

**KINGDOM OF CAMBODIA
NATION RELIGION KING**



Ministry of Planning

**Guidance on Development of Adaptation Indicators
for Sub-National Five-Years Development Plans**

**TA 8179: Mainstreaming Climate Resilience into Development Planning
Package C**

Gender, Monitoring and Evaluation (M&E), and Mainstreaming at Sub-National Levels

**Prepared by the
Consortium of UN Habitat, Forum Syd and Save the Earth Cambodia
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Preface

It is a great honor for me on behalf of the Royal Government of Cambodia to present a Guidance Manual on Development of Adaptation Indicators for Integration into SNA Development Plans. The guidance is one of a series of knowledge products produced under the TA CAM 8179 “Mainstreaming Climate Resilience into Development Plan”. The Guidance has the objective to enhance knowledge and capacity of Sub-national administration in designing and integration of adaptation into five-years development plans. The Ministry of Planning plays a leading role in development of this guidance in broad consultation with key sector ministries, sub-national administrations, stakeholders and development partners under the technical and financial support of Nordic Development Fund through the Asian Development Bank.

The Ministry of Planning now has updated NSDP 2019-23 in coordination with all sector ministries, at the time when the sector climate change action plans are approaching the final stage of their implementation. The Cambodia Rectangular Strategy Phase IV for “Growth, Employment, Equity and Efficiency” continues to have priority on implementation of Green Growth, Sustainable Development and Climate Change Strategic Plans. The Ministry of Planning is now working to include SDG indicators into the NSDP 2019-2023 to align ourselves with global commitment.

M&E framework is an important part of development planning process for all sectors and levels. The Ministry of Planning has adopted a National Results Framework which monitor implementation as well as evaluation of outcome and impacts. It would be pragmatic that all indicators, be development or climate change, must be consistent with the national framework so that data and values of indicators can be aggregated and reliable. Although our knowledge and experience on M&E in general is well enhanced, there are still gaps and constraints in effective implementation of many aspects of M&E, including data collection and sharing. Even more challenge is encountered in the context of M&E of adaptation. I believe this guidance, together with the previous M&E Guidance on Adaptation Investments and Guidance for sector Climate Change Action Plans can address the knowledge gap and assist all M&E practitioners, planning and management officers to integrate several adaptation indicators into sub-national development plans. Your cooperation and support in implementation of M&E is critical towards a success.

H.E. Chhay Than

Senior Minister, Minister of Planning

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This Document “Guidance for Development of Adaptation Indicators for SNA Development Plans is produced with contribution and inputs from various stakeholders and experts involved in climate change mainstreaming, implementation, and M&E reporting. The guidance is designed to support Sub-national administrations (SNA) and provincial line departments to develop and integrate a few adaptation indicators into provincial development plans. On behalf of the implementation team, we would like first of all to express high appreciation to H.E. Dr. Say Samal, Minister of Environment and Chairman of the National Council for Sustainable Development for continuous support and guidance to overcome many challenges during the project implementation. Our deep thanks are given to H.E. Ngan Chamroeun, Secretary General of NCDDS, H.E. Ny Kimsan, Deputy Secretary General of National Committee for Sub-national Democratic Development for consistent support and advice during the consultation process. High appreciation goes to H.E. Tin Ponlok, Secretary General of NCSD, for alignment of M&E framework. Many thanks are owing to Mr. Long Viseth, Project Coordinator, and his management team for guidance and support during entire consultation process. We also express sincere gratitude to technical officers and project managers in charge of SPCR Investment Projects of pilot sector ministries, especially MAFF, MOWRAM, MRD, MPWT, NCDDS and MOWA for consultation and inputs on many aspects of climate change mainstreaming and M&E. We also highly appreciate the guidance and recommendations provided by Dr. Srinivasan Ancha, without which the technical report would not have been possible.

Finally, we also thank to all experts and specialists from Development Partners, NGOs and CSOs for valuable contributions and experience in climate change activities and M&E reporting. We hope this Knowledge Product will guide future work on monitoring and reporting and to improve planning of climate change projects and programs in Cambodia.

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Executive Summary

Climate change mainstreaming, in both mitigation and adaptation, has been implemented at various levels, especially with greater emphasis on adaptation at the sub-national levels in order to reduce vulnerability to CC and enhance adaptative capacity of the rural people. This document is developed as one of the knowledge products (KP) produced under Package C “Gender, Climate Change Mainstreaming and Monitoring and Evaluation” with the objective to monitor and evaluate the effectiveness and success of adaptation interventions in SNAs. The “Guidance on Development of Adaptation Indicators for Sub-national Development Plans” is designed to enhance capacity and knowledge of NCDD and sub-national administrations (SNA) in identification and implementation of M&E of adaptation as part of development and climate change planning and implementation by SNAs. It is built on existing SNA M&E framework by introducing generic analysis of climate change risks and potential adaptation options in medium term, a list of possible adaptation indicators, and an improved institutional arrangement for operationalization of a few adaptation indicators in the SNA planning cycle.

The current SNA M&E framework is organized in two levels: development planning level and project implementation levels. Currently climate change activities are mainstreamed in SNA development framework, therefore the guidance is developed by adapting to that framework. Unlike national and sector levels, there is no separate adaptation strategy and action plans for SNAs, though pockets of such plans may be found for a few districts and communes through the support of CSOs or development partners. Implementation and monitoring of projects supported by C/S funds is carried out through Project Implementation Manual. Project information is recorded in a Project Information Database (PID) which serves entry points for adding additional adaptation indicators. The NCDD has already developed database system for recording and monitoring various aspects of sub-national democratic development process.

The approach for development of adaptation indicators for SNA 5-years development plans (IP5) is to take stock of current climate change mainstreaming and integration in the DP5 and 3-year Rolling Investment Program (IP3), identify key adaptation activities and interventions/options, and to develop a set of potential adaptation indicators to fit those adaptation options. Possible adaptation options can be classified into the following groups:

- Adaptive capacity building and awareness of communities and sub-national administrations (SNA) on CCA and DRR,
- Climate resilient livelihoods (integrated farming/smart agriculture technique, improved rice yield, climate resilience crops, fisheries/aquaculture, forest, livestock, crop insurance, and climate resilience post-harvest infrastructure);
- Irrigation and water management for crops (climate resilience irrigation infrastructure, water use management, infrastructure maintenance, FWUC, commune ponds)
- Safe drinking water supply and sanitation (access to safe drinking water, hygiene and sanitation);
- Disaster Risk Reduction (earlier warning, health care and prevention of communicable diseases, DRR prevention and preparedness plans, safety ground, emergency response and recovery);
- Climate proofing of commune infrastructure (VRA, drainage, improved pavement)

- Mainstreaming CCA and DRR into SNA district and commune development plans.

The list may not be exhausted, additional options can be learned from international publications, as well as country experiences gained through various project implementation such as SPCR Investment Projects, SRL, LGCC, and ASPIRE.

Building on NCDD M&E system, a set of adaptation indicators is proposed, but subject to stakeholder consultation and resources. A matrix of indicators is designed here to measure indicators at output and outcome level, which correspond to two levels of M&E mentioned earlier.

