United Nations Development Programme
Country: India

PROJECT DOCUMENT

Empowered lives.
Resilient nations.

Project Title:	5th Operational Phase of the GEF Small Grants Programme in India
UNDAF Outcome(s):	UNDAF Outcome 4: By 2012, the most vulnerable, including women and girls, and government at all levels have enhanced abilities to prepare, respond, and adapt/recover from sudden and slow onset of disasters and environmental changes
UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:	Mainstreaming Environment and Energy
UNDP Strategic Plan Secondary Outcome:	
Expected CP Outcome(s):	Outcome 4.3: Progress towards meeting national commitments under multilateral environmental agreements
Expected CPAP Output(s):	Output 4.3.2: National efforts supported towards conservation and management of natural resources Output 4.3.3: National development efforts with co benefits of mitigating climate change supported
Implementing Agency:	United Nations Development Programme (UNDP)
Implementing Partner:	Centre for Environment Education (CEE)

Brief Description

The primary objective of the project is to ensure a mosaic of land uses and community practices across the rural landscape that provide sustainable livelihoods while generating global benefits for BD, CC and LD. The project will enable a shift away from unsustainable practices by (i) mainstreaming biodiversity conservation and sustainable use into production landscapes and sectors, (ii) promoting energy efficient and renewable energy technologies in rural communities in targeted landscapes in India, (iii) maintaining and improving flows of agro and forest ecosystem services in dry lands of ASAR to sustain livelihoods of local communities and (iv) cross cutting, capacity development and knowledge management.

Programme Period:	2011-2016
Atlas Award ID:	00060871
Project ID:	00076820
PIMS #	4515
Start date:	July 1st, 2011
End Date	June 30th, 2016
Management Arrangements:	NGO Execution
PAC Meeting Date:	17September2008

Total resources required in US Dollars:	$ 11,000,000
Total allocated resources:	$ 11,000,000
Partner-managed:	
Government	$ 400,000
GEF	$5,000,000
UNDP CO	$ 1,000,000
Other	$ 4,600,000

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List of Acronym AND Abbreviations

ABS	Access and Benefit Sharing
APDRP	Accelerated Power Development and Reforms Programme
ASAR	Arid and Semi Arid Regions
BD	Biodiversity
BDA	Biodiversity Act, 2002
BDO	Block Development Officer
BMC	Biodiversity Management Committee
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CC	Climate Change
CCM	Climate Change Mitigation
CEE	Centre for Environment Education
CFL	Compact Florescent Lamps
CP	Country Programme
CPAP	Country Programme Actio
CPCB	Central Pollution Control Board
CSO	Civil Society Organisation
DIM	Direct Implementation
EBAs	Endemic Bird Areas
ECBC	Energy Conservation Building Codes
EDC	Eco-Development Committee
EEU	Energy Environment Unit
EIA	Environmental Impact Assessment
EU	European Union
GDP	Gross Domestic Produce
GEB	Global Environment Benefits
GEF	Global Environment Facility
GHG	Green House Gas
GoI	Government of India
FPC	Forest Protection Committee
FSC	Forest Stewardship Council
HH	Household
IARI	Indian Agriculture Research Institute
ICAR	Indian Council for Agricultural Research
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Production
IUCN	International Union for the Conservation of Nature and Natural Resources
JFM	Joint Forest Management
JFMC	Joint Forest Management Committee
KVK	Krishi Vigyan Kendra
KWh	Kilo watts per hour
LCT	Low Carbon Technology
LD	Land Degradation
LED	Light Emitting Diode
LPG	Liquified Petroleum Gas
LULUCF	Land Use and Land Use Change in Forestry
M&E	Monitoring & Evaluation
MC	Municipal Corporation

MDG	Millennium Development Goals
MMA	Macro Management of Agriculture
MNREGA	Mahatama Gandhi National Rural Employment Guarantee Act
MoEF	Ministry of Environment and Forests
Mha	Million hectares
NAPA	National Action Plan for Adaptation
NAPCC	National Action Plan on Climate Change
NBAP	National Biodiversity Action Plan
NBSAP	National Biodiversity State Action Plans
NCSA	National Capacity Self Assessment
NEP	National Environment Policy
NGO	Non - governmental Organisation
NHI	National Host Institution
NIP	National Implementation Plan
NSC	National Steering Committee
NTFP	Non Timber Forest Produce
CPM	National Project Manager
CPMU	National Project Management Unit
NWDPRA	National Watershed Development Program for Rainfed Areas
ODS	Ozone Depleting Substances
OFP	Operational Focal Point
PA	Protected Areas
PAC	Project Appraisal Committee
PIMS	Project Information Management system
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
PRI	Panchayati Raj Institutions
PURA	Providing Urban Amenities to Rural Areas
RAC	Regional Advisory Committee
RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
RE	Renewable Energy
RTA	Regional Technical Advisor
SBB	State Biodiversity Board
SGP	Small Grants Programme
SHG	Self help Group
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
SMART	Strategic Measurable Accurate Realistic Timely
STA	Senior Technical Advisor
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNCCD	United Nations Convention on Combating Desertification
UNCLOS	United Nations Convention Laws of the Seas
UNFCCC	United Nations Framework for Climate Change
USA	United States of America
USD	United States Dollar
VESP	Village Energy Security Programme
VSS	Van Samrakshan Samiti
WED	World Environment Day

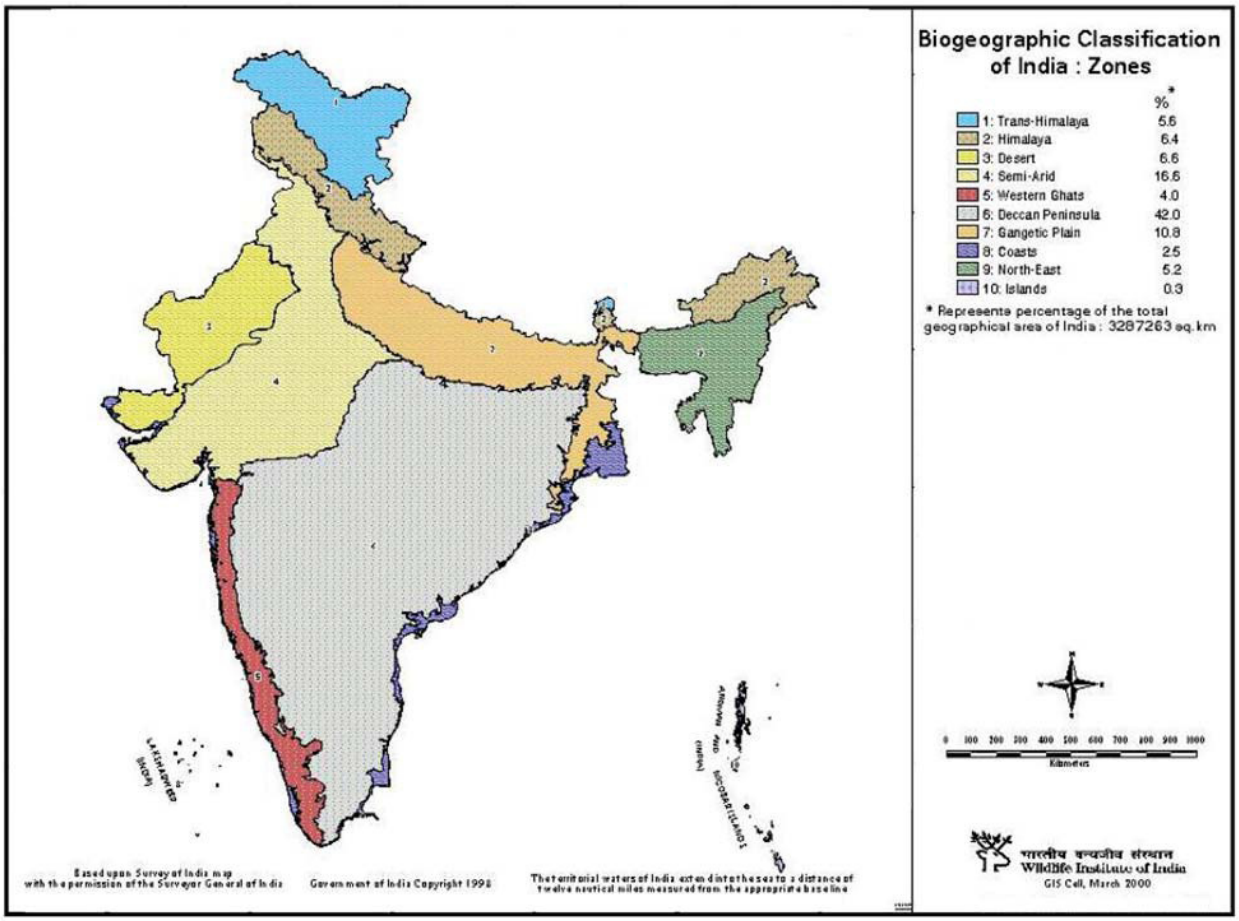
1. SITUATION ANALYSIS

A. Context and global significance of biological diversity of India:

A.1. Environmental context:

1. Geographically, India accounts for 2.4% of the world's total surface area of 135.79 million sq. km.; but supports and sustains 16.7% of the world population. India is agro-climatically diverse that has manifested in ecosystems ranging from the snow covered Himalayan peaks in the North to the tropical rain forests of the South. It has a coastline of 7,517 km; the mountainous region covers an area close to 100 mha; and arid and semi-arid zones are spread over 30 mha. India represents: (i) Two 'Realms'- the Himalayan region represented by Palearctic Realm and the rest of the sub-continent represented by Malayan Realm; (ii) Five Biomes e.g. Tropical Humid Forests; Tropical Dry Deciduous Forests (including Monsoon Forests); Warm Deserts and Semi-deserts; Coniferous Forests; Alpine Meadows; and (iii) Ten distinct bio-geographic zones and Twenty-seven biogeographic provinces[1] (Figure 1 and Annexure 1). Years of geological stability, varied geo-morphic and climatic settings coupled with deep human ecological associations have given rise to the unique complexion of biological resources seen in India today.

Fig 1. Bio-geographic zones of India



2. One of 17 "mega-diversity" countries worldwide, India harbours a great wealth of biological diversity across its full diverse range of biomes. This richness is shown in numbers of species among other attributes. In total, India harbours: 350 species of mammals, 1,224 birds, 408 species of reptiles, 197 amphibians, 2,546 species of fish, and

[1] Rodgers and Panwar, 1988

15,000 flowering plants. India has many endemic plant and vertebrate species. Among plants, species endemism is estimated at 33% with 140 endemic genera. Areas rich in endemism are northeast India, the Western Ghats and the north western and eastern Himalayas. Five world centres of plant diversity have so far been issued for India: four in the Western Ghats and one in the Himalayas. Of the 34 globally identified biodiversity hotspots, India harbours four hotspots, i.e., Himalaya, Indo-Burma, Western Ghats and Sri Lanka and Sundaland[2].

3. India is exceptionally rich in Crop Origin and species endemism. It is one of the eight Vavilovian centers of Origin and Diversity of Crop Plants, having more than 300 wild ancestors and close relatives of cultivated plants. As per India's national reporting to Convention on Biological Diversity (CBD) in 2008, so far, nearly 91,212 of faunal species (7.43% of the world's faunal species) have been recorded in the country. Endemic Indian fauna is exemplified most prominently in Amphibia (61.2%) and Reptilia (47%). Likewise, Indian fish fauna includes two endemic families and 127 monotypic genera. India has 413 globally threatened faunal species, which is approximately 4.9% of the world's total number of threatened faunal species[3].

4. India is rich in traditional knowledge associated with biological resources. India's contribution to crop biodiversity has been impressive with repositories of over 50,000 varieties of rice, 5,000 of sorghum, 1,000 of mango, etc. India is also endowed with vast and diverse forms of domesticated animal genetic resources, e.g., cattle, buffalo, sheep, goat, pig, camel, horse, donkey, yak, mithun, duck, goose, quail, etc. Besides, a rich diversity of wild relatives of domesticated animals exists here.

5. The State of Forest Report of India released in 2009 puts total forest and tree cover of India at ~78 million ha as of 2007. This is ~23.84 % of India's total geographical area and represents an increase of 180,000 ha of forest cover during 2005-07. Some 275 million rural people depend on forests for their livelihoods in India, including 89 million tribal members across 700 tribal groups. Most live in villages where subsistence agriculture is the way of life, bartering is the main system of trade, and electricity and running water are lacking. Nearly 700 million rural people directly depend upon climate-sensitive sectors (agriculture, forests and fisheries) and natural resources (such as water, biodiversity, mangroves, coastal zones, grasslands) for their subsistence and livelihoods.

Priority areas:

6. **The Himalayas[4]:** Occupying an area of about 31.98 million ha, the Indian Himalayas support very high levels of biological diversity in some of the world's largest/most diverse ecosystems including alpine pastures, temperate forests, high altitude wetlands and sub-tropical forests. Uniqueness of the region is manifested in its rich species endemism (over 40%). There are 12 mammal species endemic to the Himalayas (e.g., The Golden Langur (*Trachypithecus geei*), the Himalayan Tahr (*Hemitragus jemlahicus*), the Pygmy Hog (*Porcula salvania*) and 15 endemic birds (e.g., Cheer Pheasant *(Catreus wallichii),* Orange Bullfinch *(Pyrrhula auranliaca),* Bugun Liocichla *(Liocichla bugunorum))*[5]. The Western and Eastern Himalaya are home to Endemic Bird Areas (EBAs) given Urgent and Critical Priority status by Bird Life International.[6] Over 175 indigenous communities inhabiting this region depend directly on its diversified resource base for existence.

7. In spite of richness and uniqueness of natural resources, the region remains relatively under developed with widespread poverty, which may accentuate environmental degradation. Socio-economic indicators of this region are low, with low levels of education and health care, high food insecurity and shrinking community livelihood sources characterized by the loss of critical ecosystem services. Agriculture is the most important livelihood activity in this region, employing more than 70% of the labour force. About 40 million people depend directly on the region's globally significant ecosystems for their sustenance and support. Across its range, the Himalayas has been affected by differential degrees of anthropogenic interventions, including developmental activities, habitat

[2] Fourth National Report to CBD; National Biodiversity Action Plan, 2008.
[3] International Union for Conservation of Nature (IUCN) Red List (2008),
[4] National Forest Commission Report, 2005., Fourth National Report to CBD
[5] Rediscovered in 2006 (was supposed to be extinct earlier)
[6] Stattersfield, A. et. al. 1998. Endemic Bird Areas of the World. Burlington Press. Cambridge.

loss and degradation (for instance at several places in the Western Himalayas, the climax oak (*Quercus*) ecosystems have been retrograded to sub-climax/ sub-seral phases), poaching (reports of retaliatory killings as a result of man-animal conflicts are on the rise) and fragmentation (that has affected the viability and vitality of critical corridors and dispersal areas e.g., Terai arc in the western Himalayas). Emergence of river valley projects, unplanned infrastructure built often disregarding the fragility and functionality of ecosystems (fall-out of urbanization) and mass tourism has also significantly impacted the quality and quantity of natural resources in the region[7].

8. **The Western Ghats[8]:** Occupying an area of about 16 million ha, the Western Ghats harbours 27% of India's total flora in some of the grandiose ecosystems of global significance including tropical wet evergreen forests, montane evergreen forests, moist deciduous forests, dry evergreen forests, etc. There are 14 endemic mammal species (e.g., Niligiri langur *(Trachypilhecus johnii)*) and Niligri Tahr *(Nilgiritragus hylocrius*), and among the 500 species of birds reported from the Western Ghats, 16 are endemic (eg. Malabar Pied Hornbill *(Anthracoceros coranatus)*, Black and Orange Flycatcher (*Ficedula nigrorufa).* The Western Ghats are home to an EBA given High Priority status by Bird Life International. The population density in the Western Ghats, vary between 100 and 300 inhabitants per square kilometre. Approximately 245 million people who live in the peninsular India receive most of their water supply (draining 40% of India's land area) from rivers originating in the Western Ghats. The forests of the Western Ghats had been selectively logged in the past and large tracts were also converted to monoculture plantations of tea, coffee, rubber, oil palm, teak, eucalyptus, and wattle, for building reservoirs, roads, and railways. There are varying degrees of human pressure including collection of fuel wood and NTFPs for subsistence. Mass tourism, grazing and forest fires are other concerns. Over 70% of the 45 million people who live in the Western Ghats depend on agriculture and natural resources for livelihoods. Poverty is rife and economic development is slow particularly in regions adjacent to forests.

