



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET

**Naoko Ishii**  
CEO and Chairperson

July 07, 2014

Dear SCCF Council Member:

World Bank as the Implementing Agency for the project entitled: ***India: India: Sustainable Livelihoods and Adaptation to Climate Change (SLACC)***, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with World Bank procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by the SCCF Council in June 2012 and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by World Bank satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at [www.TheGEF.org](http://www.TheGEF.org). If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

Naoko Ishii  
Chief Executive Officer and Chairperson

Attachment: GEFSEC Project Review Document  
Copy to: Country Operational Focal Point, GEF Agencies, STAP, Trustee



# WORLD BANK APPRAISAL STAGE: GEF DATA SHEET

**PROJECT TYPE: FSP Endorsement**  
**TYPE OF TRUST FUND:SCCF**

For more information about GEF, visit [TheGEF.org](http://TheGEF.org)

## PROJECT INFORMATION

Project Title: Sustainable Livelihoods and Adaptation to Climate Change			
Country(ies):	India	GEF Project ID: <sup>1</sup>	
GEF Agency(ies):	WB (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):		Submission Date:	
GEF Focal Area (s):	Climate Change	Project Duration(Months)	40
Name of Parent Program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>	National Rural Livelihoods Project, Ministry of Rural Development, Government of India	Agency Fee (\$):	800,000

## A. FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CCA-1 (select)	Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Adaptation measures and necessary budget allocations included in relevant frameworks	SCCF	1,319,760	5,000,000
CCA-1 (select)	Reduced vulnerability in development sectors	Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	SCCF	2,032,853	15,400,000
CCA-2 (select)	Strengthened adaptive capacity to reduce risk to climate-induced economic losses	Adaptive capacity of national and state centers and networks strengthened to rapidly respond to extreme weather events	SCCF	576,057	1,000,000
CCA-2 (select)	Strengthened adaptive capacity to reduce risk to climate-induced economic losses	Targeted population groups covered by risk reduction measures	SCCF	2,035,665	15,400,000
CCA-2 (select)	Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level	Targeted population groups participating in adaptation and risk reduction awareness activities	SCCF	2,035,665	15,400,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
<b>Total project costs</b>				8,000,000	52,200,000

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the [Focal Area/LDCF/SCCF Results Framework](#) when completing Table A.

## B. PROJECT FRAMEWORK

<b>Project Objective: To improve adaptive capacity of the rural poor engaged in farm based livelihoods to cope with climate variability and change.</b>						
<b>Project Component</b>	<b>Grant Type</b>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	<b>Trust Fund</b>	<b>Grant Amount (\$)</b>	<b>Confirmed Cofinancing (\$)</b>
Planning, Service Provision and Implementation of Climate Change Adaptation	Inv	(i) strengthened awareness of adaptation and climate change processes at the local level and (ii) strengthened adaptive capacities to reduce vulnerabilities and risks to climate-induced losses.	(i) community based climate adaptation measures are implemented by 200 community institutions financed by the CCA Grants; and, (ii) enhanced community capacity for planning and implementing climate adaptation plans in 200 community institutions.	SCCF	6,104,184	46,200,000
Scaling and Mainstreaming Community Based Climate Adaptation	TA	(i) strengthened operational capacity of national and state officials and representatives for integrating climate adaptation into livelihood support activities; (ii) evidence of climate change mainstreaming into national and state livelihood program frameworks.	(i) 400 district and sub-district staff of NRLM trained on climate adaptation; (ii) a cadre of 400 trained CRPs; (iii) differentiated IEC and knowledge products on climate adaptation (community adaptation planning tool and manual, CRP training curriculum, web-based inventory of climate adaptation actions, audio visuals); (iv) a website of a consortium of resource organizations on climate adaptation; (v) seminars for sharing insights/lessons for policy making with Government, donors and NGOs; (vi) guidelines on climate change adaptation developed for national livelihoods implementation framework (vii) policy briefs on themes relevant to climate adaptation and rural livelihoods.	SCCF	1,319,760	5,000,000

Impact Evaluation	TA	Monitoring systems and evaluation arrangements	Evaluation reports (baseline, mid-term and end-of-term)	SCCF	196,056	1,000,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Subtotal					7,620,000	52,200,000
Project management Cost (PMC) <sup>3</sup>				(select)	380,000	
<b>Total project costs</b>					<b>8000000</b>	<b>52200000</b>

### C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
National Government	National Rural Livelihoods Mission	In-kind	30,500,000
National Government	Women Farmers' Empowerment Project (MKSP)	In-Kind	3,300,000
National Government	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	In-Kind	1,700,000
Others	Bank Linkage	In-Kind	16,700,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
<b>Total Co-financing</b>			<b>52,200,000</b>

### D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>

Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
			Grant Amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
SCCF	Climate Change	India	8,000,000	800,000	8,800,000
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
(select)	(select)				0
<b>Total Grant Resources</b>			<b>8,000,000</b>	<b>800,000</b>	<b>8,800,000</b>

<sup>3</sup> PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**E. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No**

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

**ANNEX A: PROJECT PREPARATION GRANT (PPG) REPORTING<sup>4</sup>**

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: NONE			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
<b>Total</b>	0	0	0

**ANNEX B: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

<sup>4</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities; and report to Trustee on the closing of PPG in the quarterly report to Trustee.

Document of  
The World Bank

Report No: PAD598

INTERNATIONAL DEVELOPMENT ASSOCIATION  
PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED GRANT  
IN THE AMOUNT OF US\$8 MILLION  
TO THE  
REPUBLIC OF INDIA  
FOR A  
SUSTAINABLE LIVELIHOODS AND ADAPTATION TO CLIMATE CHANGEPROJECT

May 16, 2014

Sustainable Development Department  
Disaster Risk Management and Climate Change Sector  
India Country Management Unit  
South Asia Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective: May 16, 2014)

Currency Unit	=	Indian Rupees (₹)
US\$1.00	=	Rs 58.71
US\$1.57	=	SDR 1

## FISCAL YEAR

July 1 – June 30

## ABBREVIATIONS AND ACRONYMS

APDAI	Andhra Pradesh Drought Adaptation Initiative
APRPRP	Andhra Pradesh Rural Poverty Reduction Program
BIRDS	Bharati Integrated Rural Development Society
BRLPS	Bihar Rural Livelihoods Promotion Society
CCA	Climate Change Adaptation
CIF	Community Investment Fund
CRIDA	Central Research Institute for Dryland Agriculture
CRPs	community resource persons
EMF	Environmental Management Framework
FAO	Food and Agriculture Organization
GDP	gross domestic product
GEF	Global Environment Fund
GIZ	German Society for International Cooperation
GoI	Government of India
IDA	International Development Association
IEC	information, education, communication
IEG	Independent Evaluation Group
IFAD	International Fund for Agricultural Development
M&E	monitoring and evaluation
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	management information system
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MoRD	Ministry of Rural Development
mt	million tonnes
NAPCC	National Action Plan on Climate Change
NAIP	National Agriculture Innovation Project
NGO	non-government organization
NICRA	National Initiative on Climate Resilient Agriculture
NMMU	National Mission Management Unit
NMSA	National Mission for Sustainable Agriculture

NRLM	National Rural Livelihoods Mission
NRLP	National Rural Livelihoods Project
PAD	Project Appraisal Document
PIP	Project Implementation Plan
PDO	Project Development Objective
RRA	Revitalizing Rainfed Areas Network
SCCF	Special Climate Change Fund
SERP	Society for Elimination of Rural Poverty
SLACC	Sustainable Livelihoods and Adaptation to Climate Change
SLEM	Sustainable Land and Environmental Management
SMMU	State Mission Management Unit
SRLM	State Rural Livelihoods Mission
ToR	Terms of Reference
t/ha	tonnes/hectare
VO	Village Organization
VRF	Vulnerability Reduction Fund
WASSAN	Watershed Support Services and Activities Network
WBCIS	Weather Based Crop Insurance Scheme
WOTR	Watershed Organization Trust

Regional Vice President:	Philippe H. Le Houerou
Country Director:	Onno Ruhl
Sector Director:	John Henry Stein
Sector Manager:	Bernice Van Bronkhorst
Task Team Leader:	Priti Kumar



**REPUBLIC OF INDIA**  
**SUSTAINABLE LIVELIHOODS AND ADAPTATION TO CLIMATE  
CHANGE PROJECT**

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**DATA SHEET**

Republic of India

Sustainable Livelihoods and Adaptation to Climate Change Project (P32623)

**PROJECT APPRAISAL DOCUMENT***South Asia Region**Disaster Risk Management and Climate Change*

Report No.:

<b>Basic Information</b>			
Project ID P132623	EA Category B - Partial Assessment	Team Leader Priti Kumar	
Lending Instrument Specific Investment Grant	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects []		
Project Implementation Start Date 1-Sept-2014	Project Implementation End Date 31-Dec-2017		
Expected Effectiveness Date 1-Sept-2014	Expected Closing Date 30-Jun-2018		
Joint IFC No			
Sector Manager Bernice Van Bronkhorst	Sector Director John Henry Stein	Country Director Onno Ruhl	Regional Vice President Philippe H. Le Houerou
Borrower: Government of India			
Responsible Agency: Ministry of Rural Development			
Contact: Telephone:	Mr T. Vijay Kumar 011-23382313	Title: Email:	Additional Secretary Tvijay.kumar@nic.in
<b>Approval Authority</b>			
Approval Authority Board/AOB Decision please explain			

Project Financing Data(in US\$ Million)									
<input type="checkbox"/>	Loan	<input checked="" type="checkbox"/>	Grant	<input type="checkbox"/>	Guarantee				
<input type="checkbox"/>	Credit	<input type="checkbox"/>	IDA Grant	<input type="checkbox"/>	Other				
Total Project Cost:		10.21			Total Bank Financing:		8.00		
Financing Gap:		0.00							
Financing Source					Amount				
Borrower					2.21				
Global Environment Fund(GEF)					8.00				
Total					10.21				
Expected Disbursements (in US\$ Million)									
Fiscal Year	2015	2016	2017	2018	2019	2020	0000	0000	0000
Annual	1.95	2.30	1.85	1.90	0.00	0.00	0.00	0.00	0.00
Cumulative	1.95	4.25	6.10	8.00	0.00	0.00	0.00	0.00	0.00
Proposed Development Objective(s)									
The Project Development Objective (PDO) is to improve adaptive capacity <sup>1</sup> of the rural poor engaged in farm based livelihoods to cope with climate variability and change.									
Components									
Component Name					Cost (US\$ Millions)				
Planning, Service Provision and Implementation of Climate Change Adaptation					7.82				
Scaling and Mainstreaming Community Based Climate Adaptation					1.27				
Project Management and Impact Evaluation					0.72				
Institutional Data									
Sector Board									
Environment									
Sectors / Climate Change									
Sector (Maximum 5 and total % must equal 100)									
Major Sector			Sector		%	Adaptation Co-benefits %		Mitigation Co-benefits %	

Environment	General agriculture, fishing and forestry	100	100	
Total		100		
<input type="checkbox"/> I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.				
<b>Themes</b>				
Theme (Maximum 5 and total % must equal 100)				
Major theme	Theme	%		
Climate Change	Adaptation	100		
Total		100		
<b>Compliance</b>				
<b>Policy</b>				
Does the project depart from the CAS in content or in other significant respects?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Does the project require any waivers of Bank policies?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Have these been approved by Bank management?		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Is approval for any policy waiver sought from the Board?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Does the project meet the Regional criteria for readiness for implementation?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Safeguard Policies Triggered by the Project</b>				
	<b>Yes</b>	<b>No</b>		
Environmental Assessment OP/BP 4.01	X			
Natural Habitats OP/BP 4.04	X			
Forests OP/BP 4.36	X			
Pest Management OP 4.09	X			
Physical Cultural Resources OP/BP 4.11		X		
Indigenous Peoples OP/BP 4.10	X			
Involuntary Resettlement OP/BP 4.12		X		
Safety of Dams OP/BP 4.37		X		
Projects on International Waterways OP/BP 7.50		X		
Projects in Disputed Areas OP/BP 7.60		X		
<b>Legal Covenants</b>				
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>	

<b>Description of Covenant</b>					
<b>Conditions</b>					
<b>Name</b>			<b>Type</b>		
<b>Description of Condition</b>					
<b>Team Composition</b>					
<b>Bank Staff</b>					
<b>Name</b>	<b>Title</b>	<b>Specialization</b>	<b>Unit</b>		
Priti Kumar	Senior Environmental Specialist	Team Leader	SASDC		
Parmesh Shah	Lead Rural Development Specialist	Rural Development and Livelihoods	SASDL		
Sitaramachandra Machiraju	Senior Water and Sanitation Specialist	Rural Livelihoods and Financial Sector	TWIWP		
Varun Singh	Senior Social Development Specialist	Social Development	SASDS		
Ruma Tavorath	Senior Environmental Specialist	Environment	SASDI		
Manvinder Mamak	Senior Financial Management Specialist	Financial Management	SARFM		
Senapati Balagopal	Senior Procurement Specialist	Procurement	SARPS		
George Joseph	Social Development Specialist	Monitoring and Evaluation	SASDS		
Ajay Markanday	Senior Economist	Agriculture	AES		
Pamela Patrick	Program Assistant	Operations	SASDO		
<b>Non Bank Staff</b>					
<b>Name</b>	<b>Title</b>	<b>Office Phone</b>	<b>City</b>		
Vinay Kumar Vutukuru	Extended Term Consultant – Livelihoods	09910711438	New Delhi, India		
Shouvik Mitra	Consultant – Livelihoods	09777315125	New Delhi, India		
S. C. Rajshekhar	Consultant – Agriculture and Rural Management	09341443217	Bangalore, India		
Kalyani Kandula	Consultant -- Natural Resources Management	09949854440	Hyderabad, India		
Vani Kurup	Consultant – Documentation and editing	9810965992	New Delhi, India		
Per Axel Ryden	Consultant – Climate Change Adaptation and Agriculture	00306 941 641074	Greece		
<b>Locations</b>					
<b>Country</b>	<b>First Administrative Division</b>	<b>Location</b>	<b>Planned</b>	<b>Actual</b>	<b>Comments</b>

## I. STRATEGIC CONTEXT

### A. Country Context

1. *Rural poverty in India:* Despite an economic growth rate of 8 percent in the Eleventh plan period (2007–12),<sup>2</sup> India still has 25.7 percent of its rural population living in poverty<sup>3</sup> and one-third of the world's poorest 1.2 billion people living on less than US\$1.25 a day.<sup>4</sup> While the number of people living in poverty in rural India has declined from 326.3 million in 2004–05 to 216.5 million in 2011–12,<sup>5</sup> there is a growing concern that climate change could slow the progress in poverty reduction. India's poverty rate is estimated to increase 3–4 percentage points by 2040 compared to the counterfactual of zero warming, resulting in around 50 million more people being poor.<sup>6</sup>

2. *Climate risk<sup>7</sup> and India:* India has seen a 0.4°C increase in mean surface air temperature over the past century (1901–2000)<sup>8</sup> and climate change projections up to the year 2100 indicate an overall 2–4°C rise in temperature.<sup>9</sup> Risk factors in addition to temperature increase include changes in the monsoon pattern, increased intensity of extreme weather events including flooding and tropical cyclones, extremes of heat, and sea-level rise.<sup>10</sup> Though the country as a whole does not show any significant change in rainfall, significant increases and decreases in regional trends are expected. The variability of the monsoon, the seasonality of precipitation, the frequency of extreme precipitation events and short drought periods are all expected to increase.<sup>11</sup> Currently, about 16 percent of the country is drought-prone<sup>12</sup> and about 12 percent is flood-affected. And, both the frequency and magnitude of these extreme events is increasing, i.e. drought incidence doubled from 6 to 12 between the first and second halves of the last century, and flood-affected areas more than doubled from 19 million hectares in 1953 to 50 million hectares in 2011–12.<sup>13,14</sup> It is pertinent to note that floods and droughts are as much due to anthropogenic disturbances to natural ecosystems as due to climate change alone. However, destruction of natural ecosystems increases their vulnerability to climate change and therefore needs to be addressed.

3. *Climate change impacts on agriculture:* A 2–3.5°C increase in temperature and associated increase in precipitation are estimated to lower the agricultural gross domestic product (GDP) by 9–28 percent.<sup>15</sup> Due to India's vast geographic diversity, the impacts are likely to be varied and heterogeneous.<sup>16</sup> A few examples will, however, serve to highlight the nature and magnitude of the expected impacts: a 1°C increase in temperature alone could lead to decrease in wheat production of 6 million tonnes (mt) in the absence of adaptation and carbon dioxide fertilization benefits.<sup>17</sup> At present, due to climatic stress 1.8 mt of milk production is being lost and global warming is expected to increase the loss to 89 percent of total milk production by 2020.<sup>18</sup>

4. Rainfed agriculture, which constitutes nearly 58 percent of the net cultivated area in the country, is expected to be significantly impacted by climate change for two reasons: it is practiced on fragile, degraded and sloping lands which are prone to erosion; the people dependent on it are less endowed in terms of financial, physical, human and social capital, thus limiting their capacity to adapt to the changing climate.<sup>19</sup> For example, drought is a major contributing factor to low productivity in rainfed areas – estimated at 0.2, 0.6 and 1.0

tonnes/hectare (t/ha) against a potential of 1.0, 1.9 and 3.0 t/ha in arid, semi-arid and sub-humid regions.<sup>20</sup>

5. Over 39 districts in India have been identified as chronically flood-prone. The annual average flood damage to crops, houses and public utilities at constant 2010–11 prices works out to Rs 6,967 crores.<sup>21</sup> Floods are a recurring feature of the *Terai* region of India comprising Eastern Uttar Pradesh and North Bihar, and there is an increasing perception that they have become more unpredictable and damaging.<sup>22</sup> Bihar is India's most flood-prone state and 76 percent of the population in North Bihar lives under the recurring threat of flood devastation. In 2013 alone floods affected more than 5.9 million people in 37,678 villages in 20 districts in the state.<sup>23</sup> Almost 50–100 percent of the gross cropped area in the districts of North Bihar is flood prone. Floods are an important reason for low crop productivity in these areas. It has been estimated that during the kharif season, about 23 percent of the paddy cultivation area remains waterlogged.<sup>24</sup> The productivity of rice in Araria, Muzaffarpur and Sheohar districts averages to 1.14 tonnes per hectare – significantly less than both the state average (1.59 tonnes per hectare) and the national average (2.17 tonnes per hectare).<sup>25</sup>

6. *Climate change impacts on rural poverty:* Climate change can impact the welfare of rural households through a variety of channels through its negative effect on agricultural productivity, availability of water and natural resources, health, infrastructure, among others. Over the next three decades a 1.25°C temperature increase is expected to lead to a 6–11 percent decline in average per capita consumption for rural households as a consequence of a 17–37 percent reduction in average land productivity.<sup>26</sup> The socio-economic situation of marginalized groups (such as the poor, women, the landless), characterized by poor access to education, information, productive resources, financial services as well as fewer assets and high debt, greatly enhances the vulnerability<sup>27</sup> of their livelihoods to climate related shocks and stresses.<sup>28</sup> Households exposed to repeated climate hazards might be forced into a downward spiral of deprivation due to sale of assets, high debt burden, etc. Thus, it is clear that conventional poverty alleviation approaches alone would not suffice for the rural poor to step out of the poverty trap and stay above the poverty line. It would have to be complemented with risk management strategies to contend with climate change impacts.

## **B. Sectoral and Institutional Context**

7. *Rural livelihoods and climate:* Agriculture provides employment to 72.3 percent of the rural workforce including 64 percent of poor households<sup>29</sup> – 94.19 million of whom are women cultivators and women farm labor.<sup>30</sup> The dominant agricultural livelihoods of the poor (crop cultivation, livestock, fisheries, etc.) are hugely dependent on natural resources, such as rainfall, fodder, water bodies. Climatic hazards that affect the availability of these natural resources, adversely affect the livelihoods of the poor by impacting production, affecting incomes and preventing building up of assets. For example, the livestock sector that provides employment to 19 million people, of which women constitute 71 percent, is already challenged by 65 percent deficit of green fodder and 25 percent deficit of dry fodder<sup>31</sup> attributable at least in part to climatic variability resulting in poor productivity of grazing and crop lands.

8. *Adaptation to climate variability and change:* Adaptation<sup>32</sup> can mitigate the impact of climate change as it reduces the loss in per capita consumption by about half (the decline in



consumption is 11 percent for a weather shock, compared to the 6 percent when autonomous adaptation is factored in).<sup>33</sup> The rural poor have evolved many adaptation mechanisms over time to deal with the impact of climate variability on their livelihood. For example, in rain-fed Zaheerabad of Andhra Pradesh, small and marginal farmers practice a traditional farming system that involves a basket of nearly 80 resilient varieties of millets and legumes.<sup>34</sup> In the flood-prone districts of Orissa, 50–70 percent of income is derived from non-agricultural sources, such as non-skilled labor, aquaculture, fishing, dairy and trivial businesses. However, this does not completely mitigate the impact of climate change – non-agricultural incomes of marginal farmers and the landless register the largest decline after a flood, reflecting their fragile economic status.<sup>35</sup>

9. Within the context of agriculture, there are limited rural households in the country that adopt proactive approaches that anticipate future costs and avoid or prevent damages. For example, in the flood-prone districts of Orissa, safe storage of food grains (37 percent of households) and crop insurance (20 percent of households – mostly large landowners) measures are adopted.<sup>36</sup> In contrast, reactive measures that attempt to ease the immediate impact of climate variability and do little to build climate resilience<sup>i</sup> seem to abound. For example, borrowing money is the most common coping response to drought (68 percent households in Andhra Pradesh) and flood (54 percent households in Orissa). Distress sale of cattle and jewelry is another reactive measure (15 percent households in Orissa) largely concentrated among the landless and medium farmers.<sup>37</sup> Digging or deepening of wells (46 percent of farmers) is the dominant measure for dealing with drought compared to more sustainable measures such as efficient irrigation methods (9 percent of farmers) and shift to low-water demanding crops (7 percent of farmers).<sup>38</sup> Access to climate-risk information is scarce (for example only 48 percent households in Vaishali district of Bihar receive information on extreme events, short and longer term weather forecasts, pest or disease outbreaks<sup>39</sup>) and implementation of effective and no-regrets adaptation measures is limited (for example there are only about 3,000 automatic weather stations as against the requirement of 10,000 stations in the country<sup>40</sup>). There is also only limited access to risk transfer mechanisms that are exogenous to the economic system (only about 7 percent of the country's farmers are covered under weather-based crop insurance schemes<sup>41</sup>).