Key Areas of Adaptation Measures	M&E Result Framework		Development theme/ sector
	Output	Outcome	
Adaptive capacity building and awareness	Number of staffs trained (commune/district and provincial people) on CC Adaptation and DRR % of communes having setup earlier warning system	Composite index of SNA adaptative capacity % of HH having access to EWS	Theme 3: Land Use, Natural Resources and Environment Theme 2: Social/
Climate resilient livelihoods	Number of farmers trained on climate smart agriculture/ integrated farming Number of farmers trained on new climate resilience crops and post-harvest technology Number of farmers participating in crop insurance Forest areas rehabilitated in commune	Number of farmers adopted smart agriculture Number of farmers adopted climate resilience crops Number of farmers adopted crop insurance schemes Number of farmers having rice yield improved	Theme 3: Economic/agriculture
Climate resilience Irrigation and water management for crops	% of communes covered by irrigation scheme Number of public ponds constructed	% of HH having access to year-round water supply % of farmers adopted water use efficiency techniques	Theme 3: Economic/Water resources
Safe drinking water supply and sanitation	% of commune having clean drinking water supply	% of HH having access to safe drinking water supply (existing)	Theme1: Economic/ rural development Theme 2: social/health

		% of commune having hygiene latrines (existing)	
Disaster Risk Reduction	% communes having DRR preparedness and prevention plans	Number of affected people % of most vulnerable communes having safety ground and emergency equipment	Theme 3: Land Use, Natural Resources and Environment
Climate proof commune infrastructure	% of communes trained on updated Project Implementation Manual incorporating climate proof design	% of SNA projects incorporating VRA and climate resilience design Length of climate resilience roads	Theme 1: Economic/Rural Road
Mainstreaming CCA and DRR into SNA district and commune development plans	% communes integrating CCA and DRR into development plans	Proportion of SNA budget for CC activities	Theme 3: Land Use, Natural Resource and Environment

These indicators can be adjusted based on specific adaptation plans and projects, and lesson learned from their implementation. However, only very few adaptation indicators is proposed for integration into 5 provinces as a test to see its feasibility and sustainability in terms of operationalization as part of development planning process. Those indicators are listed below:

1. Ratio of climate change expenditure (CCA, DRR) by SNA budget and CSO/NGOs;
2. Number of families having access to year-round water supplies for irrigation (ponds, irrigation schemes, ground water, rivers/streams);
3. Adaptive Capacity of SNAs for climate change adaptation and DRR mainstreaming can be monitored by breaking down to several sub-indicators. A simple check list (yes or no) can be designed for these sub-indicator as shown below:
 - 3.1 % of communes using VRA and PIM guidelines for integrating climate change consideration into commune development plans
 - 3.2 % commune having access to EWS and climate information
 - 3.3 % communes received training on VRA and CCA planning
 - 3.4 % communes having CCA and DDR plans/activities integrated into SNA plans
 - 3.5 % communes receiving assistance from CSOs and NGOs for climate change activities (CCA, DRR)
 - 3.6 % commune having regular budget for CCA/DRR activities
 - 3.7 % commune having access to irrigation schemes built by MOWRAM
 - 3.8 % commune having forest or wildlife conservation areas
 - 3.9 % commune having solid waste collection service
 - 3.10 % commune having sewage system and wastewater treatment facility

- 3.11 % commune having ground water/wells as supplementing water for domestic use
- 3.12 % commune having DBST and concrete roads
- 3.13 % commune involved in climate smart agriculture and integrated farming
- 3.14 % commune having high safety ground
- 3.15 % of commune having access to national grid.

Indicator 1 and 2 are straightforward, but the indicator 3 is a composite combining key adaptation capacity of the communes. Positive feedback on feasible data collection has been received during recent consultation with commune officers from Rukhakiri and Mong Russei Districts of Battambang province. Indicator can track progress in two tiers: qualitative and quantitative which are summarized in table below.

No	Name of Sub-Indicator	Qualitative	Quantitative (gender disaggregated)
3.1	% of communes using VRA and PIM guidelines for integrating climate change consideration into commune development plans	Yes/No	% of projects have VRA. % of CDPs have VRA.
3.2	% commune having access to EWS and climate information	Yes/No	Number of families
3.3	% communes received training on VRA and CCA planning	Yes/No	Number of families
3.4	% communes having CCA and DDR plans/activities integrated into SNA plans	Yes/No	Estimated budget
3.5	% communes receiving assistance from CSOs and NGOs for climate change activities (CCA, DRR)	Yes/No	Estimated planned budget
3.6	% commune having regular budget for CCA/DRR activities	Yes/No	Estimated budget
3.7	% commune having access to irrigation schemes built by MOWRAM	Yes/No	Number of families
3.8	% commune having forest or wildlife conservation areas	Yes/No	Areas of forest and wildlife conservation areas in the commune
3.9	% commune having solid waste collection service	Yes/No	Number of families
3.10	% commune having sewage system and wastewater treatment facility	Yes/No	Areas covered by sewage/and wastewater treatment plant
3.11	% commune having ground water/wells as supplementing water for domestic use	Yes/No	Number of protected wells
3.12	% commune having AC, DBST and concrete roads	Yes/No	Length of roads
3.13	% commune involved in climate smart agriculture and integrated farming	Yes/No	Number of families Yield of rice
3.14	% commune having high safety ground	Yes/No	Number of families use that safety ground
3.15	% of communes having access to national grid	Yes/No	Number of families connected with national grids

The guidance also suggests that a Provincial M&E working group can be established as part of Provincial Technical Facilitation Team, which has a broad mandate for both development planning as well as M&E. The new adaptation indicators can be added to the NCDD databases for online access. Capacity building and TOT training will target provincial department of planning (PDP) as well as SNA officers to ensure long term sustainability.

Abbreviation

ADB	Asian Development Bank
CC	Climate Change
CCA	Climate Change Adaptation
CCAP	Climate Change Action Plan
CCCA	Cambodia Climate Change Alliance
CCCSP	Cambodia Climate Change Strategic Plan
CCTWG	Climate Change Technical Working Group
CIF	Climate Investment Fund
CBADRR	Community Based Adaptation and Disaster Risk Reduction
CSO	Civil Society Organization
C/S	Commune/Sangkat
DCC	Department of Climate Change
DRR	Disaster Risk Reduction
DP5	Five Year Development Plans
DP	Development partners
EWS	Earlier Warning System
FWUC	Farmer Water User Committee
GCF	Green Climate Fund
GDP	General Directorate of Planning (MOP)
IP3	Three Years Rolling Investment Program
LGCC	Local Government and Climate Change Project
MOE	Ministry of Environment
MOH	Ministry of Health
MOP	Ministry of Planning
MOWA	Ministry of Women's Affairs
MOWRAM	Ministry of Water Resources and Meteorology
MRD	Ministry of Rural Development
MPWT	Ministry of Public Works and Transport
NAPA	National Adaptation Program of Action
NCDD	National Committee for Sub-national Democratic Development
NCDM	National Committee for Disaster Management
NCSD	National Council for Sustainable Development
NDF	Nordic Development Fund
NGO	Non-Governmental Organization
NIS	National Institute of Statistics (MOP)
NSDP	National Strategic Development Plan
NWGM&E	National Working Group for Monitoring and Evaluation (MOP)
PBRG	Performance Based Climate Resilience Grant
PPCR	Pilot Program for Climate Resilience
NRF	National Results Framework
SPCR	Strategic Program for Climate Resilience
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UN-HABITAT	United Nations Human Settlements Program

I. Introduction

Climate change impacts are felt on all sectors, affecting many people, especially those living in the rural areas. Therefore, climate change mainstreaming and action plans must be designed to improve adaptive capacity and living standards of rural people and the most vulnerable living in the country side.