9. **Arid and semi-arid region[9]:** Covering an area of 127.3 mha, i.e. 38.8% of the total geographical area of the country, these zones form primarily part of Rajasthan, Gujarat, Punjab, Haryana, Andhra Pradesh, Karnataka, Madhya Pradesh, Jharkhand, Chhattisgarh, Orissa, Tamil Nadu and Maharashtra. Thar Desert in Rajasthan is the world's seventh largest desert and is considered the most inhospitable eco-region in Indo-Pacific region. The mammal fauna comprise 41 species that include the endangered cats – the lion, leopard and tiger. It harbours some of India's most magnificent grasslands and home to highly habitat specific species of global conservation significance such as the Great Indian Bustard (*Ardeotis nigricepss*). Most of the arid and semi-arid areas of India are either subject to desertification or drought prone or considered wastelands. Overall, land degradation is estimated to affect at least one-third of the 329 million ha geographical area of India[10]. Arid areas (49.5 mha) are the worst affected, especially in the western part of Rajasthan that includes the Thar desert (20.87 mha), as well as in arid Gujarat (6.22 mha). Recurrent drought, high wind, poor sandy soils and high human and livestock demand for food, fodder and firewood cause over-exploitation of fragile resources, further aggravating the ecological problems.

A.2. Socio-economic context

10. As per the provisional population figures of 2011[11], there are 1,210,193,422 people in India with a population density of 382 people/sq. Km and a sex ratio of 940 females per 1000 males. The population growth in the past decade has been 17.64%. Though the decadal population growth rate has steadily declined as a result of the various policies and programmes at the national and sub-national level (relating to family welfare, education, health and women empowerment) there is still extreme stress on the land use, due to high population density (among other factors) across the country. Presently, more than 23 percent of the total land area is under forest and tree cover and 44 percent is the net sown area on which 64 percent of the population thrives. The remaining one third is roughly

[7] Fourth National Report to CBD; National Biodiversity Action Plan, 2008.
[8] Ecosystem profile: Western Ghats &Sri Lanka, Biodiversity Hotspot. Critical Ecosystem Partnership Fund, 2007
[9] National Forest Commission Report, 2005.
[10] Ministry of Agriculture, Department of Land Resources,
[11] Census of India, 2011

equally distributed among fallow land, non-agricultural land and barren land. Crop production in India takes place in almost all land types, namely, dry, semi dry, moist, sub humid, humid and others. Agriculture continues to be the most important sector in India's economy as it feeds a large and growing population, employs a large labor force and provides raw materials to agro-based industries.

11. Two things are noteworthy in this context: Firstly, India's 1.21 billion people (16.7% of the world population) have to derive sustenance from what is just 2.4% of the world's total geographical area. Secondly, the dependency of economy (both existing and emerging) and majority of its population on natural resources (e.g. agriculture, forests, tourism, animal husbandry and fisheries) are immense and deep. For instance, around 275 million people (in some of the most disadvantaged locales) depend on Non Timber Forest products (NTFPs) for day today sustenance while about 60% of cropped area in the country is under rain-fed agriculture. Further about 65% of India is drought prone, 12% flood prone, and 8% susceptible to cyclones[12]. India[13] also has a huge livestock population (over 185 million[14]) that play a crucial role in the local and regional economy particularly of ASAR. Livestock in India is characterized by very large numbers, very low productivity and very high dependency on natural resources for fodder and foraging. All these factors make the dependence of Indian rural population on natural resources precarious dependent and critically vulnerable.

12. Over the years, unsustainable practices such as deforestation, fire and overgrazing have been both cause and consequence of the livelihoods crisis among tribal and rural communities living in and around forest areas. India's natural resources are impacted by 'direct proximate factors' such as mega-development, competing claims on land and water resources, unsustainable commercial extraction and livelihood dependencies. 'Indirect factors' include the conundrum of 'prevailing poverty-deepening environmental degradation', increasing human population, climate change, weak governance, institutional and policy frameworks, etc. Land degradation has affected at least one-third of the geographical area of India15 and around 41% of India's forests are degraded with very low levels of productivity16. A complex set of factors (intensive agriculture, extensive use of fertilizers, depleting water resources, recurrent drought, high human and livestock demand for food, fodder and firewood) further aggravates the situation. Groundwater, which supplies drinking water to 80% of India's villages, is rapidly depleting with 347 districts (59 percent of all districts) have problems related to either the quantitative availability or quality of groundwater.

13. The poor, marginalized communities, largely remaining as 'ecosystem people' (especially women), are worst affected by environmental disruptions. The continuing conditions of land degradation, desertification, and depletion of natural resources lead to serious social dislocations including 'distress' migration of the rural poor in search of 'safe' livelihood options/ zones often in urban settings. The hardships of women caught in the vicious cycle of poverty, land degradation, climate fluctuations, and male migration further worsen their already weakened existence.

14. Though, Indian economy has made enormous strides since 1947, such as achieving self sufficiency in food production, increasing per capita GDP, reducing illiteracy and fertility rates, creating a strong and diversified industrial base, building up infrastructure, developing technological capabilities in sophisticated areas and establishing growing linkages with the world economy, much however remains to be achieved. Currently India aims to achieve a GDP growth of 9% that requires commercial energy growth of 7%[17]. India with over a billion people currently produces 660 billion KWh of electricity and over 600 million Indians, a population equal to the

[12] National Institute of Disaster Management, 2007.
[13] The GDP from livestock sector is estimated around 5.5 percent.
[14] National livestock census, 2003
[15] Covering an area of 127.3 mha, i.e. 38.8% of the total geographical area of the country, Arid and semi-arid region form primarily part of Rajasthan, Gujarat, Punjab, Haryana, Andhra Pradesh, Karnataka, Madhya Pradesh, Jharkhand, Chhattisgarh, Orissa, Tamil Nadu and Maharashtra. Of the ~ 228 million ha of drylands in India, 51 Mha are arid, 123 Mha semi-arid and 54 Mha dry sub-humid regions, with Western Rajasthan and Kutch being chronically drought affected.
[16] India's average mean annual increment of 0.7 m^3/ha/year, significantly below the global average of 2.1 m^3
[17] Approach paper to 12th five year plan, Planning Commission.

combined population of USA and EU, are out of bounds of electricity grids, and access to clean, modern fuels such as LPG and kerosene is also limited. In view of the above, enhancing energy supply and access is a key component of the national development strategy. The Planning Commission of India has established monitorable targets for national economic development and poverty alleviation for the 12th Five Year Plan and beyond. Accomplishing these monitorable targets would require significant specific physical investments in the form of creation of new infrastructure, and provision of services. In turn, these will involve additional energy requirements. Since GHG emissions are more or less directly linked to economic development, India's economic growth will necessarily lead to increase in GHG emissions from the low levels of per capita GHG emissions as on now (currently India's per capita GHG emissions stands at 1.5 tonnes CO_2e of per year)[18].

A.3. Climate change context:

15. Climate change poses an emerging threat to sustainability of social and economic development, livelihoods of communities, and environmental management in India. The impacts of climate change in India are expected to be significant[19]. India is considered highly vulnerable to climate change, not only because of high physical exposure to climate-related disasters (65% of India is drought prone, 12% flood prone, and 8% susceptible to cyclones[20]), but also because of the dependency of its economy and majority of population on climate-sensitive sectors (e.g. agriculture, forests, tourism, animal husbandry and fisheries).

16. Climate change is expected to increase relative stress on water resources due to the decline in rainfall, with impact on water availability (per capita water availability is expected to decrease from 1820 m^3/yr in 2001 to 1140 m^3/yr in 2050[21]) and agriculture/food security (60% of crop area in India is under rain-fed agriculture). Climate change is projected to result in shifting of ecosystem types and resultant alterations in species compositions with serious implications on the status of biodiversity and people's livelihoods dependent on it.

17. As mentioned in India's National Communication to the UNFCCC, various sectors of Indian economy such as agriculture, forests, fisheries etc. are likely to be severely hit due to climate change, thus impacting the lives of large number of people depending on these sectors[22]. The poorest of the poor, especially the marginalized groups including women and children, will be the most affected by these changes. Any adverse impact on water availability due to recession in certain pockets would threaten food security, cause die back of natural ecosystems including species that sustain the livelihoods of rural households. Apart from these, achievement of vital national development goals related to other systems such as habitats, health, energy demand, and infrastructure would be adversely affected.[23] Current Government expenditure on adaptation to climate variability exceeds 2.6 per cent of the GDP in India, with agriculture, water resources, health and sanitation, forests, coastal zone infrastructure and extreme events, being specific areas of concern.

18. Currently, India with 17 percent of the world's population, contributes only 4 percent of the total global GHG emissions; with agriculture contributing 17.6% of the total emission. In absolute terms, this comes to 334.41 million tonnes of CO2eq. Unsustainable agricultural practices such as open burning of agro residues on the field, excessive use of chemical fertilizers and pesticides suggest that there is room for mainstreaming community led initiatives for GHG emission reduction. Electricity sector contributes 37.8% of CO2eq; most of this is being from thermal and large hydro sources. Currently 70 % of India's rural landscape is not connected to national electricity grid and in the years to come it is expected that the electricity/ energy consumption will only increase as the reach of growth and development start penetrating rural landscapes. This will invariably lead to more GHG emissions. In

[18] GHG Inventory, Ministry of Environment and Forests, 2010.
[19] Various Reports of Ministry of Environment and Forests, India
[20] National Institute of Disaster Management, 2007.
[21] Intergovernmental Panel on Climate Change (2007a). *The Physical Science Basis: Contribution of Working Group I to the Fourth Assessment Report of the IPCC*. Cambridge: Cambridge University Press.
[22] India's National Communication to the United Nations Framework Convention on Climate Change (2004). Ministry of Environment and Forests, Government of India.
[23] MOEF, India's Initial National Communication to UNFCCC, 2004.

that context, there is a need to develop innovative and sustainable energy sources in rural areas for complimenting the national grid that will not only reduce / avoid future emissions but also minimize transmission and distribution losses. Unsustainable solid waste management practices like unplanned dumping of municipal waste, burning in an unscientific manner, inadequate recycling, lack of practice of source segregation, etc contribute another 3.6% of India's total GHG emissions. Decentralized community initiatives have the potential to significantly improve the scenario in this regard.

19. Climate change is an 'externality' that needs to be 'internalized' quickly into the policy and developmental planning and execution in the Indian context. The impacts of climate change are likely to occur over a longer time frame and known to be 'persistent' and 'pervasive' in nature. Further, the risks and uncertainties associated with it are projected to interact negatively with other development challenges and social and ecological vulnerabilities. This necessitates the development of a climate response strategy that essentially hinges around a multi-disciplinary approach with ample vertical and horizontal linkages and feed backs (across sectors and people). Actions aimed at responding to climate response should not be viewed in isolation; instead it should become integral part of regular development planning, action and execution. While there are national level policy and programme frameworks (National Action Plan on Climate Change, 2008) for combating climate change, appropriate actions at the local levels (the 'ground zero' of climate change battle) is imperative for optimal and effective results. The key elements of an effective climate response strategy for India at the local level would involve: flexibility (within livelihoods, economic, social, cultural, ecological and institutional systems), diversification (involving multiple independent flows to livelihood and natural systems), learning and education (from events at both individual and institutional levels and knowledge base required to develop new systems when existing ones are disrupted), mobility (an attribute of flexibility), operational techniques (for risk reduction before and following disruptions), convertible asset and innovation (designing new systems and options)[24]. SGP becomes crucial in spotting, sequencing and supporting such local level actions that can help in combating climate change issues.

20. More data on baseline and the planned activities by the government in the area of renewable energy, leading to positive climate change implicates are now available in the draft 12th Five Year Plan documents uploaded on the MNRE web site recently. India has an estimated renewable energy potential of about 80 GW from commercially exploitable sources viz. Wind – 45 GW, Small Hydro – 15 GW and Biomass/Bioenergy – 17 GW. In addition, India is receiving a solar radiation sufficient to generate 35 MW/ Sq. Km. using solar photovoltaic and solar thermal energy. India's renewable energy installed capacity has grown at an annual rate of 23%, rising from about 3.9 GW in 2002-03 to about 20 GW in March 2011. Wind energy dominates India's renewable energy industry, accounting for 70% of installed capacity (14 GW). It is followed by small hydropower (3GW), biomass power (2.7 GW) and solar power (35 MW) that has just started registering its presence. In terms of electricity generation, with normative capacity utilization factors, the renewable power installed capacity is generating around 49 BU per year and corresponds to about 6% in the electricity mix in 2010-11.

21. In the Indian context, there are great disparities in energy access along the rural/urban divide. According to NSSO, close to 300 million i.e. about 44% of rural households have no access to electricity despite 90% of villages are claimed to electrified by extending grid to get supply from centralized power station. More than 85% of those who have no electricity access live in rural areas.

22. Further details of relevance to the SGP programme are provided in bullet points below:
Estimated potential of biogas plants is 123 million out of which the current cumulative achievement is 44 million in the period 1981 to 2011 (35.75)%. In the year 2010 – 2011 Rs 120 crores were spent on this programme. About 35.2 million improved chulhas were installed during the period 1983 – 2003 out of a total potential of 120 million cook stoves. About 9.28 lakh hectares of wastelands had been cultivated with Jatropha in the nine States upto July, 2009 for use as biodiesel Waste to energy plants with an aggregate capacity of 77 MW have so far been set up

[24] Draft Climate Change Action Plan for Uttarakhand, 2011.

A.4. Land degradation context

23. Land degradation (primarily, desertification, reduction in land use quality, lost of fecundity to support optimal growth of biomass, and deforestation) damages ecosystem functions and services, thereby risking livelihoods, economies and societies. The UN Convention to Combat Desertification (UNCCD), 1994 places land degradation concerns at the centre of the international and national efforts for achieving sustainable development, poverty alleviation and Millennium Development Goals (MDGs).

24. Land degradation is a chronic problem in India[25]. About 69 percent of India's geographic landmass falls in dry-arid, semi-arid and dry sub-humid regions. These are also heavily populated regions and as such land degradation has severe implications for livelihood and food security for millions of people. It is estimated that around 32 percent of India's total land area is affected by land degradation (of which desertification is a major driver); with 81.45 million hectares, or 24.8 percent under varying stages of desertification. Unsustainable resource management practices (most of these regions already have low productivity) drive desertification, and accentuate the 'poverty-population growth-environmental degradation trap'.The degradation of land, through soil erosion, salinization, water logging, pollution and reduction in organic matter content has several underlying causes. These include: loss of forest and tree cover (leading to erosion by surface water run offs and winds), mining, unsustainable grazing, excessive use of irrigation (in many cases without proper drainage leading to leaching of sodium and potassium salts), unsustainable agricultural practices (e.g. improper use of agricultural chemicals leading to accumulation of toxic chemicals in the soil), diversion of animal wastes for domestic fuel (leading to reduction in soil nitrogen and organic matter), diversion of land to development programmes, and disposal of industrial and domestic wastes on productive land. The loss of arable soil and forests affects both economic and ecological functions[26].

25. The economy of the people in the arid and semi arid areas (ASAR), where land degradation has become acute, have typically revolved around animal husbandry and subsistence agriculture and its primary ecological resource base - water bodies, pasture, grazing land and sacred groves. However with increasing demands and in the absence of sustainable management, these have been over-exploited. The growing pressure on the land due to increasing population of people and livestock and absence of sustainable subsidiary occupation compels people to cultivate even marginal lands accentuating the problem. Further, frequent occurrences of droughts and dry spells threaten the livelihoods of people while these also weaken the resilience of the ecosystems. The following Table 1.[27] Details the states and districts in the country worst affected by land degradation and recurrent droughts.

Table 1: States and Districts worst affected by land degradation, and re-occurrence of droughts.

State	Districts
Andhra Pradesh (21)	Adilabad, Anatpur, Chittor, Cuddapah, East Godavan, Guntur Karinnagar, Krishna, Kurnook, Mahabubnagar, Medak, Nalgonda, Nellore, Nizambad, Prakasam, Ranga Reddy, Srikakulam, Vishakapatnam, Vizianagaram, Warangal & West Godavari
Karnataka (24)	Bagalkote, Bangalore Rural, Bangalore Urban, Belgaum, Bellary, Bidar, Bijapur, Chamarajnagar, Chikkamagalur, Chitradurga, Davanagere, Dharwad, Gadag, Gulbarga, Hassan, Haven, Kolar, Koppal, Mandya, Mysore, Raichur, Shimoga, Tumkur & Uttara Kannada
Madhya Pradesh (6)	Chhindwara, Rajgarh, Ratlam, Seoni, Shajapur & Ujjain
Maharashtra (16)	Ahmednagar, Aurangabad, Jalna, Latur, Nasik, Pune, Sangli, Satara Solapur, Buldhana, Chandrapur, Dhule, Jalgaon, Wardha, Beed and Osmanabad
Rajasthan (20)	Udauipur, Bhilwara, Rajsmand, Ajmer, Baran, Barmer, Bikaner, Churu, Dungarpru, Hanumangarh, Jaipur, Jaisalmer, Jalore, Jhalawar, Jodhpur, Kota, Nagaur, Sikar, Sri Ganganagar and Tonk.