10. Often times the only adaptation strategy of the very poor is extreme risk avoidance, such as choosing a production system that is low-risk–low-return even though far greater returns could be obtained from a slightly riskier production system.<sup>42</sup> This results in a stable income but often at very low level of outputs such as in subsistence farming. This low level equilibrium – called a “poverty trap” – is caused from extreme initial poverty or extreme economic shocks as a result of climatic phenomenon.<sup>43</sup> Therefore, there is a need to carefully assess climate change risk and calibrate adaptation responses such that individuals and communities are not thrust into a poverty trap.

11. Building adaptive capacity<sup>ii</sup> in the rural-poor communities requires improving access to effective, locally relevant, no-regret adaptation approaches identified through a participatory

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<sup>i</sup> Climate resilience: The ability of a system and its component parts to anticipate, absorb and accommodate or recover from the effects of a hazardous event in a timely and efficient manner including through the preservation, restoration and improvement of its essential structures and functions; IPCC 2012

<sup>ii</sup> Adaptive capacity: The combination of the strengths, attributes and resources available to individual community, society or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm or exploit beneficial opportunities, IPCC 2012

planning process involving women and targeted specifically to reach the rural poor population. It also requires addressing the supply side of adaptation by providing enabling services to communities through partnerships with research institutions or resource organizations on strategic agriculture investments. These would involve multiple interventions aimed at filling the adaptation-gap,<sup>iii</sup> such as enhancing the climate resilience of production systems, transferring residual risk and building technical capacity for decision-making. This is in addition to interventions to address the adaptation-deficit,<sup>iv</sup> such as access to formal credit, skills development and support for on-farm productivity enhancement.

12. *Government's approach to climate change adaptation:* Adaptation to climate change is a priority clearly articulated in India's National Action Plan on Climate Change (NAPCC) and its component Missions. The implementation of the NAPCC is an integral part of the Twelfth Five Year Plan (2012–17), which contains an assessment of vulnerability of various sectors to climate change, and identifies specific adaptation measures to be implemented over the longer term. Specifically for farm-based livelihoods (such as cropping, livestock and fisheries), it has constituted a National Mission for Sustainable Agriculture (NMSA) anchored in the Ministry of Agriculture, Government of India (GoI). The NMSA mission document has identified 4 functional areas for creating climate resilient agriculture in India: (i) research and development, technologies, (ii) products and practices, (iii) infrastructure (physical and financial), and (iv) capacity building.

13. Another significant initiative under the GoI's Indian Council of Agricultural Research is the National Initiative on Climate Resilient Agriculture (NICRA), which is a network project with several collaborating institutions to enhance resilience of India's rain-fed agriculture to climate vulnerability. Launched in 2011 it has 4 components: (i) strategic research, (ii) technology demonstration, (iii) capacity building, and (iv) sponsored/competitive grants. Both the NMSA as well as the NICRA are implementing innovative pilots and technology packages on farmers' fields but have no specific focus on targeting the rural poor on a large scale and seek to address only "adaptation gap" issues leaving aside issues related to "adaptation deficit". It is now well established that the degree of vulnerability to climate change often stems from the degree of underlying poverty, which is a result of adaptation deficit.

14. *Government's approach to rural development:* The flagship national programs in the rural development context are anchored in the Ministry of Rural Development (MoRD). The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and the National Rural Livelihood Mission (NRLM) are directly related to poverty alleviation while the Integrated Watershed Development Program (IWDP) and the Drinking Water and Sanitation programs deliver better resilience. Together these programs seek to address "adaptation deficit" issues and have a strong focus on targeting the rural poor in both drought- and flood-prone areas. Although these programs integrate activities that improve coping capacity of local communities to potential impacts of climate variability and change<sup>44</sup> (examples include afforestation, plantations, coastal vegetation belts, fodder development, drainage structures, water harvesting, soil moisture

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<sup>iii</sup>An 'adaptation gap' refers to a situation in which the difference between the beneficiaries' status and the status appropriate to a changing climate is due solely to a failure to specifically address the effects of climate change. Source: Making Adaptation Count – Concepts and Options for Monitoring and Evaluation of Climate Change Adaptation. GIZ, WRI. 2011

<sup>iv</sup>An 'adaptation deficit' refers to a situation in which the difference between the beneficiaries' status and the status appropriate to a changing climate is due to broader unmet development needs, and not only to a failure to address climate change. Source: Making Adaptation Count – Concepts and Options for Monitoring and Evaluation of Climate Change Adaptation. GIZ, WRI. 2011

conservation works, sustainable agriculture), they do not have a systematic approach to assessing and addressing climate change risks. The MoRD recognizes that convergence between its flagship programs – particularly the NRLM, MGNREGS and IWDP – has immense potential for integrating adaptation into existing livelihoods thereby enhancing their resilience. The proposed Sustainable Livelihoods and Adaptation to Climate Change (SLACC) project will support the MoRD in realizing this potential, through integrating a climate adaptation component into the NRLM, while converging with the MGNREGS to the extent possible.

15. *National Rural Livelihoods Mission*: The NRLM, launched within the MoRD in June 2011, is a national program that aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. NRLM has set out with an agenda to cover 7 crore rural poor households, across 600 districts, 6,000 blocks, 2.5 lakh gram panchayats and 6 lakh villages in the country through self-managed self-help groups and federated institutions and support them for livelihoods collectives in a period of 8-10 years. In addition, the poor would be facilitated to achieve increased access to their rights, entitlements and public services, diversified risk and better social indicators of empowerment. A major focus of the NRLM is to stabilize and promote the existing livelihoods portfolio of the poor, in farm and non-farm sectors. As agriculture is the mainstay livelihoods activity for a large proportion of the rural poor, NRLM lays special focus on sustainable agriculture and allied activities such as animal husbandry, non-timber forest produce and fisheries. At the national level, the National Mission Management Unit (NMMU) of the National Rural Livelihoods Promotion Society (NRLPS) supports the NRLM. At the state level, the State Rural Livelihoods Mission (SRLM), constituted by the state government, oversees the implementation of all NRLM activities through a State Mission Management Unit (SMMU). The NRLM reaches poor households through self-help groups typically made up of women and their federated institutions, and also supports specialized institutions such as “common interest”/“producer groups”. The NRLM has a World Bank-supported National Rural Livelihood Project (NRLP) that is focused on selected blocks in selected districts and an agricultural theme based Mahila Kisan Sashaktikaran Pariyojana (MKSP) as two large projects which are described in greater detail below. The proposed SLACC project will work with both of them.

16. *Mahila Kisan Sashaktikaran Pariyojana*<sup>v</sup> (MKSP): The NRLM initiated the MKSP in 2010–11 for empowering women in agriculture. A core focus of MKSP is to promote sustainable and more productive agriculture through the use of local inputs and risk mitigation approaches, to ensure food security and increased net household income. MKSP-funded sub-projects on sustainable agriculture are currently being implemented in 14 states across the country in partnership with non-governmental and community-based organizations. Working with MKSP will enable SLACC to foster improved resilience in the production system through the integration of knowledge and tools to manage climate risks leading to stable incomes, improved food security and higher labor productivity.

17. *National Rural Livelihoods Project*: GoI has obtained a credit from the International Development Association (IDA) for implementing the NRLP under the NRLM. The NRLP became effective on 8 August 2011, and is being implemented in 13 high-poverty states (Assam,

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<sup>v</sup> Translation – Women Farmers’ Empowerment Project. MKSP is implemented in partnership with SRLMs and with community-based / non-governmental organizations which function as implementation partners.

Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal). By December 2013, NRLP's outreach was 98 districts, 297 blocks and nearly 23,000 villages – intensively working with nearly 1.9 million households and 166,000 self-help groups.<sup>vi</sup>The NRLP was restructured in June-July 2013 in view of slow disbursements attributed to a substantial implementation lag. While the scope and design of the project remains the same, the IDA credit has been scaled down to US\$500 million (from the US\$1000 million sanctioned) and the project period has been extended by one year (to end in December 2017). In 2014, NRLP has seen a significant improvement in cumulative disbursements which rose to 12.1 percent in May 2014 and is expected to reach 30 percent by 2015. The NRLP has the following components: (i) institutional and human capacity development at the national, state, district and sub-district levels; (ii) state livelihood support towards the establishment of institutional platforms of the rural poor for improved access to financial, livelihood and public services; (iii) innovation and partnership to identify and partner with innovative organizations/ideas which address the livelihood needs of the rural poor and help in piloting or scaling up; and (iv) project management as well as monitoring and learning systems. The livelihood support component of the NRLP includes support for grants to institutions of the poor to enable them to undertake livelihood-enhancing activities on the basis of their micro-investment or livelihood plans. However, these plans are not informed by a careful assessment of climate change risks and a course of action for their mitigation.

18. *Mahatma Gandhi National Rural Employment Guarantee Scheme:* The MGNREG Act passed in 2005 is considered a landmark piece of legislation that aims at enhancing the livelihood security of people in rural areas of India by guaranteeing hundred days of wage-employment in a financial year to a rural household whose adult members volunteer to do unskilled manual work. There have been missed opportunities however under MGNREGS with regard to climate resilience outcomes of the assets created in addition to employment creation involving Panchayati Raj Institutions (PRIs) and community institutions. The gram panchayat is the key institution facilitating collective action for planning, implementation and monitoring of MGNREGS works. Most of the works supported by the MGNREGS are related to the management of natural resources, such as water conservation, water harvesting, drought proofing, irrigation works, etc. Furthermore, these works are supposed to be undertaken through a process of social mobilization, social engineering and partnership between civil society organizations and state governments. Thus, working with MGNREGS will enable the SLACC to leverage resources that are needed to execute adaptation strategies related to conserving and enhancing ecosystem services and maximize the potential of MGNREGS to contribute to longer-term livelihood security and climate resilience.

19. *Leveraging Resources from Commercial Banks and Micro Finance Institutions:* Substantial leveraging of resources for the poor is being done through commercial banks and micro financing institutions for livelihoods groups formed under the NRLM. Group members leveraged nearly US\$6 billion in credit from commercial banks as part of the World Bank-financed state livelihoods projects in India. In the NRLP alone a 45 percent increase is expected in the number of identified poor households who have accessed services from formal financial institutions. NRLP is investing in the demand and supply side of financial inclusion by

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<sup>vi</sup> *Implementation Status and Results Report (ISR12861)*, National Rural Livelihoods Project (P104164), The World Bank. 2013.

supporting the formation of responsible client households for both commercial banks and micro finance institutions.

20. *Identification of the baseline project for the SLACC project:* Thus, the livelihood outcomes of NRLM/NRLP, MKSP and MGNREGS could improve significantly by building into them a set of processes, tools and knowledge for assessment of risks stemming from climate variability and change as well as plans to adapt to them. The proposed SLACC project will be implemented in NRLM geographies that overlap with the World Bank-supported NRLP and the state livelihood projects due to high fiduciary capacities of the administrative architecture units in these areas, which is required for the SLACC Project. The NRLM, specifically, is the baseline project. However, even within the above specified geographies, the SLACC could be implemented by existing MKSP partners of the NRLM and therefore, the SLACC has the potential to inculcate a climate change perspective to the MKSP as well. SLACC will also strive to leverage resources from MGNREGS and formal financial institutions (e.g. commercial banks and micro finance institutions) to execute adaptation strategies.

21. Working together provides a huge synergistic impact on both SLACC and the baseline projects – NRLM/NRLP, MKSP and MGNREGS. While these projects benefit by building resilience into livelihoods of the poor with respect to climate change impacts, the SLACC project benefits by gaining access to community institutions of the rural poor to foster improved resilience in the production system in collaboration with women farmers. Often, climate change adaptation projects falter due to lack of institutional delivery mechanism to reach out to the poor.

22. *Additionality of proposed SLACC project intervention over baseline activities:* The NRLM/NRLP, MKSP and MGNREGS aim to help the rural poor step out of the “poverty trap” by enhancing financial and social capital formation and use among the rural poor. It seeks to sustain this process by creating and nurturing institutions of the poor that are run by the poor themselves. It attempts to create an institutional platform that will enable the poor to address adaptation deficit by focusing on unmet development needs, such as access to credit, skill development, productivity enhancement. The building blocks of assessing and addressing unmet development needs of the individual and the community are micro-investment or livelihood plans. Through lessons learnt from several similar projects that have been implemented at the state level in the past with World Bank support, the process of preparing these plans has been refined and simplified as they are now facilitated by community resource persons (CRPs) that are drawn from the local community itself. CRPs adopt elements of sustainable and eco-friendly agricultural practices in their own farms and are in the best position to motivate and convince other farmers than normal extension workers. Working with technical experts and extension personnel, CRPs can help in technology transfer and diffusion. However, these CRPs currently lack a systematic approach to assessing and addressing climate change risks or the adaptation gap thus rendering livelihoods vulnerable to climate change impacts.

23. The proposed SLACC project specifically addresses the above and seeks to establish a large scale proof-of-concept on integrating community-based climate adaptation planning and implementation into livelihood support activities of the NRLM/NRLP, MKSP and MGNREGS. The climate adaptation plans implemented under the proposed SLACC project will address the adaptation gap by focusing on interventions that specifically address the effects of climate change. The project will cover drought- and flood-prone areas and the agriculture sector will be

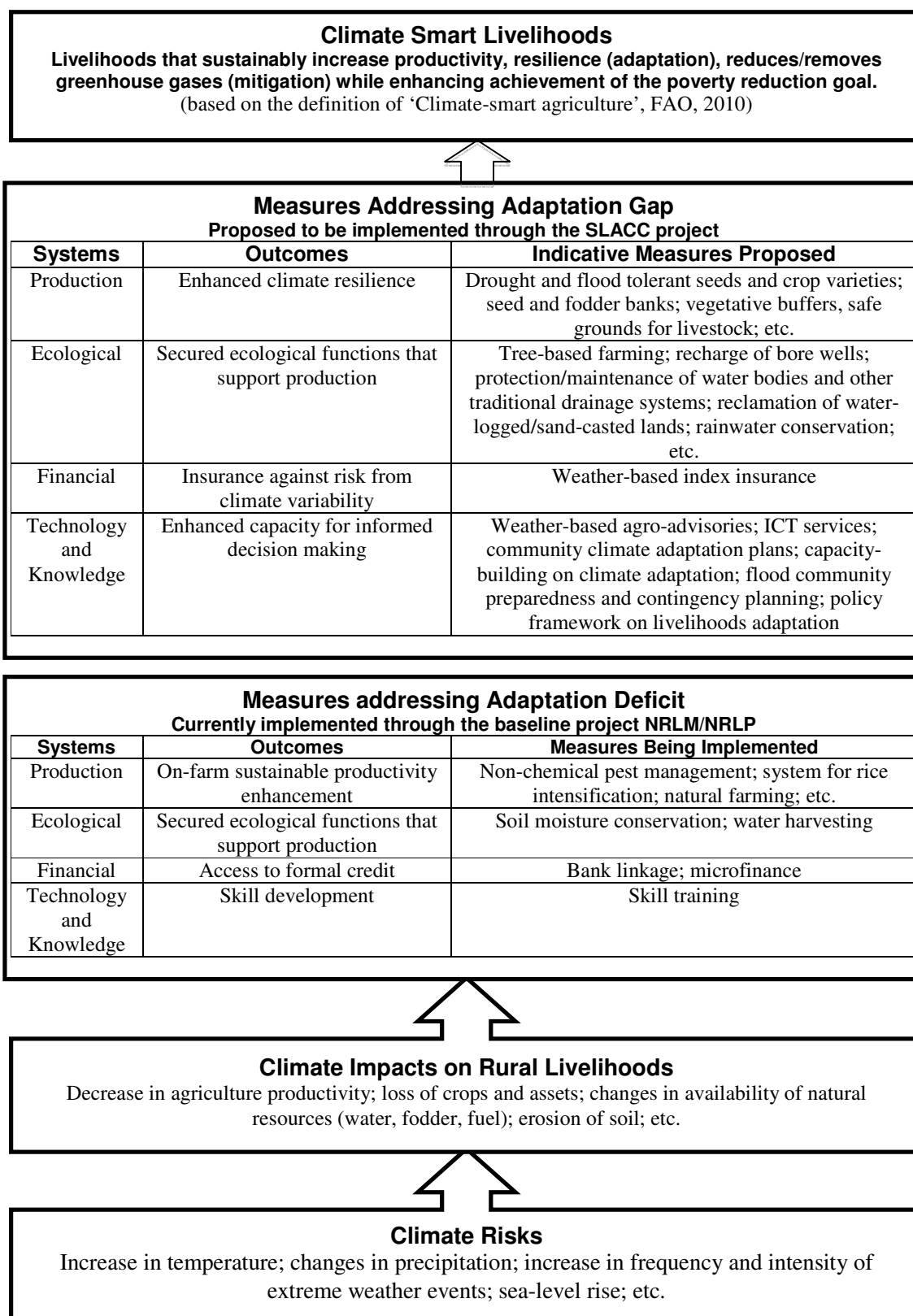
at the core of the SLACC project. The SLACC will bring a comprehensive risk management approach to livelihood planning and implementation in the NRLM/NRLP, so that climate change impacts on livelihoods are mitigated. It will address all aspects of farm-based livelihoods that may be affected by climate change by helping the community choose interventions for the: *production system* such as participatory selection of climate-resilient varieties/breeds; *ecological system* such as tree-based farming or soil moisture conservation; *knowledge system* such as local weather-based agro-advisories, and *financial system* such as weather index insurance (see Section III and Annex 2 for details on the activities to be supported through the SLACC project). The SLACC will strengthen collaboration and partnerships with the GoI initiatives, such as wage employment, agriculture. It will specifically focus on facilitating access to enabling services through strategic agricultural investments in agro-advisories, weather-based insurance, participatory research and extension on drought and flood tolerant crop varieties, etc. At the national and state levels, SLACC will reach out to agriculture and other allied agencies to raise the policy dialogue on climate change issues.

24. The SLACC project is expected to result in spin-off public benefits to communities in the form of improved ecosystem services as well as better food security leading to lesser morbidity and higher labour productivity. When communities have the knowledge and tools for better managing climate risks, they will move up on the risk-returns graph thereby leading to spin-off benefits on the economy as a whole by creating more jobs and business opportunities.

25. The SLACC project is expected to embed into the community the knowledge and process of assessing and adapting to climate change impacts and make them work in collaboration with climate practitioners and scientists thus building their capacity to adapt to future climate changes. As the Independent Evaluation Group (IEG) report on Adapting to Climate Change<sup>45</sup> notes in its recommendations, “Institutional capacity building is a robust foundation for adaptation to a highly uncertain future.”

26. The alignment of the proposed SLACC project and the baseline NRLM/NRLP are presented in Figure 1. Table 1 presents details of the additionality of SLACC interventions over NRLM interventions. While SLACC’s outreach is limited to a few states, its successful implementation and value-addition will pave the way for scaling-up and mainstreaming ‘climate smart livelihoods’ into the core livelihood interventions of the NRLM at the national scale.

**Figure 1: NRLM/NRLP and SLACC: Addressing the Adaptation Deficit and Gap**



**Table 1: Additionality of SLACC interventions over NRLM/NRLP livelihood interventions**

	<i>Livelihood Interventions of NRLM/NRLP</i>	<i>Additionality of SLACC</i>
<b>Planning</b>	Formulation of micro-investment / livelihood plan by self-help groups	<ul style="list-style-type: none"> <li>• Formulation of Community Based Climate Change Adaptation Plan by Village Organizations (VOs) of self-help groups and integration into livelihood plan</li> <li>• CRPs to aid in adaptation planning</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>• Financing livelihoods grants to the poor rural households to support livelihoods interventions at self-help group/federation level</li> <li>• These grants are made based on micro-credit or micro-livelihood plans and are used for financing business-as-usual livelihood plans</li> </ul>	<ul style="list-style-type: none"> <li>• Financing adaptation grants as addendum to the livelihoods grants to support adaptation interventions at self-help group/federation level.</li> <li>• These grants are made based on Community Based Climate Adaptation Plans and are used to finance adaptation interventions that help address climate change risk to livelihoods.</li> <li>• Financing linkages and partnerships with research institutions and thematic resource organizations for providing enabling services and technical support for strategic agricultural investments.</li> </ul>
<b>Interventions</b>	<ul style="list-style-type: none"> <li>• Existing livelihood activities – agriculture, livestock, non-timber forest produce, etc.</li> <li>• Special initiatives – sustainable agriculture, system for crop intensification, participatory varietal selection, organic farming</li> </ul>	Multiple, locale-specific interventions on production, ecological, knowledge and financial systems that address the specific climate related vulnerabilities identified in livelihoods. Indicative examples: drought-/flood-tolerant varieties and crops, community seed/grain/fodder/fuel banks, on-farm water harvesting and soil moisture conservation, maintenance of drains and embankments, rehabilitation of natural drainage systems, low-cost micro-irrigation, cattle vaccination camps, weather based agro-advisories, weather index insurance, etc. (for details see tables A2-1 and A2-2 in Annex 2).
<b>Program Convergence</b>	<ul style="list-style-type: none"> <li>• NRLM/NRLP geographies</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of adaptation interventions into MKSP and NRLM/NRLP project areas.</li> <li>• Dovetailing MGNREGS.</li> </ul>
<b>Outcomes</b>	Vulnerability reduction and livelihoods enhancement through enhancing and expanding existing livelihoods options and tapping new opportunities within key livelihoods.	Vulnerability reduction and livelihood resilience through integrating community-based climate adaptation planning and implementation into livelihood support activities of the NRLP.



### **C. Higher Level Objectives of the Project**

27. The Approach Paper to India's 12<sup>th</sup> Five Year Plan (2012–17) recognizes that there is an urgent need for developing agro-climatic zone-specific technologies to enable rural communities to withstand the effects of climate change. The principles guiding India's NAPCC include protecting the poor and vulnerable sections of society through an inclusive and sustainable development strategy, and deploying appropriate technologies for extensive adaptation at an accelerated pace. As the largest and most ambitious exercise in sub-national climate planning in the world, state action plans on climate change are being prepared<sup>46</sup> in line with the NAPCC to define ways for integration of adaptation and mitigation actions. The proposed SLACC project will support the implementation of the principles and adaptation priorities articulated in the NAPCC and in the state action plans by mainstreaming climate change considerations in a large national program – the NRLM – and raising the policy dialogue on these issues, particularly in respect of the rural development and agriculture sectors. The proposed project is also in line with the World Bank's goal of reducing poverty and increasing shared prosperity, stated in the Country Partnership Strategy for India<sup>47</sup> (2013–17). The Strategy states climate-resilient agriculture as an operational business line under Outcome 2.4 on increased agricultural productivity. The proposed project will also support one of the Millennium Development Goals (Goal 7) on ensuring environmental sustainability.