Climate change mainstreaming is now well established at the national and sector levels resulting in adoption of 15 Climate Change Strategic Plans and Action Plans. However, progress remains slow concerning climate change mainstreaming at the sub-national levels, though several pilot projects such as Performance Based Climate resilience Grant, SRL (UNDP), and SPCR Projects (CSO Supporting Mechanism) have been implemented with the support of Development Partners, NGOs/CSOs and Sector Ministries.

Measuring effectiveness and success of adaptation measures is considered important ingredient of adaptation planning and implementation. M&E can improve learning and better planning, as well cost-effective implementation. Package C “Gender, Mainstreaming Climate Resilience at Sub-national level, and Monitoring and Evaluation” has the objective to enhance institutional capacity for integration of adaptation indicators at various levels, including sub-national provincial development plans. This document “Guidance on Integration of Adaptation Indicators in SNA Development Plans” is developed as a guidance for NCDDS and SNAs to design M&E Framework of adaptation for integration in five selected provinces.

The key principles for development of adaptation indicators for SNA development plans are similar to those proposed in the KP 10 “Guidance on Development of Adaptation Indicators for National and Sector Climate Change Action Plans”. This guidance provides an analysis of climate change mainstreaming in DPs as well as current SNA climate change projects, and suggest priority adaptation framework as main subjects for M&E of adaptation. However only a few adaptation indicators are proposed building on-going data collection system at the sub-national levels. The guidance can be refined and improved following lessons learned during this initial test, which will expand to cover other provinces in the next planning cycle. It is a good time for possible integration of adaptation indicators next year during the update of DPs following the SNA Council Elections.

II. Overview of Project Planning Process and Monitoring and Evaluation Institutional Responsibility at the Sub-national Levels

The term “Sub-national Level” here refers to those below the national level, meaning provincial, district and commune levels. At below-national level, or in other words at sub-national level, there are two administration lines of responsibility in project planning and implementation: i) the provincial, district and commune administrations (and councils) which report to NCDD and MOI, and ii) the line departments which report to respective ministries. While the two lines may have different approaches in project planning and implementation, there are potential dilution of responsibility in terms of project preparation, approval and implementation, and monitoring and evaluation at sub-national levels. Sections below provide a snapshot of planning process, institutional responsibility and M&E framework at the sub-national levels, which can be a basis for guiding development of M&E of climate resilience at this level.

2.1. Sub-national Development Plan and 3 Year Rolling Investment Program

The role and responsibility of the sub-national administrations are specified by the Organic Law dated 2008 as part of the democratic development process in Cambodia. The sub-national administrations (the provincial and district board of governors) shall be responsible for the effective management and utilization of state assets transferred to it or procured from its own means. The Councils however, which are elected in every five years, have the duties to make decisions and bylaws to serve the socio-economic development needs through democratic process. Of relevance to the development planning and M&E, the Councils are responsible for making decision on Three-year (3) rolling investment program and five-year (5) development plan of the council; and the Annual budget plan and expenditure plan for the mid-term period (Organic Law, 2008).

The Provincial and District/Khan Councils obligates to establish three committees and a board of governor. A board of governor is chaired by a Provincial Governor designated by a Royal Decree, while other board members are designated by a sub-decree. The three committees include i) Technical Facilitation Committee (TFC); ii) Women's and Children's Affairs Committee; and iii) Procurement Committee.

The Commune/Sangkat Councils are governed by a separate Law on Administration and Management of Communes and Sangkat (2001).

The SNA development plans (DP) are prepared on a five-year cycle for province, district and commune levels following the inter-ministerial Prakas signed by the Minister of Interior and Minister of Planning on "Technical Guidelines for Development of Provincial, District and Commune Development Plans" dated March 2017. Implementation of the DPs is carried out through the three-year investment programs (IP3), which are developed and updated at each level of SNA based on the joint Prakas on Technical Guidelines for Development of Three-Year Rolling Investment Program dated also March 2017.

It is important to note that the provincial development plan is not the sum-up of district, municipality and commune development plans, rather is the common development framework of sub-national administrations which combines key development goals of the ministries, line departments, agencies, civil societies, and private sector (Guidelines for DP 2017) who provide services, materials, funding and infrastructure for that purpose.

The Provincial Development Plan consists of four main chapters: 1) Socio-economic situation; 2) Five Years Development Framework of the Council; 3) Five Year Local Investment Program; and 4) Monitoring and Evaluation Framework. The M&E framework is designed to measure progress in three areas: investment framework (economic, social, environment/land use/climate change, and security), service framework, and regulatory framework.

The Board of Governor is in charge of coordination and development of the development plans and IP3 following the above guidelines. The Board of Governor is supported by the committees and the Planning and Investment Division set up under the Council.

The Provincial Department of Planning of MOP supports and coordinates planning process, provide technical support and capacity building for collection and maintaining of commune and district data, and assists in monitoring and evaluation.

The development plans of provincial line departments are included in the provincial development plans, and the line departments are also responsible for reviewing the technical feasibility of the projects

proposed in IP3 and DPs. Normally the detailed project proposals are developed later following the approval of the IP3, which lists only the project titles and budget estimates. The DP document consists of four main chapters as the following:

- Chapter 1 “Socio-economic Situation”: it describes the situation analysis and the challenge faced in each development theme – economic; social; land use, natural resources and environment; and administration and security themes.
- Chapter 2 “Development Framework”: it describes the development framework¹ addressing the key issues under each development theme identified in chapter 1. It has vision, goals, objectives and strategies to achieve the goals and objectives of each sector or development area.
- Chapter 3 “Local Investment Program”: it lists all local investment programs and projects.
- Chapter 4 “M&E Framework”: it describes the baselines and targets for tracking implementation progress of development plan.

Key development goals and objectives are listed in a standard format (see table 3), which also includes baselines and targets for each objective and solution. These baselines and targets are the M&E system to measure development progress, but they are not organized in database system yet. Annex 2 provides a list of development goals contained in Mong District Development 2015-2019 to illustrate the current practice of formulation of DP at district level, including some climate related activities.

Table 1: Development Framework and Indicators

Goals and Objectives	Solutions					Responsibility	Data sources
		Summary Description	Unit	2014 (present)	2019 (target)		
1. Economy							
Goals...							
Objective....							
2. Social							
Goals...							
Objectives...							
3. Land Use, Natural Resources and Environment							
Goals							
Objectives...							
4. Administration and Security							
Goals							
Objectives...							

¹ 1) Economy; 2) Social aspect; 3) Land use, Natural Resources and Environment (including DRR and climate change adaptation); and 4) Administration and Security;

Source: Battambang Provincial Development Plan

2.2 Sub-national Project Planning and Implementation

Project preparation and implementation using the commune/Sangkat local development funds is guided by a Project Implementation Manual adopted in 2009 by the National Committee for Democratic Development (NCDD). The Manual describes all the stages of C/S Fund² project implementation that includes the role of various agencies and stakeholders, project preparation, procurement, project implementation and project monitoring and evaluation. The important part of project preparation is the project screening against environmental impact assessment, land study and high land people safeguard measures. However, the manual does not include the procedure for climate change assessment or vulnerability reduction assessment (VRA), although it is provided in a separate guideline in the annexes of the Technical Guideline for Commune Development of Development Plan. It would be more practically useful if this manual includes a section on project screening against climate change impact and measures to mitigate the impacts.

Based on the review of the current PID, over 95% of commune projects are road infrastructure, and it is difficult also to say if these projects incorporate climate change consideration in the design.