[25] India's National Report to UNCCD, National Forest Commission Report, 2005.

[26] India's National Report to UNCCD.

[27] NCSA Report submitted to Government of India by Institute of Economic Growth, New Delhi

A.5. Policy and Institutional Context:

Policies and legislation

26. To promote conservation and sustainable use of biodiversity and natural resources, India has an extensive body of constitutional provisions, laws and policies (see Annex 2 for a comprehensive listing of legislations and policies). The Indian Constitution clearly assigns the responsibilities between the Union and State governments (Part XI and article 246) on various subjects. India is signatory to various international conventions and treaties related to environmental protection and has also taken numerous initiatives towards implementation. The Table 2 below summarizes the key international conventions and treaties related to environmental management signed by India[28].

Table 2: International conventions and treaties on environmental management signed by India

Convention/ Treaty	Year effective	Year signed and enforced
Convention Relating to the Preservation of Fauna and Flora in their Natural State	1936	1939
International Plant Protection Convention (1951)	1952	1952
International Convention for the Prevention of Pollution of the Sea by Oil (1954)	1974	1974
The Antarctic Treaty (Washington, 1959)	1998	1983
Ramsar Convention on Wetlands of International Importance (Ramsar, 1971)	1982	1971
Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)	1978	1977
Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)	1976	1974
Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)	1982	1979
Convention on the Conservation of Antarctic Marine Living Resources (Canberra, 1980)	1985	1980
United Nations Convention on the Law of the Sea (Montego Bay, 1982)	1995	1982
Convention on Control of Transboundary Movements of Hazardous Wastes & Disposal (1989)	1992	1990
Protocol on Environmental Protection to the Antarctica Treaty (Madrid, 1991)	1998	1992, 1996
United Nations Framework Convention on Climate Change (Rio de Janeiro,1992)	1994	1993
Convention on Biological Diversity (Rio de Janeiro, 1992)	1994	1992
Agreement relating to the Implementation of Part XI of the UNCLOS 1982 (1994)	1996	1995
Protocol to the United Nations Convention on Climate Change (Kyoto,1997)	2005	1997

The most relevant policies and legislation from this project's perspective are the Biological Diversity Act of 2002, National Forest Policy of 1988, National Water Policy, 2002, National Environmental Policy 2006, Indian Forest Act of 1927 and related state legislation, Forest (Conservation) Act of 1980, Wildlife (Protection) Act of 1972, Environmental (Protection) Act of 1986, *Panchayats (Extension to the Scheduled Areas) Act, 1996* and the *Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.*

27. India's National Environment Policy, 2006 (NEP), seeks to achieve balance between conservation and development by mainstreaming environmental concerns in all developmental activities. More recently, with the launch of the National Action Plan on Climate Change (NAPCC, 2008), India has a comprehensive policy frame work for responding to issues relating to climate change. Eight National Missions[29] forming the core of the

[28] Annual Report, Ministry of Environment and Forests, India, 2008-09.

[29] National Solar Mission, National Mission on Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining Himalayan Eco-System, National Mission for Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change.

NAPCC represent multi pronged, long-term and integrated strategies for achieving key goals. Pursuant to the CBD objectives, India enacted the Biological Diversity Act (BDA) in 2002. The Act gives effect to the provisions of the CBD including issues on access to biological resources and associated traditional knowledge to ensure equitable sharing of benefits arising out of their sustainable use.

28. Other important Legal and Policy Instruments include The Environment Impact Assessment Notification of 2006, Marine Fishing Policy of 2004, National Wildlife Action Plan (2002-16), National Conservation Strategy and Policy Statement on Environment and Development (1992), Policy Statement on Abatement of Pollution (1992), National Tourism Policy of 1998, National Agricultural Policy of 2000, Marine Fishing Policy of 2004, the Joint Forest Management orders and rules promulgated by both the Government of India and the States.

29. **Institutional framework** - The Ministry of Environment & Forests (MoEF) is the nodal agency in the administrative structure of the Central Government for planning, promoting, coordinating and overseeing implementation of India's environmental, forestry, land degradation, climate change related policies and programmes. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being. The Ministry also facilitates the SGP program to leverage more resources, strategically align it with state priorities and GEF thematic areas.

30. Other union ministries whose mandate has a bearing on this project are the Ministry of Agriculture (National Agricultural Policy, 2000, Deep Sea Fishing Policy, 1991, Indian Fisheries Act, 1987); Ministry of Rural Development and Land Resources (for implementation of Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA)); Ministry of Tribal Affairs (Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006); the Ministry of Panchayati Raj (Panchayats (Extension to the Scheduled Areas) Act, 1996); Ministry of Power, Ministry of Non-Renewable Energy (both on issues related to energy)and the Ministry of Tourism (National Tourism Policy, 2002).

31. There are a number of State Government Departments and agencies that regulate/ facilitate consumptive resource uses in the states. Various departments like the Environment & Forests; Panchyat Raj, Education, Planning, Agriculture and Animal Husbandry, Fisheries, Land and Water Resources, State Watershed Missions, State Livelihoods Missions are particularly noteworthy in the context of SGP. The Forest Department plays a major role in managing the forests and natural resources while Agriculture Department deals with matters related to agriculture development. The Animal Husbandry Department plays an important role in providing veterinary health care and improving the genetic production potential of livestock and poultry reared in the State. The Fisheries Department aims to develop the fisheries sector (including aquaculture). The Department of Industries and Commerce is primarily responsible for the development of industries in general and small-scale industries in particular.

32. District administration, local government and Panchayati Raj Institutions (PRIs30) are highly relevant (at the cutting edge) in the context of the project. Local research/ educational institutions such as agricultural universities/ technical institutions and units of Indian Council Agricultural Research (ICAR), Krishi Vigyan Kendra (KVK), etc have their presence in most of the proposed project sites and shall play a crucial role in the project particularly in building capacities at the grass root level. Private Sector, Chambers of Commerce and Industry, Banks, State planning boards, Financial Institutions, Self Help Groups (SHGs) of women; Forest Committees; State Biodiversity Boards (SBBs), Federations, Cooperatives, Fishermen's Associations, Youth Groups, Joint Forest Management (JFM) Committees, Eco-development Committees (EDCs), and Vana Samrakshana Samities (VSS), Biodiversity Management Committees (BMCs), Non Governmental Organizations (NGOs), Civil Society

[30] PRIs are local-level institutions for self-governance in rural areas that are recognized by the Constitution of India. These are elected bodies and operate at three levels, at village, at the block (a cluster of villages) and at the district level. PRIs are responsible for the preparation of plans for economic development and social justice and also for the implementation of schemes as entrusted to them by the respective state governments and also by the GOI.

Organizations (CSOs) /Community Based organizations (CBOs) etc are other organizations or institutions of relevance in the project. A more detailed Analysis of the institutional context (key stakeholders) is given in Section B.1. below.

B. Stakeholder and baseline analysis

B.1. Stakeholder Analysis:

33. As already mentioned in the previous sections, sustainable management of natural resources remains a challenge in India in the context of competing land use claims and developmental imperatives. Climate change adds to this precarious situation. An analysis of the status, patterns of change, casus-effect, and likely trajectory (in the business-as-usual scenario) of the state of environment in India is given in the next section.

34. Sound environmental management requires multiple actions at all levels. The governments, private sector and community actors need enhanced capacities and appropriate technologies; the planning process needs to be transformed to become inclusive and bottom-up and those most affected and marginalized need increased bargaining power. Governments (national, sub-national and local), CBOs, private sector, local communities and civil society – all these actors need to take put their acts together. Further, to remove the direct drivers of environmental degradation and loss of ecosystem services, there is need to develop/ strengthen and demonstrate community led strategies for conservation that would increase the water holding capacity of the land, improve soil fertility, carbon sequestration, agricultural productivity, habitat and species conservation.

35. The key stakeholders of SGP are the communities living in vulnerable, ecologically fragile areas. As the SGP is focusing on biodiversity, climate change and land degradation issues across highly varied and dispersed bio-geographic zones, key stakeholders, stakeholder interests and priorities shall vary. For instance, in hills/ coastal region, the focus would be on sustainable use of bio-resources, building ecosystem based enterprises, reduce human- animal conflicts and improving access to markets for local produce. Climate change concerns and response measures (both adaptation (e.g., rainwater harvesting, changing cropping pattern, etc.) and mitigation (e.g. use of renewable energy sources) shall be the cross-cutting aspect of SGP. Access to sustainable and clean energy is a top priority for improving the quality of life in rural areas. In areas affected by land degradation, the primary concern of SGP would be on improving access to water, promoting sustainable land and soil moisture management, income augmentation through livelihood diversification, etc.

36. Other key stakeholders are the community based organizations who are working closely with communities. In the context of SGP, they are the key conduits for reaching out to the grassroots on account of their local presence, reach, flexibility of operations and rapport and so are advantageously positioned to work closely with remote, rural communities outside the reach and realm of conventional development programmes. Local governments like the panchayat raj institutions, administration at the district, block and taluk level are also key stakeholders of the programme. There is also an urgent need for forging / cementing linkages with government, private sector and other donors with community practices. This is the way, for voices from the community to be heard and the stakeholders feel the need for SGP.

37. The stakeholders bring requisite information, knowledge, skills and practices in a range of thematic areas of SGP. In the past years in the SGP, the links have been made with MoEF in facilitating actions with the other GOI Ministries and in the federal states to address the problems of leveraging funds by grantees, allocating resources for scaling up, solving issues around policy, getting access to credit through banks, equipments and technology access for project implementation. The present SGP is intending to upscale the reach and scope of these interventions and initiatives. The details of different stakeholders and their indicative roles and responsibilities in the context of SGP are given in the following Table 3.

Table 3. Key stakeholders and their indicative roles and responsibilities in SGP

Key stakeholders	Relevant Roles and Responsibilities (Indicative)
Ministry of Environment & Forests (MoEF)	The Ministry of Environment & Forests (MoEF) is the nodal Ministry in the administrative structure of the Central Government for planning, promoting, coordinating and overseeing implementation of India's environmental, forestry, land degradation, climate change related policies and programmes. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being.[31] The MoEF being represented through the NSC will facilitate SGP to leverage more resources, (as has been successfully done in the past) strategically align it with state priorities, departments, government projects and GEF thematic areas. It also enables to link the projects to other ministries, donors through GEF FSPs, and MSPs and other grants from other donors. Also enable SGP to leverage into the ongoing schemes and projects of the MoEF GOI and the various consultations, workshops, and policy/national dialogues etc.
Other Union Ministries	Other union ministries of GOI have a *direct mandate and bearing* on this project. They are the Ministry of Agriculture (National Agricultural Policy, 2000, Deep Sea Fishing Policy, 1991, Indian Fisheries Act, 1987); Ministry of Rural Development and Land Resources (for implementation of Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA); Ministry of Tribal Affairs (*Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006);* the Ministry of Panchayati Raj (*Panchayats (Extension to the Scheduled Areas) Act, 1996); Ministry of Power, Ministry of Non-Renewable Energy (both on issues related to energy conservation and energy efficiency)* and the Ministry of Tourism (National Tourism Policy, 2002). The SGP will link at the program and individual grantee level through the ongoing FSPs and the MSPs of GEF. Seek, leverage, mainstreaming the mutual learning's and best practices for better local livelihoods and local/global environment benefits.
State Governments and related National Intuitions for Science and technology	Various State departments like the Environment & Forests; Panchyat Raj, Education, Planning, Agriculture and Animal Husbandry, Fisheries, Land and Water Resources, State Watershed Missions, State Livelihoods Missions are particularly noteworthy in the context of SGP. The Forest Department plays a major role in managing the forests and natural resources while Agriculture Department deals with matters related to agriculture development and land productivity. The Animal Husbandry Department plays an important role in providing veterinary health care and improving the genetic conservation and production potential of livestock and poultry reared in the State. The Fisheries Department aims to develop the fisheries sector (including aquaculture). The Department of Industries and Commerce is primarily responsible for the development of industries in general and small-scale industries in particular. The SGP through its projects has demonstrated the leverage and access of these technologies, and practices, skills enhancement at the community levels. It will continue and strengthen to further scale, integrate at the individual projects to much wider benefits both in terms of conservation, mitigation levels and the livelihoods creating more resilient communities.
District Administrations in the states of India	These are headed by the District Collector/ Magistrate32, and include functionaries responsible for different aspects of district governance. Of relevance to this project are functionaries responsible for district planning (District Planning Officer), fisheries (Assistant Commissioner of Fisheries), agriculture (District Agriculture Officer), forests and wildlife (Deputy Conservator of Forests), livestock (District Animal Husbandry/Livestock Officer), soil & water engineers, officials of the women and child dept. At the taluka/block level there are Panchayat Samitis, and the Block Development Officers (BDOs) and at the village level there are Gram Panchayats. The taluka-level Panchayat Samitis work for the villages within the taluka and are the link between the Gram Panchayat and the district government. These three levels of local government are responsible for the preparation of plans for economic development and social justice and also for the implementation of schemes as entrusted to them by the governments.

[31] More information at http://moef.nic.in/index.php

[32] District Collectors are officers of the Indian Administrative Service and in charge of the administration of the district. They are entrusted the task of handling law and order, revenue collection, taxation, the control of planning permission and the handling of natural and man-made emergencies.

	The SGP through its flexible, quick to respond small grants has been seen as a *transparent mechanism, fast delivery mechanism* in linking to access resources creating more resilient communities overcoming the risks and showing *a more participatory, gender sensitive, process approach to sustainable development.*
Central Pollution Control Board (CPCB) and State level Urban Development, Municipal Corporations (MCs) and Pollution Control Boards	These are statutory authorities entrusted to implement environmental laws and regulations within the jurisdiction of the centre and state. National pollution control norms are set by the Central Pollution Control Board (CPCB). State boards ensure proper implementation of the statutes, judicial and legislative pronouncements related to environmental protection within the State. State boards have the responsibility of implementing the following environmental Acts and Rules, either directly or indirectly: Water (Prevention & Control of Pollution) Cess Act, 1977, Air (Prevention & Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and Rules and notifications made there under (including EIA notifications), Hazardous Waste (Management & Handling) Rules, 1989, Manufacture, storage and Import of Hazardous Chemicals Rules, 1989, Bio-medical Waste (Management & Handling) Rules, 1998, Coastal Regulation Zone Rules, 2011, and the Public Liability Insurance Act, 1991. Urban municipal bodies also facilitate and check the safe waste management practices under the Municipal Solid Waste (Management & Handling) Rules, 2000, Plastics Wastes Rules, 1999, etc. Again the SGP with CEE has been seen as a *performing modality in the past* through its partners and has been *much approached by the departments to implement small demonstration-pilot projects in partnership* with the departments and institutions e.g., waste management, plastic recycling, water bodies pollution of heavy metals and persistent pollutants e.g. chromium VI etc..
Agricultural Universities, ICAR,, KVKs and other national science, environment and educational universities and institutions	In SGP projects, promising technologies (eg. elimination and economic use of invasive species - parthenium, lantana, and water hyacinth) are practiced and disseminated. Various technical Institutes and Indian Council Agricultural Research (ICAR) have helped build capacity at the grass root through the low cost, easy to adopt technologies (agro-biodiversity) tested on farmers' fields. An additional intervention, the maintenance of seed germ plasm for use by farmers needs further investigation and care. Under the SGP, links will be made between community practices, educational institutions and universities so as to develop the same into business models and approaches, source young men and women as interns for studies, analysis, documentation and local capacity building. Through the projects *there has been greater creditability built between the partners and this mutual respect for each other* is leading to enhance resource base and also the better environment and livelihoods benefits at the grass roots.
Private Sector, Chambers of commerce and industry	Collaboration between SGP partners and private sector and industry are crucial for leveraging resources, knowledge, practices and skills to influence the corporate sector to adopt such technologies, processes, methodologies, systems, products for better sustainability and also for increased income for local communities. The SGP has linked through the CSR initiatives of the private sector for wider resource base of its grantee partners and also building more confidence and creditability of the program and its approach at the community level. This new approach of mutual benefits between the private sector and SGP is creating the wider impacts at the local and national levels.
Banks, State Planning Boards, and Financial Institutions	The SGP and communities are being linked at the local levels to access the credit facilities through small kinship based, women self help groups (SHGs), book keeping, accounts trainings and capacity building. This extra funds access is not only helping *in building local community institutions, trust* at the community and project levels, but also enhancing the adoption of technologies and skills by the locals. Nearly 80 % of the users/beneficiaries are women. Such links are also helping in building the skills of the locals in project planning, implementation, training, documentation, media management, networking, hosting workshops and business model approaches. The SGP has been seen as an innovative mechanism by the locals and the institutions.
SHGs, Forest Protection (FPCs), Federations, Cooperatives, Fishermen's Associations, Youth Groups,	To encourage collective action for sustainable resource use through informal, kinship, responsive, flexible, and community based institutions at the grass root in the implementation of SGP activities (biodiversity conservation, nursery development, biomass aggregation, livestock, land degradation, water conservation systems, agro-biodiversity, energy efficiency, micro enterprises, etc). As they are networked locally, they would also additionally take on the role of peer sharing of innovative practices, developed and replicated/ scaled up through SGP programmes. The SGP partners will further address the issues in adopting biodiversity-friendly, Sustainable Land Management (SLM)/ Sustainable Forest Management (SFM) practices and new low carbon technologies (LCT) with the

JFM Committees, EDCs, and Vana Samrakshana Samities (VSS)33.	communities in the remote tribal areas. In addition to being project beneficiaries, they would also be the repository of knowledge and contribute to replication of best practices, sharing of information and low cost, easily adaptable methods.
Community Based Organizations (CBOs).	CBOs have been a key to successful implementation of the programme. Such informal, responsible institutions are the outcomes of the sustained field efforts by the grantees. Their responsibilities include effective implementation of SGP projects, building skills, and use of easy to handle technologies, including training and documentation of experiences. They would also be the contact point for resource users for accessing markets and for outreach. This approach will be further strengthened in the project over the next 5 years showcasing effective ways of working.
Donors	CBOs have been a key to successful implementation of the programme. Such informal, responsible institutions are the outcomes of the sustained field efforts by the grantees. Their responsibilities include effective implementation of SGP projects, building skills, and use of easy to handle technologies, including training and documentation of experiences. They would also be the contact point for resource users for accessing markets and for outreach. This approach will be further strengthened in the project over the next 5 years showcasing effective ways of working.