## **II. PROJECT DEVELOPMENT OBJECTIVE**

### **A. Project Development Objective**

28. The Project Development Objective (PDO) is to improve adaptive capacity<sup>48</sup> of the rural poor engaged in farm-based livelihoods to cope with climate variability and change.

### **B. Project Beneficiaries**

29. The SLACC project will be implemented in 2 states of the NRLM/NRLP reaching about 200 villages corresponding to approximately 10 blocks over a 4-year period.<sup>49</sup> The states of Bihar and Madhya Pradesh have been identified for implementation of the project based on clear criteria which include readiness of the SMMU, capacities and readiness of community structures to receive supplemental funds for adaptation activities, existing capacity and experience in sustainable agriculture, the agro-ecological profile of the state, and anticipated climate change risks and vulnerabilities (see Annex 2 for details). The SLACC project will also reach out to other NRLM/NRLP areas through capacity building and knowledge dissemination from the third year of project implementation (further details on the phased approach are provided in Section II F).

30. The key beneficiaries of the SLACC project will be the institutions of the rural poor supported by the NRLM/NRLP – including, self-help groups of women and their federations, common interest/producer groups, such as farmers' groups, livestock rearers' groups, and their higher order collectives, such as producer companies. These institutions represent the rural poor, the majority of whom directly depend on climate-sensitive sectors, such as agriculture, livestock

and fisheries and have limited adaptive capacity. Also, as these institutions are women-led, it will help the SLACC to focus on the distinct vulnerabilities and adaptive capacity of women.

### C. PDO Level Results Indicators

31. The PDO level results indicators for the proposed project include the following:
- At least 50 percent of the targeted households adopt livelihoods with enhanced climate resilience.
  - At least 50 percent of the targeted households demonstrate strengthened awareness and ownership of adaptation and climate risk reduction processes/measures.

### D. Project Components

32. The NRLM livelihoods promotion approach focuses on ‘vulnerability reduction’ and ‘livelihoods enhancement’ within the key livelihoods that are universally practiced by the rural poor, such as agriculture and livestock. The proposed SLACC intends to support this mandate of promoting sustainable livelihoods by strengthening climate resilience and adaptive capacity to climate variability and change in the context of farm-based livelihoods. The project components and activities to be financed are described below.

33. ***Component 1 –Planning, Service Provision and Implementation of Climate Change Adaptation:*** The *objective* of this component is to support risk assessment, planning, service provision and implementation of climate adaptation interventions. The *key activities* include: (i) community-led risk assessment and participatory planning of climate adaptation interventions; (ii) provision of strategic climate change adaptation services through partnerships with resource institutions; and (iii) implementation of climate adaptation interventions in agriculture by community institutions (self-help groups/federations) utilizing the Community Climate Adaptation (CCA) Grants upon approval of a community adaptation plan. The climate adaptation interventions will include both off-the-shelf as well as specialized interventions that are locale-specific, focus on climate risk management and involve interventions at the household level and/or community level. Funds for implementation of climate adaptation interventions will be provided by the SLACC project, by NRLP’s Community Investment Support, as well as through convergence with other government programs (such as MKSP, MGNREGS). The *key activities to be financed* are: community climate adaptation assessment and planning, CCA Grants, local weather-based agro-advisories, training and deployment of CRPs, and partnerships with resource organizations. The *key outputs* of this component are: (i) community-based climate adaptation measures implemented by 200 community institutions financed by the CCA Grants; and (ii) enhanced community capacity for planning and implementing climate adaptation plans in 200 community institutions. The *key outcomes* of this component are: (i) strengthened awareness of adaptation and climate change processes at the local level; and (ii) strengthened adaptive capacities to reduce vulnerabilities and risks to climate-induced losses.

34. ***Component 2– Scaling and Mainstreaming Community-Based Climate Adaptation:*** The *objectives* of this component are to enable support and build capacity for the implementation of climate adaptation interventions, and to develop the strategy for scaling up. *Key activities* include: (i) capacity building of NRLM national and state staff and creation of a cadre of CRPs; (ii) building knowledge support system for climate adaptation including policy inputs for

scaling-up of the community-based climate adaptation approach within the NRLM. The *key activities to be financed* are: training of NRLM national and state staff in SLACC and non-SLACC areas, training of CRPs from non-SLACC areas of NRLM; development and publication of knowledge products including adaptation planning tool and policy briefs; website and annual meetings of consortium of resource organizations; and policy seminars. The *key outputs* of this component are: (i) 400 district and sub-district staff of NRLM trained on climate adaptation; (ii) a cadre of 400 trained CRPs; (iii) differentiated information, education, communication (IEC) and knowledge products on climate adaptation (community adaptation planning tool and manual, CRP training curriculum, web-based inventory of climate adaptation actions, audio visuals); (iv) a website of a consortium of resource organizations on climate adaptation; (v) seminars for sharing insights/lessons for policy making with the government, donors and non-government organizations (NGOs);(vi) guidelines on climate change adaptation developed for the national livelihoods implementation framework; and (vii) policy briefs on themes relevant to climate adaptation and rural livelihoods. The *key outcomes* of this component are: (i) strengthened operational capacity of national and state officials and representatives for integrating climate adaptation into livelihood support activities; and (ii) evidence of climate change mainstreaming into national and state livelihood program frameworks.

35. **Component 3 – Project Management and Impact Evaluation:** SLACC will support Component 4 of the NRLP by augmenting the management units within the NRLM and SRLM institutional structure to enable coordinated functioning and efficient implementation of SLACC. The *activities* that the project will invest in include: (i) establishment of climate adaptation units staffed with full-time professionals within the NRLM and the SRLMs of the participating states; (ii) establishment of a monitoring system and evaluation arrangements (baseline, mid-term and end-of-term); (iii) fiduciary, environmental and social safeguards management. The *key outputs* of this activity are: (i) climate adaptation units in NRLM and SRLMs; (ii) evaluation reports (baseline, mid-term and end-of-term); and (iii) environmental and social safeguards audit reports. The *key outcome* of this component is efficient and effective management of SLACC components.

## E. Project Financing

### Lending Instrument

36. The SLACC project is supported by a US\$8 million grant from the Global Environment Fund's (GEF) Special Climate Change Fund (SCCF). The co-financing identified for the project is US\$55 million. The following table summarizes the details of the co-financing.

**Table 2: Details of Co-financing**

Source of Co-financing	Details of Co-financing	Co-financing Amount (US\$ M)
MoRD, GoI – NRLM <sup>50</sup>	Grant / In-kind	30.5
MoRD, GoI – MKSP <sup>51</sup>	In-kind	3.3
MoRD, GoI – MGNREGS	In-kind	1.7
Bank Linkage	In-kind	16.7
<b>Total</b>		<b>52.2</b>

### Project Cost and Financing

37. The following table summarizes the project costs supported by the SCCF.

**Table 3: Summary of Project Costs**

Project Components	Project cost US\$ million	GEF SCCF Financing US\$ million	Percent Financing
<b>Component 1:</b> Planning, Service Provision and Implementation of Climate Change Adaptation	7.82	5.86	74.93
<b>Component 2:</b> Scaling and Mainstreaming Community Based Climate Adaptation	1.27	1.27	100.00
<b>Component 3:</b> Project Management and Impact Evaluation	0.72	0.55	76.38
<b>Total Baseline Costs</b>	9.81	7.69	78.38
Physical and price contingencies	0.39	0.31	
<b>Total Project Costs</b>	10.21	8.00	
Interest during implementation	0	0	
Front-end fees	0	0	
<b>Total Financing Required</b>	10.21	8.0	78.35

### F. Implementation Phases

38. SLACC will be implemented in three tracks as described in the following paragraphs.

39. *Track 1 – Resource Villages:* The community-based climate adaptation approach will be demonstrated in about 100 villages in the 2 states (Bihar and Madhya Pradesh) from the first year of project implementation. These are called ‘resource villages’ as they will be the primary resource for further expansion and scaling-up of climate adaptation interventions in NRLM. The key project inputs to resource villages are field implementation support, CRPs, training and a CCA Grant. The resource villages will also enable the development of a range of knowledge products to be utilized for scaling-up.

40. *Track 2 – Expansion Villages:* Demonstrative implementation of the community-based climate adaptation approach will be expanded to 100 more villages in the 2 states from the second year of project implementation. These villages are referred to as ‘expansion villages’. The key project inputs provided to the expansion villages are field implementation support, CRPs, training and a limited CCA Grant.

41. *Track 3 – Scaling-up:* As described in the preceding paragraphs, the demonstration of community-based climate adaptation approach will be done in about 200 villages in 2 states. These are likely to be spread across about 10 blocks (sub-district administrative units). Scaling-up of the approach into NRLM’s livelihood interventions to the other blocks in these 2 states, as well as to other states, will be the focus in the third and fourth year of project implementation. Scaling-up will be facilitated through policy inputs, training and dissemination of knowledge products.

## G. Lessons Learned and Reflected in the Project Design

42. The SLACC project builds on experiences from Bank-supported livelihood projects (in Andhra Pradesh, Bihar, Madhya Pradesh, Orissa, Rajasthan and Tamil Nadu) relevant to managing climate risk and building adaptive capacity. These include the initiatives on sustainable agriculture in Andhra Pradesh, natural farming in Bihar, responsible soy in Madhya Pradesh, among several others. SLACC also has an opportunity to learn from and share with other projects and initiatives in the areas of community coastal and flood protection and associated livelihoods. The activities proposed in the SLACC project have incorporated lessons learned from a number of donors, government and non-government financed initiatives on climate change adaptation relevant to drought and flood contexts. These include:

- National Initiative on Climate Resilient Agriculture – Central Research Institute for Dryland Agriculture (CRIDA) under the Indian Council for Agricultural Research, GoI
- Weather Based Crop Insurance under the Agricultural Insurance Corporation
- Community Managed Sustainable Agriculture – Society for Elimination of Rural Poverty (SERP), Government of Andhra Pradesh and Centre for Sustainable Agriculture
- Climate Change Adaptation (Weather-based agro-advisories, Water budgeting, People's Biodiversity Register, etc.) – Watershed Organization Trust (WOTR)
- Revitalizing Rainfed Areas (RRA) Network – Comprehensive Pilots – Watershed Support Services and Activities Network (WASSAN)
- Initiatives on climate change adaptation (rainfall index insurance, farm ponds, millets, etc.) – Dhan Foundation
- Strategic Pilot on Adaptation to Climate Change Project (Participatory Climate Monitoring, Farmers' Climate Schools, etc.) – Bharati Integrated Rural Development Society (BIRDS)
- Agro-biodiversity conservation – Deccan Development Society
- Kosi Flood Recovery and Reconstruction Project of the United Nations Development Program and the government of Bihar
- Bihar Kosi Flood Recovery Project of the World Bank and the government of Bihar
- Climate Resilient Coastal Protection and Management by the Asian Development Bank and the governments of Karnataka and Maharashtra.
- National Agriculture Innovation Project (NAIP) of the World Bank and GoI.
- Sustainable Land and Environmental Management (SLEM) Project of the World Bank and GoI.

43. The following important lessons have been considered and incorporated accordingly in the design of the SLACC:

- *The multiple State Action Plans on Climate Change for India provide a compilation of existing state government programs that contribute to climate resilience however they lack the operating and institutional mechanisms required for implementation. SLACC will demonstrate implementation and mainstreaming of climate risk reduction into livelihoods of the rural poor through interventions with community institutions as well as with national and state institutional frameworks.*
- *Building adaptation capacity requires a combination of multiple, locally relevant interventions identified through a participatory planning process: Several existing initiatives in India – especially the work of WOTR, RRA Network, Dhan Foundation, Food and Agricultural Organization (FAO) and National Initiative on Climate Resilient Agriculture*

(NICRA) – have demonstrated that there is no silver bullet to building climate adaptation capacity. It requires multiple interventions related to production, ecological, technological and financial systems operating at multiple levels ranging from individual farms to common property resources that are tailored to local needs.

- *Conservation techniques involving sustainable land and water management can buffer against climate change:* Interventions such as re-vegetation, physical structures for managing water flows, changes in cropping systems, and promotion of conservation tillage, are expected to enhance resilience to climate variability. Bank-supported projects involving such interventions have increased crop yields positively affecting the livelihoods of households in the project area.<sup>52</sup>
- *Weather-based agro-advisory services can help farmers make climate smart decisions but operation and maintenance needs attention:* Hydromet services offer potentially high economic returns, especially for early warning systems, seasonal forecasts, non-disaster weather forecasts, participatory hydrological monitoring and farmer climate schools. However, maintenance is a problem and cannot be fully resolved by switching to automated systems.<sup>53</sup> The SLACC project aims to experiment with agro-advisories using various models of institutional collaboration that can address the issue of maintenance during the pilot phase.
- *Weather-based index insurance is relevant but not enough by itself:* Index-based insurance, an important approach to risk management, can help households protect their productive assets and consumption, and enable them to pursue riskier, but potentially more profitable farming strategies. However, the gains may be too modest to justify paying an unsubsidized insurance premium each year. The Weather Based Crop Insurance Scheme in India (one of the largest in the world), also faces similar issues with respect to basis risk.<sup>54</sup> The real payoff from index insurance arises when it unlocks access to high-value markets, modern technologies and inputs, agricultural information, and credit and other financial services.<sup>55</sup>
- *Adaptation interventions need to be targeted to particular groups and their characteristics:* A Bank study<sup>56</sup> comparing adaptation in Ethiopia, Mali and Yemen concluded that the effectiveness of any strategy and constraints preventing its adoption are influenced by household characteristics, and also that the interventions need to be properly targeted and designed to reach the most vulnerable groups and women. The growing global community of practice on community-based adaptation facilitated by the International Institute for Environment and Development (IIED) also points to the need for identifying local solutions based on differential risk characterization.
- *Adoption of technical solutions needs an enabling environment including incentives:* Most of the technical solutions to community-based climate adaptation are relatively simple. The real challenge lies in the creation of an enabling institutional and administrative framework that will facilitate the technical solutions to be accepted and implemented. Local-level actions can be changed to encourage adaptive practices by creating new incentives, such as subsidies or sanctions.<sup>57</sup>
- *Linkage with a larger livelihood program:* The Bank-supported Andhra Pradesh Drought Adaptation Initiative (APDAI) was linked to the Andhra Pradesh Rural Poverty Reduction Program (APRPRP), and drew heavily on village and sub-district level community institutions that had been developed under APRPRP. APDAI supported the development, testing and implementation of adaptation technologies for natural resource-based economic activities in dry lands. The lessons and best practices from APDAI were mainstreamed into several programs (such as the MGNREGS, IWMP, and APRPRP), and helped to sensitize the

technical and bureaucratic officials and contributed to policy thinking on certain issues such as participatory groundwater management. The key lesson learned from this experience is that there is significant scope for scaling up climate change adaptation into a wider array of state rural development programs by incorporating a dedicated climate change component into a rural livelihoods program. This leads to the linkage envisaged between the SLACC project and the NRLM.

- *Linkage with a larger social protection program:* The potential of MGNREGS, India's flagship rural public works program, to contribute to climate-smart livelihoods through institutions of collective action has been well recognized.<sup>58</sup> However, a continuing challenge in most states is a deficit in creating institutional arrangements and in timely coordination for interventions involving common property resources through self-help groups and their federations in collaboration with the gram panchayats that are mandated for planning and implementation of MGNREGS. This has led to missed opportunities under MGNREGS with respect to climate resilience outcomes of the assets created in addition to employment generation. SLACC will endeavor to address these challenges in the targeted states to maximize the prospects for leveraging MGNREGS funds as well as contribute to longer-term livelihoods security and climate resilience.
- *Resource institutions:* Experiences from Bank-supported livelihood projects (in Andhra Pradesh and Bihar) have shown that building partnerships with key institutions that can provide technical and implementation support at the state and district levels is critical to introducing and scaling-up innovations for sustainable livelihoods.
- *Community cadre for climate change adaptation:* Experiences from Bank-supported livelihood projects (in Andhra Pradesh and Bihar) have shown that a key mechanism for outreach and ensuring sustainability at the village level is the creation of a cadre of CRPs – motivated individuals identified from within communities, who are then trained, and their services utilized for reaching out to the community at large.

### III. IMPLEMENTATION

#### A. Institutional and Implementation Arrangements

44. *National Level:* MoRD is the key implementation agency and National Rural Livelihoods Promotion Society (NRLPS) under the MoRD would be responsible for management, supervision, guidance and technical support. The NRLPS will coordinate with the SRLMs for smooth implementation of the SLACC project and also be responsible for the development of a strategy for scaling-up climate adaptation interventions within the NRLM. The NRLPS has designated a team of four officials to support the SLACC project. The official in-charge of Institutional Building and Capacity Building in NRLPS will lead the coordination of SLACC, until a National CCA Coordinator is designated from the existing officials in the Livelihoods Unit of the NMMU for the SLACC project. The National CCA Coordinator will provide overall strategic guidance and help to integrate the SLACC project into the NRLM. This designated official will be in addition to two experts placed by the Lead Technical Support Agency (LTSA) in the NMMU.

45. *State Level:* The Madhya Pradesh Rajya Ajeevika Forum (MPRAF) will be the nodal agency for SLACC implementation in Madhya Pradesh, while the Bihar Rural Livelihoods Society (BRLPS) will be the nodal agency for SLACC implementation in Bihar. These SRLMs

will be responsible for the outputs and outcomes of the project at the state level, and for mobilizing co-financing. The SRLMs established by the rural development departments in the states are nodal agencies for coordinating and implementing the project at the state level. The SRLMs will be responsible for the overall outputs and outcomes of the project at the state level, and for mobilizing co-financing and required technical support from other national and state programs/schemes. The SRLMs will be augmented with dedicated staff for managing project implementation. Each SRLM has designated a focal point for the SLACC project throughout implementation. In addition, each SRLM will recruit a State CCA Coordinator who, along with a Climate Adaptation Expert placed by the LTSA, will be responsible for the SLACC project implementation. In addition, two “young professionals” will be placed in each SRLM to support the State CCA Coordinator and the Climate Adaptation Expert. The implementation arrangements in the two participating states will include partnerships with NGOs as well as direct implementation by the SRLMs. As part of SLACC support, the NGO implementation partners and the SRLMs will appoint District and Cluster CCA coordinators who will operate at the district/block and cluster levels. A resource pool of individuals and organizations on climate adaptation will be identified to provide technical support on climate adaptation to the SRLMs as and when required. At the state level, the SRLM will lead an institutional mechanism for inter-departmental coordination involving the line departments outside of NRLM (agriculture, watershed, forestry, water resources, MGNREGS and livestock) to facilitate timely convergence of departmental programs and sharing of experiences and best practices.

46. *Lead Technical Support Agency (LTSA)*: An LTSA is critical for successful implementation of the SLACC project. The role of the LTSA includes: (i) development of planning and knowledge tools; (ii) technical support; (iii) training and capacity building; and (iv) policy inputs, documentation and sharing lessons. The LTSA will position two climate adaptation experts at the NMMU and one expert in each of the SRLMs to provide high-quality technical guidance and leadership.

47. *Institution for Evaluation*: An independent institution(s) will be appointed by the SRLMs to undertake evaluation of SLACC project implementation including establishment of baseline, mid-term and end-of-term evaluation.

48. *Community Institutions*: The SLACC will work with community institutions supported by the NRLM. These include the primary federations of women’s self-help groups as well as common interest/producer groups and producer companies. A trained CRP will be placed in each village or producer company to provide ongoing support to these institutions on climate adaptation planning, implementation and monitoring. A committee will be created within the community institution to anchor climate adaptation interventions.

## **B. Results Monitoring and Evaluation**

49. The objective of the SLACC’s monitoring and evaluation (M&E) system will be to facilitate result-based management and provide the basis for evidence-based decision-making processes. The M&E system is also intended to enhance learning on adaptive management during implementation because of the considerable uncertainties involved in community-based adaptive interventions that still require experimentation and learning. The M&E system will



employ a variety of tools to provide continuous feedback to the project management and other stakeholders on the progress and quality of project implementation.

50. *Monitoring:* Monitoring would include regular reporting of outputs and outcomes based on indicators (specified in the Results Framework in Annex 1 and in the Tracking Tool) and drawing on multiple information sources. The project will invest in a fully computerized, web-based management information system (MIS) that will include tracking of co-financing of the climate adaptation plans. The monitoring system will also separately track the outputs and outcomes of each of the three strategic tracks. The SMMUs will include a Knowledge Management Specialist dedicated to SLACC for project monitoring.

51. Participatory self-monitoring by community institutions will be facilitated through an appropriate tool, which will enable identification and tracking of indicators to reflect performance on climate adaptation. This will include the establishment of suitable mechanisms in community institutions, such as a monitoring sub-committee in the community institution, and a public display board in the village that will put on view information on the indicators.

52. *Evaluation:* The project will invest in hiring the services of an agency to undertake baseline, mid-term and end-of-term evaluation of SLACC implementation in both the states. The Bank will leverage NRLP's social observatory program and trust funds for this purpose. Impact evaluations will provide information on achievement of outputs and outcomes based on indicators specified in the Project Results Framework (Annex 1) and the GEF Tracking Tool. Evaluation studies will capture the impacts of each of the three strategic tracks separately by establishing appropriate counterfactuals. Since the impact of the project, will be seen as additionality over the NRLP, sufficient attention will be given in determining the appropriate counterfactuals. Therefore, for the purposes of the impact evaluation, the outcomes of interest will be compared over identical villages in terms of baseline socioeconomic and climatic conditions across sets of randomly selected villages belonging to three categories: (i) NRLP, SLACC villages, (ii) NRLP, non-SLACC villages and (iii) Non-NRLP, non-SLACC villages. The selection of the villages into the treatment (NRLP, SLACC villages) and control (NRLP, non-SLACC villages; non-NRLP, non-SLACC villages) groups will be made taking into consideration the drought/flood exposures of villages developed through participatory village profiling. The evaluation studies will assess the outcomes and impacts of the interventions through a variety of indicators reflecting: (i) poverty and household impacts, (ii) productive change, (iii) adoption of adaptive practices and systems, and (iv) capacity and services. Some specific examples of outcomes of interest are household income and income variability, livelihoods diversification, agricultural productivity, area of farmland having adopted adaptive practices, and number of soil and water conservation works. The tools and indicators for the evaluation will draw from guidance manuals and e-learning tools of the International Fund for Agricultural Development (IFAD), World Bank, FAO and German Society for International Cooperation (GIZ), which are applicable to climate smart agriculture. The project will also undertake/commission small thematic research studies to capture specific impacts of climate adaptation interventions.