III. Overview of Existing SNA Indicators under Provincial Development Plans

Current monitoring and evaluation framework under Provincial Development Plans and IP3 is organized in two levels: **Development Planning and Project Implementation**. At the planning level, key development and climate change related data and indicators are included in the Development Plans and IP3 of provincial, district and commune councils. Among 47 indicators specified by the Technical Guidelines dated March 2017 (see the annex), there are several indicators related to climate change adaptation outcome and climate change impacts (loss and damage), which can serve entry points for development of additional adaptation indicators for the SNA development plans. Five provinces with different geographic and climate risk characteristics are selected for testing adaptation indicators for integration into DPs and appropriate SNA levels. An analysis of the current Development Framework 2015-2019 of selected provinces (Battambang, Kg. Cham, Tbong Khmum, Takeo and Preah Sihanouk) is an important step to take stock of climate change planning and implementation, as well as M&E at the Sub-national levels, based on which a possible set of adaptation indicators can be identified for the next DP cycle.

Table 2: Existing Climate Change related Indicators of Sangke District Development Plan

Name of Indicators	Year			Source
	2012	2013	2014	
Number of people highly affected by storm	9	8	6	NCDM
Number of dead people of storm	0	0	0	NCDM
Number of families heavily affected by floods	965	4,988	389	NCDM
Number of people heavily affected by floods	4,509	23,425	1,025	NCDM

² The C/S Funds composes administration fund and local development fund.

Number of dead people of floods	3	1	1	NCDM
Rice areas affected by floods	15	7,497	650	PDAFF
% of rice areas affected by floods		20.5	10.5	PDAFF
Number of families heavily affected by droughts	0	878	880	NCDM
Length of road damaged by floods	52.62	66.685	409	PDPWT
Number of bridges damaged by floods		4	0	PDPWT
Rice areas affected by droughts	0	0	4,410?	PDAFF
Rice areas affected by pest (mice)	30	15	15	PDAFF
Number of families having waste collection service	184	185	252	PDOE
Number of families affected by environmental pollution?	234	311	186	PDOE

Source: Sangke Development Plan 2015-2019

At the Implementation Level, project formulation and implementation is guided by a Project Implementation Manual dated March 2017. Normally all commune projects are developed in more detailed following the DP and IP3, which only provide a wish list of project titles and activities. Project Implementation Database (<http://db.ncdd.gov.kh/pid/reports/monitoring/contractsummary>) records all projects information, including procurement process, environmental and social screening, cost estimate, project output, source of funding and project beneficiaries. Most of commune projects (95%) in the PID are related to road construction (laterite and concrete road), very few are related to climate change activities such as training on fish raising as shown in summary table below. This can be explained by the facts that most SNA projects are implemented by provincial line departments due to specific technical requirements, while commune chiefs are responsible for administration, security and social order. All commune projects must pass technical evaluation and environment safeguard carried out in consultation with respective line departments.

Table 3: Project Information extracted from some projects in 5 provinces (PID)

Name of Projects	Location	Sector	Beneficiaries	Objective	Cost, Riel	Output	Date
Earth canal	Wat Tamoem Commune Sangke District Battambang	Economy Irrigation Infrastructure	Total=5,518 Female=2904 Families=1181	Enhancing living standard	Canal=12,603,400 Culvert=7,359,500	Length=1450m Width=3.7m Depth=0.9m	2010
Concrete road	Ou Oknhaheng Khna Prey Nop, Preah Sihanouk	Economy/ Infrastructure	Total=2414 Female=1244 Families=494	Mobility	372,291,002	Length=0.23Km Width=4.0m	2016
Flood Protection Embankment	Kampong Seila, Preah Sihanouk	Economy/flood protection	Total=966 Female=101 Families=420	Flood protection	452,294,406	Length=0.03Km Width=4.0m	2014
Canal	Kiri Chong Koh commune, Kirivong	Economy/irrigation/ Infrastructure	Total=3,344 Female=1792 Families=754	Irrigation	60,739,417	Chek=0.55Km Chambak Tim=0.645Km	2012

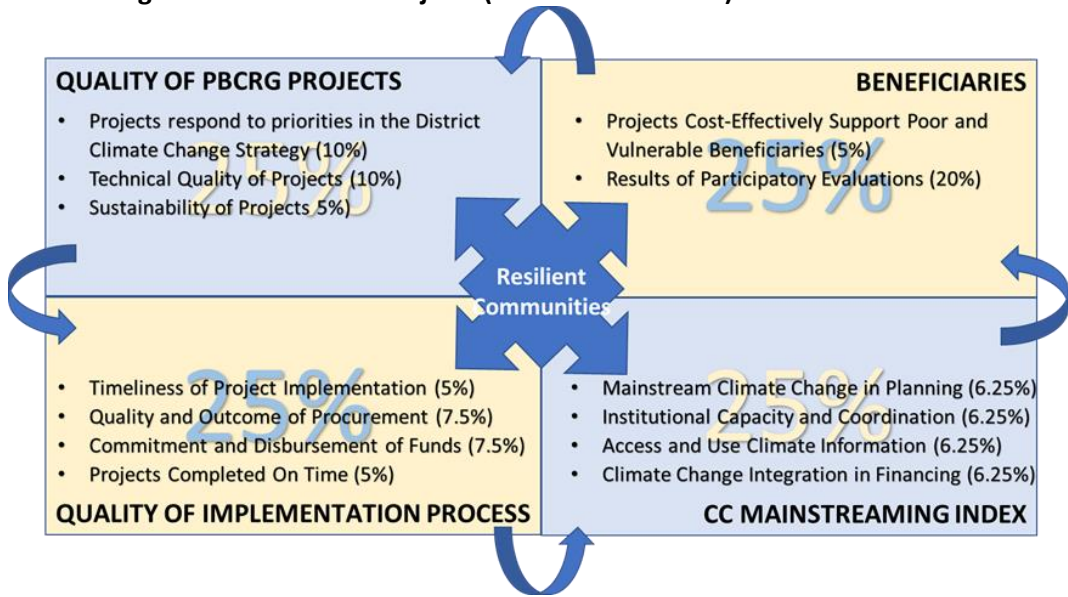
	District, Takeo province.					Prey Tamao=2085Km	
Concrete road	Sangkat Koh Pir, Kroch Chhmar district, Tbong Khmum province	Economy/ Infrastructure	Total=623 Female=301 Families=151	Mobility	50,351,300	0.470Km	2011
Concrete road	Sangkat Koh Mit, Kampong Siem district, Kamong Cham province	Economy/ Infrastructure	Total=1044 Female=548 Families=201	Mobility	68,141,080	0.18Km	2015

Source: NCDD PID.

The PID list all projects under each commune, and provide hyper link to detailed project information (Budget, Beneficiary, Outputs & Estimated Cost, and Technical Clearance). A quick analysis of those infrastructure projects has indicated a lack of climate consideration in the design, though they are screened against social and environmental impacts (see annex 3). Table 3 above lists some of the CC related projects with key project information that can be a basis for monitoring SNA adaptation projects.

Along with PID system, NCDD has also implemented the concept of Performance Based Climate Resilience Grant (PBRG) building on implementation of Local Government and Climate Change Project (LGCC). The Performance Measures used in LGCC are summarized in figure 1 below, which measures the quality of projects, the beneficiaries, the implementation process and climate change mainstreaming index. The PBRG would allow NCDD and SNA to have access to global financial mechanism such as Green Climate Fund in anticipation of accreditation.

Figure 1: Scoring Practice for PBRG Projects (draft PBRG manual)



The PBRG consist of Basic Allocations³ (75%) and Performance Allocations (25%). Besides, current funding of the SNA CC activities comes from three additional sources: SNA budget, Development Partners through Technical Departments/Ministries, and NGO/CSOs. The performance allocation is decided based on scores of each SNA and the year-on-year performance improvement as set out in the figure 1. There are several indicators can be extracted such as the CC Mainstreaming Index and Project Beneficiaries.