B.2. Baseline Analysis:

38. The baseline project is comprised primarily of NGOs and CBOs implemented programs in India relevant to biodiversity, climate change and land degradation. NGO and CBO in-kind co-financing from such programs forms the bulk of this project's co-financing and this GEF investment is designed to complement and be additional to this baseline project described and quantified below. These NGOs, CBOs and not-for-profit private sector foundations will form a part of the emerging economy like India, where environmental sustainability is an integral part of sustainable development and poverty reduction strategies[34].

39. The network of well-established 10-12 NGOs, CBOs and not-for-profit private sector foundations (e.g., Bajaj, JSW, SAIL, NFD and Usha Martin etc). working in the remote, in accessible tribal areas will form the core group who will be partners under this GEF project and whose existing programs will provide part of "baseline project" that the incremental GEF investments will strengthen, resulting in improved global benefits under GEF's biodiversity, climate change and land degradation (and cross-cutting capacity development) focal areas. These NGOs, CBOs and private sector foundations have an average portfolio value of US$ 3.5-4 million and for a combined portfolio value of US$ 55 million. There are 275 million rural people in India who depend on forests and natural resources for their livelihoods, including 89 million tribal members across 700 tribes (more than half of it being women). Marginalized groups such as forest dwellers, pastoralists, artisanal fisher folk, small farmers, and women are most impacted by unsustainable environmental management. All these partners work closely in these areas and will address their needs and concerns.

40. A second important group of approximately 110 smaller NGOs and CBOs will be partners under this project. These NGOs/CBOs have an average portfolio value ranging from 0.030-0.075 million USD $, for a total portfolio value of USD $ 8,100,000 per year approx. Most of these are small to medium level NGOs/CBOs working in one geographic region or two-three districts at the local village level across the geographic areas. They too are implementing multi-sect oral integrated projects related to this GEF project's priority areas of intervention. They are engaged in helping communities recover socially and economically, linking to banks through kinship-locally based institutions to access credit at the local village level, helping people restore and improve their livelihoods through training and skill development, introduction of low cost, easy to adapt technologies, and live exposures

[33] Forest Protection Committees

[34] UNDP, UNDAF Consultations 2011

and introducing business model approaches (links to markets), capacity development and trainings of the community members.

41. These NGOs, CBOs, Institutions and the private sector are spread country wide (in line with the Government of India, national priorities, GEF priorities, UNDP FSPs and MSPs) engaged in all GEF thematic areas, particularly in biodiversity restoration, including invasive species management, medicinal and aromatic plants, herbs conservation and processing (link to markets) in India and in climate change both mitigation and enhancing the adaptive capacities of the locals and making them more resilient communities to overcome climate variability risks. As such, these NGOs, CBOs are implementing multi-sect oral initiatives related to this GEF project's priority areas of intervention. Examples of these baseline project initiatives include: bio gas, micro hydels, biomass briquetting and solar interventions as alternative energy; cook stoves, and solar applications as energy efficiency; livestock based fodder systems improving land productivity and promoting business models for dairy; livelihood improvement through training and skill development for microenterprises based on local biodiversity-NTFP and medicinal plants and herbs; agricultural productivity restoration; solid and liquid waste management; e-waste and awareness raising in areas related to climate change and adaptation to climate change in a more integrated manner.

42. This second group of smaller NGOs and CBOs has lower budget resources, remotely based and are more isolated than the larger NGOs and foundations. Consequently, they also have lower levels of capacity, access to information, outreach, knowledge and awareness, particularly in newer areas such as restoring ecosystem services, waste management etc and in designing projects to achieve multiple benefits through an integrated approach – for example - by restoring a threatened bamboo species to support checking the loss of local biodiversity and land degradation and mitigation benefits would include introduction of bio gas-cook stoves, improved enterprise based in business model approach for CC mitigation and adaptation. In another example, local NGOs and CBOs are engaged in restoration of agricultural private farmlands and common lands of the panchyats destroyed by the floods, through appropriate, low cost sustainable water harvesting gabion structures, field-bunding and stone weirs etc with communities sharing costs, decisions, roles and responsibilities. Such perspectives will help them link to local institutions in turn to the local banks, expertise on how to maximize multiple benefits from such work. These partners will also be linked to the Government of India's several programmes and schemes of different ministries addresses land degradation, biodiversity conservation and climate change adaptation. Some such programmes include the Mahatma Gandhi National Rural Employment Guarantee Programme (MNREGA) of the Ministry of Rural Development; Rajiv Gandhi Grameen Vidyutkaran Yojna (Rural Electrification Scheme); Krishi Vigyan Kendras (KVKs), Ministry of Agriculture; National Watershed Development Program for Rainfed Areas (NWDPRA), a programme under Macro Management of Agriculture (MMA) scheme of the Department of Agriculture and Cooperation; National Solar Mission and National Bio Gas program of the Ministry of New and Renewable Energy (MNRE), Ministry of Corporate Affairs (MCA) National Voluntary Guidelines on Social Environmental & Economic Responsibilities of Business (under the private sector, CSR) and National Project on Organic Farming (NPOF) of the Ministry of Agriculture. All these programmes recognize the importance of community driven approaches. The following section attempts a more detailed analysis of the baselines in the context of the project.

43. The total value of this baseline project is US$ 95 million. GEF resources will enable this baseline project to more effectively focus upon and address key challenges to empower community development while also generating global environmental benefits in biodiversity, climate change (adoption of energy efficient technologies and increased CO2 absorption) and land degradation. Co-financing from this baseline will be used to gather up of lessons learned, and the GEF funding will incrementally make that effort stronger through the introduction of new skills, practices and technologies through demonstration activities at additional sites. Co-financing will also be used to continue organizing community-based training for key stakeholders; GEF financing will provide critical additional support for cross-cutting capacity development and knowledge management that will fill a critical gap in the existing baseline project by strengthening and expanding the network of NGOs, CBOs, not-for-profit foundations and government partners to enable the replication and scaling up of consolidated approaches for

biodiversity conservation climate change mitigation and land degradation. The projects will also attempt to overcome *concerns about social polarization,* by addressing and ensuring that all sections of communities access resources and diffusion of technologies equally. The baselines would help identify the innovators, early adapters, early majority, late majority and the laggards in the projects and therefore help focus on creating social equity for mutual trust and respect. The following section attempts a more detailed analysis of the baselines in the context of the project.

Baseline Project - Biodiversity:

44. The projects will largely focus on India's natural resources which are impacted by retrogressive factors including 'direct proximate factors' such as mega-development, competing claims on land and water resources, 'extra-legal' livelihood dependencies, shrinking habitats & degradation, and poaching. 'Indirect factors' include the conundrum of 'prevailing poverty-deepening environmental degradation', increasing human population, weak governance and institutional and policy frameworks on prudent resource management. Some projects will also focus on the unsustainable practices such as deforestation, fire and overgrazing have been both cause and consequence of the livelihoods crisis among tribal and rural communities living in and around forest areas.

45. The projects will strengthen the governance models on natural resources in India which vary from: a) state sponsored conservation initiatives (Reserved Forests, Protected Areas[35], Joint Forest Management, watershed management, major and minor irrigation, etc) b) autonomous resource management (e.g. community conserved areas[36], traditional water harvesting, conservation of traditional varieties, etc), c) Initiatives with local self governments (management of village commons). Currently, the focus of formal conservation programmes in the country is based on the creation of Protected Areas (PAs). It is realized that PA systems, in isolation, lack the capacity to contribute to effective conservation of the country's biodiversity. The projects will focus on the conservation of biodiversity rich areas outside PAs can help the latter in maintaining linkages in the landscape and thus reduce vulnerability and increase resilience. Similarly, large chunk of India's biodiversity that exists outside PA network, are owned and managed by local communities with intricately interwoven and prudent resource management arrangements. Therefore the projects will address the need to evolve/ strengthen/ rejuvenate community led conservation practices that compliment the PA centric approach to conservation.

46. Some of the projects will link another key feature of India's ongoing 'formal' strategy for conservation and sustainable utilization of biodiversity that they evolve mostly from various initiatives formulated largely by the Ministry of Environment and Forests; complemented by other related Ministries/Departments and affiliated agencies dealing with Agriculture, Health, Water Resources, Rural Development, Power, Industry, New and Renewable Energy, Urban Development, and Science and Technology. Some of the ongoing programmes at the national level in this regard include: *Biosphere Reserves, Integrate Development of Wildlife Habitats, Conservation of wetlands, National Afforestation Programme, and Intensification of Forest Protection*. These flagship programmes along with other complementary programmes (both at the union and federal level) has an approximate annual financial outlay of USD 6 billion. One striking feature to note at this juncture is that the scope, reach, and role of these programmes in supporting autonomous resource management initiatives (at community level) and initiatives with local self governments are rather weak (with less than 10% of the budgetary outlay earmarked for this). SGP would fill in by supporting/ piloting prototypes of community conservation initiatives.

47. Many of the projects will strengthen the trend in India's natural resource policy - empowering community-based management as a key element of sustainable solutions. The concept of community-managed biological

[35] Protected Areas (PAs) are the corner-stones of conservation in India covering about 4.8% of geographical area. Currently, there are 661 PAs (99 National Parks, 515 Sanctuaries, 42 Conservation Reserves and 4 Community Reserves).

[36] Substantial part of India's biological diversity lies in areas outside protected areas including community conserved lands and under customary practices including traditional agricultural practices. However, there is gradual weakening of traditional knowledge and systems, due to changes in value systems and inadequate institutional mechanisms to support it. In addition, the significant role played by women in natural resource management and their profound knowledge about the local resources as well as their contribution in conservation has been largely undermined.

diversity in the productive landscape is gradually developing and maturing. Other trends in law and policy bode well for the continued development of community-based management of biodiversity both within and outside of PAs. Wildlife laws empowering local communities to work with government in joint wildlife management have been adopted recently, such as the Wildlife (Protection) Act, 1972 as amended in 2006 and the National Wildlife Action Plan (2002-2016). The GoI's National Environmental Policy, 2006 and National Biodiversity Action Plan, 2008 (NBAP) emphasizes community participation. Further, the 11th five year plan identified increased community involvement and decentralized management of agriculture, livestock, forest, energy, and rangeland resources as key elements to providing alternative economic opportunities for the rural poor. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 recommends addressing economic causes of environmental degradation in part by facilitating and strengthening natural resource property rights for the poor and to ensure that local communities are empowered through participatory planning and implementation of community-based natural resources management approaches. The Green India Mission and the National Afforestation Programme have similar approaches with a strong focus on community initiatives. The Green India Mission begins with a budgetary allocation of Rs. 200 crores (USD 45 million) which is largely reflected in the national and state annual budgets. But the process of actually *doing* this has been hampered for decades by a lack of/ 'invisibility of' (in the absence of adequate support and nurturing) 'home-grown best practice models' and effective replication of those models for the mainstreaming of biodiversity management objectives into local land and resource use planning and practice. SGP can improve this situation by rejuvenating autonomous resource use practises that has suffered at several places on account of the entry of market forces and disintegration of traditional value systems.

48. In the baseline scenario, there is also a trend within India's environment and natural resource regulatory framework of increasing emphasis on mainstreaming environmental concerns into production sector practices with an emphasis on the community level. The project is also aligned with the National Environment Policy, 2006, which recommends creating incentives for community participation in biodiversity conservation and emphasizes sustainable use and benefit sharing. The project is also in line with the India's national development planning priorities on environmental sustainability and identified in the 11th five year plan document which includes improving the integration of "environment" into development planning, projects and policies and appropriately addressing mitigation challenges posed by climate change. Combined, the two trends of community-based management and mainstreaming provide a solid baseline upon which this project seeks to build with targeted strategic support for community-level initiatives to conserve biodiversity in community-based PA and productive landscapes.

49. The SGP projects will also focus especially the biodiversity hot spots which are facing major capacity constraints in addressing biodiversity conservation concerns as "islands of excellence". It has been recommended that the country take steps for[37] effective implementation of Biological Diversity Act by building capacity of NBA, SBBs and BMCs, biodiversity concerns further mainstreamed into the planning process through inter-sectorol co-ordination, strengthen capacities for demonstrative participatory sustainable use models at the ground level, strengthen documentation of traditional knowledge, further study the impact of climate change on biodiversity conservation among other recommendations.

Baseline Project - Climate Change

50. Some of the projects will be around India's strategy for addressing CC is spelt out in its National Action Plan on Climate Change (NAPCC), 2008. NAPCC advocates a strategy that promotes, firstly, the adaptation to climate change and secondly, further enhancement of the environmental sustainability of India's development trajectory. Eight National Missions[38] on solar energy, enhanced energy efficiency, sustainable agriculture, sustainable habitat,

[37] India's National Capacity Needs Self Assessment Report and Action Plan, Ministry of Environment and Forests 2009

[38] National Solar Mission, National Mission on Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining Himalayan Eco-System, National Mission for Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change

water, Himalayan eco-system, increasing the forest cover and strategic knowledge for climate change form the core of NAPCC. The NAPCC's 'National Mission for Enhanced Energy Efficiency' strengthens the legal mandate of the Energy Conservation Act of 2001, promotes market based mechanisms to enhance cost effective investments in energy efficiency in energy-intensive large industries, accelerates the shift to energy efficient appliances, creates mechanisms to finance demand side management of energy saving programmes, and proposes fiscal instruments to promote energy efficiency. The 'National Mission on Sustainable Habitat' envisages improving energy efficiency in buildings through mechanisms such as Energy Conservation Building Codes (ECBC), management of solid waste and shift to public transport. 'National Solar Mission' envisages enhancing the share of solar energy to tap the potential of India being a tropical country with longer hours per day of sunshine and in great intensity. The 'National Mission on Strategic Knowledge for Climate Change' supports documenting the socio-economic impacts of climate change and creating a climate science research fund[39].

51. SGP projects will focus and leverage through the several initiatives envisaged in the sectors pertaining to power generation, transport, disaster management and capacity building that are to be integrated with the development plans of the Ministries. The 11th five-year plan identified relevant national goals relevant in this context. These include: (i) reduction in energy intensity per unit of GDP by 20% over the plan period, (ii) enhance share of RETs to 10% of the total contribution of electricity and (iii) increase forest cover by 5%. Related objectives under the sectoral policies and schemes also aim at enhancing rural energy access to provide energy to all, strengthen the Panchayat Raj Institutions (PRIs)[40] to take up energy provisions and encourage Independent Power Production (IPP) under the new provisions in Electricity Act, 2003. The major schemes include: Enhance energy efficiency in all sectors, Village Energy Security Programme (VESP), Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY), and Accelerated Power Development and Reforms Programme (APDRP). All these programmes provide the baseline for the project's climate change work. The approximate total annual outlay (at the state and national level) for programmes that has elements of addressing climate change would be any way more than USD 50 billion though exact allocations are difficult to segregate as they are mostly cross cutting in nature and 'hidden'.

