formal education, specialized programs can facilitate skills development
	Services are targeted to women and marginalized groups	<ul style="list-style-type: none"> - Existence of targeted services for women and marginalized groups - % of women and marginalized groups accessing these services 	<ul style="list-style-type: none"> - In some contexts, targeted services such as health or extension services may be required to reach vulnerable populations
Women and marginalized groups have equal rights and access to critical livelihoods resources	Women and marginalized groups have secure access to and control over land	<ul style="list-style-type: none"> - Women and marginalized groups are aware of their land rights - Women and marginalized groups are empowered to claim their rights to land 	<ul style="list-style-type: none"> - In order for women to claim their rights, they must first be aware of what those rights are, and then empowered to claim their rights (e.g. through negotiation with community leaders)
	Women and marginalized groups have secure access to and control over common property resources	<ul style="list-style-type: none"> - Women and marginalized groups are aware of their rights to common property resources - Women and marginalized groups are empowered to claim their rights to common property resources 	<ul style="list-style-type: none"> - In order for women to claim their rights, they must first be aware of what those rights are, and then empowered to claim their rights (e.g. through collective use of land by women's groups)

Table 3: Local Government/Community Level Milestones and Indicators for CBA

Enabling Factor	Milestones	Indicators	Definition of Indicators
<i>Climate-Resilient Livelihoods</i>			
Local institutions have access to climate information	Climate information is accessible at the local level	<ul style="list-style-type: none"> - Mechanisms exist for disseminating climate information (seasonal forecasts, climate projections, risk analysis, etc.) from national to local level - Information is available in accessible formats for local level users (language, communication methods, etc.) - Downscaled climate projections are available 	<ul style="list-style-type: none"> - In order for local actors to analyze risks and plan adaptation actions, they need first to have access to climate information, which is not always available to them - Creating communication channels to get information from national to local level is an important aspect - To be useful, the information must be available at a relevant scale and communicated appropriately
Local plans or policies support climate-resilient livelihoods	Local plans take climate change into account	<ul style="list-style-type: none"> - Plan documents incorporate analysis of climate change risks - Planned actions are appropriate in the context of climate change - Planned actions specifically aim to reduce vulnerability to climate change 	<ul style="list-style-type: none"> - The first step in integrating climate change is to analyze the risks based on available climate data - Local plans need to be analyzed to ensure that they are making the maximum contribution to adaptive capacity, and avoiding increased climate risks - The next level of integration would be to have plans that include actions targeted to reducing vulnerability to climate change
	Local policies support adaptation	<ul style="list-style-type: none"> - Policy documents incorporate analysis of climate change risks - Policy directions are appropriate in the context of climate change - Policy directions specifically aim to reduce vulnerability to climate change 	<ul style="list-style-type: none"> - For policies to support adaptation, they must be developed based on analysis of risks based on available climate data - Policy directions need to be analyzed to ensure that they are making the maximum contribution to adaptive capacity, and avoiding increased climate risks - The next level of integration would be to have policy directions which are targeted to reducing vulnerability to climate change

Local government and NGO extension workers understand climate risks and are promoting adaptation strategies	Extension workers understand climate risks	<ul style="list-style-type: none"> - Extension workers are aware of climate trends - Extension workers are able to link climate trends to impacts on livelihoods 	<ul style="list-style-type: none"> - Extension workers interface directly with communities, providing technical support on livelihoods, so it is important that these agents are aware of climate trends and how these may impact livelihoods
	Extension workers are promoting adaptation strategies	<ul style="list-style-type: none"> - Extension workers are aware of appropriate adaptation strategies for the local context - Extension workers are integrating adaptation strategies in their work at the community level 	<ul style="list-style-type: none"> - Awareness of climate trends should then lead to identification and promotion of adaptation strategies by extension workers
<i>Disaster Risk Reduction</i>			
Local institutions have access to disaster risk information	Disaster risk information is accessible at the local level	<ul style="list-style-type: none"> - Mechanisms exist for disseminating disaster risk information from national to local level - Information is available in accessible formats for local level users (language, communication methods, etc.) 	<ul style="list-style-type: none"> - Disaster risks are often analyzed at national level, with inadequate attention to disseminating information that the local level
Local disaster management plans being implemented	Local disaster management plan in place	<ul style="list-style-type: none"> - Documented plan - Roles and responsibilities of different organizations (government, non-governmental, community-based) clearly defined, agreed and understood* - Different organizations understand and agree to their roles* 	<ul style="list-style-type: none"> - Given the predicted increase in extreme weather events as a result of climate change, planning for disaster management becomes increasingly important - This plan must clearly define roles and responsibilities to facilitate a coordinated approach <p>Stakeholders must understand and agree to their defined roles</p>
	Disaster risk reduction (DRR) actions integrated in local development plans	<ul style="list-style-type: none"> - Local development plans incorporate risk analysis - Local development plans incorporate actions to reduce disaster risks 	<ul style="list-style-type: none"> - Local planning must be based on an understanding of climate risks in order to reduce vulnerability - Resources are often allocated on the basis of local development plans, so it is important to integrate DRR actions into these plans