IV. Development of Suitable Adaptation Indicators for integration in Provincial Plans and Commune Plans of 5 Selected Provinces

4.1 Overview of Key Adaptation Activities contained in the Provincial development Plans

The development framework of DP comprises four categories: i) economic, ii) social, iii) land use, natural resource and environment (including climate change), and iv) administration and security. Activities of line departments fall in category I, ii, and iii, where climate activities can be found across all these categories. Most of climate change activities are related to awareness and capacity building, agriculture productivity improvement, drinking water supply and sanitation. Table 4 below provides an illustration of road construction, which can be considered relevant to climate change adaptation, though the main goal is to improve mobility of people.

Table 4: Example of Mong District Development Framework under one goal (See also annex 2)

Goals and Objectives	Solutions	Indicators				Responsibility	Data sources
		Summary Description	Unit	2014 (present)	2019 (target)		
1. Economy							
Goal 1.7 good roads for traveling							
Objective 1.7.5: asphalt road	1.7.5.1 Construction of asphalt roads		Km	18	90	Rural development office	Rural development office
Objective 1.7.6: concrete roads	1.7.6.1 Construction of concrete roads		Km	0.2	1	Rural development office	Rural development office
Objective 1.7.7: having bridges or culverts for drainage	1.7.7.1 Construction of bridges or culverts		Place	18	43	Rural development office	Rural development office

³ The “top up” amount from the PBCR Grant is proportionate to the general resources; and The C/S Fund and D/M Fund are allocated based on population, poverty etc, so the Basic Allocation of the PBCR Grant automatically includes these factors (i.e. a poor District gets more C/S Fund, so it automatically gets more PBCR Grant as well).

4.2 Analysis of Climate Risks and Possible Adaptation Measures

Based on various consultation, including the results of recent group discussions by province during a training workshop held on 5-6 September 2018 in Takeo, most climate risks are associated with floods, droughts and storms, which are listed by province below. However, Preah Sihanouk and Takeo are also vulnerable to sea level rise (although not an immediate concern) and saline intrusion, which can have effects on agriculture.

Group 1 – Takeo Province:

Risk of climate change events in each province:

- Flood
- Drought
- Strong windy/storm
- Lightning

Response measure and climate change mainstreaming:

- Flood: Build safety high land, rehabilitate or build canal for water drainage, awareness raising on hygiene, rehabilitate or build road that resilient to climate change.
- Drought, Strong Windy, and Lightning: Restore canals, dig pond and well, plant more trees, preservation of flooded forest and forest, reduce gasoline consumption, encourage the use of renewable energy, awareness raising on impact of climate change.

Budget mechanism for climate change adaption project at sub-national level:

- Seek development partners and donors.
- Integrate climate change adaption programme in the commune investment programme.
- Create community fund in the area.

Group 2 – Battambang Province:

Risk of climate change events in each province:

- Flood (damage to crop, road,...)
- Drought (damage to crop,...)

Response measure and climate change mainstreaming:

- Organize meetings to create disaster management committee.
- Organize meetings to agree on development plans.
- Organize data collection workshop and update progress of the development plan and three-year rolling investment program.
- Organize the meetings to validate data, approve, and publish the data.
- Organize launching workshop of the data.

Budget mechanism for climate change adaption project at sub-national level:

- Allocate budget in district and commune/sangkat three year rolling investment program for implementation of the climate change projects.
- Raise fund from development partners and private individuals.
- Integrate climate change adaption programme in the commune investment programme.
- Create community fund in the area.

Group 3 – Kampong Cham Province:

Risk of climate change events in each province:

- Flood: Mekong River Flood,
- Drought
- Strong Windy or Storm
- Lightning,
- Increase in temperature,
- Changes of seasonal rainfall

Response measure and climate change mainstreaming:

- Before disaster events: Formulation of committee, dissemination, and preparedness.
- During disaster: Disaster respond including evacuation of the families and property.
- After disaster: Collection of disaster loss and damages, integrate adaption measures in the investment program.

Budget mechanism for climate change adaption project at sub-national level:

- Allocate budget from the Government;
- Seek fund from development partner;
- Seek fund from generous persons;
- Project formulation;
- Prepare action plans and budget plan to be integrated into the development annual plan and three-year rolling investment program.

Group 4 – Tbong Khmum Province

Risk of climate change events in each province:

- Flood
- Drought
- Strong Wind or Storm
- Cause of forest degradation

Response measure and climate change mainstreaming:

- Flood: Create disaster management committee, create high ground area, rehabilitate and build public infrastructure, and promoting agriculture extension.
- Drought and Strong Wind: Replanting trees, awareness raising on impact of forest degradation.

Budget mechanism for climate change adaption project at sub-national level:

- Integrate and prioritize the climate change adaptation program in the investment program of the sub-national administration council.
- Raise fund from development partners, NGOs, and generous person.

Group 5 – Preah Sihanouk Province

Risk of climate change events in each province:

- Flood at some districts
- Too hot weather
- Frequently strong wind
- Drought
- Frequently lightning

Response measure and climate change mainstreaming:

- Rehabilitation of canal, sewage, and drainage
- Plant more trees
- Build climate proof infrastructure
- Dissemination of climate change information
- Dissemination of garbage management

Budget mechanism for climate change adaption project at sub-national level:

- District and commune fund
- Fund raising from NGOs and generous person

The current climate change activities, including climate resilience design, are still limited, perhaps due to limited capacity and funding. Most of the SNA officers are still difficult to distinguish climate change adaptation from the business as usual practices. A collection of specific good local adaptation options can be learned from various publications such as UNFCCC (2016) and UK Impacts Program (see references), but they should be made available in local language.

The current commune budget remains low, though it has a trend of year-on-year increase, and but it is subject to many competing priorities⁴ for improving public services. Road construction and upgrade remain of high priority (95% of PID is road reconstruction), in addition climate change consideration is hardly visible in the current design. Nevertheless, as there is high potential for NCDD and SNAs to access to various international funding options, some priority adaptation options can be identified building on climate change activities of DPs as listed in the following:

- Adaptive capacity building and awareness of communities and sub-national administrations (SNA) on CCA and DRR,
- Climate resilient livelihoods (integrated farming/smart agriculture technique, improved rice yield, climate resilience crops, fisheries/aquaculture, forest, livestock, crop insurance, and climate resilience post-harvest infrastructure);

⁴ About 30% of total commune budget is allocated for investment, the rest for administration and salary. The commune budget has been increased however, and some communes have external funding support through CSOs and Development Partners to offset the budget deficit for climate change.

- Irrigation and water management for crops (climate resilience irrigation infrastructure, water use management, infrastructure maintenance, FWUC, commune ponds)
- Safe drinking water supply and sanitation (access to safe drinking water, hygiene and sanitation);
- Disaster Risk Reduction (earlier warning, health care and prevention of communicable diseases, DRR prevention and preparedness plans, safety ground, emergency response and recovery);
- Climate proofing of commune infrastructure (VRA, drainage, improved pavement)
- Mainstreaming CCA and DRR into SNA district and commune development plans.

4.3 Possible Adaptation Indicators for Integration into SNA Development Plans

The SNA climate change mainstreaming and possible adaptation measures can be centered around key areas as described above. Implementation of these adaptation activities can be dispersed among line departments, CSOs/NGOs and the commune/district councils, therefore adaptation indicators must be consulted and agreed among the key stakeholders. Data collection involves cost and thus appropriate budget planning and human resources should be in place.