52. Again, the projects will focus and build on the initiatives and schemes with which the energy and environment initiatives countering climate change can find convergence. For instance, Providing Urban amenities to Rural Areas (PURA) offers significant opportunities for convergence with energy programme as one of the basic infrastructure for rural development, and MGNREGA offers convergence with energy programmes for example augmentation of energy supply through energy plantation in Panchayat lands. In rural areas, fewer than 60% of Indian households actually consume electricity. The burning of biomass is a major source of black carbon emissions in India, which has the world's greatest concentration of people using traditional three stone cooking stove designs. Using inefficient three-stone stoves creates safety and health problems impacting women and children disproportionately. The net green house gas (GHG) emissions from India including LULUCF in 2007 were 1,728 million tons of CO_2 equivalents. GHG emissions from the agriculture sector constituted 17% of the net CO_2e emissions. GHG emissions from Energy, Industry, and Waste sectors constituted 58%, 22%, and 3% of the net CO_2e emissions respectively. The LULUCF sector was a net sink. It sequestered 177 million tons of CO_2. SGP can play a crucial role in 'climate proofing' (by appropriate technologies) development interventions at the grass roots level.

53. As already pointed out, climate change escalates the already existing vulnerabilities (social, ecological, economic and cultural). As India has already embarked on an ambitious development pathway, GHG emissions are only likely to increase in future. However, the national government is also aware that if not addressed, climate change can negate and hamper the developmental gains. In view of the above, the climate response strategy in the Indian context, include elements such as accelerating inclusive economic growth, promoting sustainable development, securing and diversifying livelihoods, and safeguarding ecosystem services. Further, the strategy is

[39] The exact budgetary outlays under the NAPCC is currently under negotiation with Government of India.

[40] Local village level institutions.

not viewed as a standalone action; instead is integrated into the regular developmental planning process. Similarly, while it is important to pursue both mitigation and adaptation measures, considering the overall socio-economic and ecological contexts and vulnerabilities, adaptation options are given slightly more priority in the projects.

54. GEF SGP NGOs, and CBOs, including private sector institutions will focus on adaptation measures, which is the ability of people and natural systems to adjust to climate change and increase resilience. The adaptation options can be 'hard' or 'soft'. 'Hard adaptation options' generally include options that have physical attributes (e.g. engineering structures). 'Soft adaptation options' refer to development of skills, processes, institutions, social systems, policies and programmes. Here again SGP has a superior perch in terms of spotting, supporting, sequencing and disseminating good practices at the level of communities (which are normally outside the reach of conventional development initiatives) with potential for climate change adaptation and mitigation. Further, SGP can be the vehicle for triggering/ piloting innovative community led initiatives that have a bearing on increasing the resilience of local communities and natural systems against climate change. Interestingly, most of the interventions proposed in SGP will also have automatic mitigation benefits and result in GHG emission reduction (e.g. improved stoves, mini and micro hydel project, improved land and SFM practices, etc).

55. More data on baseline and the planned activities by the government in the area of renewable energy, leading to positive climate change implicates are now available in the draft 12th Five Year Plan documents uploaded on the Ministry of New and Renewable Energy web site recently. The same will be used by partners in developing projects which will be clarified during the inception workshop.

56. India has an estimated renewable energy potential of about 80 GW from commercially exploitable sources viz. Wind – 45 GW, Small Hydro – 15 GW and Biomass/Bio energy – 17 GW. In addition, India is receiving a solar radiation sufficient to generate 35 MW/ Sq. Km. using solar photovoltaic and solar thermal energy. India's renewable energy installed capacity has grown at an annual rate of 23%, rising from about 3.9 GW in 2002-03 to about 20 GW in March 2011. Wind energy dominates India's renewable energy industry, accounting for 70% of installed capacity (14 GW). It is followed by small hydropower (3GW), biomass power (2.7 GW) and solar power (35 MW) that has just started registering its presence. In terms of electricity generation, with normative capacity utilization factors, the renewable power installed capacity is generating around 49 BU per year and corresponds to about 6% in the electricity mix in 2010-11.

57. In the Indian context, there are great disparities in energy access along the rural/urban divide. According to NSSO, close to 300 million i.e. about 44% of rural households have no access to electricity despite 90% of villages are claimed to electrified by extending grid to get supply from centralized power station. More than 85% of those who have no electricity access live in rural areas. Further details of relevance to the SGP programme are provided in bullet points below:

- Estimated potential of biogas plants is 123 million out of which the current cumulative achievement is 44 million in the period 1981 to 2011 (35.75)%. In the year 2010 – 2011 Rs 120 crores were spent on this programme.
- About 35.2 million improved cook stoves (chulas) were installed during the period 1983 – 2003 out of a total potential of 120 million cook stoves.
- About 9.28 lakh hectares of wastelands had been cultivated with Jatropha in the nine States up to July, 2009 for use as biodiesel
- Waste to energy plants with an aggregate capacity of 77 MW have so far been set up

B.2.3.Baseline Project -Land Degradation:

58. Of the ~ 228 million ha of dry lands in India, 51 Mha are arid, 123 Mha semi-arid and 54 Mha dry sub-humid regions, with Western Rajasthan and Kutch being chronically drought affected. A complex set of factors (intensive

agriculture, extensive use of fertilizers[41], and deforestation) is causing extensive land degradation in India. Arid areas (49.5 mha) are the worst affected, especially in the western part of Rajasthan that includes the Thar desert (20.87 mha), as well as in arid Gujarat (6.22 mha)[42]. Recurrent drought, high wind, poor sandy soils and high human and livestock demand for food, fodder and firewood cause over-exploitation of fragile resources, further aggravating land degradation and associated problems. The impending impacts of climate change exacerbate this situation.

59. The quality of forests and natural resources in India is being degraded; An estimated 41% of India's forest cover has been degraded to some degree in the past several decades. India has ~1.2 million ha of degraded forests that can be regenerated into well-stocked forests. Forest productivity is critically low with the average mean annual increment of 0.7 m^3/ha/year, significantly below, the global average of 2.1 m^3. Reasons for low productivity in India include human removal of forest biomass that is not recycled into soil, grazing pressure, fire, over cutting and high migration rates, including low investments in soil and water conservation. Ecosystem functionality such as soil and water retention is lost at an accelerating rate. India also raises 15% of the world's livestock population on 1.5% of world's forest and pasture lands. Increasing livestock populations have put escalated pressure on India's lands in recent decades.

60. A positive start had been made with the shift towards involving local communities in forest management since 1990, with state governments implementing JFM strategies. JFM caught on very quickly. By 2001, some twenty-two states had adopted JFM and the program encompasses ~17 million ha of government forests[43]. By 2010 over 100,000 committees are under the JFM program and envisage management of forests with local community involvement. Currently, national government has embarked on an ambitious programme (Green India Mission under the NAPCC with an outlay of USD 100 billion) for the restoration/ reforestation of degraded areas in the country.

61. There is increasing recognition of the importance of enabling local communities to address land degradation by devising innovative solutions based upon traditional practices. The National Watershed Development Program emphasizes involving local communities in integrated natural resource management and sustainable farming systems. SGP will align with the priorities of the National Forest Policy, National A forestation Program, Green India Mission and other relevant programs such as the Desert Development Programme; Integrated Wasteland Development; National Watershed Development Project for Rain fed Areas; Soil Conservation in the Catchment of River Valley Projects; National A forestation Programme; Arid Zone Research; MGNREGA; National Rural Drinking Water Programme etc. SGP has a critical role to play in complementing these programmes by piloting 'micro-level prototypes' for arresting land degradation, as most of the regular programmes operate at a me so or macro level. The good practices and capacities developed through the intense facilitation of SGP implementation could be available for replication and mainstreaming.

Table1: Activities supported by collaborative institutions

S. No	Institutions	Indicative activities to be supported
	Government of India	GEF SGP India program, while addressing the priorities of the GEF, also has a focused emphasis on the National Priorities of the Ministry of Environment Forests, Government of India (GoI) and the United nations Development Program (UNDP). This leading to largely ensuring global environment benefits through local actions and complementing the national

[41] Between 1991 and 2007, the use of fertilizers and pesticides increased dramatically from 70 kg/ha to 113 kg/ha at an average annual rate >3%.

[42] National Forest Commission, 2005

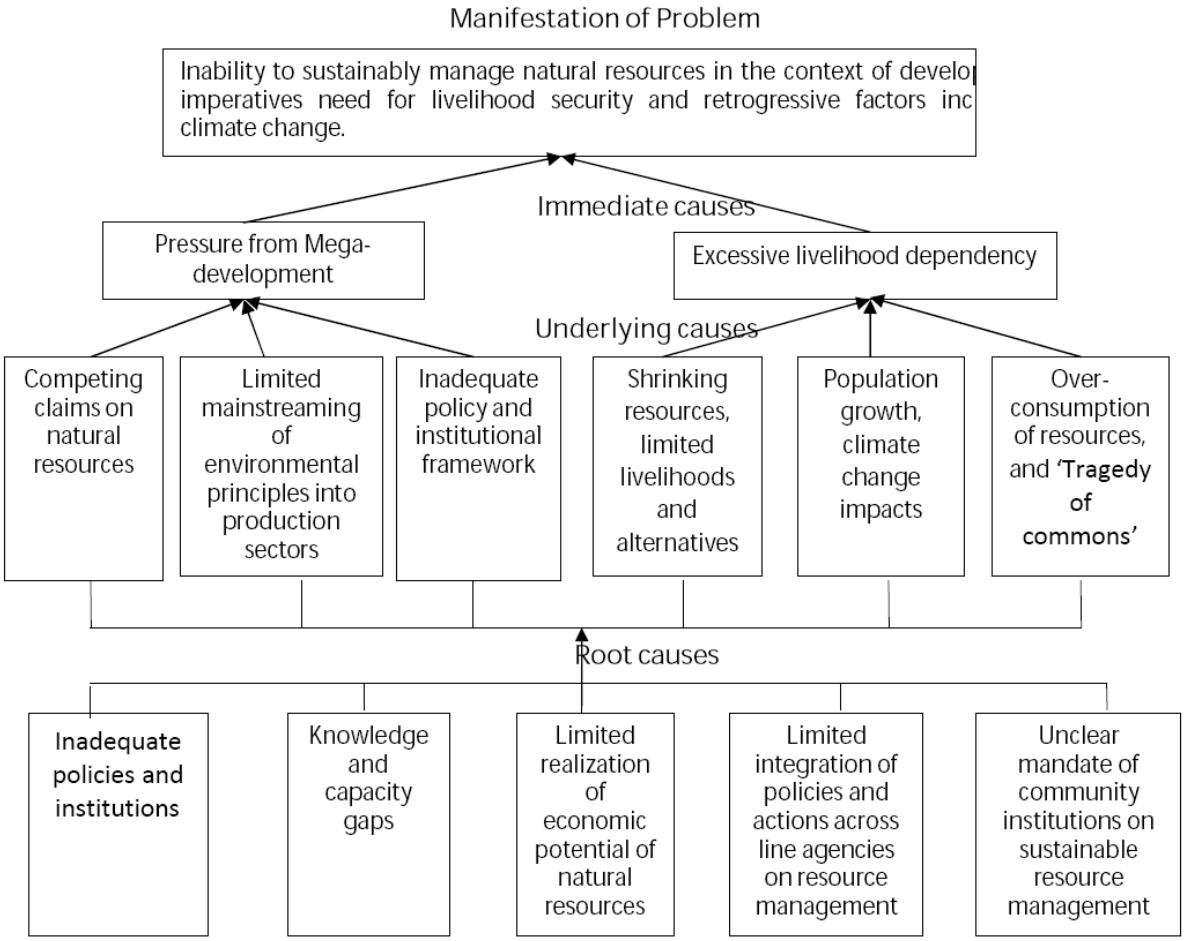
[43] Green India Mission Working draft 2010.

		priorities addressing sustainable development and poverty eradication in the SGP projects. In the past four years in GEF SGP (2006-10), GoI has made contributions of 500,000 USD of grants for scaling up and replication of successful SGP projects, handholding of the local communities, and for the conduct of special capacity building workshops, participation for the support of the GEF SGP team and its partners for GEF National Dialogues, GEF Constituency meetings, and other policy level discussions and meetings etc. In the process the MoEF, Govt. of India, has decided for the current project to further support commitment of 400,000 USD as co financing to ensure that the program continues to scale up and replicate the successful SGP India projects and also to strengthen SGP India program position to leverage increased resources from other donors (UNDP CO, Private sector and other Institutions). These additional funds of 400,000 USD will be for a period of 5 years. These funding shall be separately accounted for in the NSC and all formalities shall be same as Small Grants Programme (MOAs etc). The grants will be sanctioned on annual basis through the National Steering committee. These funds will also be used for special workshops on the GEF thematic areas of Land Degradation, Climate Change and under Bio-diversity Conservation etc'.
1.	UNDP	In kind- capacity development and knowledge sharing of the SGP team and the GEF SGP partners in link to the ongoing FSPs and the MSPs projects
2.	Satoyama Initiative Support	Grants for specific landscape projects as co financing, local capacity building, knowledge sharing and administrative costs.
3.	WFP, DFID and SDC	Grants for workshops, and local capacity building of artisans, communities, the SGP team and partners
4.	NGOs and CBOs	In Cash and In Kind contribution at individual project levels -in link from the local panchayats, institutions, banks, donors, private sector, local, state and national level Government of India programs
5	Bajaj Foundation and Private Sector	Grants for NGOs, CBOs, and foundations as co financing for the projects addressing the issues and concerns of the GEF and also support for local travel, capacity building, workshops, and administrative costs

C. Threats and Root Causes

62. In spite of the legal, policy and institutional frameworks described in the previous sections, there are perceptible constraints felt at all levels in sustainably managing natural resources in India in the context of development imperatives, need for livelihood security and retrogressive factors including climate change. On a broader scale, root causes for this situation include inadequate policies and institutions, knowledge and capacity gaps, limited realization of economic potential of natural resources, limited integration of policies and actions across line agencies on sound resource management, unclear mandate of community institutions on sustainable resource management. An analysis of the overall status of natural resource management and underlying causes for its depletion are depicted in the problem tree below[44]:

[44] UNDAF Consultations, UNDP, 2011



The following Table 4 describes a more nuanced aspects of threats/ challenges to natural resources and root causes for its degradation specifically relevant in the context of SGP.

Table 4. Threats/ challenges to natural resources and their root causes.

S No	Threats	Root Causes
Natural resource management and land degradation: Direct threats		
1	Habitat degradation and fragmentation of land holdings, encroachment, poaching, etc.	Increasing population, prevailing poverty, widening disparity in wealth distribution, unsustainable resource use, expansion of industries, infrastructure growth, climate change, effluent discharge, invasive species, etc.
2	Eroding productivity of land and soil and depleting water resources.	Improper land use planning, unsustainable forestry and agricultural practices, excessive grazing, indiscriminate fire, salinization, excessive use of fertilizers, and chemicals, loss of traditional varieties and cultivars, etc.
3	Vulnerability of the poor to withstand income losses lead to keeping land fallow. Less engagement in farming resulting in decreasing	Poor and marginalized are less organized and have limited access to funds, knowledge and skills. Inadequate irrigation and water harvesting are done

	food production and fodder. Migrating populations from agricultural practices makes the poor more vulnerable. Fewer investments by communities in farming and loss of land due to desertification.	on own lands due to limited resources and skills required for water creating harvesting structures, lack of access to government schemes, credit facilities (often due to defaults in repayments of loans), etc.
Natural resource management and land degradation: Indirect threats		
1	Inadequate policy support to conservation (including local level planning) and lack of integration of biodiversity considerations into sectoral planning	Poor appreciation of the economic value of services provided by natural resources, capacity limitations, disintegrating traditional systems, perceived preponderance for 'development at any cost' over 'conservation', etc.
2	Shifting vegetation, drying of rivers, uncertainties in weather, failing cropping patterns, diminishing energy sources, etc	Impacts of climate change
3	Prevailing social and economic inequity; social unrest; gender imbalances in resource access and use, high migration, etc.	Limited livelihood opportunities, failing markets, entry of market forces, poor returns from agriculture, male domination over funds and resources, wage differentiation, unequal opportunities for women, rampant poverty in remote tribal areas, weak access rights to resources, minimum support pricing not compatible with high inflation, lack of insurance and risk coverage, delayed compensation to crop loss, etc.