Functional early warning systems in place	Local early warning system in place	<ul style="list-style-type: none"> - EWS based on sound scientific information, risk analysis, and holistic vulnerability monitoring* - Vertical and horizontal communication and coordination among stakeholders* - Local communities and civil society included in planning and with recognized role in EWS* 	<ul style="list-style-type: none"> - To effectively implement early warnings, identification of sound triggers is key - Early warnings are only as successful as the communication structures which support them - Response to early warnings occurs primarily by local stakeholders, therefore their involvement in the development of systems is important
	Local government and/or community committees are monitoring vulnerability	<ul style="list-style-type: none"> - Mechanisms in place for vulnerability monitoring - Regular reports on vulnerability monitoring - Appropriate vulnerability indicators used 	<ul style="list-style-type: none"> - The triggers for early warning systems must come from monitoring of vulnerability - This monitoring must be regular and communicated to national and local stakeholders - The indicators used must be carefully chosen in order to reflect the reality of vulnerability in the particular context
	EWS uses appropriate communication mechanisms	<ul style="list-style-type: none"> - EWS capable of reaching entire community by using a variety of communication methods* - EWS messages are accessible and useful to local populations* - Community trust in EWS exists* 	<ul style="list-style-type: none"> - In order to reach all members of the community, an EWS needs to use different methods – radio, TV, community volunteers, etc. - The EWS will only be effective if the messaging is relevant to the local context to which it applies
Local government has capacity to respond to disasters	Local contingency plans exist	<ul style="list-style-type: none"> - Local governments have undertaken participatory and scenario-based planning* - Local government and communities have clear response plans and procedures* - Regular training on response for local stakeholders* 	<ul style="list-style-type: none"> - Contingency plans must be tailored to the different hazards that may affect a particular country - The contingency plan must clearly outline the procedures for response and the roles of different actors - Response teams must be trained in order to launch an effective response
	Local government has logistical capacity to manage emergency response	<ul style="list-style-type: none"> - Sufficient number of trained organizational personnel to carry out response activities* - Defined and agreed coordination and decision-making mechanisms between local governments, non-governmental organizations, and communities* - Safe evacuation and supply routes exist* 	<ul style="list-style-type: none"> - Launching an emergency response requires a large number of trained personnel - Coordination is key to an effective response, so mechanisms must be worked out in advance