Additional adaptation indicators can be designed for SNA development plans building on the existing indicators and reflecting new adaptation measures integrated in the commune/province development plans.

Table 5: Possible Adaptation Indicators

Key Areas of Adaptation Measures	M&E Result Framework		Development theme/ sector
	Output	Outcome	
Adaptive capacity building and awareness	Number of staffs trained (commune/district and provincial people) on CC Adaptation and DRR % of communes having setup earlier warning system	Composite index of SNA adaptative capacity % of HH having access to EWS	Theme 3: Land Use, Natural Resources and Environment Theme 2: Social/
Climate resilient livelihoods	Number of farmers trained on climate smart agriculture/ integrated farming Number of farmers trained on new climate resilience crops and post-harvest technology Number of farmers participating in crop insurance Forest areas rehabilitated in commune	Number of farmers adopted smart agriculture Number of farmers adopted climate resilience crops Number of farmers adopted crop insurance schemes Number of farmers having rice yield improved	Theme 3: Economic/agriculture

Climate resilience Irrigation and water management for crops	% of communes covered by irrigation scheme Number of public ponds constructed	% of HH having access to year-round water supply % of farmers adopted water use efficiency techniques	Theme 3: Economic/Water resources
Safe drinking water supply and sanitation	% of commune having clean drinking water supply	% of HH having access to safe drinking water supply (existing) % of commune having hygiene latrines (existing)	Theme1: Economic/rural development Theme 2: social/health
Disaster Risk Reduction	% communes having DRR preparedness and prevention plans	Number of affected people % of most vulnerable communes having safety ground and emergency equipment	Theme 3: Land Use, Natural Resources and Environment
Climate proof commune infrastructure	% of communes trained on updated Project Implementation Manual incorporating climate proof design	% of SNA projects incorporating VRA and climate resilience design Length of climate resilience roads	Theme 1: Economic/Rural Road
Mainstreaming CCA and DRR into SNA district and commune development plans	% communes integrating CCA and DRR into development plans	Proportion of SNA budget for CC activities	Theme 3: Land Use, Natural Resource and Environment

The list is not exhausted and can be adjusted to reflect the emergence of climate change adaptation needs of each SNA level.

V. Operationalization and Data Requirements

5.1 SNA Institutional Arrangement for M&E

The M&E institutional arrangement is organized following the Organic Law as well as Project Implementation Manual (NCDD, 2009). Below is an existing institutional arrangement for SNA M&E framework.

C/S Council

The C/S Council is responsible for monitoring the implementation of the C/S Development Plan and to approve the Annual Report of the C/S Council, prepared by the C/S Chief.

Individual Councilors may also take part directly in monitoring tasks. In particular, one member of the Council and one member of the Planning and Budgeting Committee will be nominated as the Commune/Sangkat Focal Point for Monitoring and Evaluation (NCDDS 2009, “Commune/Sangkat Fund Project Implementation Manual”).

C/S Chief

The C/S Chief is responsible for implementation of the plan and preparing monthly and annual Reports of the C/S Council. The C/S M&E Focal Point will assist the C/S Chief in the preparation of these reports.

The Commune Sangkat M&E Focal Point

- coordinate all monitoring and evaluation activities in the Commune/Sangkat.
- cooperate with relevance institutions to train the other C/S Councilors and Planning and Budgeting Committee (PBC) in the basics of C/S monitoring and evaluation in their Commune/Sangkat.
- regularly monitor the progress of contracts in their Commune/Sangkat. She or he should visit the project site at least one time per week and should discuss with the Technical Supervisor and the Project Owner’s Representative, in order to monitor the progress of the contract.
- encourage people living in the Commune/Sangkat to take part in monitoring and evaluation activities.
- report on the progress of implementation and indicate if there are problems to C/S Council or the PBC in the regular meetings.

Provincial/Municipal Local Administration Unit ((P/MLAU)

P/MLAU is responsible for overseeing and assisting the implementation of monitoring and evaluation of C/S Councils in accordance with approved guidelines from the Ministry of Interior.

P/MLAU monitor the progress of all C/S contracts implementation by comparing the progress reports information with the provincial/municipal treasury monthly cash situation summary reports and reporting the results of this comparison to the Ministry of Interior. All commune projects are recorded in the Project Implementation Database (PID) managed by the P/MLAU according to the procedures of PID Manual.

The District Facilitation Team or the Provincial Facilitation Team (DFT/PFT) performs monitoring tasks for C/S Services contract implementation on behalf of the Provincial/ Municipal/Governor.

Provincial Line Departments

The role of Provincial line departments is to provide sector development goals, objectives and solutions, as well as associated indicators to be updated on an annual basis. The Provincial Department of Planning plays an important role in formulation of SNA development plans and commune data collection as an information base for that purpose. The other line departments are responsible for provision of technical inputs and sector indicators as specified in the development framework. There is some overlapping of responsibility for data collection by different commune officers and technical officers of line departments.

5.2 Data Collection and Operationalization of Proposed Indicators

NCDD database system is well established which is accessible online, though update of those data may not be timely for each database or some databases are still in progress of construction. The NCDD Database contains 9 databases, including Project Information Database (pID), Gazette (gZ), Commune Database (cDB), Commune Council Development (cCD), Library (Lib), Bidding Announcement (BID), Implementation of Social Accountability Framework database (iSAF), District/Municipality/Khan M&E Internal Framework (DMK M&E), and Sub-national Project database (sPD). These databases are accessible online. PID, GZ, CDB, CCD, and SDP are of relevance to the M&E of adaptation at the sub-national administrations (SNAM&E/CC). Currently, NCDD team is working to include specific climate change related projects in both mitigation and adaptation terms.

The PID and SDP⁵ can list all projects implemented by SNAs as well as line departments consistent with the 3 Year Rolling Investment Programs. A number of projects implemented by Commune/Sangkat funds are extracted for assessment of climate related projects.

Figure 2: NCDD Databases Page



NCDD Databases

Source: <http://db.ncdd.gov.kh/>

The current commune database (CDB) contains so many variables, which can be cumbersome for commune clerks to collect. The commune data is used to prepare commune and district profiles and for analysis of socio-economic situation and development framework. However a review may be conducted to assess the current collection approach and application of commune database for different purpose, including climate change related indicators. It would be pragmatic if CDB can be adapted to the current key SNA data (Annex 1) and other emerging needs. Commune data is collected every year through data log books disseminated to villager and commune chiefs under the instruction of Provincial Department of Planning. This commune database is also included in the NCDDs web-based database management system (<http://db.ncdd.gov.kh/>).

The data collection by SNA officers are more related to population census (number of people by age, sex, people welfare, and ownership) and administration and security (drugs, violence...), while other sector indicators such as access to electricity, drinking water...etc. are provided by line departments (see the table 3). However, it is possible that commune and village clerks can be trained to collect sector data and indicators, but quality control must be put in place.

⁵ SDP has been recently added.

The PID records only small commune projects funded by commune/Sangkat fund through national transfer, as well as funding from development partners and CSOs. Most of the projects are commune roads⁶ connecting between villages.

The proposed adaptation indicators can be consulted and agreed with line departments and stakeholders before putting into operation. A few adaptation indicators can be selected from table 5, which is consistent with PID and PBRG, for the five provinces as listed below.