### **C. Sustainability**

53. Sustainability of the proposed investments is envisaged at three levels: (i) policy, (ii) institutional, and (iii) financial.

54. The project is expected to build a culture of results and policy development in community-based adaptation through activities such as preparing best practices/policy notes to provide strategic direction to community-based climate change adaptation in the country. These policy advocacy initiatives will help mainstream and ensure sustainability of interventions. The co-financing of the project by the MoRD – through the national initiatives of NRLP, MKSP and MGNREGA – builds the foundation for mainstreaming and sustainability of the community-based climate adaptation approach into rural livelihood programs. Further, the SLACC project will also invest in building partnerships with institutions that could continue research and implementation to build climate resilience in communities.

55. The SLACC project aims to develop institutional capacities at multiple levels so that they are sustained in the long term. The project seeks to build capacities in community institutions, i.e. primary federations of self-help groups and common interest/producer groups and producer companies, for climate adaptation. This mechanism will consist of: (i) the establishment and operation of a CCA Grant for financing adaptation activities in the community, (ii) the establishment of a committee within the community institution to anchor the CCA intervention, and (iii) the appointment and management of CRPs on a relatively large scale who will facilitate the development, implementation and monitoring of climate adaptation plans. Some of the results indicators for the project will specifically track performance on sustainability of the institutional mechanisms at the community level, such as the percentage of community institutions that leverage technical and/or financial support for climate adaptation plans through convergence with government programs. At the national, state and district levels, a large number of institutional staff will be trained on the job and/or otherwise on technical themes on climate change adaptation in order to sustain capacities within the NRLM institutional structure. The project will also provide high quality technical inputs and engage with various actors (district administrators, line department personnel, local governments (gram panchayats), etc.) during implementation of the project in order to mainstream climate risk reduction and awareness measures into the relevant institutional mechanisms of the state governments.

56. Finally, SLACC will bear the costs of experimentation and learning as well as for setting up systems that would sustain the activities beyond the project. Financial support for SLACC interventions will come through a CCA Grant set up in cooperation with the community institutions. This CCA Grant will be utilized by the Village Organizations (VOs) for providing onward loan/grant support to self-help groups for implementation of adaptation activities. In this way, at least a part of the CCA Grant will be self-sustaining with paid-back loans enabling a second cycle of onward loan/grant support for adaptation activities.

## IV. KEY RISKS AND MITIGATION MEASURES

### A. Risk Ratings Summary

**Table 4: Risk Ratings Summary**

<b>Risks</b>	<b>Rating</b>
<b>Stakeholder Risk</b>	<b>Moderate</b>
<b>Implementing Agency Risk</b>	<b>Moderate</b>
Capacity	Moderate
Governance	Moderate
<b>Project Risk</b>	<b>Moderate</b>
Design	Moderate
Social and Environmental	Moderate
Program and Donor	Moderate
Delivery Monitoring and Sustainability	Moderate
Other (Disaster Risk)	Moderate
Other (Optional)	-
<b>Overall Implementation Risk</b>	<b>Moderate</b>

### B. Overall Risk Rating Explanation

57. The overall risk to achieve the SLACC PDO is likely to be *moderate*. The project and its design are built on proven experience of various state-level livelihood and climate adaptation projects in India that have mostly been successful in achieving their development objectives. SLACC builds on the organization and capacity of the NRLM to provide necessary support to scale-up activities. The geographical scope of the project has been selected so as to not spread resources thin and with an expected high probability of positive implementation. The NRLP has recently been restructured in view of the delay in its implementation. While the NRLP implementation risk is rated as high, mitigation measures have been outlined for SLACC implementation. The detailed risk assessment and proposed mitigation measures for the SLACC Project are provided in Annex 4.

## V. APPRAISAL SUMMARY

### A. Economic and Financial Analyses

58. SLACC invests in robust (no-regret) actions that combine adaptation to climate variability with adaptation to climate change. These actions already provide net benefits under current climate patterns considering the adaptation deficit that exists in India, and will continue to do so under future scenarios.

59. Typically, the economic analysis of a project that aims to improve the adaptive capacity of households in rural areas facing significant climate variability needs to consider the potential impacts that climate change could have on agricultural productivity in the project villages and the differential impacts on the various socioeconomic groups (e.g. large, small, marginal farmers and scheduled castes and scheduled tribes), assuming either autonomous adaptation only, or no adaptation at all. This is followed by estimating the expected loss avoided through various adaptation activities or net benefit of adaptation which is the difference between climate change

induced losses with and without adaptation. Since predictions of future climate scenarios is plagued with uncertainties, especially at the local level, estimating the expected benefits and expected losses is difficult and time consuming. Further the project is based on demand driven climate adaptation plans developed at the local level depending upon local agro-economic conditions and expected scenarios of future changes in climate, making it difficult to predict the exact adaptation activities that will be undertaken in each village.

60. While an economic analysis has not been undertaken during SLACC project preparation, available evidence indicates that project investments have the potential for significant economic returns. An IEG study<sup>59</sup> of 22 Bank projects, initiated between 1998 and 2011 on adaptation to climate variability and change, found that projects in the areas of ‘watershed management’ and ‘sustainable land and water management’ had positive payoffs and increased crop yields, affecting positively the livelihoods of households in the project areas. Where reported, the economic returns to these projects were high, with a median economic rate of return of 20 percent and yield increases of 20–70 percent.<sup>vii</sup> Initiatives on improving hydromet services were also reported to offer potentially high economic returns.<sup>60</sup> Further, a recent study conducted by the Economics of Climate Adaptation Working Group based on test case studies in several countries showed that climate adaptation activities tend to have very favorable cost–benefit ratios.<sup>viii</sup> As shown in Table 4 (above), most of the adaptation actions in cropping and livestock systems tend to have a cost–benefit ratio below one, indicating that the loss averted is greater than the cost of investment. Further, several adaptation actions in the cropping system have a cost–benefit ratio below zero, suggesting that such adaptation actions are expected to not only pay for themselves with the expected loss averted, but also generate additional economic value, which necessitates their implementation regardless of the climate risk.

61. Apart from cost–benefit ratios, decision to undertake a particular adaptation investment will depend upon several factors including risk appetite, non-economic and institutional factors in implementation and the potential of that measure to reduce total expected loss within a specified time horizon under a given climate scenario. Besides, the positive externalities that adaptation investments can generate tend to have a public good element, which needs to be factored into decision-making. Evidence from Andhra Pradesh suggests that for all NREGS-participating households the propensity to make land-related investment increases by 22.2 percent and the propensity to undertake NREGS-supported land investment increases by 22.9 percent.<sup>ix</sup> Since the SLACC operates as an enhancement of the NRLP with linkages to NREGS and MKSP, enabling villages to make climate sensitive adaptation plans, it is expected that the project will further enhance the effect of these programs on land-related investments by households with a focus on improving adaptive capacity to climate variability.

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<sup>vii</sup> Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition). Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>viii</sup> Economics of Climate Adaptation Working Group: Shaping Climate Resilient Development: A Framework for Decision-making; 2009. [http://www.mckinsey.com/App\\_Media/Images/Page\\_Images/Offices/SocialSector/PDF/ECA\\_Shaping\\_Climate%20Resilient\\_Development.pdf](http://www.mckinsey.com/App_Media/Images/Page_Images/Offices/SocialSector/PDF/ECA_Shaping_Climate%20Resilient_Development.pdf).

<sup>ix</sup> Deininger, K. and Yanyan Liu, 2013. Welfare and Poverty Impacts of India's National Rural Employment Guarantee Scheme: Evidence from Andhra Pradesh, Policy Research Working Paper 6543, The World Bank.

**Table 5. Cost–Benefit Ratios of Selected Adaptation Actions**

<b>Adaptation Actions</b>	<b>Cost–Benefit Ratio</b>	<b>Country</b>		<b>Risk</b>
Drainage systems (rain fed)	-2.2	Maharashtra	Cropping System	Drought
Soil techniques	-0.8	Maharashtra	Cropping System	Drought
Drainage systems (irrigated)	-0.16	Maharashtra	Cropping System	Drought
Irrigation controls	0.01	Maharashtra	Cropping System	Drought
Drip irrigation	0.02	Maharashtra	Cropping System	Drought
Crop engineering (irrigated)	0.1	Maharashtra	Cropping System	Drought
Integrated pest management (irrigated)	0.11	Maharashtra	Cropping System	Drought
Integrated pest management (rain fed)	0.12	Maharashtra	Cropping System	Drought
Sprinkler irrigation	0.12	Maharashtra	Cropping System	Drought
Watershed + rain water harvesting	0.12	Maharashtra	Cropping System	Drought
Cash crops (delta area)	0.16	Mali	Cropping System	Climate zone shift
Cash crops (non delta area)	0.26	Mali	Cropping System	Climate zone shift
Seeds engineering	0.3	China	Cropping System	Drought
Open wells ref-flooding (canal digging)	0.45	Mali	Cropping System	Climate zone shift
Mulching	0.5	China	Cropping System	Drought
Mini lagoons	0.59	Mali	Cropping System	Climate zone shift
Micro water storage	0.7	China	Cropping System	Drought
Crop engineering	0.73	Maharashtra	Cropping System	Drought
Feedstock production	0.76	Mali	Livestock system	Climate zone shift
Large lagoons	0.9	Mali	Cropping System	Climate zone shift
Weather based index insurance	1	Maharashtra	Cropping System	Drought
Feedstock stock ups	1.05	Mali	Livestock system	Climate zone shift
New pastures	1.2	Mali	Livestock system	Climate zone shift

\*Note: Source, "Economics of Climate Adaptation Working Group: Shaping Climate Resilient Development: A Framework for Decision-making; 2009. "

\*\* Cost benefit ratios are calculated in 2008 real dollars

#Maharashtra is a state in India

## **B. Technical**

62. The Bank group's explicit adaptation efforts<sup>61</sup> have largely been on supporting activities that address current climate variability. Projects and country assistance strategies that address climate adaptation have focused on today's climate challenges, including disaster risk management, water management, sustainable agriculture and improving hydromet systems. These are mostly robust (no-regret) options that also boost resilience to future climate patterns,

regardless of how they unfold. This is particularly true of projects that boost institutional capacity (providing greater capability to deal with an uncertain future) as well as household incomes and assets (buffering them against future climate shocks). There is however a need to include adaptation to current climate variability activities in long-term plans and monitor for unexpected maladaptive outcomes, such as widespread planting of trees poorly suited to local conditions that may reduce erosion and boost carbon storage, but could also reduce groundwater recharge in water-scarce regions.

63. The SLACC project integrates the following elements in its strategy for building climate adaptation:

- Build adaptive capacity in community institutions.
- Include adaptation in interventions that enhance livelihoods of rural poor households.
- Focus on no-regret climate adaptation options in key livelihood activities of the rural poor, such as agriculture and livestock.
- Include a robust monitoring and evaluation system to track performance as well as identify any unexpected maladaptive outcomes.

### **C. Financial Management**

64. The financial management arrangements for SLACC will be embedded within the existing arrangements for NRLP. These arrangements are established and well tested and considered adequate for the purposes of meeting the financial management requirements of accounting, financial reporting, etc. for SLACC. These have been described in detail in the financial management section of the appraisal summary in the Project Appraisal Document (PAD) of the NRLP<sup>62</sup> and summarized in Annex 3.

### **D. Procurement**

65. The procurement framework for the NRLP is designed to address the various constraints and challenges normally associated with livelihood operations and were subsequently reviewed during restructuring and considered adequate and no changes were envisaged. The NMMU established under the NRLP will be responsible for project implementation and procurement procedures adopted by the NRLP will also be applicable to the SLACC. These have been described in detail in the 'Procurement' section in 'Annex 3: Implementation Arrangements'.

### **E. Social (including safeguards)**

66. The project recognizes the increased vulnerability of women due to poverty and subsistence dependence on climate-sensitive livelihoods, which affects women adversely and disproportionately. However, the long term social impacts of the project are assessed to be beneficial due to the potential of increased livelihood security and sustainability, and increased capacity to undertake collective action. Given that SLACC villages will cover tribal populations, the Operational Policy (OP) 4.10 on Indigenous People has been initiated. The key social safeguard issue is to ensure that tribal people, as well as other traditionally excluded social and livelihood groups such as the scheduled castes, small/marginal farmers and women farmers in remote habitations get systematically included in community planning, capacity building, and field implementation processes of the project.

67. The MoRD has prepared a Social Management Framework (SMF) for the SLACC project based on ongoing livelihood projects, stakeholder consultations and community interactions. The SMF focuses on inclusion of climate-vulnerable women and men farmers from tribal, scheduled caste and other excluded households. The SMF provides for: (i) participatory identification and priority targeting of beneficiary households; (ii) informed consultations and documentation of broad community support for project interventions during village entry; (iii) collection of gender and socially disaggregated data during community adaptation planning; (iv) engagement of women farmers as climate-smart CRPs; (v) inclusive Climate Adaptation Committee; (vi) core training on climate adaptation practices that is gender-focused and socially inclusive; (vii) use of innovative training, communication and demonstration methods/exposure visits for tribal and scheduled caste women farmers, etc. SLACC will be working with women-led VOs and federations to address the distinct vulnerabilities and capacity needs of women. Women farmers will be supported for assessing, planning, selecting and implementing project interventions. Preparation and implementation of community level adaptation plans and technology selection will be led by women leaders from the VO and will reflect their concerns and priorities. The experiences and lessons on gender and climate change would be reflected and shared through policy and knowledge notes to be developed in the second component of the project.

68. The SMF also includes the institutional arrangements and capacity-building activities for project staff, community institutions and partners at all levels. The key social actions applicable to the SLACC project areas would be integrated in the local adaptation plans and implemented by the SLRM field staff and external partners. A review of SMF implementation will be conducted during mid-term project period. The SMF has been disclosed through the websites of the MoRD and the SRLMs, and on the Bank InfoShop.

#### **F. Environment (including safeguards)**

69. The SLACC project activities are likely to contribute to environmental sustainability; individual activities may have small-scale impacts or may be environmentally benign, without significant and/or irreversible impacts. However, improper planning and management could result in cumulative negative impacts, such as soil erosion, poor water availability and quality, depletion of groundwater, decreasing fodder availability, among others. The project is classified as environmental screening category B as per Bank's OP 4.01. Due to the nature of project activities, the following safeguard policies of the World Bank have been initiated: Environmental Assessment (OP 4.01), Forests (OP 4.36), Natural Habitats (OP 4.04) and Pest Management (OP 4.09).

70. To ensure that the environmental issues are properly managed, due diligence measures have been defined in an Environmental Management Framework (EMF). Since the SLACC is anchored in the existing institutional set up of the NRLPS and SRLMs, and is complementary to the livelihood interventions, the EMF of NRLP has been adapted for the SLACC. The EMF includes the preparation of environmental management plans as part of the CCA Plans; a 'toolkit' providing an indicative format, the list of regulatory requirements and good practice guidelines; a plan for capacity building and monitoring; and, institutional arrangements. An environmental audit of the SLACC Project will be undertaken at mid-term and end-of-term of the project period. The EMF has been disclosed through the websites of the MoRD and the SRLMs, and on the Bank Infoshop.

**Annex 1: Results Framework and Monitoring**  
**INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project**  
**Results Framework**

<b>Project Development Objective</b>											
The Project Development Objective (PDO) is to improve adaptive capacity <sup>63</sup> of the rural poor engaged in farm based livelihoods to cope with climate variability and change.											
<b>PDO Level Results Indicators</b>	<b>Core</b>	<b>Relevant Indicator in Tracking Tool</b>	<b>Unit of Measure</b>	<b>Baseline</b>	<b>Cumulative Target Values</b>				<b>Frequency</b>	<b>Data Source / Methodology</b>	<b>Responsibility for Data Collection</b>
					YR1	YR2	YR3	YR4-end target			
<b>Indicator One:</b> At least 50% of the targeted households adopt livelihoods with enhanced climate resilience	<input type="checkbox"/>	Indicator 1.3.1.1 – % of targeted households that have adopted resilient livelihoods under existing and projected climate change	Percentage of households	0	-	10%	25%	50%	Yearly; mid-term and end-of-term evaluation	Score on a climate resilience index that will be developed. MIS, monitoring reports, evaluation	NMMU, SMMU; external evaluation
<b>Indicator Two:</b> At least 50% of the targeted households demonstrate strengthened awareness and ownership of adaptation and climate change risk reduction processes/measures	<input type="checkbox"/>	Indicator 2.2.2 – Capacity perception index  Indicator 2.3.1 – % of targeted population awareness of predicted adverse impacts of climate change and appropriate responses	Percentage of households	0	-	20%	40%	50%	Yearly; mid-term and end-of-term evaluation	MIS, monitoring reports, evaluation	NMMU, SMMU; external evaluation
<b>INTERMEDIATE RESULTS</b>											
<b>Intermediate Result (Component 1):</b> Support community-based planning and implementation of climate adaptation interventions.											
<b>Intermediate Results Indicators</b>	<b>Core</b>	<b>Tracking Tool Reference</b>	<b>Unit of Measure</b>	<b>Baseline</b>	<b>Cumulative Target Values</b>				<b>Frequency</b>	<b>Data Source / Methodology</b>	<b>Responsibility for Data Collection</b>
					YR1	YR2	YR3	YR4-end target			
<i>Indicator One:</i> At least 8000farmers	<input type="checkbox"/>	Indicator 1.2.1.3– Climate resilient	Number of farmers	0	2000	6000	8000	8000	Yearly	MIS, monitoring	NMMU and SMMU



demonstrate climate resilient agricultural practices	agricultural practices introduced to promote food security									reports
	Indicator 2.3.1.1 – Risk reduction and awareness activities introduced at local level.									
<i>Indicator Two:</i> At least 30% of the community institutions access technical and/or financial support for climate adaptation plans through convergence with government programs.	<input type="checkbox"/>	Percentage of community institutions	0	-	10%	20%	30%	Yearly; mid-term and end-of-term evaluation	MIS, monitoring reports, evaluation	NMMU, SMMU; external evaluation

**Intermediate Result (Component 2):** Build core operational capacity and relevant knowledge base/networks for broader scaling and mainstreaming of climate adaptation interventions.

Intermediate Results Indicators	Core	Tracking Tool Reference	Unit of Measure	Baseline	Cumulative Target Values				Frequency	Data Source / Methodology	Responsibility for Data Collection
					YR1	YR2	YR3	YR4-end target			
<i>Indicator One:</i> At least 800 VO/self-help groups and community resource persons are trained in adaptation-related technologies.	<input type="checkbox"/>	Indicator 2.2.1 – Number and type of targeted institutions with increased adaptive capacity to reduce risks and response to climate variability	Number of community-based individuals	0	200	400	600	800	Yearly	MIS, monitoring reports	NMMU and SMMU
		Indicator 2.3.1.2 – Number and type of community groups trained in climate change risk reduction									
<i>Indicator Two:</i> At least 300 staff of state and district offices as well as extension and rural service providers	<input type="checkbox"/>	Indicator 2.2.1.1 – Number of staff trained on technical adaptation themes	Number of staff	0	0	0	150	300	Years 3 and 4	MIS, monitoring reports	NMMU and SMMU

trained on technical adaptation themes.											
<i>Indicator Three:</i>	<input type="checkbox"/>	Indicator 1.1.1 – Adaptation actions implemented in national/sub-regional development frameworks.	Number of guideline documents developed and disseminated	0	0	0	0	1	End-of-term evaluation	Evaluation	NMMU; External evaluation
Climate change adaptation guidelines developed for NRLM Implementation Framework and disseminated to all SRLMs											

<b>Intermediate Result (Component 3):</b> Establish management units within the NRLM and SRLM institutional structure to enable coordinated functioning and efficient implementation of SLACC.											
Intermediate Results Indicators	Core	Tracking Tool Reference	Unit of Measure	Baseline	Cumulative Target Values				Frequency	Data Source / Methodology	Responsibility for Data Collection
					YR1	YR2	YR3	End Target			
<i>Indicator One:</i> Established Climate Adaptation Units staffed with full-time professionals within the NMMU and the SRLMs of the participating states			Number of climate adaptation units	0	3 (NMMU plus 2 SRLMs)	3	3	3	Yearly; mid-term and end-of-term evaluation	MIS, monitoring reports	NMMU and SMMU
<i>Indicator two:</i> State level implementation teams/resource agencies for providing field level implementation support appointed and operational			Number of state level teams	0	2	2	2	2	Yearly; mid-term and end-of-term evaluation	MIS, monitoring reports	NMMU and SMMU

## Annex 2: Detailed Project Description

### INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project

#### Project Area and Scope

1. The proposed SLACC project intends to build adaptive capacity in the institutions of the rural poor, supported by the NRLM, to enable them to undertake effective adaptation measures that will enhance livelihood sustainability. The NRLP is being implemented as part of the NRLM in 13 high poverty states accounting for approximately 90 percent of the rural poor in the country: Assam, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

2. The SLACC project will be implemented in 2 states of NRLP – Bihar and Madhya Pradesh – reaching about 200 villages. The states of Bihar and Madhya Pradesh have been identified for developing, demonstrating and scaling-up community-based climate change adaptation for the following reasons:

- Vulnerability to climate change: 30 of the Madhya Pradesh's 45 districts and 21 of Bihar's 37 districts are categorized as having very high to high vulnerability of agriculture to climate change.<sup>x</sup>
- Readiness for implementation: State, district and cluster level implementation arrangements are in place in both the states. In addition to the SMMU, Madhya Pradesh has 9 DMMUs and 164 PFTs<sup>xi</sup> while Bihar has 12 DMMUs and 213 PFTs<sup>xii</sup> that are established and functional.
- Institutional capacity of the SRLMs: Bihar and Madhya Pradesh are among the better performing states under the NRLM and account for 17 percent of its total budget.<sup>xiii</sup> Both SRLMs have settled teams and good fiduciary capacities, including at decentralized levels. The Bihar SRLM is also a National Resource Organization under the NRLM providing support to other states. Both states have the experience of implementing Bank supported livelihood projects – and have gathered significant expertise in supporting agriculture-based livelihoods:
  - Madhya Pradesh: 17 district based producer companies (15 agriculture, 1 dairy, 1 poultry) having active membership of 42,000 shareholders are being supported for aggregated production and contract marketing.<sup>xiv</sup>
  - Bihar: About 182,800 farming families in 1,278 villages are being supported for adopting the System for Crop Intensification across 21 crops.<sup>xv</sup>

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<sup>x</sup> Rama Rao CA, Raju BMK, Subba Rao AVM, Rao KV, Rao VUM, Ramachandran K, Venkateswarlu B and Sikka AK (2013). *Atlas on Vulnerability of Indian Agriculture to Climate Change*. Central Research Institute for Dryland Agriculture, Hyderabad P 116.