	Local government has resources to respond to emergencies	<ul style="list-style-type: none"> - Emergency facilities available* - Communications infrastructure and mechanisms exist* - Locally owned or available transport sufficient for emergency needs* - Stores of emergency supplies in place* 	<ul style="list-style-type: none"> - Resilient shelters, clinics, etc. will be needed during the response phase - Infrastructure and mechanisms for vertical and horizontal communication* - Boats, trucks and other means of transportation that will be needed in the emergency phase - Relief supplies including food, safe water, medical supplies and temporary shelters
<i>Local Capacity Development</i>			
Local institutions (gov't and non-gov't) have capacity to analyze climate risks and plan for appropriate actions	Expertise on climate change is available locally	<ul style="list-style-type: none"> - Local government agencies have climate change focal points - Local research institutions and NGOs have climate change experts 	<ul style="list-style-type: none"> - Expertise in local governments is essential to addressing climate change at the local level - Local experts can provide advisory services and are grounded in the local context
	Local institutions are using vulnerability and risk analysis in planning	<ul style="list-style-type: none"> - Local government and non-governmental institutions are using tools to analyze vulnerability - Vulnerability analysis is integrated into planning 	<ul style="list-style-type: none"> - The use of tools can facilitate holistic analysis of vulnerability, which is not typically incorporated into planning - The results of the analysis must then inform the planning
	Local institutions are aware of appropriate adaptation strategies	<ul style="list-style-type: none"> - Local government and non-governmental institutions are aware of climate trends - Local government and non-governmental institutions are aware of adaptation strategies 	<ul style="list-style-type: none"> - To identify appropriate actions on adaptation, institutions must understand climate trends and appropriate adaptation strategies
Local planning processes are participatory	Local planning processes incorporate mechanisms for participation by civil society organizations and communities	<ul style="list-style-type: none"> - Local planning processes specifically mandate participation of civil society and communities - Quality of participation (from perspective of civil society and community representatives) 	<ul style="list-style-type: none"> - Participation of civil society and communities in local planning is essential to good governance - Mechanisms must allow for participation (vs. consultation)
	Views of civil society and communities are integrated in local plans	<ul style="list-style-type: none"> - Civil society and community representatives feel that views have been taken up in local plans - Local government representatives value inputs from civil society and communities - Local plans reflect civil society and community priorities 	<ul style="list-style-type: none"> - Real participation means that civil society and communities are able to influence decision-making - This requires local government representatives who value the role of civil society and communities in planning - Prioritization may result in civil society and community priorities being dropped, so it's important to analyze plans to ensure that views are reflected

Local institutions have capacity and resources to plan and implement adaptation activities	Local institutions have increased capacity to plan and implement adaptation	<ul style="list-style-type: none"> - # of representatives of local institutions trained in analyzing climate risks and planning appropriate adaptation activities - # of representatives demonstrating knowledge of climate change vulnerability & adaptation - # of representatives applying tools and approaches to analyze climate risks and plan adaptation activities 	- Capacity development for local actors is a priority to support CBA, including training, knowledge building and the development and application of tools and approaches for adaptation
	Resources are allocated for adaptation activities	<ul style="list-style-type: none"> - % of local government budgets allocated for adaptation activities - # of local civil society institutions engaged in implementing adaptation activities 	- Capacity is not the only challenge – local actors also need to have resources to implement adaptation activities
<i>Addressing Underlying Causes of Vulnerability</i>			
Local planning processes are participatory	Local planning processes involve participation of communities	<ul style="list-style-type: none"> - Mechanisms in place for community input to local planning - Communities have access to details of local plans - Mechanisms in place to hold local representatives accountable to communities 	- Transparent and participatory local governance helps to ensure that community priorities, including those related to adaptation, are accounted for in local planning
	Local government representatives recognize the importance of participatory governance	<ul style="list-style-type: none"> - Local government representatives value inputs from communities - Local government representatives prioritize based on community inputs 	- Decision-makers must value the contributions of communities in establishing priorities
Women and marginalized groups have a voice in local planning processes	Local planning processes incorporate mechanisms to ensure that views of women and marginalized groups are integrated	<ul style="list-style-type: none"> - Local planning processes specifically mandate participation of women and marginalized groups - Quality of participation (from perspective of women and marginalized people) 	- Participation of women and marginalized groups in local planning is essential to good governance Mechanisms must allow for participation (vs. consultation)
	Views of women and marginalized groups are integrated in local plans	<ul style="list-style-type: none"> - Women and marginalized people feel that views have been taken up in local plans - Local government representatives value inputs from women and marginalized groups - Local plans reflect priorities of women and marginalized groups 	<ul style="list-style-type: none"> - Real participation means that women and marginalized groups are able to influence decision-making - This requires local government representatives who value the role of women and marginalized groups in planning - Prioritization may result in priorities being dropped, so it's important to analyze plans to ensure that views are reflected