1. Ratio of climate change expenditure (CCA, DRR) by SNA budget and CSO/NGOs;
2. Number of families having access to year-round water supplies for irrigation (ponds, irrigation schemes, ground water, rivers/streams);
3. Adaptive Capacity of SNAs for climate change adaptation and DRR mainstreaming can be monitored by breaking down to several sub-indicators. A simple check list (yes or no) can be designed for these sub-indicator as shown below:
 - 3.1 % of communes using VRA and PIM guidelines for integrating climate change consideration into commune development plans
 - 3.2 % commune having access to EWS and climate information
 - 3.3 % communes received training on VRA and CCA planning
 - 3.4 % communes having CCA and DRR plans/activities integrated into SNA plans
 - 3.5 % communes receiving assistance from CSOs and NGOs for climate change activities (CCA, DRR)
 - 3.6 % commune having regular budget for CCA/DRR activities
 - 3.7 % commune having access to irrigation schemes built by MOWRAM
 - 3.8 % commune having forest or wildlife conservation areas
 - 3.9 % commune having solid waste collection service
 - 3.10 % commune having sewage system and wastewater treatment facility
 - 3.11 % commune having ground water/wells as supplementing water for domestic use
 - 3.12 % commune having DBST and concrete roads
 - 3.13 % commune involved in climate smart agriculture and integrated farming
 - 3.14 % commune having high safety ground
 - 3.15 % of commune having access to national grid.

Collection of data for indicator 3 can be organized in 2 tiers, quality and quantity (table 6). The first tier will check if communes have yes or no response, or score either 1 or 0. Tier one can compute % of communes having positive feedbacks and assesses the degree of adaptive capacity. This data can be visualized in map (cam-crds.nis.gov.kh) so that key elements of adaptation capacity can be obtained. The second tier will compile quantity to measure the beneficiaries, the efficiency or the coverage of the adaptation capacity of each commune. The quantitative data can further classify the adaptive capacity of communes into four levels: low (0-25), moderate (26-50), high (51-75), very high (76-100).

Table 6: Adaptive Capacity of SNA communes

⁶ Roads with width of less than 3 meters can be built by communes through local supplies, while roads with width of more than 3 meters are the responsibility of Provincial Department of Rural Development.

No	Name of Sub-Indicator	Qualitative	Quantitative (gender disaggregated)
3.1	% of communes using VRA and PIM guidelines for integrating climate change consideration into commune development plans	Yes/No	% of projects have VRA. % of CDPs have VRA.
3.2	% commune having access to EWS and climate information	Yes/No	Number of families
3.3	% communes received training on VRA and CCA planning	Yes/No	Number of families
3.4	% communes having CCA and DDR plans/activities integrated into SNA plans	Yes/No	Estimated budget
3.5	% communes receiving assistance from CSOs and NGOs for climate change activities (CCA, DRR)	Yes/No	Estimated planned budget
3.6	% commune having regular budget for CCA/DRR activities	Yes/No	Estimated budget
3.7	% commune having access to irrigation schemes built by MOWRAM	Yes/No	Number of families
3.8	% commune having forest or wildlife conservation areas	Yes/No	Areas of forest and wildlife conservation areas in the commune
3.9	% commune having solid waste collection service	Yes/No	Number of families
3.10	% commune having sewage system and wastewater treatment facility	Yes/No	Areas covered by sewage/and wastewater treatment plant
3.11	% commune having ground water/wells as supplementing water for domestic use	Yes/No	Number of protected wells
3.12	% commune having AC, DBST and concrete roads	Yes/No	Length of roads
3.13	% commune involved in climate smart agriculture and integrated farming	Yes/No	Number of families Yield of rice
3.14	% commune having high safety ground	Yes/No	Number of families use that safety ground
3.15	% of communes having access to national grid	Yes/No	Number of families connected with national grids

VI. Adaptation Data Sharing Protocol and Proposed Institutional Coordination

To facilitate cost-effective data collection, data sharing must be agreed among key stakeholders. Several data and variables can be found in both commune database and also in databases of line departments. Therefore, coordination for data collection and quality control is important.

Development of M&E of adaptation for SNA should be built on the existing database systems, including construction of baselines and targets. Some climate change related indicators can be improved in terms

of collection practice and quality control. A few priority adaptation indicators can be added as suggested in section 5. Feedbacks from consultation during roll-out training with commune councilors in Battambang (13 December 2018) have indicated feasible data collection for those indicators, therefore data can be included in the commune data log book.

The Provincial Department of Planning (PDP) is vested with broad mandate to facilitate formulation of Development Plans as well as collection of commune data. The current practice at the central level is that data collection is arranged within two General Directorate: General Directorate of Planning and National Institute of Statistics. Both DGs provide technical guidance on data collection to the provincial department of planning, and in turn the PDP outreach the practice to SNAs. The PDP should play a coordination role to compile indicators from all line departments, which will be integrated into development plans. Training on data collection for new adaptation indicators shall be provided to PDP staff so that they can further instruct the commune and village staff for data collection. The PDP staff will compile all data and put into database.

District Facilitation Team can be a focal point for compilation and review of all indicators compiled from the communes. A formal Provincial M&E working group (PM&EWG) may be established at the provincial level or in the Provincial Facilitation Team with the same members assigned from districts and line departments, and a permanent secretary assigned from PDP. This PM&WG shall meet to validate all indicators during at least once meeting every year. Data and adaptation indicators can be shared through NCDD database online.

VII. Conclusion and Recommendations

Climate change mainstreaming is taking root in the sub-national administration evidenced by adoption of guidance manuals for development and climate change planning by NCDD. However, M&E Framework of adaptation is still new for all levels, no exclusion for SNAs. It does not mean that there are no relevant adaptation indicators exist in the SNA M&E framework. The NCDD database system offer a good entry point for bringing in priority adaptation indicators, as well as improvement of the existing data collection practice. This guidance manual can assist NCDD and SNA officers to design a suite of adaptation indicators to track progress of climate change implementation at the sub-national levels. Five provinces, namely Battambang, Kampong Cham, Tbong Khmum, Takeo and Preah Sihanouk are selected to integrate a few adaptation indicators as proposed in the guidance. The indicators can be adjusted based on lessons learned, therefore this guidance is regarded as a living document for improvement. Later integration of adaptation indicators can be expanded to cover other provinces during the next cycle of provincial development planning.

Since data may come from different stakeholders such as line technical departments, institutional coordination should be enhanced so that data and indicators are reliable and of good quality. A Provincial M&E working group may be established as part of the Provincial Facilitation Team. The provincial department of planning should continue to play a facilitation and coordination role in data collection for development planning and M&E. Capacity building, together with budget allocation, should be in place to ensure sustainable operation of M&E of adaptation.