<sup>xi</sup> *Annual Action Plan for Madhya Pradesh for Implementing NRLM 2013-14*, Madhya Pradesh Rajya Ajeevika Forum, Government of Madhya Pradesh.

<sup>xii</sup> Personal communication with BRLPS officials in May 2013.

<sup>xiii</sup> Budget allocation under NRLM. 2013-14. Viewed at [www.aajeevika.gov.in](http://www.aajeevika.gov.in) on 30 January 2013.

<sup>xiv</sup> DPIP, Madhya Pradesh Rajya Ajeevika Forum, Government of Madhya Pradesh. Viewed at <http://mpraf.nic.in> on 30 January 2014.

<sup>xv</sup> *Annual Report 2012-13*. Jeevika. BRLPS, SRLM, Government of Bihar.

- Institutional capacity at community level: Self-help groups and VOs have been developed at a significant scale and are functional in the NRLP implementation areas in both states. The SLACC project aims to work with VOs and self-help groups who have received the Community Investment Fund and will therefore take advantage of the implementation and capacities already created by the NRLM architecture. Essential book keeping arrangements exist at the level of self-help groups/VOs and MIS/financial reports provide information on all sources and uses of funds. Efforts are underway to bring in technology solutions to facilitate the financial reporting and documentation requirements at this level.
  - Madhya Pradesh: The planned outreach in 2013-14 is Community Investment Fund through the VOs to 7000 self-help groups; Vulnerability Fund to 200 VOs;<sup>xvi</sup>
  - Bihar: The planned outreach in 2013-14 is Community Investment Fund to 25,470 self-help groups; Vulnerability Fund to 1,227 VOs,<sup>xvii</sup>
- Scope for convergence with MGNREGS and MKSP:
  - Madhya Pradesh: 15 blocks in 3 NRLP districts have been identified for convergence with MGNREGS;<sup>xviii</sup> 4 MKSP projects targeting outreach to 30,500 farmers are being implemented in the state – including 5 NRLP districts.<sup>xix</sup>
  - Bihar: 6 blocks in 3 NRLP districts have been identified for convergence with MGNREGS;<sup>xx</sup> 3 MKSP projects targeting outreach to 182,500 farmers are being implemented in the state, including in 1 NRLP district.<sup>xxi</sup>

## Project Phasing

3. SLACC will be implemented in three tracks as described in the following paragraphs.

4. *Track 1 – Resource Villages:* A community-based climate adaptation approach will be demonstrated in about 50 villages each in Bihar and Madhya Pradesh from the first year of project implementation. These villages are referred to as ‘resource villages’ as they will be the primary resource for further expansion and scaling-up of climate adaptation interventions in NRLM. The experience and expertise generated in the resource villages will be utilized to trigger climate adaptation planning in other villages through a range of IEC (information, education, communication) methods including CRPs, participatory video, immersion, exposure visits, etc. The key project inputs provided for developing resource villages are field implementation support, training and an adaptation grant (also referred to as CCA Grant). The resource villages will enable the development of a range of knowledge products (including a community

<sup>xvi</sup> Annual Action Plan for Madhya Pradesh for Implementing NRLM 2013-14, Madhya Pradesh Rajya Ajeevika Forum, Government of Madhya Pradesh.

<sup>xvii</sup> Minutes of Empowered Committee Meeting, 19 June 2013 for Approval of Annual Action Plan of Bihar 2013-2014. National Rural Livelihoods Mission.

<sup>xviii</sup> Project for convergence of MGNREGS, NRLM and CFT strategy. J-11012/01/2012-MGNREGA. 29 November 2013. Ministry of Rural Development, Government of India.

<sup>xix</sup> MKSP, Madhya Pradesh Rajya Ajeevika Forum, Government of Madhya Pradesh. Viewed at: <http://mpraf.nic.in> on 30 January 2014.

<sup>xx</sup> Project for convergence of MGNREGS, NRLM and CFT strategy. J-11012/01/2012-MGNREGA. 29 November 2013. Ministry of Rural Development, Government of India.

<sup>xxi</sup> Project Area. Mahila Kisan Sashaktikaran Pariyojana, Department of Rural Development, Government of India. Viewed at: <http://www.mksp.in/> on 30 January 2014.

adaptation planning tool, training curricula), as well as policy briefs based on the intensive implementation experience.

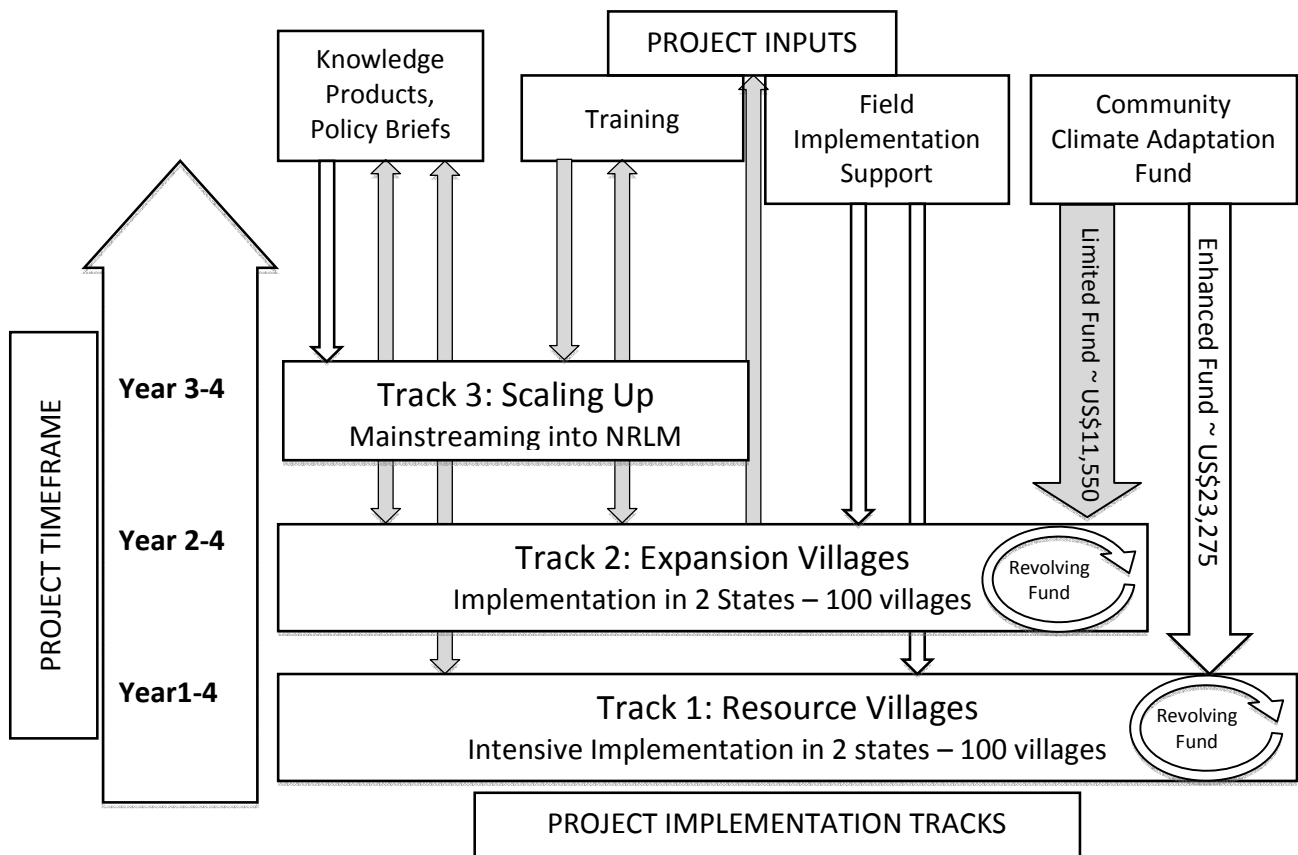
5. *Track 2 – Expansion Villages:* Demonstrative implementation of community-based climate adaptation approach will be expanded to 50 more villages in each of the 2 states from the second year of project implementation. These villages are referred to as ‘expansion villages’. The states for the expansion villages will be identified in the second year of project implementation based on the willingness and capacity of the SRLMs for introducing/expanding climate adaptation into livelihood interventions. The key project inputs provided to the expansion villages are field implementation support, training and a limited CCA Grant. The expansion villages will also contribute to the development of knowledge products and policy briefs based on the expanded implementation experience.

6. *Track 3 – Scaling-up:* As described in the preceding paragraphs, the demonstration of a community-based climate adaptation approach will be done in about 200 villages in 2 states. These are likely to be spread across about 10 blocks (sub-district administrative units). Scaling-up of the approach into NRLM’s livelihood interventions in the other blocks in these 2 states, as well as to other states, will be the focus in the third and fourth years of project implementation. Scaling-up will be facilitated through policy inputs, training and dissemination of knowledge products. Training will be provided to select state, district and sub-district level staff of NRLM in the third and fourth year of SLACC implementation. The knowledge products developed through SLACC (such as planning tool, training curriculum, solution inventory) as well as policy briefs will also enable mainstreaming of climate adaptation into the NRLM at the national level.

The monitoring system will separately monitor the outputs and outcomes of each track.

The key features of the 3 tracks are highlighted in the Figure A2-1 and the Table A2-1 below.

**Figure A2-1: SLACC – Strategy**



**Table A2-1: SLACC Tracks – Key Features of Project Villages**

	<b>Resource Village</b>	<b>Expansion Village</b>	<b>Scaling-up Village</b>
<b><i>Institutional readiness</i></b>	Self-help groups received Revolving Fund. VO formed. Self-help groups received Community Investment Fund through VO.	Self-help groups received Revolving Fund. VO formed. Self-help groups received Community Investment Fund through VO.	
<b><i>Selection</i></b>	3–4 clusters representing different agro-ecological conditions. Overlap with relevant interventions such as MKSP, MGNREGS, watershed management.	Proximity of resource villages.	Selection of villages is not part of the SLACC project.
<b><i>Number</i></b>	100 (about 50 per state in Bihar and MP).	100 (50 per state in Bihar and MP).	No pre-defined number.
<b><i>Purpose</i></b>	To develop a resource pool of ‘climate-smart’ villages which will showcase / demonstrate comprehensive climate adaptation solutions and be the training ground for a ‘climate-smart CRP’ cadre	To expand adoption of the climate adaptation approach through utilization of the resource pool of ‘climate-smart’ villages and CRPs.	To mainstream climate adaptation into NRLM/MKSP (micro investment plans, livelihood interventions, etc.).
<b><i>Key inputs provided by SLACC</i></b>	100 climate-smart CRPs.	100 climate-smart CRPs.	400 climate-smart CRPs. Capacity building (training, exposure visits, immersion visits, participatory video, etc.), knowledge products (manuals, tools, etc.) and policy inputs (input into <i>Community Operational Manual Framework</i> , development of the <i>NRLM Climate Change Adaptation (CCA) Framework</i> , etc.).
<b><i>Process</i></b>	Community climate adaptation plan (to be linked and eventually integrated into the Micro Investment Plan / Livelihood Plan).	Community climate adaptation plan (to be linked and eventually integrated into the Micro Investment Plan / Livelihood Plan).	Community climate adaptation plan that is fully integrated into the Micro Investment Plan / Livelihood Plan of NRLM (and MKSP).
<b><i>Financing of climate adaptation activities</i></b>	SLACC to support majority of the climate adaptation activities (through Community Climate Adaptation Grant(CCA Grant) that will augment the Community Investment Fund (CIF) – and will be utilized in accordance with the guidelines developed in the PIP);convergence with other government schemes.	SLACC to support selected climate adaptation activities (through CCA Grant that will augment the CIF – and will be utilized in accordance with the guidelines developed in the PIP); other activities in CCA plan to be supported by NRLP Community Investment Fund (CIF), MKSP, etc. as well as through convergence with other government schemes.	VRF, NRLP CIF, MKSP; convergence with other government schemes.

## Project Development Objective

7. The Project Development Objective (PDO) is to improve adaptive capacity<sup>64</sup> of the rural poor engaged in farm based livelihoods to cope with climate variability and change.

## Project Components

8. The project components and activities to be financed are described below.

9. **Component 1 - Planning, Service Provision and Implementation of Climate Change Adaptation:** The *objective* of this component is to support community-based planning, service provision, implementation and monitoring of climate adaptation interventions. The *key activities* in which the project will invest include:

(i) Community-led risk assessment and participatory planning of climate adaptation interventions: This activity is aimed at supporting the development of community climate adaptation plans. The planning process will follow a systematic approach that will include a detailed analysis of climate risks and opportunities that also reflects the priority areas identified in the SAPCC of the state, identification of required responses, development of an action plan and its appraisal at the community institution level led by the women members. It will be preceded by creating awareness in the community institutions on climate change and adaptation in order to mobilize them for climate adaptation plan. The planning process will determine the package of locally relevant climate adaptation interventions to be implemented. While several of the climate change adaptation responses could be off-the-shelf, it is envisaged that the project will work closely with research institutes (local Krishi Vigyan Kendras, State Agricultural Universities, NICRA, etc.) and private sector agencies (seed production companies, weather information service providers, weather and crop insurance companies, etc.) to source or even develop such responses. This is expected to be a two-way process wherein, research agenda and solutions would be exchanged between community institutions and research institutions.

(ii) Provision of strategic climate change adaptation services: This activity is aimed at enabling the delivery of strategic services that reduce risk associated with crop production and contribute to climate adaptation. Examples of such services include weather-based agro-advisories and weather-based index insurance.

(iii) Implementation of Climate Adaptation Interventions: This activity is aimed at implementation of climate adaptation interventions in agriculture by community institutions (i.e. self-help groups, federations and common interest/producer groups/producer companies) utilizing the Community Climate Adaptation (CCA) Grants as a top-up to the CIF, upon approval of the community adaptation plan. The CCA grant will essentially be a grant to the community institution in the range of Rs 14,20,000 to Rs 7,05,000 (approximately US\$23,275 to US\$11,550). It will be utilized by the community institution to provide onward grant/credit support to member self-help groups and their constituent individuals for demand-driven climate adaptation activities identified through the planning process. The year-wise allocation of the CCA Grant for each self-help group is presented in Table A2-2. The CCA Grant will be administered in accordance with the



CCA Grant Guidelines laid down in the Project Implementation Plan (PIP) document of the SLACC project.

**Table A2-2: Year-wise Allocation of CCA Grant for each Self-help Group (in Rupees)**

<i>Purpose</i>	<i>Village</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>
For onward lending to self-help group members for activities identified in Community Climate Adaptation Plan	Resource village	500,000	-	-	-
	Expansion village	-	300,000	-	-
For grants to self-help group members for demonstration of innovative practices	Resource village	200,000	200,000	200,000	200,000
	Expansion village	-	100,000	100,000	100,000
For funding IEC activities in the village	Resource village	15,000	15,000	15,000	15,000
	Expansion village	-	15,000	15,000	15,000
For funding Exposure Visits	Resource village	20,000	-	20,000	-
	Expansion village	-	20,000	-	20,000
For undertaking the CCA Planning exercise	Resource village	20,000	-	-	-
	Expansion village	-	20,000	-	-

The indicative costs for some of the possible interventions are provided in the Table A2-3.

**Table A2-3: Indicative Costs of a Sample of Adaptation Interventions**

<i>Intervention</i>	<i>Indicative Cost<sup>xxii</sup></i>
<b><i>Community level interventions</i></b>	
Community well	Rs 285,000
Modified domestic water well for flood prone areas	Rs 160,000
Group lift irrigation	Rs 333,000
Check dam	Rs 475,000
Dug-out pond in flood prone areas (1000-2000 cu m)	Rs 117,000
Culvert (1 m RCC culvert)	Rs 635,000
Water trough for cattle	Rs 38,000
Regenerating 10 acres of a watershed	Rs 75,000
Plantation of 10 fruit trees	Rs 2,000
Plantation of 10 forest trees	Rs 1,700
Automated Weather Station and Agro-advisories (1 village)	Rs 400,000
<b><i>Household / Individual level interventions</i></b>	
Farm pond (square, 20 m x 20 m top, 11 m x 11 m bottom)	Rs 122,500
Farm pond (cone, 14 m diameter top, 5 m diameter bottom)	Rs 68,200
Drip irrigation for developing 1 acre orchard	Rs 13,500
Drip irrigation for a kitchen garden	Rs 2,000
Sprinkler set for a 1 acre farm plot	Rs 32,000
Innovative recharge pit for augmenting borewell yield	Rs 44,500
Recharge pit (2 m x 2 m x 2 m)	Rs 5,000
Deep tillage for 1 acre for aeration	Rs 2,250
Melon cultivation on 1 acre of sand casted land	Rs 17,750
Cucumber cultivation on 1 acre of sand casted land	Rs 5,550
Vermi-compost pit for a household	Rs 6,000
NADEP compost (3.6 m x 1.5 m x 0.9 m)	Rs 8,000
Liquid bio-manure pit (1 m x 1 m x 1 m)	Rs 3,250
Biogas plant (1 cu m)	Rs 31,000
Silage (170 quintals)	Rs 14,000
Azolla cultivation (2.75 m x 1.75 m x 0.75 m)	Rs 2,200

Tables A2-4 and A2-5 present an indicative listing of risks and corresponding adaptation actions in the context of the major rural livelihoods – agriculture and livestock. The adaptation actions will be locale-specific and will focus on risk management through interventions on the production system (diversification, climate-resilient varieties/breeds, low external inputs production systems, etc.), ecological system (flood protection, groundwater recharge, etc.), knowledge system (local weather-based agro-advisories, water budgeting, etc.) and financial system (weather index insurance). These

<sup>xxii</sup> Based on:

WOTR, 2013. *Catch Rainwater Anywhere; Go Green*.

GEAP, 2008. *Adaptive Capacities of Communities to Cope up with Flood Situations*.

SPS, MPA, 2011. *Leveraging MGNREGA for Flood Control – A Case for Policy Reform in Bihar*.

MoRD, GoI, 2013. *User's Manual – Building Sustainable Livelihoods of the Poor through MGNREGA*.

NICRA, CRIDA, 2012. *A Climate Resilient Technology for Rainfed Agriculture*.

CWS, 2013. *Augmenting bore well yield through innovative recharge pit technique: A practical guide*.

interventions will be at the household level and/or at the community level (sub-village, village or cluster of villages) as relevant and feasible.

The climate adaptation plans will leverage technical and/or financial support through convergence with existing government programs (such as NRLM, MKSP, MGNREGS) in addition to being supported financially by the CCA Grant. Implementation and handholding support will be provided to community institutions CRPs supported by cluster and district-level personnel.

The *key outputs* of this component are: (i) community based climate adaptation measures implemented by 200 community institutions financed by CCA Grants; and (ii) enhanced community capacity for planning and implementing climate adaptation plans in 200 community institutions. The *key outcomes* of this component are: (i) strengthened awareness of adaptation and climate change processes at the local level; and (ii) strengthened adaptive capacities to reduce vulnerabilities and risks to climate-induced losses.