Local policies provide access to and control over livelihoods resources for all	Land tenure policies provide secure access to and control over land	<ul style="list-style-type: none"> - Land tenure policies provide clear guidance on tenure - Land tenure policies do not discriminate against women and marginalized groups 	<ul style="list-style-type: none"> - Unclear tenure policies can lead to conflict among land users and owners - People need to understand what their rights are in order to ensure security of tenure - Discriminatory policies can exacerbate vulnerability
	Access to common property resources is secure	<ul style="list-style-type: none"> - Common property policies provide clear guidance on rights - Common property policies do not discriminate against women and marginalized groups 	<ul style="list-style-type: none"> - Unclear rights to common property resources can lead to conflict among users - People need to understand what their rights are in order to ensure equitable access - Discriminatory policies can exacerbate vulnerability

Table 3: National Level Milestones and Indicators for CBA

Enabling Factor	Milestones	Indicators	Definition of Indicators
<i>Climate-Resilient Livelihoods</i>			
Government is monitoring, analyzing and disseminating current and future climate information related to livelihoods	Government is systematically monitoring and analyzing current and future climate information	<ul style="list-style-type: none"> - Meteorological agency is monitoring rainfall and temperature trends - Climate change focal point agency is engaged in developing/improving climate projections and downscaling - Climate information is shared across agencies to facilitate planning 	<ul style="list-style-type: none"> - Ongoing monitoring of climate variables and improvement of future climate projections are critical to effective planning and adaptive management - The information must be shared across Government to ensure that it is used in planning
	Government is disseminating information on current and future climate risks	- Climate change focal point or other agency has responsibility and resources to communicate climate information to the public and to local institutions	- Governments have a responsibility to share the information generated, both with the general public and with local institutions
Climate change is integrated into relevant sectoral policies	Policies in relevant sectors such as agriculture, land management and water take climate change into account	<ul style="list-style-type: none"> - Policy documents incorporate analysis of climate change risks - Policy directions are appropriate in the context of climate change - Policy directions specifically aim to reduce vulnerability to climate change 	<ul style="list-style-type: none"> - The first step in integrating climate change is to analyze the risks based on available climate data - Policy directions need to be analyzed to ensure that they are making the maximum contribution to adaptive capacity, and avoiding increased climate risks - The next level of integration would be to have policy directions which are targeted to reducing vulnerability to climate change
Climate change is integrated into poverty reduction strategy and/or other development policies	PRSP/economic development policy takes climate change into account	<ul style="list-style-type: none"> - Policy document incorporates analysis of climate change risks - Policy directions are appropriate in the context of climate change - Policy directions specifically aim to reduce vulnerability to climate change 	<ul style="list-style-type: none"> - The first step in integrating climate change is to analyze the risks based on available climate data - Policy directions need to be analyzed to ensure that they are making the maximum contribution to adaptive capacity, and avoiding increased climate risks - The next level of integration would be to have policy directions which are targeted to reducing vulnerability to climate change

<i>Disaster Risk Reduction</i>			
Government is monitoring, analyzing and disseminating disaster risk information	Government is systematically monitoring and analyzing disaster risk information	<ul style="list-style-type: none"> - Disaster risk management or other agency has responsibility to monitor and analyze disaster risk information for planning - Disaster risk analysis is informed by climate change observations and projections 	<ul style="list-style-type: none"> - Ongoing monitoring and analysis of disaster risk information provides the foundation for effective disaster risk management planning - This planning must take available climate change information into account
	Government is disseminating disaster risk information	<ul style="list-style-type: none"> - Disaster risk management or other agency has responsibility and resources to communicate disaster risk information to the public and to local institutions 	<ul style="list-style-type: none"> - Governments have a responsibility to share the information generated, both with the general public and with local institutions
Government is engaged in planning and implementing disaster risk management (including prevention, preparedness, response and recovery)	National Disaster Management Policy in place	<ul style="list-style-type: none"> - Documented plan - Roles and responsibilities of different organizations (government, UN, non-governmental) clearly defined - Different organizations understand and agree to their roles * 	<ul style="list-style-type: none"> - Given the predicted increase in extreme weather events as a result of climate change, planning for disaster management becomes increasingly important - This plan must clearly define roles and responsibilities to facilitate a coordinated approach <p>Stakeholders must understand and agree to their defined roles</p>
	Disaster Management Policy incorporates disaster risk reduction measures	<ul style="list-style-type: none"> - Disaster Management Plan focuses on risk reduction as well as response 	<p>Disaster management includes preparedness as well as response, therefore policies should also focus on disaster risk reduction measures</p>
	Disaster Management Policy takes climate change into account	<ul style="list-style-type: none"> - Policy document includes analysis of climate trends - Policy directions are appropriate in the context of climate change 	<ul style="list-style-type: none"> - Climate change has significant implications for disaster management, so analysis of climate trends should form a basis for planning for disaster management <p>Planning must then focus on actions which make sense in light of climate change</p>
Functional early warning systems (EWS) in place	National early warning system in place	<ul style="list-style-type: none"> - EWS based on sound scientific information, risk analysis, and holistic vulnerability monitoring - Vertical and horizontal communication and coordination among stakeholders* - Local government and civil society included in planning and with recognized role in EWS* 	<ul style="list-style-type: none"> - To effectively implement early warnings, identification of sound triggers is key - Early warnings are only as successful as the communication structures which support them - Response to early warnings occurs primarily by local stakeholders, therefore their involvement in the development