D. Long-term solution and Barriers to Achieving the Solution

63. The project's long term solution is to ensure a mosaic of land use and community practice across the rural landscape that provide sustainable livelihoods while helping India meet its commitments under the global environmental conventions by generating global benefits for biodiversity, land degradation and climate change mitigation. To achieve this long-term solution, stakeholders will need to overcome the barriers summarized below, particularly at the community level.

64. **Barrier 1**: Knowledge, experience and market barriers constrain the adoption of biodiversity conservation objectives in community-level land and resource use plans and practices across critical landscapes: In India's remote under-served communities, the knowledge or experience with stakeholders in incorporating biodiversity conservation objectives into land and resource use practices is disentegrating/ already weakened. Unclear land-use and management plans or regulations create open access "tragedy of the commons" that incentivizes unsustainable use. The expertise available at the community level to identify priority interventions need support from improved land use practices. Small kinship based self-help women's groups and local institutions are unable to access resources to engage them in sustainable activities, such improved agro-environmental practices and biodiversity mapping and monitoring and ease of obtaining necessary permits and licences.

65. Local level planning for biodiversity conservation and sustainable use is weakening in India and is focussed largely on joint forest management entities. Similar concepts are virtually unknown in the agricultural sector. Panchayat-level plans and planning processes for biodiversity conservation are extremely rare in India. Key economic arguments for mainstreaming remain unfamiliar to most local communities in India, hampering efforts to justify allocation of scarce resources to critical capacity building efforts. For example, the real cost of land and resource degradation is very high for rural communities in India but this cost has yet to be ascribed to the value of services provided by healthy ecosystems.

66. There are various barriers at the community level to farmers and other resource users adopting alternative "biodiversity friendly" methods of production in agriculture, animal husbandry, and forest products. One barrier to adoption is a lack of information and knowledge about organic farming or sustainable grazing. Farmers lack knowledge about the benefits of agro ecology and how organic farming or grazing methods bolster the soil. Organic certification for community level and small-scale producers of biodiversity dependent products is virtually unknown, as is improved community-based resource use of non-timber forest products.

67. **Barrier 2**: Rural community-level constraints to adoption of low carbon technologies (LCT) and improved land-use change and forestry practices: Significant emissions savings from adoption of low carbon technologies (LCT) at the village level in India are achievable, but these facts are not well known at the community-level in India, hampering improved sustainable development and the reduction of GHG emissions. Village-level stakeholders generally are not aware of the importance and advantages of LCT and are not able to access up-to-date information regarding socio-economic and environmental benefits of such technologies. There is a low level of exposure and access to new, low cost, energy technologies at the village level in India. This includes inadequate valuation of resources to highlight cost-effectiveness of energy efficiency and poor availability of reliable baseline data. Remote and underserved communities chronically are disconnected and largely unaware of new energy technologies. For example, India's villages/tribal communities have difficulty in accessing LCT best practice such as solar and small-scale hydro. Communities in remote locations are semi literate and initiatives must be (but rarely are) designed to meet their special needs.

68. Community level adoption of green technologies is hampered by a distinct lack of exposure, know-how in applying and maintaining technologies such as solar (varying from investments of Rs 5000 to Rs 75,000 per technology intervention) or micro hydro (varying with investments of Rs 500,000 to Rs 900,000 per intervention). Weak civil society institutions, lack of systemic approach, know how have difficulty providing technical backstopping, access and link for timely and cheap credit and also support for such trainings, awareness-raising and joint promotion of LCT technologies for replication and adoption. Consequently, village level stakeholders perceive green options to have a high level of risk, which hampers the adoption of LCT without local proof of concept and innovative extension support programs. Private sector companies promote green technologies across India, but the special attention required by under-served and remote communities requires more process based approaches, and means to address the links to the markets. These marginalized communities often fall through the marketing "cracks and unavailability of the links to cheap credit". Communities often feel and have a perception that these 'high costs' in the technology adoption will not give them the gains, (as they also have the inexperience in the exposure to the performance on the use of such technologies-the reliability concern). The NGO sector is also unable to invest large funds; lack of exposure and access to these technologies is always challenged and is bereft of green champions.

69. **Barrier 3**: Low community level management capacity preventing improvement in the flow of ecosystem services to sustain the livelihoods of local communities: JFM institutions provide a solid programmatic baseline for organizing local and tribal communities to adopt SLM/SFM. However often, the management capacity and narrow representation are inadequate to the task of mobilizing broad-based support from villagers. In addition, limited access to technology and knowledge hampers their effectiveness. The level of participatory decision making in most communities regarding the use of natural resources is not adequate and hinders their ability to serve as an effective forum for community feedback on land use issues and conflict resolution on grazing and forest resource use rights. Also lack of access to the government support systems in the remote regions by the communities furthers creates the divide and a level of poor rapport and trust.

70. Villagers lack the economic and financial incentives to switch from short-term resource exploitation to long-term stewardship. This is also a general lack of skills and capacities for adding value to the raw materials they harvest from the forest, thus constraining their ability to secure and retain a greater share of economic benefits from resource extraction at the village-level. This is made worse by the fact that local villagers lack access to credit

for investing in natural resource based enterprises. Demonstration of a well functioning model with efforts to increase access to credit and financing are very important for the adoption as an approach in remote and marginalized areas and with the communities.

71. Unsustainable use of forest resources by the tribals, forest dwellers and marginalized communities reduces the carbon storage potential of vast areas of forestlands in India. Mechanisms in place for forest management such as forest committees and JFM agreements are not always very effective in increasing tree cover, biomass and reducing GHG emissions. Local communities have little influence in decision making on land use alternatives; have inadequate conflict resolution mechanism regarding rights to grazing and forest resource use, and little incentive to shift to more sustainable forest management. Cultural and educational barriers hamper the involvement of the landless, marginal and poor families in village level institutions, preventing innovative initiatives to revive their village common lands. Further, participation of local communities in planning and implementation of programs on reforestation or rehabilitation of degraded lands is limited and women are largely absent from decision making, undermining any sense of ownership and other key tenets of SFM.

72. **Barrier 4**: Across India's vast rural landscape, system level community oriented tools are lacking; tools such as networks, support systems, and common marketing and branding mechanisms: There are few if any peer-to-peer learning opportunities for sharing new-found expertise and best practice. Insufficient communication materials and limited access to new media leads to delays in enabling access to information by local communities and hinders innovation at the individual and institutional levels of a community.

73. Rural communities have poor connectivity constraining opportunities for learning. Networks and partnership platforms for capacity building are not well developed and available to remote, underserved communities. Local producer and community-based organizations are poorly developed with limited opportunities for training. For example, community forest restoration and micro-hydro/solar efforts receive limited extension support or training in relevant practices and approaches. India is a vast country with many languages and dialects. Knowledge, even if it is created is may not be available in local languages. Without system-level community-oriented tools, knowledge is usually not in a form useful for millions of people who need it.

74. Under the baseline scenario, resource management decisions at the community level will be driven by unsustainable, short-term needs, resulting in the loss of biodiversity at the ecosystem and species levels, consistent or increasing GHG emissions, and further degradation and desertification of productive and non-productive land-use systems in landscapes such as Arid and Semi-Arid Regions, Himalayan Front and Western Ghats. Inadequate capacities (organizational, financial and technical) will force communities to continue unsustainable practices such as forest clearance, land conversion, over harvesting, over grazing. Ecosystem function will continue to be lost, aggravating poverty levels.

75. In India, with its tens of millions of rural people, efforts to address environmental challenges in an innovative and community-driven manner are under-funded by orders of magnitude in relation to the need. Remote or marginalized areas are often not adequately targeted by national development efforts. These communities often have detailed knowledge of their local environment built up over generations, and must be primary partners. The baseline scenario urgently needs alternative incremental investments to support strategic approaches focusing on strengthening community systemic capacity to adopt new land and resource management practices and new LCT, thereby generating local, national and global benefits.

76. With the proposed GEF project, an alternative scenario will be catalyzed where communities obtain the skills, capacities and resources required to mainstream biodiversity into productive sector practices at the panchayat level, to adopt SLM and SFM practices as part of existing community-based agriculture and forestry practices, and to demonstrate and deploy new low carbon technologies at the village level, all done in a way that achieves multi-focal area synergies in target landscapes. GEF support will be catalytic in mobilizing action at local levels to introduce new strategies and technologies that will improve the condition of natural resources which are currently

under threat, risk and vulnerability. More importantly, it will enhance the capacity of functionaries of different sectors and levels (NGOs, CBOs, etc) to promote participatory resource management. Further, the lessons learnt from the project shall be up-scaled, mainstreamed and replicated into regular national programmes.

Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

77. The GEF funded alternative to the baseline will address barriers to community-based biodiversity conservation, climate change mitigation, improved sustained flow of services in forest ecosystems in dry lands. In doing so the project will support measures to improve community-based management of natural resources and biodiversity around and outside protected areas, mainstreaming biodiversity management objectives into community level land and resource management planning, and support measures to reduce GHG emissions by improving the adoption of energy efficient and renewable energy technologies and sequester carbon by restoring natural forests through community-led, participatory, gender focused efforts at the village levels.

78. The Government of India through several of its programmes and schemes of different ministries addresses land degradation, biodiversity conservation and climate change adaptation. Some such programmes include the Mahatma Gandhi National Rural Employment Guarantee Programme (MNREGA) of the Ministry of Rural Development; Rajiv Gandhi Grameen Vidyutkaran Yojna (Rural Electrification Scheme); Krishi Vigyan Kendras (KVKs), Ministry of Agriculture; National Watershed Development Program for Rainfed Areas (NWDPRA), a programme under Macro Management of Agriculture (MMA) scheme of the Department of Agriculture and Cooperation; National Solar Mission and National Bio Gas program of the Ministry of New and Renewable Energy (MNRE), and National Project on Organic Farming (NPOF) of the Ministry of Agriculture. All these programmes recognize the importance of Community driven approaches.

79. In the past 10 years, GEF SGP, India, has linked its efforts with the abovementioned programmes and schemes of the Government of India. This association has contributed to the implementation of government programmes in a more effectiveness manner. This association has also helped GEF SGP partners in India as the programme has been able to leverage funds for maximizing the programme's cost effectiveness, delivery of community level investments, processes skills and practices at the community level by the NGOs/CBOs. The projects will bring out what public policies need to be influenced that affect the ability of different households to organize themselves and the various institutional systems in which they are enmeshed, (operate), so as to meet their needs, appropriate opportunities and buffer themselves against instability and turbulence. The projects will also influence policymakers to consider how such policies empower and connect some communities while undermining others.

80. This has been demonstrated in the past SGP years, where Ministry of Environment and Forest, GOI, has augmented GEF/SGP funds by providing Planning Commission funds for the last 4 years. UNDP CO has also provided core resources for scaling up such innovative pilot initiatives for more community benefits, institutional capacity development, and sectoral main streaming. This includes knowledge management for conservation; improved forest managements; improved agriculture management; better soil fertility and checked soil and water conservation practices at the District and local levels.

81. All the above will ensure a mosaic of land uses and community practices across the rural landscape (including small urban cities) that provide sustainable livelihoods while generating global benefits for biodiversity conservation and climate change adaptation and mitigation.

2. PROJECT STRATEGY

A. Project Rationale: Project objective, outcomes and outputs/activities

82. **Project Strategy**: To contribute to overcoming the barriers described above, SGP will support community organizations and NGOs in designing and implementing projects to contribute to global biodiversity conservation, sustainable land and natural resource use, and climate change mitigation and adaptation. It will focus on at least three globally significant landscapes of India: Himalayas, Western Ghats and the Arid & Semi-Arid Regions. These are areas of priority due to desertification risk, poor soil productivity, high biodiversity importance, and emissions of GHGs from biomass, plastic and waste burning. They are also areas where a large number of potential grantees are located. The capacity of the NGOs/ CBOs will be enhanced by the CPM, Regional Coordinators, Regional Advisory Committee members and a roster of individuals/ institutions with technical expertise in the identified areas.

83. The wide range of biodiversity (BD), climate change (CC) and land degradation (LD) work proposed by the project is a natural extension of SGP-India's 12-15 years of work. This project will build upon this by focusing largely on three regions initially in order to consolidate past nation-wide gains in community-based conservation and sustainable development and based upon this consolidation, scale-up, replicate, and leverage resources and skills. These efforts will enable to reach more communities across the country, thus generating more global benefits in BD, LD, and CC. Learning's from some of the earlier and ongoing projects of Government of India (supported by GEF, UNDP and other donors) on biodiversity conservation, land degradation and access to clean and renewable energy will also be feed into the implementation of the new SGP programme in India; e.g. conservation of the endemic species like Guggal, rare and high valued medicinal plants, overcoming the evasive species like lantana, recycling hyacinth and using community led composting methods of the local biomass, biomass briquetting, promoting energy efficient cook stoves replacing wood burning and depleting fossil fuels, biomass driers for fish and other NTFP products, and solar cookers, etc

84. The project's primary objective is to ensure a mosaic of land uses and community practices across the rural landscape that provide sustainable livelihoods while generating global benefits for BD, CC and LD. The project will engender a shift from unsustainable practices to sustainable practices through the achievement of the outcomes under the following three components.

Component 1. Mainstream biodiversity conservation and sustainable use into production landscapes and sectors - Biodiversity

85. This component aims to improve sustainability of community-managed landscapes by integrating biodiversity conservation into local development decision-making. Key outputs include development of community level sustainable land-use regimes that integrate biodiversity conservation objectives, equipping local leaders and planners with required tools and methodologies (e.g. PRAs, village meetings, issue focused plans for conservation and recycling plans of the local resources such as banana fiber, Agave, Cecil, Napier grass, climate change mitigation through driers, gasifiers, and biogas etc) that enable biodiversity mapping, monitoring, and valuation. Panchayat-level land and resource use plans with biodiversity conservation objectives mainstreamed will be piloted across at least 30 panchayats in the three priority geographic regions. The project will support the implementation of biodiversity friendly practices identified in the panchayat-level resource use plans that will ensure the ecological integrity of the region and promote sustainable resource use including the development of ecosystem based enterprises. In each of the three priority geographic zones, funding to a number of contiguous panchayats will be extended to facilitate landscape-level results. To catalyze replication and provide incentives essential for greater take-up of these activities, organic agriculture certification and the demonstration of new

financing for such enterprises will be attempted. This will help develop capacities of local level planners to mainstream biodiversity conservation into sectoral and local developmental plans.

Outcome 1.1. *Panchayats (local self governments) incorporate improved management practices into village level planning for community managed landscapes and seascapes enahncing mosaics of landuses and improving biodiversity conservation.*

Output 1.1.1. *Model panchayat level land and resource-use plans incorporate biodiversity conservation.*

86. Panchayats increasingly play a decisive role in the development planning at the grass roots level in India. With devolution of more powers, responsibilities, subjects and funds[45], panchayats have become an excellent vehicle for effective management of natural resources. However, currently panchayats have limited capacities/ exposure to technical knowhow for integrating these concerns into the planning process. The activities funded under this output would build on the traditional knowledge of communities and formalize it into village level work plans (integrating/ complementing panchayat plans) for local biodiversity conversation. This would be, *inter alia*, based on community led biodiversity registers, building value addition to the local food grain- agricultural crops, medicinal plants and commercial crops based resources (e.g. banana, sugarcane, coconut fibre etc) for enhanced incomes and developing business plans. This community initiated planning process would contribute to biodiversity conservation and livelihoods. Panchayats or local self governments in the project area would then be encouraged to recommend tools and plans in other areas leading to scaling up and replicability of the SGP projects (through peer–to–peer, kinships, and local village leaders/volunteers learning and outreach) and therefore enhanced biodiversity conservation through local initiatives and without formal project support.

Output 1.1.2 *Community-led sustainable land-use management regimes integrate biodiversity conservation objectives.*

87. The rural economy of the project sites revolve mostly around land use practices and management regimes based on agriculture, livestock, fisheries (inland and coastal), NTFPs, biomass collection, agro forestry, agro-biodiversity, *in situ* and *ex situ* conservation (of rare, endangered goat, poultry-livestock-breeds and plant varieties, gene banks, seed banks), organic and ecological farming, etc. The activities funded under this output will establish benchmarks and baselines and then find alternatives for most productive ways of sustainable land use management, which presently are largely at subsistence level, and are under significant stress on account of various factors such as improper land use planning, unsustainable forestry and agricultural practices, excessive grazing, salinity, excessive use of fertilizers and persistent pollutants e.g. as lindane, endosulfan chemicals, invasive species as water hyacinth, lantana, congress grass etc, loss of traditional varieties and cultivars, disintegration of traditional knowledge, depleting quality of soil and water resources, etc. This project will encourage and strengthen to find sustainable alternatives, more so with the poor and marginalized, who are less organized and have limited access to funds, knowledge and skills to circumvent this.