**Table A2-4: Adaptation Options at Farm-Level for Cropping Systems<sup>65</sup>**

RISKS	RESPONSE		
	<i>Intervention Systems</i>	<i>Adaptation areas</i>	<i>Adaptation Actions</i>
Reduced or erratic rainfall will increase rain-fed production risks.	Production System	Choice of new, adapted and suitable crops and varieties	Drought-tolerant crops (such as millets) and varieties
Heavy unseasonal rainfall can increase the potential for topsoil erosion.			Salt-tolerant varieties
Increased temperature, reduced soil moisture or shorter growing periods could affect crop yields.			Early maturing varieties
Withdrawal of groundwater beyond replenishment capacity can be aggravated by reduced rainfall.			Crops with greater rooting depth
Increased incidence of floods will jeopardize crop production.			Value-addition to traditional aquatic crops in flood-prone areas (e.g. Berra, Singharha, Makhana, Kamalgatta, Serki, Karmua, Nevsa, etc.)
Inundation of coastal areas will affect crop productivity by impacting soil and water quality.	Ecological System	Soil management	Short-duration, high-value crops in flood-prone areas
			Traditional flood-resistant varieties (e.g. Desariya, Sengar, Bhainsa Lotun, Tinni, etc.)
			Improved flood-resistant varieties (e.g. Turanta variety of paddy)
			Cultivation of crops suitable for silty/sandy areas along embankments and in sand-casted lands (e.g. cucumber, water melon, sweet potato)
			Pest resistant varieties
			Indigenous crops that are better adapted to local conditions
			Integrated rice-fish farming in flood-prone areas
		Inputs: Fertilizer use, plant protection, seeds	Compost and mulch application to increase soil organic matter and the soil's water retention capacity
			Improved seed storage
			Community seed banks
			Use of non-chemical pest and disease control
		Crop management	Enhance crop rotation practices
			Mixed cropping (e.g. Garma – early maturing, and Aghani – normal duration varieties of paddy in flood-prone areas)
			Change cropping intensity
			Adjustments to planting and harvesting dates
			Staggered community nursery for paddy
			Vary transplanting depth for rice plants
			Alter row/plant spacing to increase root extension to soil water
			Integration of trees and bushes to reduce water runoff and erosion
			Granaries on stilts/raised platforms in flood-prone areas
			Changes in tillage practices to conserve soil moisture (e.g. crop residue retention) and ensure better aeration and infiltration
			Increase organic matter content of soils for enhanced water and

		<p>nutrient storage capacity, soil structure and soil fertility</p> <p>Rehabilitation of degraded watersheds</p> <p>Erosion control (e.g. sustaining vegetation cover, contour ploughing, contoured hedgerows and buffer strips)</p>
	Water management	<p>Improve water management by having a greater diversity of options for water sources (small streams, shallow wells, boreholes, rainwater storage) and water budgeting</p> <p>Collective management of groundwater</p> <p>Use of groundwater for critical irrigation</p> <p>Use of efficient irrigation methods (furrows and small basins, drip and sprinkler systems)</p> <p>Rehabilitation and improvement of traditional irrigation systems</p> <p>Upgrading rain-fed agriculture through integrated rainwater harvesting systems</p> <p>More efficient water use, e.g. rice intensification or dry seeded rice</p> <p>In-situ soil moisture conservation techniques that increase rainwater infiltration</p> <p>Land drainage (provision of drainage structure such as open ditches, culverts; de-silting of drainage canals, strengthening bunds)</p> <p>Wetland management (protection and deepening of <i>Chours</i>)</p> <p>Maintenance of embankments (weed/bush clearance, plugging holes, raising height, etc.)</p> <p>Construction of dykes and check dams to reduce flood exposure</p> <p>Construction of spurs and bamboo porcupines to control riverbank erosion</p>
Knowledge System	Weather information management	<p>Using weather information and forecasting to reduce production risk</p> <p>Advisories to farmers on agricultural operations based on local weather data and IMD collaboration</p> <p>Community adaptation plans</p> <p>Community flood preparedness and capacity measures; early warning systems; flood response and contingency planning</p>
Financial System	Risk management	<p>Weather index insurance based on local automatic weather stations in collaboration with AIC and private companies</p>

**Table A2-5: Adaptation Options at Farm-Level for Livestock Systems<sup>66</sup>**

RISKS	RESPONSE		
	Intervention Systems	Adaptation Areas	Adaptation Actions
Reduced fodder production due to crop failure in rain-fed agriculture will have a negative impact on the productivity of dairy cattle.	Production system	Inputs	Use locally adapted livestock breeds
Erratic or unseasonal rainfall could have a positive impact on sheep and goat rearing as grazing becomes possible during 'off-season'.			Ensure adequate water supplies
Unseasonal rainfall might result in outbreak of diseases normally linked to the rainy season.		Animal management	Fodder cultivation (including tree fodder, around farm ponds, etc.)
Hot and humid conditions due to floods will have a negative impact on livestock production due to associated disease.			Fodder storage (e.g. silage)
			Use supplementary fodder
			Community fodder banks
			Increase reliance on indigenous fodder plants that are better adapted to drought and pests
			Backyard poultry, inland fisheries, sheep/goat rearing
			Change grassland cutting frequency
			Flood-resistant livestock like ducks and geese
			Match stock rates with pasture production
			Rotational grazing
			Stall feeding
			Construct livestock shelters
			Vaccination for reducing spread of disease (prior to flood season)
			Moving herds from water-logged fields
			Windbreak and woodland planting to provide shelter from extreme weather
	Ecological system	Water management	Run-off storage for supplemental irrigation of fodder crops, using storage structures, such as farm ponds, earth dams
			Prevent pollution of aquifers by infiltration of agro-chemicals
			Protect ponds and water pans
			Rain water harvesting during floods (using plastic sheet mounted on bamboo poles and collected in <i>Jal Koti</i> )
	Financial system	Risk management	Livestock insurance

10. **Component 2 – Scaling and Mainstreaming Community Based Climate Change**

**Adaptation:** The *objectives* of this component are to build capacity for the implementation of climate adaptation interventions, and to develop the strategy for scaling up. Creation of CRPs, and training of NRLM staff are aimed at building the core operational capacity of NRLM, while developing knowledge products on climate adaptation would create the necessary support structure for scaling-up geographically within and beyond the project period. Engaging with policy makers, research institutions and other agencies working in the area of climate change would help create an enabling environment for wider spread and scale-up of a community-based climate change adaptation planning and implementation process being developed by this project. The *key activities* in which the project will invest include:

(i) Capacity building of NRLM staff and creation of a cadre of CRPs for purposes of implementation and scaling up:

(i.1) Training of NRLM national and state staff on climate adaptation: This activity is aimed at training of NRLM staff at all levels (at national, state, district and sub-district levels) for mainstreaming and scaling-up of climate adaptation in livelihood planning. It consists of the following types of training:

- Training for district and sub-district staff of NRLM in SLACC areas: The district and sub-district level NRLM staff of the districts/blocks where the SLACC villages are located, will be trained in the community-based climate adaptation approach during the first year of project implementation. This will enable them to effectively coordinate and converge with the interventions.
- Training for state/district/sub-district level staff of NRLM of other (non-SLACC) districts/states: In the third and fourth year of project implementation, training will be expanded to also include selected state, district and sub-district level staff from selected NRLM districts/states that have not been part of SLACC. The districts/states will be selected on the basis of readiness criteria similar to those used for including the 2 resource village states for SLACC.

The *key outputs* of this activity are: 80 district and sub-district staff trained on climate adaptation in 2 states, and an additional 300 state/district/sub-district staff trained for scaling-up to other areas under the NRLM. The *key outcome* of this activity is enhanced capacity of SRLMs on integration of climate adaptation into micro-investment and livelihood support planning.

(i.2) Cadre of CRPs: This activity is aimed at creating a cadre of CRPs who are skilled in community-based climate adaptation planning. The CRPs are the key mechanism for supporting the implementation of climate adaptation in the targeted states, as well as for scaling up of community-based climate adaptation more broadly within the NRLM. The CRPs will be responsible for community mobilization activities, facilitating demonstration of climate adaptation technologies, facilitating formation and functioning of an appropriate institutional structure within community institutions for development, implementation and monitoring of climate adaptation plans, etc. The CRPs will receive intensive and continued training that will equip them with the required information, knowledge and skills.

The *key outputs* of this activity are a cadre of 200 CRPs (one per village) – the majority comprising women – in 2 states, and an additional cadre of 400 CRPs for scaling-up to other areas under the NRLM. The *key outcome* of this activity is the mainstreaming of climate adaptation into micro-investment and livelihood support activities of community institutions in NRLM.

(ii) Building knowledge support system for scaling-up climate change adaptation:

(ii.1) Knowledge products on climate adaptation: This activity is aimed at developing a range of knowledge products on community-based climate adaptation in the context of rural livelihoods including:

- Climate adaptation planning and monitoring tool: This will include a tool with an accompanying operational manual for use by community institutions (and their facilitators).
- Curriculum for training of CRPs: This will include a trainer’s manual, accompanying audio-visual materials, and process documentation.
- Inventory of climate adaptation actions: A web-based inventory of climate adaptation actions relevant for rural livelihoods including technical (agronomic, infrastructure, engineering, behavioral) and financial (risk transfer) solutions documented in the form of technical briefs, case studies, etc.

The *key outputs* of this activity are climate adaptation plan tool and manual, CRP training curriculum and web-based inventory of climate adaptation actions. The *key outcome* of this activity is enhanced access to information and expertise on integration of climate adaptation into micro-investment and livelihood support planning.

(ii.2) Consortium of resource organizations on climate adaptation: This activity is aimed at establishment of a consortium of organizations (state nodal agencies for the SAPCC, NGOs, research institutions, extension institutions, financial institutions, etc.) that can provide technical, capacity building and implementation support on climate adaptation in the context of rural livelihoods at the national, state and community levels.

The *key output* of this activity is the published website of the consortium with details of a range of resource organizations working on climate adaptation in the context of rural livelihoods, case studies on good practice, adaptation planning tools and manuals. The *key outcome* of this activity is access to information on available expertise and knowledge products on climate adaptation in the context of rural livelihoods.

(ii.3) Policy inputs for scaling-up of community-based climate adaptation approach within the NRLM: This activity is aimed at developing a strategy for scaling-up of the community-based climate adaptation approach within the NRLM’s livelihood support interventions.<sup>xxiii</sup> The strategy will be developed through a consultative process that will

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<sup>xxiii</sup> NRLM provides revolving fund and capital subsidy support to self-help groups. This support is based on a Micro Investment Plan (MIP) prepared by the self-help groups. The MIP is a participatory process of planning and appraisal that is undertaken periodically. It consists of household plans, appraisal of the household plans by the self-help groups, prioritization on the basis of vulnerability and urgency/seasonality of the need. In addition, NRLM supports livelihoods through interventions such as the MKSP.



involve NRLM and SRLM representatives as well as relevant partners such as MKSP implementing agencies, line departments, NGOs and research institutions.

A series of policy briefs on themes relevant to climate adaptation will be developed, based on the SLACC implementation experience, to facilitate dialogue and influence policy in the context of climate adaptation for rural livelihoods. Some indicative themes are: weather-based index insurance, weather-based agro-advisories, convergence for climate adaptation at the village level, climate adaptation priorities for agricultural research, etc. The policy briefs will be disseminated through seminars as well as through the NRLM website.

Convergence with other government initiatives is a key implementation strategy of SLACC and it will utilize this experience and opportunity to work with other national/sub-national programs, such as MGNREGS, IWDP, MKSP, etc. to help integrate a climate change adaptation perspective into them.

In addition, the project will actively engage with research institutions, policy think tanks, etc. through workshops at various levels for sharing of experiences and by sharing with them policy briefs, data on results emerging from the field in implementing community based adaptation plans while also seeking their support in sourcing or developing solutions appropriate to the needs of the community. Further, the project will also contribute to a research agenda for initiatives/organizations such as the NICRA by helping communities articulate their research requirements as a part of their periodic review of the CCA plans.

The *key output* of this activity is the climate change adaptation guidelines developed for the national/sub-national livelihoods program frameworks, policy briefs and seminars on climate adaptation and livelihoods. The *key outcome* of this activity is the integration of climate adaptation into livelihood strategies and community operational manuals by the SRLMs.

(ii.4) Lead Technical Support Agency (*LTSA*): An LTSA is critical for successful implementation of the SLACC project. The role of the LTSA includes: (i) development of planning and knowledge tools; (ii) technical support; (iii) training and capacity building; and (iv) policy inputs, documentation and sharing lessons. The LTSA will position two climate adaptation experts at the NMMU and one expert in each of the SRLMs to provide high-quality technical guidance and leadership.

The *key output* of this activity is the positioning of two climate adaptation experts at the NMMU and one expert in each of the SRLMs. The *key outcome* of this activity is enabling access of the NRLM to high quality technical support on climate adaptation.

11. **Component 3 – Project Management and Impact Evaluation:** The *objective* of this component is to establish management units within the NRLM and SRLM institutional structure to enable coordinated functioning and efficient implementation. The *key activities* that the project will invest in include: (i) establishment of climate adaptation units staffed with full-time professionals within the NRLM and the SRLMs of the participating states; (ii) fiduciary and

safeguards management; and (iii) establishment of a monitoring system and evaluation arrangements for baseline, mid-term and end-of-term evaluations.

The *key outputs* of this activity are climate adaptation units in NRLM and SRLMs, implementation of safeguards as per the procedures outlined in the Social and Environmental Management Framework, and evaluation reports (baseline, mid-term and end-of-term). The *key outcome* of this activity is the efficient and effective management of SLACC components.

12. Details on the climate adaptation units are provided in the section ‘Institutional and Implementation Arrangements’ (Section IV A and Annex 3). Details on the monitoring system and evaluation arrangements are provided in the section ‘Results Monitoring and Evaluation’ (Section IV B).

### Annex 3: Implementation Arrangements

#### INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project

#### Institutional and Implementation Arrangements

1. The key institutions involved in the implementation of the SLACC Project and their roles are described in the following paragraphs.

**Table A3-1: Key Institutions in SLACC Implementation**

Level	Existing Institution in NRLM	Institutional Arrangement Under SLACC	Role in SLACC
National	National Rural Livelihoods Mission's National Mission Management Unit (NMMU)	National CCA Coordinator in NMMU Livelihoods Unit	Overall strategic guidance and integration of SLACC project into the NRLM Coordination with SMMUs Anchoring the Consortium of Resource Organizations on Climate Adaptation Develop the NRLM Climate Adaptation Framework, integration of climate adaptation into the NRLM Livelihoods Implementation Framework
	Lead Technical Support Agency (LTSA)	2 Climate Adaptation Experts in NMMU Livelihoods Unit	Coordination with NMMU Development of knowledge products Training of NRLM staff (state, district and sub-district level) on climate adaptation
State	State Rural Livelihood Mission's State Mission Management Unit (SMMU)	State Community Climate Adaptation Coordinator in SMMU Livelihoods Unit; Climate Adaptation Expert placed by LTSA; 2 Young Professionals; District and Cluster Community Climate Adaptation Coordinators	Responsibility for achievement of outputs and outcomes in the state Responsibility for securing co-financing through convergence Coordination with NGO implementation partners
	NGO Implementation Partners	District and Cluster Community Climate Adaptation Coordinators Resource Pool of Individuals and Organizations	Responsibility for achievement of outputs and outcomes in the cluster Provide thematic support on SLACC implementation
Community	Community Institutions	Climate-Smart Community Resource Persons	Climate adaptation planning, implementation and monitoring

#### *Project administration mechanisms*

2. *National Level:* The Ministry of Rural Development (MoRD) is the key implementation agency and National Rural Livelihoods Promotion Society (NRLPS) under the MoRD would be responsible for management, supervision, guidance and technical support. The NRLPS will

coordinate with the SRLMs for smooth implementation of the SLACC project and also be responsible for the development of a strategy for scaling-up climate adaptation interventions within the NRLM. The NRLPS has designated a team of four officials to support the SLACC project. The official in-charge of Institutional Building and Capacity Building in NRLPS will lead the coordination of SLACC, until a National CCA Coordinator is designated from the existing officials in the Livelihoods Unit of the NMMU for the SLACC project. The National CCA Coordinator will provide overall strategic guidance and help to integrate the SLACC project into the NRLM. This designated official will be in addition to two experts placed by the Lead Technical Support Agency (LTSA) in the NMMU.

3. *State Rural Livelihood Missions (SRLMs)*: The SRLMs established by the state governments oversee the implementation of all NRLM related activities in the state. The SRLM implements the activities in the state through a State Mission Management Unit (SMMU) that consists of a multi-disciplinary team. The SRLMs will be responsible for the overall outputs and outcomes of the SLACC at the state level. The Madhya Pradesh Rajya Ajeevika Forum (MPRAF) will be the nodal agency for SLACC implementation in Madhya Pradesh, while Bihar Rural Livelihoods Society (BRLPS) will be the nodal agency for SLACC implementation in Bihar. The SRLMs will mobilize co-financing and required technical support at the state level from other national and state programs/schemes such as MGNREGS and MKSP, using SLACC as a leveraging tool. The SRLMs will be augmented with dedicated staff for managing project implementation. Each SRLM has designated a focal point for the SLACC project throughout implementation. In addition, each SRLM will recruit a State CCA Coordinator who, along with a Climate Adaptation Expert placed by the LTSA, will be responsible for the SLACC project implementation. In addition, two Young Professionals (YPs) will be placed in each SRLM to support the State CCA Coordinator and the Climate Adaptation Expert. The implementation arrangements in the two participating states will include partnerships with NGOs as well as direct implementation by the SRLMs. As part of SLACC support, the NGO implementation partners and the SRLMs will appoint District and Cluster CCA Coordinators who will operate at the district/block and cluster levels..

4. A resource pool of individuals and organizations (state nodal agencies for the SAPCC, NGOs, research institutions, extension institutions, financial institutions, etc.) on climate adaptation will be identified to provide technical support on climate adaptation to the SRLMs as and when required.

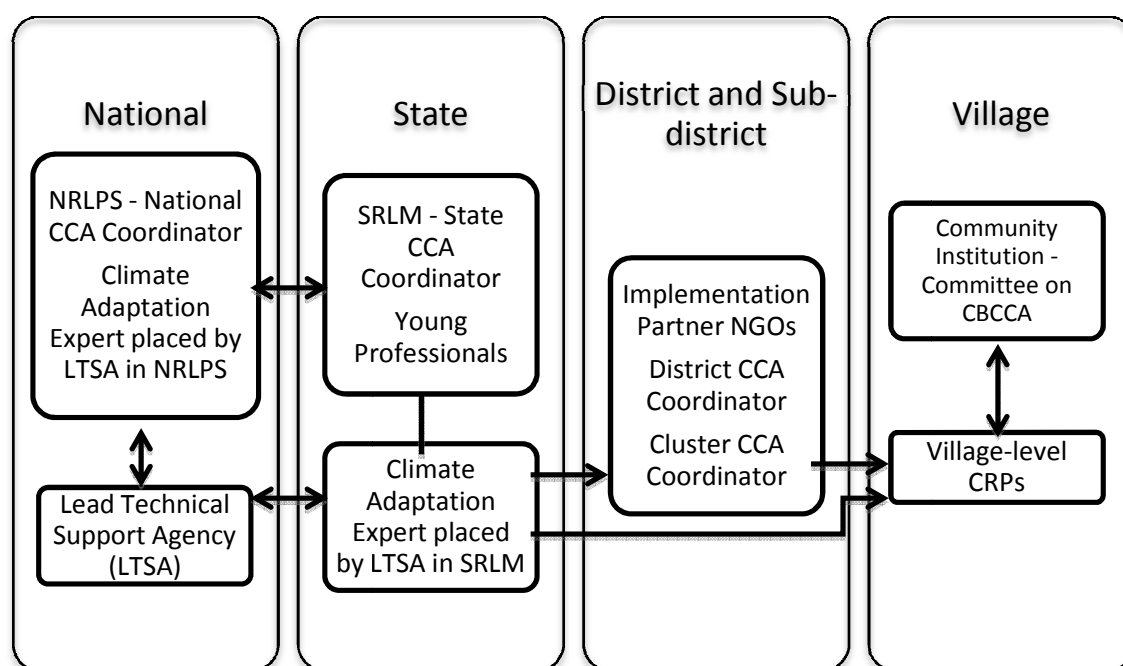
5. One of the SRLMs – the Bihar Rural Livelihoods Promotion Society (BRLPS) – will play a larger role in the SLACC by undertaking procurement of the resource institutions.

6. *Lead Technical Support Agency (LTSA)*: An LTSA will be appointed for the SLACC project. The role of the LTSA includes (i) development of planning and knowledge tools; (ii) technical support; (iii) training and capacity building; and (iv) policy inputs, documentation and sharing lessons. The LTSA will position two climate adaptation experts at the NMMU and one expert in each of the SRLMs to provide high-quality technical guidance and leadership.

7. *Institution on Evaluation*: An independent institution/s will be appointed to undertake evaluation of the SLACC implementation including establishment of baseline, mid-term and end-of-term evaluation.

8. *Community Institutions:* The SLACC will work with community institutions facilitated/supported by the NRLM. These include primary federations of self-help groups<sup>xxiv</sup> (referred to as Village Organization) as well as common interest/producer groups<sup>xxv</sup> (farmers' groups, small ruminant rearers' groups, etc.) and producer companies. A trained 'climate-smart' CRP (or Village Resource Person – VRP in the case of Bihar) will be placed in each village (or producer company) to provide ongoing support to these institutions on climate adaptation planning, implementation and monitoring. A committee will be created within the community institution to anchor climate adaptation interventions. The responsibilities of this committee will include responsibility for climate adaptation planning and monitoring, administering the community CCA Grant, managing the CRP, among others.

**Figure A3-1: Key Institutions in SLACC Implementation<sup>xxvi</sup>**



## Financial Management, Disbursements and Procurement

### *Financial Management*

<sup>xxiv</sup> A self-help group is the primary building block of the NRLM. It is a group of 10–20 women that promotes savings, builds own funds and provides credit (for debt-swapping and livelihoods). The primary federation of self-help groups is organized at the village level and comprises 10–20 self-help groups. It provides support services (training, book keeping, etc.) and higher order financial and livelihood services, and facilitates access to public services and entitlements.

<sup>xxv</sup> The NRLM supports specialized livelihoods institutions for deriving economies of scale, backward and forward linkages, and access to information, credit, technology, markets, etc. These include common interest or producer groups and their higher order collectives, such as producer companies.

<sup>xxvi</sup> Key: Blue = NRLM institutions; Purple = Entities created for implementation in SRLMs/MKSP partners; Brown = Community institutions and individuals.

9. As for NRLP, the NMMU now set up as a separate society under MoRD will be overall responsible for the financial management arrangements of SLACC. SLRMs at the state level and their constituent district and block level units will be responsible for the financial management arrangements at the state level. At the community level, self-help groups/federations [by whatsoever name called] will be responsible for the financial management arrangements at the village level.

10. The SRLMs will prepare SLACC Annual Implementation Plans as part of the overall state implementation plans that will be approved by the NRLPS. Following these approvals, MoRD will, through separate sanction orders, release funds for SLACC implementation to NMMU and the participating SLRMs. SLRMs will in turn release SLACC funds to self-help groups/federations. These funds will be maintained in separate bank accounts at all levels. A common set of ‘back office’ rules on financial management, including accounting and financial rules at the NMMU, SLRMs and self-help groups/federations will apply uniformly across all activities, including for SLACC expenditures.

11. All funds released by the state to the district and block level units will be treated as inter unit transfers until expenditures are incurred at these levels. All fund releases for Climate Adaptation Grants will follow the grant release protocol defined in the PIP for SLACC.

12. At all levels [including at self-help groups/federations level], the expenditures for SLACC project will be separately classified but accounted for and reported as part of the NRLP financial reports on a quarterly basis. For the purpose, the existing Chart of Accounts will be modified to incorporate the SLACC components and activities. No separate books of accounts or financial reports are envisaged. This will also ensure that the risk of the same expenditures being booked under NRLP and SLACC will be minimized, NMMU, SRLMs and self-help groups/federations will establish up-front, appropriate criteria to apportion common costs (state and district levels) across the various projects and document the same in the State Project Implementation Plan.

13. The auditing arrangements as agreed for NRLP will also cover SLACC. The annual audited financial statements for NMMU and SLRMs will identify separately SLACC expenditures and will be considered acceptable for purposes of the project. The following audit reports will be monitored in Bank systems:

<b>Implementing Agency</b>	<b>Audit</b>	<b>Auditors</b>	<b>Due Date</b>
National Rural Livelihood Mission	Annual Project Financial Statements	CA firm	30 September 2013
State Rural Livelihood Mission [by whatever name called]	Annual Project Financial Statements	CA firm	30 September 2013

14. Under NRLP, the self-help group/federation annual accounts are subject to statutory audits as required by state laws. The SRLMs will enter into draw down contracts with select chartered accountancy firms at state and district levels and agree on fixed price budgets as well as the audit ToRs and templates for the annual financial statements. Self-help group/federation

audit reports will be monitored at the state level and will not be considered a part of NRLP’s audit requirements.