	Government is monitoring vulnerability for early warning and intervention on crises	<ul style="list-style-type: none"> - Mechanisms in place for vulnerability monitoring - Regular reports on vulnerability monitoring - Appropriate vulnerability indicators used 	<ul style="list-style-type: none"> - The triggers for early warning systems must come from monitoring of vulnerability - This monitoring must be regular and communicated to national and local stakeholders <p>The indicators used must be carefully chosen in order to reflect the reality of vulnerability in the particular context</p>
	EWS uses appropriate communication mechanisms*	<ul style="list-style-type: none"> - EWS uses a variety of communication methods to reach different stakeholders* - EWS messaging is tailored to local context* 	<ul style="list-style-type: none"> - In order to reach different stakeholders, an EWS needs to use different methods – radio, TV, community volunteers, etc. <p>The EWS will only be effective if the messaging is relevant to the local context to which it applies</p>
Government has capacity to respond to disasters	Government has contingency plans for disaster events	<ul style="list-style-type: none"> - Government has undertaken participatory and scenario-based planning* - Government has clear response plans and procedures* - Regular training on response for national stakeholders* 	<ul style="list-style-type: none"> - Contingency plans must be tailored to the different hazards that may affect a particular country - The contingency plan must clearly outline the procedures for response and the roles of different actors - Response teams must be trained in order to launch an effective response
	Government has logistical capacity to manage emergency response	<ul style="list-style-type: none"> - Sufficient number of trained organizational personnel to carry out response activities* - Defined and agreed coordination and decision-making mechanisms between central and local governments, and between governmental and non-governmental institutions* 	<ul style="list-style-type: none"> - Launching an emergency response requires a large number of trained personnel <p>Coordination is key to an effective response, so mechanisms must be worked out in advance</p>
	Government has resources to respond to emergencies	<ul style="list-style-type: none"> - Emergency facilities available* - Communications infrastructure and mechanisms exist* - Locally owned or available transport sufficient for emergency needs* - Stores of emergency supplies in place* 	<ul style="list-style-type: none"> - Resilient shelters, hospitals, etc. will be needed during the response phase - Infrastructure and mechanisms for vertical and horizontal communication* - Boats, helicopters and other means of transportation that will be needed in the emergency phase - Relief supplies including food, safe water, medical supplies and temporary shelters