Under this Output, communities would be facilitated to experience, implement and recommend scientific land use management methods (e.g. local mapping of flora and fauna, revival of traditional practices, introduction of improved practices, value addition, links to markets through business models etc) to not only develop the baseline but also conserve biodiversity and natural resources. They would then have data and technical capacities to assess impacts on natural resources across time and geography. Visible proof of benefits would stimulate sustaining the practices and contribute to project and institutional sustainability through local communities skills, knowledge and practices.

Output 1.1.3. *Community led tools and methodologies developed and tested for biodiversity mapping, monitoring and valuing in traditional village lands.*

[45] Say for instance in the state of Kerala panchayats receive almost 40% of the State's Budgets for development.

88. Poor appreciation of the economic value of services provided by natural resources, capacity limitations, disintegrating traditional systems, etc are some of the key systemic constraints on the sustainable management of natural resources at the grass root level. Small grants projects funded will try to make headway in this regard at the project sites by:

- developing baselines before introducing community led, simple, easy to implement, low cost-robust technologies,
- creating and testing community based participatory monitoring and evaluation tools and methodologies to assess biodiversity status, understand and reduce threats for sustainable practices.

89. Based on the baselines thus created, the piloting of appropriate and innovative technologies (e.g. biomass driers, oil expellers, low cost water harvesting systems, etc[46]) will be carried out that will ensure better product values, and conservation approaches. This will also check the increased inequity in the management and flow of benefits from the use and conservation of biological resources. Other causes include a failure to assign full value to ecosystems and their ecosystem services; deficiencies in knowledge of improved practices and how to apply them, and gaps in local community-level capacity that allow unsustainable exploitation. These will also feed into the model panchayat level land and resource-use plans (Output 1.1.1.) and community-led sustainable land-use management regimes (Output 1.1.2.). Linked to markets, these will be implemented through the local CBOs, SHGs, Forest groups, primarily women based institutions for better sustainability in three different geographies - the Himalayan front, the Western Ghats and the ASAR. The challenges and threats to sustainable livelihoods and biodiversity are varied in these regions and the communities would need to be exposed, trained in the use and maintenance of these tools and methodologies.

Output 1.1.4 *Market mechanisms developed for sustainable use of biodiversity / natural resources(organic agriculture certification).*

90. Economic forces and market dynamics play a crucial role in the project landscape. As already mentioned, limited livelihood opportunities, failing markets, lack of access to timely and affordable credit, disintegrating traditional resource management systems, poor income from agriculture, unequal opportunities for women, rampant poverty in remote tribal areas, issues of access rights to resources, inadequate minimum support pricing for agricultural produce, limited insurance and risk coverage remote areas, etc compound the problems faced by these regions pushing them towards downward spirals of vulnerability and poverty.

The emphasis for the activities funded under this will be:

- Improving the market access of communities through viable business models on sustainable natural resource use and eco tourism with care for the protected forest areas.
- Awareness generation, actions for the consumers; developing branding, collective trademarks, certification – organic, linking of SGP partners, local communities to *Fair Trade Network and Forest Stewardship Council (FSC); and other such networks.*
- Capacity building, and exposure visits through technology research centre's, state forest departments re processing institutions on local biodiversity products; establishing product sale outlets (SGP Stores) in cities for SGP products.
- Creating synergies with other ministries e.g. Ministry of Textiles, Ministry of Rural Development, Ministry of Handicrafts, GOI, leveraging funds and sharing resources for strengthening green technologies use e.g. the community clusters within small scale industries etc. (Finding alternatives for environment friendly organic dyes; tanneries, pottery and carpet weaving, honey etc).
- Review, advocacy of relevant policies and programs of the local governments/institutions to understand the bottlenecks in the use of green and organic technologies and suggest recommendations.

[46] Detailed activities shall be planned in consultations with communities based on site-specificity after the individual project sites are finalized.

Component 2. Promoting energy efficient and renewable energy technologies in rural communities in targeted landscapes of India - Climate change

91. Combining with the Government of India's, *National Action Plan on Climate Change* the efforts in this component will be reducing GHG emissions through promotion of low carbon technologies (LCT) and renewable energy (RE) in the project. This is envisaged by demonstrating the deployment of appropriate community level technologies such as smokeless cook stoves for households (HHs); fuel efficient stoves for commercial communities and institutions; biomass gasifiers; biomass dryers; biomass aggregation and briquetting; solar dryers; solar lanterns; solar home lighting systems; and village electrification through micro hydro power. These LCT&RE initiatives will be strategically supported (in sharing costs, responsibilities) so as to generate compounded global benefits and linked to the MNRE – Village Electrification program 20.00.31. For example, micro-hydro could be supported in an area where pressure on local forests for fuel wood is causing degradation and loss of globally significant biodiversity. An added significant benefit from promoting energy efficient and renewable energy is that at many places in India the removal of biomass for energy is much higher than the average annual productivity of natural resources (in the case of forests, this stands at 0.7 m^3 per ha per year; just one-third of the global productivity). The Ministry of New and Renewable Energy is in the process of developing a new cook stove policy for India.

Outcome 2.1*: Appropriate energy efficient technologies result in emission reduction of 225,000 tonnes of CO_2e over 3 years (assuming operational lifetime of a stove is 3 years).*

92. The developmental needs of communities in India are constrained by lack of access to clean energy. As already stated in the Section A.3., currently 70% of India's rural landscape is not connected to national electricity grid and in the coming years, it is expected that the electricity/ energy consumption will only increase as the reach of growth and development start penetrating rural landscapes. This will invariably lead to more GHG emissions. In that context, there is need to develop innovative and sustainable energy sources at the rural level for complimenting the national grid that will not only reduce/ avoid future emissions but also minimize transmission and distribution losses. SGP would support pilot, community led initiatives that enable sustainable energy access to these communities and simultaneously contribute to GHG emission reduction. SGP projects would enable communities to leap frog technologies so that the latest and most efficient technology would become available.

Output 2.1.1. Demonstration and deployment to communities of innovative, low cost and energy efficient wood burning stoves and other technologies

93. Wood burning stoves continues to be the main 'appliance' for cooking in rural India. Conventional cook stoves have very poor biomass–energy conversion ratio leading to the further impoverishment of 'biomass catchments' due to excessive collection of biomass. Though several improved models/ designs of cook stoves are now available in the market, adoption of such improved models into rural kitchens are seriously hampered largely on account of:

- need for adapting the same to site specific situations,
- in adequate outreach and knowledge.

94. Grantees will through their projects contribute significantly to this by demonstrating pilots at the grassroots and provide inputs and feed backs to policy process. The SGP would thus not only contribute to avoided deforestation, GHG emission reduction, improved health of women and children but would also contribute to upstream policy engagements with high potential for replication. Other potential technologies that SGP will support are shifting from incandescent bulbs to LED lights without going through the stage of CFLs; promote the use of bio-briquetting; biomass driers; bio gas technologies, both individual household levels and also community group level biogas; developing technologies for using invasive species used as fuel (e.g. Eupatorium, Water hyacinth, etc). Online Tools and Information Sharing kits will be developed on the benefits from the use of technologies to have a wider publicity.

Outcome 2.2 *Appropriate renewable energy technologies result in the emission reduction of 12,277 tonnes of CO_2.*

95. Renewable energy technologies are required by remote communities not only for meeting household energy needs but also for securing livelihoods. For instance, a rural woman in India spends an average 2–3 days per week just on collection of firewood. Adoption of Renewable Energy (RE) technologies for energy would improve the quality of life, reduce the drudgery of women, improve quality of education and also reduce use of fossil fuels like kerosene traditionally used for lighting. Further, adoption of appropriate RE (e.g. solar pressure cooker, micro-hydro, energy efficient puff rice machines, solar water heating systems-*hamams and oil expellers* etc.) will complement other energy efficient technologies. The additional time saved by the rural folk on what otherwise would have gone for foraging for firewood can be qualitatively utilized for on-farm activities/ other vocations and also for improving human development indicators.

Output 2.2.1 *Community initiatives reducing GHG emissions.*

96. The activities funded under this output will have a focus on the proposed project sites which are out of reach of the national electricity grid, remote and disadvantaged locales; going by past experience, it is safe to assume that it might still take a long while to completely electrify these areas, but it is essential for communities take ownership. Alternatively,

- Baseline scenario at such locations is likely to remain more or less the same in the near future.
- Priority areas selected as project sites for the SGP are rich in energy resources (Himalayas and Western Ghats abound in water resources and ASAR in solar energy).

97. The SGP would identify such potential sources and build community capacity, encourage community cost sharing to champion community led, low cost, site specific, decentralized power generation options, alternate energy (institutionalized largely women SHGs) using solar and micro-hydel sources and water mills. The project will build on the vast experiences of UNDP, and other donor partners, including private sector.

Component 3. Maintain and improve flows of agro and forest ecosystem services in dry lands of ASAR to sustain livelihoods of local communities. (Land degradation)

98. Small grants through NGOs and CBOs funded under this outcome would focus on community based initiatives in improved agro-forestry and community based water management practices and link to the forest department, local district, state and national governments. In India, 173.64 mha, or 53% of the total geographical area is affected by desertification. These regions are also susceptible to frequent droughts that accelerate the process of desertification and exacerbate its impact. Links of the grantees will be made to the National Land Use and Conservation Board (NLCB), the National Wastelands Development Board (NWDB) and the State Land Use Boards (SLUB).

99. The project will focus on the causes of desertification and will support community efforts to augment ground water resources through rainwater harvesting, improved soil and moisture conservation techniques (e.g. contour farming, link the national watershed guidelines actions, agro-forestry, mixed and multi-layered cropping, mulching, etc). Model community based initiatives by women's self help groups or JFM committees for restoration of degraded forests and community level models for ecosystem based alternate livelihoods (e.g. organic agriculture, rain-fed horticulture and post harvest processing, bamboo cultivation in dry lands and bamboo based livelihood activities) are other proposed interventions.

Outcome 3.1. *Improved enabling environment at the panchayat level agricultural sector improves management, functionality and cover of agro-ecosystems in ASAR (LD-1)*

100. In the baseline the focus will be to determine the continuing loss and degradation of the land productivity in India, which is due to the unsustainable land use at the community level. Of equal concern are the risks attached to the rain fed agriculture, more so in the resource poor areas. These areas are under stress due to the ecological, climatological and socio-economic characteristics mentioned earlier. Though currently there are programmes and policies under implementation in these regions, they are largely sector driven and often fail to look at the larger picture in a comprehensive manner. Under the project, special emphasis shall be given to integrated improvement of agriculture sector (e.g. sustainable water management, developing 'suitable' cropping systems, revival of traditional water conservation techniques, etc) with a view to maximize ecosystem services. In the project focus will be:

- train local communities in adopting improved low cost practices, effectively for wider replication.
- capacitate panchayat raj institutions/ other agencies in ASAR to integrate such good practices into sectoral programmes and policies.
- SGP acts as a conduit between such local levels improved farm practices and panchayats/ other agencies through intense facilitation and cross learning. The activities under this component are detailed under the following three Outputs.

Output 3.1.1. *Panchayat-level agricultural practices incorporate SLM principles (agro-ecosystems, water management and harvesting practices).*

101. Grantees funded under this output shall largely focus through action based, community led projects in overcoming the impacts of desertification (e.g. erosion of the food security base of humans and livestock; scarcity of drinking water; loss of biodiversity, reduction in the biomass for fuel etc.). Grants will be leading to address through projects:

- building the capacity of panchayat officials in understanding SLM principles, through grass root actions
- developing tools, actions and guidance on SLM, integrated water resource management, e.g. the traditional Phad system of irrigation which consists of regularly maintained 'bandhans' (earthen or masonry dams); phatkari (water channels) as primary source of irrigation from water logged areas; Kulams, (small water ponds) at each individual households for water, fish and vegetables; nalla and gully plugging through small earthen/stone structures; and minor water harvesting lifts etc.
- enable change in agricultural practices e.g. mixed cropping; System for Rice Intensification (SRI) techniques; agro forestry etc from currently un-sustainable to one that is based on SLM principles (sustainable).
- sensitize members of panchayats and elders in the community to improved SLM practices for scaling up replication to larger areas through more kinship and peer learning mechanisms.
- establish links with the agriculture extension offices of agriculture universities, KVKs, and research institutions (like ICAR, and IARI) so that the project partners have access to latest technology, information and resources (funds).

Output 3.1.2 *Model community based initiatives for restoration of degraded agricultural land.*

102. Small Grants funded under this output will be based on the guiding principle of outreach and extension that 'seeing is believing'. SGP initiatives in degraded lands would become 'live laboratories' and 'learning centers' for more resources. The Grantees would provide data and information at the grass roots through peer-to-peer learning. Such initiatives will also be:

- disseminated widely through other networks and knowledge products.
- innovative ideas in restoration of degraded areas, water resource management, less resource intensive agriculture, improving fodder availability, building social capital for conservation, waste management, ecological and organic agriculture, agricultural practices such as zero –tillage, testing low cost water purification techniques, popularizing mixed cropping and intercropping, introducing integrated pest

management techniques, building soil health with appropriate composting and bio-fertilizers, promotion of traditional crops and varieties for adaptation to and improvement of degraded soil types, etc are expected to make good models.

- partner with scientific and technical institutions and private sector under CSR to pilot these initiatives in their fields sustainably.

Output 3.1.3 *Community based sustainable agricultural enterprise models demonstrated*

103. Small Grants funded under this output shall support grass root level sustainable agricultural enterprises including production, grading, value addition and post harvest processing. Some examples are production of mango bars, dried apricot, Garcinia juices, Amla pickle, Jamun syrup, spice drying using solar dryers, areca leaf plate making, etc will not only help promote better livelihoods but also create better land productivity and production suystems.

104. These locally produced and value added products would be retailed through the SGP marketing mechanism (described under Output 1.1.4). Further, aligned closely with Output 3.1.2., Grantees projects shall forge linkages with agriculture research and extension departments of Agriculture Universities; ICAR technology Centre's and National Watershed Development Program for the Rain fed Areas (NWDPRA) for more resource excess and demonstrate sustainable agricultural enterprise models, including post harvest processing technologies. The linkages would ensure how best practices demonstrated by SGP are accepted widely and mainstream policy.

Outcome 3.2: *New capacities, sources of investment and practices enable improved SFM in forest landscapes by communities.*

105. The Grants funded under this output will focus on innovative community driven actions to access knowledge and resources for sustaining livelihoods while simultaneously practicing SFM in forested landscapes. The Grantees would interact closely with the forest department officials and seek their *'buy in'* for improved SFM practices taken up in projects e.g., *tank system traditionally the backbone of agriculture in semi arid areas, using the bunding and excavating techniques.*

106. Projects will also be funded to strengthen activities by local communities for eco-restoration, sustainable cultivation, collection and harvesting of NTFPs, promotion of medicinal and aromatic plants, etc. Links of partners will be established with a range of departments and institutions to learn from the existing knowledge systems, practices and not reinventing the wheel. e.g. Ayurveda, Yoga, & Naturopathy, Unnani, Siddha, and Homeopathy (AYUSH); Central Institutes of Medicinal & Aromatic Plants (CIMAP); Traditional Knowledge Digital Library (TKDL);National Medicinal Plants Board; Small Scale Industries on Essential Oils and Allied Industries; UNDP FSPs/MSPs; State Medicinal plant boards, Medicinal Plants Conservation Networks and State Minor Forest Produce Corporations/Federations. Grantees would be linked to access new processing technologies from these institutes including learning from SGP's past work in India.[47]. The project grantees would also engage with mass media to highlight the situation at the baseline and the impact of project interventions created in terms of conservation and enhanced incomes.

Output 3.2.1 *Strengthened JFM committees and community enterprises for SFM.*

107. Grantees funded under this output will have a focus on building and synergizing with the existing JFM programs at the state levels. Coordinate and be the resource agencies in developing Criteria's and Indicators (C&I) action plans with the State /Union Territories Forest Departments. Link with the Sustainable Forest Management (SFM) Cell in the MoEF GOI. The program will help more a forestation and also give rights to the local

[47] For instance, the processing of citronella oil by tribals in the Wynad forest, Kerala. The increased yield of citronella oil through improved processing techniques created an environment where the man animal conflict (with elephants) was subsequently reduced.

communities to benefit from the schemes. At several places JFM committees have developed successful examples of resource management in forests under the control of the government.