*Disbursements*

15. The Bank will disburse funds to the borrower on the basis of the actual eligible project expenditures pre-financed by the government’s budgets and reported by consolidated quarterly IUFRRs submitted by NMMU. The applicable disbursement method will be reimbursement. No advance will be provided under the project and therefore, the requirement of Designated Account is not envisaged. Funds will be disbursed by the Bank under the following disbursement category (Table A3-2):

**Table A3-2: Project Disbursement Categories**

<b>Category</b>	<b>Amount of the Credit Allocated (expressed in Million SDR)</b>	<b>Amount of the Credit Allocated (expressed in Million US\$)</b>	<b>Percentage of Gross Reported Expenditures to be Financed (Inclusive of Taxes)</b>
Goods, works, consultants’ services, training and Operating Costs at Central level			100%
Goods, works, consultants’ services, training and Operating Costs and Climate Adaptation Grants at State level			75%
Total Amount		<b>8.0</b>	

*Procurement*

16. The procurement framework for the NRLP is appropriately designed to take into consideration the various constraints and challenges normally associated with livelihood operations. The NRLP Restructuring Mission noted that overall, the procurement arrangements as were considered at NRLP appraisal remain valid and no changes are envisaged at restructuring. These procurement arrangements of NRLP will also be applicable to SLACC. Procurement of all goods, works and non-consulting services required for the Project and to be financed out of the proceeds of the Financing shall be procured in accordance with the requirements set forth or referred to in Section I of the “Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants” published by the Bank in January 2011, and all consultancy services shall be procured in accordance with - “Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers” published by the Bank in January 2011. A Procurement Manual for the NRLM prepared by MoRD, in consultation with the Bank is being used for the NRLP. The procurement arrangements and methods detailed for procurement of Goods, Works and Services in NRLM Procurement Manual were reviewed and found acceptable to be in accordance with the above referred World Bank guidelines. The NRLM Procurement Manual

will also be used to guide procurement of goods, works and services in SLACC. In the event of any conflict in interpretation of various provisions for procurement in case of items procured using the proceeds of the credit from the IDA, interpretations of provisions of the referred Procurement and Consultancy Guidelines will prevail.

17. **Procurement of Goods and Works and Non-Consultancy Services:** The NRLP procurement manual provides for different delegated financial limits for various levels of implementing entities at community level (self-help groups/CBOs/POs), block level, district level, state level and national level for goods, works and services. Different methods, conversant with the country systems, are also defined for procurement of goods, works and services with its applicability based on value thresholds for various levels of implementing entities. Prior and post review arrangements are also built in at state and national level for ensuring appropriate quality and oversight over the procurement process. The highest levels of value thresholds for various methods applicable to the national level are given below:

18. **Prior Review Thresholds:** Procurement Decisions subject to Prior Review by the Bank as stated in NRLM Procurement manual will also be applicable to SLACC.

The thresholds for the Banks prior review will be as follows:

- a. Works: US\$5 million and above
- b. Goods: US\$0.5 million and above
- c. IT and Non-consultancy Services: US\$0.5 million and above
- d. Direct contracts for Goods and Force Account for Works: US\$10,000 and above

19. **Procurement Thresholds for Goods, Works and Non-consulting services:** All Goods, Works and Non-consulting services will be procured using the procurement methods described in the procurement methods described in the NRLM procurement manual. The highest levels of value thresholds for various methods applicable to the National, State, and District level Mission Management Units are in the table below:

Method as per NRLM Procurement manual	Comparable Bank Method	Goods and Non Consulting Services		Works	
		US\$	Rs (@ 65)	US\$	Rs (@ 65)
Petty Purchase	Shopping	<100	6,500	NA	NA
Local Shopping	Shopping	<10,000	6,50,000	NA	NA
Limited Tendering	Shopping	<50,000	32,50,000	<200,000	1,30,00,000
Open Tendering	NCB	<500,000	3,25,00,000	<5,000,000	32,50,00,000
Force Account	Force Account	NA	NA	<10,000	6,50,000
Direct Purchase	Direct Purchase	As per conditions		NA	NA
Rate Contracts (DGS &D)	Shopping Equivalent	<50,000	32,50,000	NA	NA

20. As high value contracts that require International Competitive Bidding (ICB) are not anticipated by the project, a maximum threshold of a single contract under SLACC



reimbursement from the Bank is set as the highest value of the NCB. In the event, the Project requires any single contract valued above US\$500,000, using the proceeds from the Bank support, the same shall be discussed with the Bank and the applicability of ICB methods will be decided on a case-by-case basis. In addition to such contracts, first contract under NCB will be prior-reviewed by the Bank and all others will be subjected to post-review as per the arrangements detailed in the Procurement Manual of NRLP. Pre-qualification will not be applicable.

21. **Thresholds for Community Procurement of Goods and Works:** Federated structures of self-help groups formed at different levels (village, block, district) will undertake procurement of goods, works and services in line with the methods of procurement for Community Force Account, Local Shopping and Petty Purchase as detailed in the NRLM Procurement Manual. The highest levels of value thresholds for various methods applicable to CBOs are in the table below:

Method	Goods	Works
	Rs	Rs
Petty Purchase	10,000	NA
Local Shopping	50,000	NA
Limited Tendering	7,50,000	10,00,000
Open Tendering	25,00,000	1,00,00,000
Force Account	NA	25,00,000

22. **Thresholds for Community Procurement of Services:** Proposed Procedures for CDD Components (as per paragraph. 3.17 of the Guidelines) Paragraph 3.17 of the Bank Guidelines have been incorporated in NRLM Procurement Manual and will also be applicable to SLACC. The NRLM Procurement Manual details the methods and delegated value thresholds applicable at the community level (Chapter 4) and the Procurement planning, Management and Supervision Arrangements at Community Level (Chapter 5) – these will also be applicable to SLACC.

- Individual Consultants up to a value of Rs 100,000 per contract will follow competitive procedures.
- Institutional Consultants up to a value of Rs 10,00,000 per contract will follow competitive methods of QBS, and LCS.

23. **Reference to (if any) Project Operational/Procurement Manual:** NRLM Procurement Manual has been developed by NMMU; this has been agreed with the Bank, and will also be used to guide procurement of goods, works and services in SLACC.

24. **Selection of Consultants:** For selection of institutional and individual consultants for providing services, the project will use QCBS, Selection based on Consultants' Qualification, Fixed Budget Selection, Least Cost Selection, Single Source Selection and Selection of Individual Consultants as appropriate. For service contracts, Model Bidding Documents, acceptable to the Bank and agreed by the NRLP will be used for various methods mentioned above. Procurement Thresholds for Consulting Services will be as follows:

Method	Limits in Value	
	US\$	Rs (@ 65)
Individuals SSS	Subject to acceptable justifications	
Individuals Competitive	< 50,000	32,50,000
Institutions selected through CQS, FBS, LCS	< 100,000	65,00,000
Institutions selected through QCBS	≥ 100,000	65,00,000
All selection >US\$300,000 [Rs 1.95 crores] from SLACC shall be advertised in Bank's external web site.		

25. **Prior Review Thresholds:** Selection decisions subject to Prior Review by Bank will be as follows:

- Consultancy services by Firms: US\$200,000 and above
- Consultancy services by Individuals: US\$100,000 and above
- Single source selection of Consultants: US\$10,000 and above.

26. **Short list Comprising Entirely of National Consultants:** A short list of consultants for services, estimated to cost less than US\$500,000 equivalent per contract, may comprise entirely of national consultants in accordance with the provisions of the World Bank Consultant Guidelines.

27. **Prior- and Post-Review Arrangements:** As per the provisions of the Procurement Guidelines *Appendix-1, Para-5*, prior- and post-review arrangements are defined and in-built at state and national level structures under the NMMU prior review framework for ensuring appropriate quality of procurement and oversight. It was agreed that at the national level, the NMMU will hire a third party independent post review consultant for conducting annual post review of 10 percent contracts issued at state and district levels. These will include contracts for SLACC as well and the Bank will depend on a third party post review for its fiduciary supervision. However, the Bank will continue to retain a right to carry out direct post review of the states where proceeds from the IDA credit will be used. The Bank will carry out annual supervision of procurement carried out at the NMMU level from the proceeds of the IDA credit.

*Environmental and Social (including safeguards)*

28. Given that SLACC is anchored in the existing institutional set up of NRLP and complementary to its livelihood interventions, the Environmental Management Framework (EMF) and the Social Management Framework (SMF) of the NRLP have been adapted for the SLACC.

29. The EMF includes the preparation of environmental management plans as part of the CCA Plans; a 'toolkit' providing an indicative format, the list of regulatory requirements and good practice guidelines; a plan for capacity building and monitoring; and institutional arrangements. An environmental audit of the SLACC Project will be undertaken at mid-term and end-of-term of the project period. The EMF has been disclosed through the websites of the MoRD, SRLMs, and on the Bank Infoshop.

30. The SLACC project aims to improve adaptive capacity of the rural poor, to climate variability and change, and secure and sustain their livelihoods through community-based interventions on agriculture, land and water, fodder, livestock, fishery and other financial and institutional measures, etc. The project will work with women-led self-help groups and their federations, farmer/producer groups and their higher collectives such as producer companies. These community institutions represent the rural poor, who directly depend on climate-sensitive sectors, such as agriculture, livestock, and fisheries, have high exposure to climate risks and limited capacity to adapt to climate change impacts. The long term social impacts of the project are assessed to be beneficial in the form of increased livelihood security and sustainability, and increased capacity to undertake collective action. The project would provide significant and direct socioeconomic benefits to climate vulnerable rural poor households in 200 villages in drought- and flood-prone regions of Madhya Pradesh and Bihar.

31. Given that SLACC villages will cover tribal populations, OP 4.10 on Indigenous People has been initiated to ensure compliance with the policy provisions on informed consultations, broad community support, culturally appropriate information and benefit sharing in project areas. The key social safeguard issue is to ensure that tribal people, as well as other traditionally excluded social and livelihood groups such as the scheduled castes, small/marginal farmers, women farmers and others in remote habitations get systematically included in community planning, capacity building, and field implementation processes of the project.

32. SLACC recognizes the increased vulnerability of women due to poverty and subsistence dependence on climate-sensitive livelihoods – which affects the women adversely and disproportionately. SLACC will be working with women-led VOs and federations to address the distinct vulnerabilities and capacity needs of women. Women farmers will be supported for assessing, planning, selecting and implementing project interventions. Preparation and implementation of the community level adaptation plans and technology selection will be led by women leaders from the VO and will reflect their concerns and priorities. Women trainers and CRPs would be engaged. The Gender/Social Development Specialist in the SRLMs would be involved in integrating gender actions/concerns in the adaptation planning and implementation process. Gender informed tools, indicators and methodologies would be promoted in adaptation planning, measurement of perceptions/satisfaction, selection of interventions and technologies etc. “Gender and Climate Change” theme would be supported under learning and knowledge management.

33. MoRD has prepared a Social Management Framework (SMF) for the SLACC Project based on: (i) social strategies of NRLP and the State Livelihood Projects; (ii) consultations with SRLM officials and field staff; (iii) interactions with community leaders and NGO partners in Bihar and Madhya Pradesh. SLACC project preparations have included field visits and stakeholder consultations in Bihar and Madhya Pradesh, including interactions with the National and State Units set up under NRLP/NRLM, as well as the National Resource Organization. A consultation workshop was also held with the leading NGOs that are working on community based climate adaptation. The SMF focuses on inclusion of climate-vulnerable women and men farmers from tribal, scheduled caste and other excluded households and provides for:(i) participatory identification and priority targeting of beneficiary households; (ii) informed consultations and documentation of broad community support for project interventions during village entry; (iii) collection of gender and socially disaggregated data during community adaption planning (CAP)

(iv) engagement of women farmers as Climate-Smart CRPs; (v) inclusive Climate Adaptation Committee; (vi) core training on Gender and Socially Inclusive climate adaptation; (vii) use of innovative training, communication and demonstration methods/ exposure visits for tribal and scheduled caste women farmers, etc. The SMF also includes the institutional arrangements and capacity-building activities for project staff, community institutions and partners at all levels. Key SMF actions applicable to the SLACC Project area would be integrated in the local adaptation plans and implemented by the SLRM field staff and external partners. A review of the SMF implementation will be undertaken along with the EMF audit. The SMF has been disclosed through the websites of MoRD, SRLMs, and on the Bank InfoShop.

#### *Monitoring and Evaluation (M&E)*

34 The objective of the project's M&E system will be to facilitate result-based management and provide the basis for evidence-based decision-making processes. The M&E will employ different tools and approaches to provide continuous feedback to the project management and other stakeholders on the progress and quality of project implementation.

35. *Monitoring:* Monitoring would include regular reporting of outputs and outcomes – based on indicators (specified in the Results Framework in Annex 1 and in the Tracking Tool) and drawing on multiple information sources. The project will invest in a fully computerized, web-based MIS system, which will capture all data at the source where it is generated (i.e. at the self-help group primary federation level for maximum transparency and accuracy). The monitoring system will include tracking of co-financing inputs to SLACC, including, co-financing of the climate adaptation plans. The monitoring system will also separately track the outputs and outcomes of each of the two strategic tracks. The SMMUs will include a Knowledge Management Specialist financed by SLACC (preferably an agro-economist with skills/experience in M&E) to manage project monitoring including the MIS system.

36. Participatory self-monitoring by community institutions would be key to assess their own organizational capacity and performance with respect to climate adaptation. The knowledge products developed on climate adaptation will include a tool/approach for use by community institutions for monitoring of climate adaptation plan implementation. Participatory identification and tracking of SMART (Specific, Measurable, Achievable, Relevant, Time-bound) indicators to reflect performance on outcomes will be a key activity at the community institution level. Suitable mechanisms will be established in the community institutions to enable this. A monitoring sub-committee will be established which will be responsible for undertaking self-monitoring, sharing of the results through a public display board, preparation of a plan for future action by the community institution, among others.

37. *Evaluation:* The project will invest in hiring the services of an agency to undertake baseline, mid-term and end-of-term evaluation of SLACC implementation in all the states. Impact evaluations will provide information on achievement of outputs and outcomes based on indicators specified in the Project Results Framework (Annex 1) and the Tracking Tool. Evaluation studies will capture the impacts of each of the three strategic tracks separately by establishing appropriate counterfactuals. Since the impact of the project, will be seen as additionality over the NRLP, sufficient attention will be given in determining the appropriate counterfactuals. Therefore, for the purposes of the impact evaluation, the outcomes of interest

will be compared over identical villages in terms of baseline socioeconomic and climatic conditions across sets of randomly selected villages belonging to three categories: (i) NRLP villages with SLACC, (ii) NRLP, non-SLACC villages and (iii) Non-NRLP, non-SLACC villages. The evaluation studies will assess the outcomes and impacts of the interventions through a variety of indicators reflecting: (i) poverty and household impacts, (ii) productive change, (iii) adoption of adaptive practices and systems, (iv) capacity and services, and (v) institutional change. Some specific examples of outcomes of interest are household income and income variability, livelihoods diversification, agricultural productivity, area of farmland having adopted adaptive practices, and number of soil and water conservation works. The tools and indicators for the evaluation will draw from guidance manuals and e-learning tools of International Fund for Agricultural Development (IFAD), the World Bank, Food and Agriculture Organization (FAO) and German Society for International Cooperation (GIZ), which are applicable to climate smart agriculture. The National Livelihood Resource Organization will also undertake/commission small thematic research studies to capture specific impacts of climate adaptation interventions.

#### *Role of Partners (if applicable)*

38. The key partner co-financing the SLACC project along with the GEF SCCF is the MoRD through the NRLP and MKSP. These national programs on rural development will supplement SLACC investments by co-financing village-level climate adaptation plans. These partnerships will enable SLACC's potential impact to be much more significant.

## Annex 4: Operational Risk Assessment Framework (ORAF)

### INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project Stage: Appraisal

<p><b>1. Project Stakeholder Risks</b></p> <p><b>Description:</b> Climate change perspective in the context of rural livelihoods in India is a relatively new area with few demonstrable models. Hence ownership and leadership of the SLACC project from NMMU and SRLMs is expected to be slow during implementation and could lead to delays.</p>	<p><b>Rating:</b> <b>Moderate</b></p> <p><b>Risk Management:</b> Multiple rounds of stakeholder consultations are being held prior to conceptualizing and during the ongoing preparation of the project. The Bank team will provide intensive implementation support for capacity building in the first year to ensure that the foundational project activities (staffing, recruitment of key consultancies) are completed on time.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"><b>Resp:</b> Client</td> <td style="width: 25%;"><b>Stage:</b> Preparation, Implementation</td> <td style="width: 25%;"><b>Due Date:</b> Ongoing</td> <td style="width: 25%;"><b>Status:</b></td> </tr> </table>	<b>Resp:</b> Client	<b>Stage:</b> Preparation, Implementation	<b>Due Date:</b> Ongoing	<b>Status:</b>
<b>Resp:</b> Client	<b>Stage:</b> Preparation, Implementation	<b>Due Date:</b> Ongoing	<b>Status:</b>		
<p><b>2. Operating Environment Risks</b></p> <p><b>2.1. Country</b></p> <p><b>Description:</b> GDP growth has recovered to 8.8%, the highest level since the last quarter of 2007. GoI has adopted fiscal consolidation in the medium-term fiscal framework on the recommendation of the 13th Finance Commission, which envisages bringing down the fiscal deficit to 3% of GDP by 2013/14 and adopting an explicit ceiling for the debt-to-GDP ratio of 86% by 2014/15 from the current 76%. Citing concerns that inflation could become entrenched, the RBI has tightened its monetary policy stance in 2010. Reserves reached US\$272 billion at end of May 2010. India has a wealth of accountability mechanisms and institutions, at the Union, state and local level, which still need be consistently mobilized.</p> <p>General elections are being held in 2014 and any change in the national government is likely to affect the NRLP and SLACC implementation if the new government is not equally committed to these projects.</p>	<p><b>Rating:</b> <b>Low</b></p> <p><b>Risk Management:</b> The short to medium term outlook for India's macro-economic policy framework has been adequate to respond to the global financial crisis. The stage is set for a return to high growth rates. Both World Bank and IMF assessments conclude that the macroeconomic framework is appropriate. Anticipating a change in government at the national level, an appropriate communication strategy will be developed for engagement at the political leadership level to educate and build ownership for the project.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"><b>Resp:</b> Client</td> <td style="width: 25%;"><b>Stage:</b> N/A</td> <td style="width: 25%;"><b>Due Date:</b> Ongoing</td> <td style="width: 25%;"><b>Status:</b></td> </tr> </table>	<b>Resp:</b> Client	<b>Stage:</b> N/A	<b>Due Date:</b> Ongoing	<b>Status:</b>
<b>Resp:</b> Client	<b>Stage:</b> N/A	<b>Due Date:</b> Ongoing	<b>Status:</b>		
<p><b>2.2. Sector/multi-sector</b></p>	<p><b>Rating:</b> <b>High</b></p>				

<b>Description:</b> The SLACC project design mandates the project to work in convergence and partnership with the NRLP and the MKSP. At the community level, the financing of climate adaptation plans requires leveraging capital and technical inputs from various line departments and schemes (such as the MGNREGS). This requires engagement and coordination with various actors (district administrators, line department personnel, local governments – gram panchayats, etc.) and could be a significant risk during implementation of the project.	<b>Risk Management:</b> The SRLMs will participate in existing district/state level mechanisms for inter-departmental coordination involving the officials from the line departments outside of NRLM (agriculture, watershed, forestry, water resources, MNREGS and livestock) to facilitate timely convergence of departmental programs and sharing of experiences and best practices. The SRLMs will also engage bilaterally with the relevant state departments (e.g., agriculture) to facilitate convergence and policy dialogue, as required.			
	<b>Resp:</b> Client	<b>Stage:</b> Implementation	<b>Due Date:</b> Ongoing	<b>Status:</b>

**3. Implementing Agency Risks (including fiduciary)**

**3.1. Capacity**

**Description:** Limited capacity of the national implementing entity (MoRD) to provide technical assistance and hand holding support to the states during SLACC implementation.

Limited capacity in the states to implement SLACC. Delays in procurement of state resource agencies by SRLMs could slow down implementation

**Rating:** Moderate

**Risk Management:** NRLPS has agreed to embed the SLACC Climate Adaptation Unit in its Livelihood Unit thereby ensuring close coordination of SLACC with NRLP implementation. Further, NRLPS will designate a National CCA Coordinator for providing coordination support. Capacities of the NRLPS will be augmented by a Lead Technical Support Agency that will guide state-level implementation and facilitate sharing of experiences and best practices.

SLACC will be implemented in a phased manner. The selection of two states (Bihar and Madhya Pradesh) for implementation has been done on the basis of readiness and capacity of these states. Bihar and Madhya Pradesh are high performance states in the implementation of the baseline project NRLP, after project restructuring. As part of project preparation, the Bank team has held several discussions and dialogue with these states and they have expressed an interest to pursue climate change innovations under the GEF project. Further, the SRLMs have agreed to embed the SLACC Climate Adaptation Unit in their Livelihoods Units thereby ensuring close coordination of the SLACC with the NRLP implementation. The proposed project has an in-built strategy to address the risk of limited capacity through a dedicated Climate Adaptation Unit in the SMMU involving technical professionals to be placed at state, district and sub-district levels for providing coordination support, and through augmented technical support from national and state level resource organizations.

SLACC will follow the procurement management arrangements of NRLP and will likely benefit from the capacities created on procurement in the SRLMs by NRLP. The selected SRLMs have established capacities through dedicated procurement management units as part of NRLP and are following the NRLP Procurement Management Manual.