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Annex 1: Key Data for SNA Development Plans (DP) and 3 Year Rolling Investment Program (IP3)

Table 6: Key Data for Provincial Development Plan

		Preah Sihanouk		Kg Cham		Takeo	
		Year					
		2013	2014	2013	2014	2013	2014
A	General Information						
1	Areas (km2)		2658.90		4548.09		3556,2.7
2	Number of districts		04		09		10
3	Number of communes		27		105		100
4	Number of villages		111		916		119
5	Number of households		43,348		251,458		208,221
6	% of female headed households		12.98		15.51		18.36
7	Total population		208,232		1,097,085		991,947
8	Number of females		105,684		562,193		508,968
9	Number of males		102,548		534,892		482,982
10	% of population aged from 0 to 17 years		38.57				
11	% of population aged from 18 to 60 years		54.72				
12	% of population aged from 61 years		6.71				
13	Population growth %		2.10		0.033		1.32
14	Poverty rate		15.03		19.74		17.52
15	% of people having main occupation in agriculture		38.50		77.02		79.01
16	% of people having main occupation in industry/handicraft		61.50		2.79		
17	% of people having main occupation in service		38.50		7.39		
18	% of people having work in country						
19	% of people having work outside country						
20	% of people having access to electricity		82.24		62.36		55.65
B	Education						
21	% of children aged 3-5 years enrolled in schools		61.72		85.87		85.37
22	% of children aged 6 years enrolled in schools		8.60	86.68	84.35		
23	% of children aged 6-11 years enrolled in schools		9.70	83.11	84.10		91.37
24	% of children aged 12-14 years enrolled in schools		2	83.98	84.45		

25	% of people aged 15-17 years can read			93.65	95.81		
26	% of children aged 18-45 years can read			91.79	92.32		
C	Health						
27	Number of Health Centers		13	87	87		
28	% of women delivering birth by midwives		92.17	95.71	96.1		98.37
29	% of pregnant women died after one month delivering birth per 1000		0.80	3.06	4.36		4,47
30	% of babies died after one month of birth per 1000		1.20	2.58	1.89		1.90
31	% of babies having all vaccination during 9-12 month		97.5	94	98.71		97.72
32	Number of families having HIV				754		
D	Vulnerability						
33	Number of disabled				4719		
34	% of disabled without job			6.28	6.08		
35	Number of orphanage with parents died of HIV			1.90	1.81		
36	Number of elder people without support				235		
	Natural resources, environment, and adaptation measures						
37	Number of households affected by storm						
38	Number of households affected by floods						
39	Number of households affected by drought						
40	% of households having waste collection services			2.18	2.08		0.45
41	% of households having clean water (criteria below)		72.40	72.35	81.52		5.33
41.1	% of households having pipe water			57.62	67.62		41
41.2	% of households having pumping wells/or wells				23.90		n/a
41.3	% of households having wells with protection				18.5		40.89
41.4	% of households having rainwater with protection				n/a		n/a
42	% of households having hygiene latrines		67		70		34.34
E	Administration, security and order						
43	Percent of children with birth registration		70.50	69.1	67.1		68.56

44	Number of families with family violence		272	2,127	1,674		2,241
45	Number of dead people caused by road accidents		84				
46	Number of dead people caused by other violence			65.72	61.84		
47	Number of households with members addicting drugs						

Source: Technical Guidelines for Preparation of Development Plan (NCDD, March 2017)

Annex 2: Development Framework and Goals of Mong District Development Plan

a) Economy

- 1.1 Increased rice yields
- 1.2 Good and stable price of agricultural commodity
- 1.3 Increased integrated agriculture system
- 1.4 Strengthened effective animal health care and husbandry
- 1.5 Effective fisheries law
- 1.6 Increased flooded forest and fisheries
- 1.7 Good roads for traveling

b) Social

- 2.1 Increased children enrollment in kindergarten
- 2.2 Increased enrollment of secondary schoolchildren and good education
- 2.3 Increased knowledge of school children
- 2.4 100 % children with 6 years old enrolling in schools
- 2.5 Children have sufficient schools and class rooms
- 2.6 Expansion of non-formal education
- 2.7 Increased enrollment of children with reading ability
- 2.8 Pregnant women receiving information and cooperation with village supporting team
- 2.9 Reduced communicable diseases
- 2.10 Having clean water
- 2.11 Poor people having latrines

- 2.12 Increased number of schools with clean water and latrines
- 2.13 Better high safety ground
- 2.14 Poor families identified by IDpoor (31%) having better livelihoods
- 2.15 Reduced family violence
- 2.16 Retired civil servants having regular pension
- 2.17 Relatives of military personnel are updated
- 2.18 Reduced violence and trade on children and women
- 2.19 Curtailing the use of children labors

c) Land Use, Natural Resources and Environment

- 3.1 Reduced disaster impacts
- 3.2 Reduced impacts of climate change on people
- 3.3 Reduced disasters to the lowest level
- 3.4 Good environmental sanitation
- 3.5 Better environment
- 3.6 Reduced land conflicts
- 3.7 Better land use and management
- 3.8 Better construction permits following the land law
- 3.9 Increased fish population
- 3.10 Increased awareness among people on aquatic biodiversity in water and natural lakes

Objectives under theme Land Use and Environment

- 3.1.1 Having forest
- 3.2.1 Knowledge on climate change among people
- 3.2.2 Having protection measures against climate change
- 3.3.1 Having deep canals
- 3.3.2 Having forest
- 3.4.1 Having bins for solid waste collection
- 3.4.2 Having environmental sanitation and cleaning
- 3.4.3 Good solid waste collection
- 3.5.1 People better aware about environmental law

3.5.2 People know about environmental impacts

3.6.1 Public awareness about relevant laws

3.6.2 Issuing land titles

3.7.1 Stopping land grabbing

3.8.1 Enforcement of Construction law

3.9.1 Having forest and flooded forest

3.9.2 Protecting fish stock

3.10.1 Awareness about biodiversity

Annex 3: List of Projects in Koh Pir Commune, Kroch Chhmar, Tbong Khmum Province and a Project Information of Mass Concrete Road Upgrade

Koh Pir commune, Kroach Chhmar, Tbong Khmum					
Project's Name	Nature of Project	Sector \ Sub-Sector	Technical Assistant	Created By	Related contract(s)
Concrete road - repairing	Infrastructure	Economic \ Rural Transport	Ly kham Chuor	Chheth Bunloeur	030904/09/01-01
Steel-reinforced concrete road	Infrastructure	Economic \ Rural Transport	Him Huon	Om Ponnaka	030904/10/01-01
Mass concrete road upgrade	Infrastructure	Economic \ Rural Transport	Him Huon	Om Ponnaka	030904/11/01-01
Steel-reinforced concrete upgrade	Infrastructure	Economic \ Rural Transport	Him Huon	Om Ponnaka	030904/12/02-01
Steel-reinforced concrete upgrade	Infrastructure	Economic \ Rural Transport	Him Huon	Om Ponnaka	030904/12/01-01
Steel-reinforced concrete upgrade	Infrastructure	Economic \ Rural Transport	Mom Vibol	Om Ponnaka	030904/13/01-01
Steel-reinforced concrete road	Infrastructure	Economic \ Rural Transport	Mom Vibol	Om Ponnaka	030904/14/01-01
Steel-reinforced concrete road	Infrastructure	Economic \ Rural Transport	Cheas Teng	Phan Sokchea	
Earth road repair	Infrastructure	Economic \ Rural Transport	Cheas Teng	Phan Sokchea	250204/16/01-01

Project outputs and estimation cost (Form 14/15) of mass concrete road					

Nr.	Village	Description	Qty	Unit Cost	Total	Operations
1	Chuur Kandal	Mass concrete road Upgrade [1010202]	0.420 km	124,862,419	52,442,216	
		Dimension #1 : 3.000 Width (m)				
		Dimension #2 : 1,000.000 Thickness of concrete (mm)				
Estimated cost					52,442,216	

Annual budget available					
Calendar Year	National Transfer *	Local Revenue	Carry Over	Other	Total
2012	52,442,216	300,000	0	0	52,742,216
opened on 10-Jul-2012 with 4 contractor(s) contract awarded 030904/12/01-01					
* Budget planned : partial amount from intergovernmental transfer					
* LOC. Revenue : Local revenue if available.					
Mark source of fund to be use					
Commune/Sangkat Fund					
Local Contribution					
Project Detail Information					
Beneficiary:					
No	Village	Beneficiary		Households	
		Total	Women		
1	Chuur Kandal	625	310	147	
Total		625	310	147	