<i>Capacity Development</i>			
Government has capacity to monitor, analyze and disseminate information on current and future climate risks	Expertise on climate change is available within Government	<ul style="list-style-type: none"> - # of Government agencies with climate change focal points - Level of interaction between focal points and regional/local counterparts 	<ul style="list-style-type: none"> - The existence of expertise on climate change, particularly outside the environment agency, will facilitate integration into decision-making - Expertise at central level must be shared with regional/local agencies
	All relevant departments are engaged in planning for adaptation	<ul style="list-style-type: none"> - # of cross-sectoral analyses undertaken - # of inter-agency meetings on climate change 	<ul style="list-style-type: none"> - Climate change has cross-sectoral implications so it is important to treat it as a cross-cutting issue - Coordination among agencies will promote an integrated approach to adaptation
Government has mandate to integrate climate change into policies	Government is committed to integrate climate change into policies	<ul style="list-style-type: none"> - Government climate change focal point to the United Nations Framework Convention on Climate Change (UNFCCC) identified - Climate change focal point has resources for analysis and planning - Climate change focal point has mandate to work with other Government agencies to integrate climate change into policies 	<ul style="list-style-type: none"> - Mandate of climate change focal points vary across governments - Ideally, they are mandated to work with other agencies to integrate climate change, and have the resources to do so
National policies and programmes are rolled out at regional and local levels	Local administration is aware of relevant national policies and programmes	<ul style="list-style-type: none"> - Level of awareness of local administration of national policies (e.g. disaster management, water, agriculture, NAPA, etc.) - Level of participation of local representatives in policy development 	<ul style="list-style-type: none"> - Local governments are generally responsible for planning community development, however these stakeholders may not even be aware of national policy documents <p>Local stakeholders must be involved in the development of national policies</p>
	Local line agencies are aware of relevant national policies and programmes	<ul style="list-style-type: none"> - Level of awareness of local line agencies of national policies (e.g. disaster management, water, agriculture, NAPA, etc.) - Level of participation of local representatives in policy development 	<ul style="list-style-type: none"> - Implementation of policies is often undertaken by local government, however these stakeholders may not even be aware of national policy documents - Local stakeholders must be involved in the development of national policies
	Central government is actively engaging regional and local counterparts	<ul style="list-style-type: none"> - Degree of communication between central government and regional/local government - Mechanisms exist for exchange of information 	<ul style="list-style-type: none"> - Good communication between central governments and regional/local governments is essential for good governance - Two-way flow of information is necessary for transparency and accountability

Resources are allocated for implementation of adaptation-related policies	Resources are allocated by government to implement adaptation activities	<ul style="list-style-type: none"> - % of national budget allocated for adaptation activities - Amount of international adaptation funding received by Government 	<ul style="list-style-type: none"> - The scale of needs for adaptation will require governments to allocate resources within existing budgets and to seek new sources of funding
<i>Addressing Underlying Causes of Vulnerability</i>			
Government recognizes specific vulnerability of women and marginalized groups to climate change	Policy and planning documents incorporate analysis of vulnerability of women and marginalized groups	<ul style="list-style-type: none"> - # and type of policy and planning documents which incorporate vulnerability analysis - Quality of analysis 	<ul style="list-style-type: none"> - An equitable approach to adaptation requires analysis of differential vulnerability among genders and social groups - The quality of the analysis is important to lead policymakers to appropriate actions
Policy and implementation is focused on reducing these vulnerabilities	Policies and programmes incorporate actions which address specific vulnerability of women and other marginalized groups	<ul style="list-style-type: none"> - # and type of policy and planning documents which incorporate actions which address specific vulnerability of women and other marginalized groups - Quality of actions identified 	<ul style="list-style-type: none"> - Ideally the analysis will lead to the identification of actions which address specific vulnerability of women and other marginalized groups - Some actions will have more impact in reaching vulnerable groups
Civil society is involved in planning and implementation of adaptation activities	Structures for decision-making on adaptation incorporate mechanisms for civil society participation	<ul style="list-style-type: none"> - Adaptation planning process specifically mandates participation of civil society - Quality of participation (from perspective of civil society representatives) 	<ul style="list-style-type: none"> - Civil society participation is important in ensuring transparency and that the interests of vulnerable people are represented - Mechanisms must allow for participation and influence (vs. consultation)
	Views of civil society are integrated in decisions	<ul style="list-style-type: none"> - Civil society representatives feel that views have been taken up in adaptation planning - Policymakers value civil society inputs - Policy documents reflect civil society priorities 	<ul style="list-style-type: none"> - Real participation means that civil society are able to influence decision-making - This requires policymakers who value the role of civil society in policy development - Prioritization may result in civil society priorities being dropped, so important to analyze policy directions to ensure priorities are reflected

*Adapted from: Twigg, J. (2007). *Characteristics of a Disaster-Resilient Community: A Guidance Note (Version 1)*. Developed for the DfID Disaster Risk Reduction Inter-Agency Coordination Group.