	<b>Resp:</b> Bank, Client	<b>Stage:</b> Preparation, Implementation	<b>Due Date:</b> Ongoing	<b>Status:</b>
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**3.2. Governance**

**Description:** As noted in the NRLP ORAF, the governance

**Rating:** Moderate

**Risk Management:** SLACC will follow the governance arrangements in NRLP. The NRLP

<p>mechanism is generally weak. This will require clear-cut delegation of power with accountability and a robust monitoring and internal control mechanism. Inadequacy of complaints and redressal mechanisms is a risk that would affect the timeliness and adequacy of complaint handling.</p>	<p>has developed a GAC strategy that articulates the activities to be carried to address governance issues. The NRLM has a well-functioning web site where queries under the Right to Information Act are updated. The NRLP has put in place a file tracking system, which is helping in building a culture of accountability in NRLM. The NRLP will further strengthen systems to monitoring and internal control mechanisms. Adequate funds have been allocated within the NRLP budget to initiate GAC related activities.</p>			
	<p><b>Resp:</b> Client, Bank</p>	<p><b>Stage:</b> Implementation</p>	<p><b>Due Date:</b> Ongoing</p>	<p><b>Status:</b></p>
<p><b>Fraud and Corruption (sub-category of Governance risk)</b></p>	<p><b>Rating:</b></p>	<p><b>Moderate</b></p>		
<p><b>Description:</b></p>	<p><b>Risk Management:</b></p>			
<p><b>4. Project Risks</b></p>	<p><b>Resp:</b></p>	<p><b>Stage:</b></p>	<p><b>Due Date:</b></p>	<p><b>Status:</b></p>
<p><b>4.1. Design</b></p>	<p><b>Rating:</b></p>	<p><b>Moderate</b></p>		
<p><b>Description:</b> There is a risk of community institutions not adopting the adaptation planning approach and financing mechanism adequately.</p>	<p><b>Risk Management:</b> The measures to overcome the risk are            (i) community institutions will need to meet agreed readiness criteria before becoming eligible for project participation. SLACC will target more matured community institutions – including those with prior experience of leveraging government programs such as MGNREGS. The rules of engagement with participating community institutions will be clearly spelt out in the Project Implementation Plan (PIP);            (ii) emphasis on strong participatory adaptation planning processes;            (iii) technical assistance with resource allocation will be provided to the states and communities in an efficient and effective manner through a cadre of support organizations.</p>			
<p><b>4.2. Social and Environmental</b></p>	<p><b>Resp:</b> Client</p>	<p><b>Stage:</b> Implementation</p>	<p><b>Due Date:</b> Ongoing</p>	<p><b>Status:</b></p>
<p><b>Description:</b> Weak institutional capacity and limited staffing to guide, implement and supervise EMF and SMF implementation</p>	<p><b>Rating:</b></p>	<p><b>Moderate</b></p>		
<p>The exclusion risk could undermine the outreach and benefits of the SLACC project to the poor and vulnerable.</p>	<p><b>Risk Management:</b> SLACC will follow the social and environmental management arrangements in NRLP. In addition to guidelines for development of Environmental Action Plans at the state level, there are guidelines for environmentally sound practices. It has been agreed that key staff will be designated as environmental focal points and consultants and technical support advisors will be hired. Technical assistance and capacity building component of NRLP would significantly upgrade capacity of the states to implement and supervise the SMF. TA and spearhead teams would focus on the new and existing project states.</p>			
<p>Some of the self-help groups and federations activities carried out at an aggregate level may accentuate the depletion of natural resources with an adverse impact on the sustainability of livelihoods</p>	<p>The exclusion risk is addressed through the SMF which accords the highest priority to identifying and mobilizing the poorest and most excluded SC and ST households. Focus on social and economic inclusion will be address through informed consultations, participatory CCA assessments, capacity building and social mobilization for climate risk reduction and awareness measures.</p>			
	<p>Design and implementation of the EMF includes: participatory development of</p>			



	environmental management plans as part of the adaptation plans. A regulatory requirements list and environmental guidelines that inform good practice measures and ensure compliance with the triggered safeguards policies and the relevant country regulations.		
	<b>Resp:</b>	<b>Stage:</b> Implementation	<b>Due Date:</b> Ongoing   <b>Status:</b>
<b>4.3. Program and Donor</b>	<b>Rating:</b>	<b>Moderate</b>	
<b>Description:</b> The SLACC project is small project financed by a GEF SCCF grant and NRLP is the baseline project. At the community implementation level, the financing of the climate adaptation plans may require leveraging finances through convergence with various other schemes as well (such as the MGNREGS). Issues with engagement and coordination of the various national and state actors, timely release of funds, etc. are likely to be a risk to the smooth implementation of the SLACC project.	<b>Risk Management:</b> The implementation arrangements of SLACC have been integrated into NRLP to ensure proper coordination at the national and state levels. The readiness criteria for community institutions becoming eligible for project participation will include willingness of the gram panchayat (local government) to support the climate adaptation plans through leveraging resources from other relevant schemes (such as the MGNREGS). These criteria will be included in the PIP and applied during implementation to ensure joint ownership of SLACC activities by the communities and gram panchayats as far as possible.		
	The SRLMs will participate in existing district/state level mechanisms for inter-departmental coordination involving the officials from the line departments outside of NRLM (agriculture, watershed, forestry, water resources, MGNREGS and livestock) to facilitate timely convergence of departmental programs and sharing of experiences and best practices. The SRLMs will also engage bilaterally with the relevant state departments (e.g., agriculture) to facilitate convergence and policy dialogue, as required. If needed, an interdepartmental coordination mechanism will be set up to foster coordination and convergence with other schemes and programs.		
	<b>Resp:</b> Bank, Client	<b>Stage:</b> Implementation	<b>Due Date:</b> Ongoing   <b>Status:</b>
<b>4.4. Delivery Monitoring and Sustainability</b>	<b>Rating:</b>	<b>Moderate</b>	
<b>Description:</b> The SLACC project will be implemented in 2 states in about 100 villages in each state. Delivering and monitoring the dispersed and diverse set of activities will be a challenge. Finally, sustaining SLACC activities beyond the project life could be a challenge.	<b>Risk Management:</b> SLACC will use the existing delivery architecture (comprising Block level PFTs, cadres of CRPs, VOs) of the NRLP which has been developed and well-tested in several state livelihoods project supported by the Bank in the past. Further, it will use carefully selected, existing and robust community institutions for last mile delivery of the project. The SLACC project will invest in an M&E system consisting of an MIS, and baseline, mid-term and end-of-term evaluation of the SLACC implementation in all the states. The risk to sustainability of the results of the project is taken care of at two levels: At the policy level by ensuring dialogue at both the national and state level to mainstream community-based climate change adaptation in the national and state livelihoods framework .At the community institution level by creating and nurturing a mechanism to develop community-based climate change adaptation plans, establish and operate a Community Adaptation Fund and creation and embedding of a cadre of climate change CRPs and technical staff in at the national and state levels, who will continue providing support to the community institutions.		
	<b>Resp:</b> Client	<b>Stage:</b> Implementation	<b>Due Date:</b> Ongoing   <b>Status:</b>
<b>Non disclosable information for management attention (Optional)</b>			

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**Comments:**

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**5. Project Team Proposed Rating Before Review**

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**5.1. Preparation Risk Rating: Moderate**

**Comments:** Given the scope and size of the project, the overall preparation is *moderate*.

**5.2 Implementation Risk Rating: Moderate**

**Comments:** The overall risk to achieve the SLACC PDO is likely to be *moderate*. The project and its design are built on proven experience of various state-level livelihood and climate adaptation projects in India that have mostly been successful in achieving their development objectives. SLACC builds on the organization and capacity of the NRLM to provide necessary support to scale-up activities. The geographical scope of the project has been selected so as to not spread resources thin and with an expected high probability of positive implementation.

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**6. Risk Team**

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**6.1. Preparation Risk Rating**

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**6.2 Implementation Risk Rating**

**Comments:**

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**7. Overall Risk Following Review**

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**7.1. Preparation Risk Rating:**

**Comments:**

**7.2 Implementation Risk Rating:**

**Comments:**

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## **Annex 5: Implementation Support Plan**

### **INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project**

#### **Strategy and Approach**

1. The primary focus of implementation support provided by the Bank is to support the NRLM and the SRLMs to mainstream climate change adaptation into the livelihood interventions. The Bank team will work closely with the MoRD's NMMU and the SMMUs to support the SLACC implementation. The focus will be on risk mitigation, knowledge management and capacity building. Towards this end, the Bank team will be maintaining regular dialogue with the key stakeholders at the national and state levels, undertaking periodic joint reviews, undertaking field reviews on a sample basis, identifying and offering need based technical advice, and supporting exchange of experience and learning.

2. The key roles of the Bank team in supervision are:

- Intensive support during early implementation stage: Close support needs to be provided for capacity building in the first year to ensure that the foundational project activities (staffing, recruitment of key consultancies) are completed on time.
- The TTL will be stationed in Delhi and will provide support for the foundational activities that will determine the success of the project. The TTL will continue to work on close collaborations with the NRLP task team leader and co-task team leaders in Delhi and Washington. In addition, most of the Bank specialists on the team (procurement, finance, safeguards) will be stationed within Delhi. Since this extended team is common to SLACC and NRLP, coordination on the safeguards and fiduciary aspects is ensured.
- To the extent possible, joint missions will be held with NRLP to minimize internal and external transaction costs of supervising a small-sized project.
- Provision of technical expertise: The Bank team will need to maintain during the implementation phase a multidisciplinary expertise. Specialized expertise would be needed in the areas of climate adaptation planning in the context of rural livelihoods, natural resource management, agro-meteorology, weather Index Insurance, monitoring and evaluation. This expertise would be sought internally as well as through partnerships with specialist reputed institutions and individuals.

#### **Implementation Support Plan:**

3. Project implementation and supervision will be conducted through:

- Project launch, to be conducted soon after the project approval, to bring all project functionaries together and ensure a clear understanding of the project scope, design, process and responsibilities.
- At least two regular supervision missions during the project duration for four years.
- Intermediate technical missions by specialists, as needed.
- Bi-annual implementation progress reports prepared by the NMMU/SRLMs.
- ICR at the end of the project to assess achievement of climate change objective and lessons.

## Annex 6. Team Composition

### INDIA: Sustainable Livelihoods and Adaptation to Climate Change Project

<b>Name</b>	<b>UPI</b>	<b>Title</b>	<b>Unit</b>
Priti Kumar	210231	TTL, Senior Environmental Specialist	SASDC
Parmesh Shah	166198	Lead Rural Development Specialist	SASDL
Sitaramachandra Machiraju	312741	Senior Rural Development Specialist	SASDL
Varun Singh	350127	Senior Social Development Specialist	SASDS
Ruma Tavorath	218878	Senior Environmental Specialist	SASDI
Manvinder Mamak	213176	Senior Financial Management Specialist	SARFM
Senapati Balagopal	361156	Senior Procurement Specialist	SARPS
George Joseph	311810	Social Development Specialist	SASDS
Ajay Markanday	180655	Senior Economist	AES
Vinay Kumar Vutukuru	360217	Extended Term Consultant - Livelihoods	SASDL
Shouvik Mitra	434099	Consultant – Livelihoods	SASDL
S. C. Rajshekhar	342206	Consultant – Agriculture and Rural Management	SASDC
Kalyani Kandula	303861	Consultant – Natural Resources Management	SASDC
Vani Kurup	270392	Consultant – Documentation and editing	SASDC
Per Axel Ryden	277733	Consultant – Climate Change Adaptation and Agriculture	SASDC
Pamela Patrick	330488	Program Assistant	SASDO

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<sup>1</sup> Adaptive capacity refers to “the whole of capabilities, resources and institutions to implement effective adaptation measures” (IPCC 2007, Fourth Assessment Report).

<sup>2</sup>*Twelfth Five Year Plan (2012-2017) – Faster, More Inclusive and Sustainable Growth*. Volume I. Planning Commission, Government of India. 2013.

<sup>3</sup>*Press Note on Poverty Estimates, 2011-12*. Planning Commission, Government of India. July 2013.

<sup>4</sup> Pedro Olinto and Hiroki Uematsu. *The State of the Poor: Where are the Poor and where are they Poorest?* Draft. Poverty Reduction and Equity Department. The World Bank. 2013.

<sup>5</sup>*Press Note on Poverty Estimates, 2011-12*. Planning Commission, Government of India. July 2013.

<sup>6</sup> Jacoby H., M. Rabassa, and E. Skoufias. 2011. *Distributional Implications of Climate Change in India*. Policy Research Working Paper 5623, World Bank, Washington, DC. The study uses temperature predictions from HadCM3-A1F1 (high emissions path) climate model developed by the Hadley Centre for Climate Prediction and Research as part of the Third Assessment Report of the United Nation’s Intergovernmental Panel on Climate Change (IPCC). The predictions range from 0.788°C to 1.592°C for various regions in India.

<sup>7</sup> Risk is the combination of the probability of an event and its negative consequences. Source: UNISDR, Terminology on Disaster Risk Reduction. Viewed at <http://www.unisdr.org/we/inform/terminology> on 12 June 2013.

<sup>8</sup>*Twelfth Five Year Plan (2012–2017). Faster, More Inclusive and Sustainable Growth*. Volume I. Planning Commission, Government of India. 2013.

<sup>9</sup> Venkateswarlu, B., Shalander Kumar, Sreenath Dixit, Srinivasa Rao, Ch. , Kokate, K.D. and Singh, A.K. 2012. *Demonstration of Climate Resilient Technologies on Farmers’ Fields Action Plan for 100 Vulnerable Districts*. Central Research Institute for Dryland Agriculture, Hyderabad. 163 p.

<sup>10</sup> Hans Joachim Schellnhuber, 2013. *Turn Down the Heat II – Global Hotspots and Regional Case Studies - DRAFT*, The World Bank.

<sup>11</sup>*Turn Down the Heat II – Global Hotspots and Regional Case Studies (DRAFT)*, The World Bank. 2013.

<sup>12</sup>*India – Second National Communication to the United Nations Framework Convention on Climate Change*. 2012. Ministry of Environment and Forests, Government of India.

<sup>13</sup>*Climate Change Impacts in Drought and Flood Affected Areas: Case Studies in India*. June, 2008. Report No. 43946-IN. The World Bank.

<sup>14</sup>*Twelfth Five Year Plan (2012-2017) – Faster, More Inclusive and Sustainable Growth*. Volume I. Planning Commission, Government of India. 2013.

<sup>15</sup>*Twelfth Five Year Plan (2012–2017). Faster, More Inclusive and Sustainable Growth*. Volume I. Planning Commission, Government of India. 2013.

<sup>16</sup>*Climate Change Impacts in Drought and Flood Affected Areas: Case Studies in India*. June, 2008. Report No. 43946-IN. The World Bank.

<sup>17</sup>*India – Second National Communication to the United Nations Framework Convention on Climate Change*. 2012. Ministry of Environment and Forests, Government of India.

<sup>18</sup>*India – Second National Communication to the United Nations Framework Convention on Climate Change*. 2012. Ministry of Environment and Forests, Government of India.

<sup>19</sup> Venkateswarlu, B., Shalander Kumar, Sreenath Dixit, Srinivasa Rao, Ch. , Kokate, K.D. and Singh, A.K. 2012. *Demonstration of Climate Resilient Technologies on Farmers’ Fields Action Plan for 100 Vulnerable Districts*. Central Research Institute for Dryland Agriculture, Hyderabad. 163 p.

<sup>20</sup> KPR Vittal et al. 2003. *Guidelines on Drought Coping Plans for Rainfed Production Systems*. Central Research Institute for Dryland Agriculture, Hyderabad.

<sup>21</sup>*Twelfth Five Year Plan (2012-2017) – Faster, More Inclusive and Sustainable Growth*. Volume I. Planning Commission, Government of India. 2013.

<sup>22</sup>*Adaptive capacities of community to cope with flood situations*. Gorakhpur Environmental Action Group. 2008. Oxfam Novib.

<sup>23</sup> Floods in Bihar, Wikipedia

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- <sup>24</sup> *Bihar's Agriculture Development – Opportunities and Challenges*. A report of the special task force on Bihar. Government of India. 2008.
- <sup>25</sup> Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India.
- <sup>26</sup> Jacoby H., M. Rabassa, and E. Skoufias. 2011. *Distributional Implications of Climate Change in India*. Policy Research Working Paper 5623, World Bank, Washington, DC.
- <sup>27</sup> Vulnerability is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes (IPCC 2007).
- <sup>28</sup> *From Impacts to Adaptation 2008-2012*. Synthesis Report. Indo-UK Programme on Climate Change.
- <sup>29</sup> *Rural Development Statistics 2011-12*. National Institute of Rural Development, Government of India.
- <sup>30</sup> Census of India, 2011.
- <sup>31</sup> NRAA. 2012, *Prioritization of Rainfed Areas in India*, Study Report 4, NRAA, New Delhi, India 100p.
- <sup>32</sup> Adaptation refers to the process of adjustment in human and natural systems to actual and expected climate and its effects to moderate harm or exploit beneficial opportunities. (IPCC 2007).
- <sup>33</sup> Jacoby H., M. Rabassa, and E. Skoufias. 2011. *Distributional Implications of Climate Change in India*. Policy Research Working Paper 5623, World Bank, Washington, DC. (Autonomous adaptation refers to market-based responses to climate change by individuals, households, or firms, typically by adjustments over time in their production and consumption patterns.)
- <sup>34</sup> *Community Charter on Climate Crisis – Outcome of an India-wise participatory initiative*. People's Coalition on Climate Change. Deccan Development Society.
- <sup>35</sup> *Climate Change Impacts in Drought and Flood Affected Areas: Case Studies in India*. June, 2008. Report No. 43946-IN. The World Bank.
- <sup>36</sup> *Climate Change Impacts in Drought and Flood Affected Areas: Case Studies in India*. June, 2008. Report No. 43946-IN. The World Bank.
- <sup>37</sup> *Climate Change Impacts in Drought and Flood Affected Areas: Case Studies in India*. June, 2008. Report No. 43946-IN. The World Bank.
- <sup>38</sup> *Base Document. Reversing Environmental Degradation and Rural Poverty through Adaptation to Climate Change in Drought Stricken Areas in Southern India: A Hydrological Unit Pilot Project Approach*. SPACC – The GEF Strategic Pilot on Adaptation to Climate Change. 2012.
- <sup>39</sup> Bhatta GD, Singh RKP, and Kristjanson P. 2013. *Summary of Baseline Household Survey Results: Vaishali Site, Bihar State (Northeast India)*. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org).
- <sup>40</sup> *State of Indian Agriculture 2012-13*. Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India.
- <sup>41</sup> 9.27 million farmers out of 137.8 million farmers were covered under the Weather Based Crop Insurance Scheme (WBCIS) in 2010-11. Sources: WBCIS coverage data from *Outcome Budget 2012-13*, Department of Agriculture and Cooperation, Government of India. Data on total number of farmers from *State of Indian Agriculture 2012-13*, Department of Agriculture and Cooperation, Government of India.
- <sup>42</sup> V.U.M.Rao. Agricultural Risk Management through Weather Based Insurance, Central Research Institute for Dryland Agriculture, Hyderabad-500059.  
<http://agriskmanagementforum.org/sites/agriskmanagementforum.org/files/Documents/ag%20risk%20management%20through%20weather%20based%20insurance.pdf>
- <sup>43</sup> Martin Ravallion, World Bank, 2009. Knowledge in Development Note: Poverty Traps (2009)  
<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:22452505~pagePK:64165401~piPK:64165026~theSitePK:469382~isCURL:Y,00.html>
- <sup>44</sup> UNDP, 2012. *Greening Rural Development in India*.
- <sup>45</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group.
- <sup>46</sup> The State Action Plans endorsed by the National Steering Committee on Climate Change so far are for Andhra Pradesh, Arunachal Pradesh, Madhya Pradesh, Manipur, Mizoram, Rajasthan, Sikkim, Tripura and West Bengal.

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<sup>47</sup> *Country Partnership Strategy for India for the Period FY 2013-17*. Report No. 76176-IN. IBRD, IDA, IFC, MIGA. March 21, 2013.

<sup>48</sup> Adaptive capacity refers to “the whole of capabilities, resources and institutions to implement effective adaptation measures” (IPCC 2007, Fourth Assessment Report).

<sup>49</sup> A Block is a sub-district level administrative unit.

<sup>50</sup> Co-financing from NRLP includes: Block level investments of US \$ 2.05 million per block (for 16 SLACC blocks) and the Livelihoods Units at the NMMU and SRLM.

<sup>51</sup> Co-financing from MKSP includes: Investment of Rs 10,000 per family for interventions on sustainable agriculture.

<sup>52</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>53</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>54</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>55</sup> International Fund for Agricultural Development and World Food Programme. 2010. *Potential for scale and sustainability in weather index insurance for agriculture and rural livelihoods*, by P. Hazell, J. Anderson, N. Balzer, A. Hastrup Clemmensen, U. Hess and F. Rispoli. Rome.

<sup>56</sup> *Costing Adaptation through Local Institutions: Synthesis Report*. The World Bank. 2011.

<sup>57</sup> Arun Agrawal et al. 2011. *Area-Based Development, Local Institutions & Climate Adaptation: A comparative analysis from West Africa and Latin America*. The World Bank.

<sup>58</sup> D Rajasekhar et al. 2012. *NREGS, Gram Panchayats and Inclusive Climate-Smart Agriculture: Evidence from South India*. CAPRI/CCAFS Workshop on Institutions for Inclusive Climate-Smart Agriculture.

<sup>59</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>60</sup> GFDRR (Subbiah, L. Biddan and others), 2008.

<sup>61</sup> *Adapting to Climate Change: Assessing the World Bank Group Experience (Advance Edition)*. Phase III of the World Bank Group and Climate Change. Independent Evaluation Group. Viewed at [http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate\\_change3.html](http://ieg.worldbankgroup.org/content/ieg/en/home/reports/climate_change3.html) on 26 April 2013.

<sup>62</sup> Available at: <http://documents.worldbank.org/curated/en/2011/06/14368884/india-national-rural-livelihoods-project>

<sup>63</sup> Adaptive capacity refers to “the whole of capabilities, resources and institutions to implement effective adaptation measures” (IPCC 2007, Fourth Assessment Report).

<sup>64</sup> Adaptive capacity refers to “the whole of capabilities, resources and institutions to implement effective adaptation measures” (IPCC 2007, Fourth Assessment Report).

<sup>65</sup> Based on: GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit, India. Ministry of Environment and Forests, Government of India. 2011. *Adaptation to Climate Change with a Focus on Rural Areas and India*.

<sup>66</sup> Based on: GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit, India. Ministry of Environment and Forests, Government of India. 2011. *Adaptation to Climate Change with a Focus on Rural Areas and India*.