108. To take these initiatives further, grantees shall work closely with select JFM committees for augmenting their capacities. This output would also provide design, marketing and enterprise development support for sustainable NTFP and ecotourism based enterprises of JFMCs. The grantees will also work the National Environment Policy 2006 on mangroves and coral reefs, with a special focus to provide habitats for marine species; protection from extreme weather events and a resource base for sustainable tourism.

Component 4: Cross Cutting Capacity Development and Knowledge Management.

109. The Grantees in this component are envisaged for enhancing cross cutting capacity development and knowledge management across other three components. This will create an enabling framework that facilitates uptake and replication of community models/pilots. This would be done through information dissemination, training, networking, developing partnership platforms and developing mechanisms for peer-to-peer learning, and sharing of business models, guidelines and best practices. A common marketing mechanism and a branding for SGP products are also proposed for the long term sustainability and to scale-up market access. Efforts shall be made to develop capacities at the individual, community and institutional levels through trainings, exposure to relevant technologies/ strategies and also on disseminating good practices into wider national and sub-national programmes and policy imperatives.

Outcome 4.1 *Increased capacity of SGP stakeholders to diagnose and understand the complex and dynamic nature of global environmental problems and to develop local solutions.*

110. Works funded under this output through the grantees would ensure that adequate resources are set aside in projects for project partners, local communities to participate in national forums and bridge the disconnect between global thinking and local actions. One critical capacity building need identified related to CC is the development of carbon finance projects. SGP would try to bundle all the CO2 emission reductions, if the methodologies permit.

Output 4.1.1 *New networks for peer-to-peer learning and information sharing and partnership platforms for community-level action on BD, CC, and LD.*

111. Works funded under this output would help grantee CBOs and NGOs and their communities of practice create new networks and platforms for peer to peer learning, exchanges besides ensuring global and national exposure to its project partners. Activities proposed will link them to various GOI institutes, under CSR with private sector, UNDP Solution Exchange program, other donors etc in sharing best practices, success stories, failures and experiences.

112. Another important learning from past SGP projects is that local communities can be sensitized effectively through mass media (e.g. TV, internet etc). SGP would identify films and U-tube uploads that are of relevance to local communities, carry out local language dubbing for a more powerful and impactful communication. NGO and CBOs will be made members of the solution exchange[48], e- learning and other knowledge sharing platforms.

Output 4.1.2 *Business models, guidelines, best practice notes developed and demonstrated*

113. Small grants under this output will be provided to elaborate guidelines, best practice notes and business models. This has been the cornerstone in the past in SGP India. These small grants will be initiated near the beginning of the project to enable the grantees to track the work of other grantees and to elaborate meaningful best practice notes based upon this ongoing monitoring. Also to be supported will be the development of guidelines and best practice notes on how to recognize the full value of ecosystem services provided by healthy ecosystems, guidance notes for implementation of projects, standard operating procedures at the project management unit.

[48] A knowledge platform created by UNDP.

114. Guidelines will be elaborated based upon the priorities clarified naturally during the implementation of each small grant under each outcome. These insights will be incorporated into practical guidelines, basic forms and procedural steps, common logos and signage, and the like. This output is expected to help elaborate guidelines (e.g. sustainable harvest levels, developing local resource management plans), best practice notes (e.g. use of fuel efficient stoves in a certain locality / by specific grantees) and business models[49] (based on successful past or current grantee experience) so that these can be shared widely with other grantees.

Output 4.1.3 *New partnership platforms formed for capacity building of project partners and communities*

115. Grantee partners are repositories of several local practices, traditions and sustainable solutions on resource management. However they lack adequate opportunities and platforms for sharing these. SGP will step in to fill this gap and facilitate interaction among communities, stakeholders, government, private sector, civil society and the academic institutions. Link them into various workshops, lessons sharing, awards and recognition for the sustainable practices.

116. Documentation of the proceedings facilitated by these platforms would be a key output. This new platform of partnerships will create an atmosphere of trust, mutual respect and creditability for SGP. This will also lead to a win-win situation for SGP partners and other stakeholders. Similarly, in the past, SGP has partnered with private sector institutions. The project shall strive to further strengthen this.

Output 4.1.4 *Common marketing and branding mechanism for SGP supported initiatives in India.*

117. Small grants under this output will be fewer in number and will focus on organizations with proven experience and ability. Common branding and marketing has emerged as a critical need for the sustainability of SGP projects especially beyond the project period. The SGP secretariat will take the lead in this regard and will also partner with other organizations that have proven expertise and experience in developing brands and marketing initiatives, so that the visibility of SGP work is increased. This will also improve the success and effectiveness of SGP's efforts to replicate the project's work and attract support and funds for future activities. This output would require that SGP produce marketable products of an acceptable standard.

Outcome 4.2. *Enhanced capacities of SGP grantees to monitor and evaluate their projects and environmental trends.*

118. Peer to peer learning through sharing of ideas, experiences and field visits shall maintain an atmosphere of learning and remain connected to each other. The project will support the participation of project partners and grantees in monitoring and evaluation of each other's projects. This would not only build the partner's capacity to critically look at each others' projects but also provide insightful recommendations and in documentation. The systems for monitoring and evaluation will encourage more reflective learning, both at the individual project levels and at the macro program level. Regular capacity building will be done through the project monitoring visits. Midterm and Final evaluations for the program will be instituted as per the guidelines of the GEF UNDP SGP.

Output 4.2.1. *Training programs on identification and tracking of indicators, and project participatory monitoring systems in project (>6 workshops covering >80 community groups*

119. Activities under this output will focus on imparting training to grantees on results-based management so as to enable partners to understand the project's logical framework/results framework structure and associated indicators. It will follow "SMART" indicators (specific, measurable, attributable, realistic and time-bound) to results-based management. It will enable participants to practice and understand the basics of participatory process,

[49] In the past, the SGP has experienced that market based approach is a powerful tool for achieving sustainable resource management. In one of the initiatives, a federation of 6 SGP partners produced more than 25 different products based on agro-biodiversity and livestock etc. Encouraged by this, the national government, provided a platform to the SGP partners to showcase their forest based/related products and market the same during the national World Environment Day (WED) Celebrations 2011.

that is gender sensitive and sharing roles, responsibilities and costs in the projects. Work under this component will enable uptake and replication of community models and pilots across a broader area.

Table 2: Current Practices and the Alternatives and Expected Benefits:

Current Practice (without GEF support)	Alternatives to be put in place by the project (with GEF support)	Expected Benefits
Biodiversity conservation and sustainable use principles not adequately mainstreamed into production landscapes and sectors.	Local self governments incorporate improved management practices into village level planning for community managed landscapes and seascapes. Community-led sustainable land-use management regimes integrate biodiversity conservation objectives. Market mechanisms developed (organic agriculture certification) for sustainable use of biodiversity / natural resources.	At least 200,000 hectares of land under improved biodiversity oriented management. At least 30 panchayat level regulations or by-laws incorporate biodiversity conservation objectives. Women's groups incorporate biodiversity objectives into resource use planning for 100,000 ha of rural lands. 4000 ha agricultural land under certification. At least 10 community led tools and methodologies developed and tested for biodiversity mapping, monitoring and valuing in traditional village lands.
Energy efficient technology adoption rates are low in a typical rural Indian household. For example most wood burning stoves are of the traditional "three-stone fire" design. There is virtually no solar adoption. Three-stone stoves do not merely convert fuel carbon into CO_2. Because of poor combustion conditions, such stoves divert a significant portion of fuel carbon into products of incomplete combustion or PIC (*e.g.* CO, CH_4, non-methane hydro-carbons, N_2O), which have greater climate impacts than CO_2.	Fuel-efficient stoves adopted by 50,000 households by end of project.	Reduced GHG emissions of: 187,500 tCO_2e from fuel-efficient stove adoption over 5 years. Calculation: *For example. The typical household in rural India uses the simple "three stone fire" stove design for cooking and other heating requirements. A fuel-efficient stove such as a rocket stove can save or avoid 1.5 tCO_2e emissions per stove per year (assuming non-sustainable harvesting of biomass)[50]. In case of this project, say if 50,000 fuel-efficient stoves are installed in homes, this alone will save 37,500 tons of avoided tCO_2e /year. Assuming a lifespan of 5 years, that totals 187,500 tCO_2e.*
Availability of proven and efficient renewable energy, low carbon technologies is limited for rural communities in India for reasons described under the barrier section above.	Demonstration and deployment to communities of innovative, low cost renewable energy technologies such as solar and micro-hydro.	Appropriate low carbon and renewable energy technologies result in reduction of 112,500 tons of CO2 emissions or equivalent. At least 10 solar and 6 micro hydro community initiatives reducing GHG emissions.
Diminishing of agro and forest ecosystem services in dry lands of ASAR adversely impact the livelihoods of local communities.	Panchayat-level agricultural practices incorporate SLM principles (agro-ecosystems, water management and harvesting practices).	30 panchayats adopt SLM practices. 70,000 hectares of dry agricultural lands under SLM with improved vegetative cover. At least 10 new sources of investment for

[50] MacCarty, N., *et. al*. 2008. "A laboratory comparison of global warming impact of five major types of biomass cooking stoves." Energy for Sustainable Development. Vol XII. No. 2. June 2008. Reference in particular to Table 7.

	Model community based initiatives for restoration of degraded agricultural land. Community based sustainable agricultural enterprise models demonstrated. Strengthened JFM committees and community enterprises for SFM.	SLM across drylands in ASAR. New capacities, sources of investment and practices enable improved SFM in forest landscapes by communities. Increased tree cover and biomass in 50,000 hectares of productive forest landscape. At least 10 new sources of investment active across different landscapes for SFM interventions.
Uptake, replication and mainstreaming of community models/pilots on improved resource management into enabling legal, policy and programme framework is inadequate.	New networks for peer-to-peer learning and information sharing and partnership platforms for community-level action on BD, CC, and LD. Business models, guidelines, best practice notes developed, demonstrated and available. Common marketing and branding mechanism for SGP supported initiatives in India.	New and strengthened systemic capacities at the community level enable up-scaling of community know-how and models. Replication of consolidated conservation and sustainable use approaches in 30 new grants. 100% increase in amount of long-term co-funding for India SGP by year 3. At least 40 women/community groups participate in common marketing or branding mechanism.

120. In the past 10 years, GEF SGP, India, has linked its efforts with the various programmes and schemes of the Government of India mentioned earlier. This association has contributed to the implementation of government programmes in a more effectiveness manner. This association has also helped GEF SGP partners in India as the programme has been able to leverage funds for maximizing the programme's cost effectiveness, delivery of community level investments, processes skills and practices at the community level by the NGOs/CBOs.

121. This has been demonstrated in the past SGP project, where Ministry of Environment and Forest, GOI, has augmented GEF/SGP funds by providing Planning Commission funds for the last 4 years. UNDP CO has also provided core resources for scaling up such innovative pilot initiatives for more community benefits, institutional capacity development, and sectoral mainstreaming. This includes knowledge management for conservation; improved forest managements; improved agriculture management; better soil fertility and checked soil and water conservation practices at the District and local levels.

122. All the above will ensure a mosaic of land uses and community practices across the rural landscape (including small urban cities) that provide sustainable livelihoods while generating global benefits for biodiversity conservation and climate change adaptation and mitigation.

B. Key Indicators, risks and assumptions

Risk	Risk Rating	Risk Mitigation Strategy
Grantees have varying levels of technical and management capacity and may fail	M –L	Risks will be mitigated by consistent oversight, capacity building and monitoring of the project portfolio by National Host

Risk	Risk Rating	Risk Mitigation Strategy
to complete a project in time or to take advantage of opportunities for community participation in c conservation initiatives.		Institution (NHI), MoEF, & UNDP (*e.g.* helping grantees maintain appropriate progress in project implementation, guidance disbursement, link grantee partners to peer-to-peer learning groups, and work flexibly to respond to the strengths and comparative advantages of grantees, expose them to join other projects midterm/final evaluations by CPM/NHI team, cross exchange of ideas etc.). Component 4 relating to capacity building of stakeholders will overcome the risk by supporting grantees through *project interns* spending time in analyzing the outcomes, impacts and progress of activities. CPM, MoEF GOI, NHI, UNDP helping in addressing the issues, developing the issue based studies, brochures, links to the range of stakeholders for knowledge, skills, and resources.
Climate unpredictability may affect the level of success of the project's LD and BD work and thereby constrain project achievements or affect their impact.	M-L	Dealing with vulnerabilities including climate variability is one of the main emphasis and objectives of SGP. By working to develop capacities for appropriate land use, the project will enable local communities to reduce vulnerabilities and increasing ecosystem resilience and the potential to sustain ES. This is an underlying premise and principle across all the components. Such risks if and when encountered would be managed by providing additional capacity building inputs. The experiences would be documented, analyzed and shared with all project partners to create awareness and share learning's. The related technical guidelines, partnerships, platforms, workshops, exposure, contacts to learn and share knowledge for and by grantees will provide the confidence, creditability and commitment to deliver outcomes.
Market risks -- the relative value of land use could change and increase market risks in projects with livelihood objectives because of mismatch between the value add offered by the implementation team and needs of the consumer.	M-L	The project seeks to put into place community-level processes and tools that are robust enough to accommodate changes in land-use values. Changes in market values may make it easier or more difficult for example, to enforce restrictions on grazing, requiring an adaptive response. Livelihood projects engaging in local level value addition would be taken to ensure that the value addition offered by the project is marketable and there is consistent demand for the same. Support for such projects like design inputs, market linkages, branding would be additionally offered from the PMU. The escalating value of land is a phenomenon in a predominantly urbanizing region. Most SGP projects would be located in remote areas where there is minimal investment in infrastructure development. Issues relating to relative value of land would be minimized.
Lack of robust baseline may hamper the effective verification in project monitoring and assessments	M-L	The baseline will be developed/ strengthened during the individual project formulation and implementation through appropriate formats or methodologies. Further robust baseline data would be available at a national or a regional level and not in identified project areas. The project would ensure that defining the baseline in the project area is mandatory prior to project implementation and this data would be made available to monitoring and evaluation teams
Local communities/ panchayats may not	M	The project will work closely with communities/ panchayats to

Risk	Risk Rating	Risk Mitigation Strategy
be willing to participate in the conservation and protection of natural resources unless the project addresses their livelihood needs.		strengthen the sustainable resource use and livelihoods. Communities will receive technical and financial support for strengthening their livelihoods in sustainable ways. Awareness programmes will be developed that clearly outline the benefits of participation/ demonstration of success stories to gain their interest in the project. Further, the local communities will be actively involved in the planning, decision making and implementation of the project through frequent consultations and links to a range of stakeholders.
The livelihood activities supported under the project may not add significantly to income opportunities, inflationary trends of communities so that the dependency on natural resources is reduced.	M	Livelihood interventions/options shall be finalized after extensive consultations, agreements through local institutions to be done in sharing costs, decisions and responsibilities by the locals, including women during the course of project implementation. Feasibility of the interventions among the villages and the market for the products shall be looked into, business plans will be encouraged both at the individual and group levels. While identifying livelihood strategies, grantees shall be encouraged to take special care to address the real needs of communities in building the livelihoods options. Grantees shall also be encouraged to select a range of activities with substantial livelihood augmentation and income generation potential.

C. Project Rationale and policy conformity

123. The objectives and expected outcomes of this project are consistent with the agreed strategic priorities for GEF-5 under the Biodiversity (BD), Climate Change Mitigation (CCM) and Land Degradation (LD) Focal Areas. The project also supports the objectives of the 5th Operational Phase of the global SGP. Under the BD Focal Area, the project will support Strategic Objective (SO) 2: Mainstream biodiversity. Component 1 seeks to increase the number of hectares of sustainably managed landscapes and seascapes that integrate biodiversity conservation and incorporate measures to conserve biodiversity into local level policy and planning frameworks, particularly the panchayat development plans.

124. Under the CCM focal area, Component 2 is consistent with two SO: CCM-2: Energy efficiency and CCM-3: Renewable energy. In line with CCM-2, the project will promote energy efficient wood/biomass burning stoves at the community level. With CCM-3, the project will provide grants to promote the demonstration, development and transfer of renewable energy solutions at the community level, such as micro hydro power, and solar home systems, which will also lead to investments in renewable energy and reduced GHG emissions. Under the LD focal area, Component 3 is consistent with the SO-1: Agricultural and rangeland systems; and SO-2: Forest landscapes. The project will seek to maintain or improve the flow of agro-ecosystem and forest ecosystem services to sustain community livelihoods. The project will work with community partners to reduce pressures on natural resources from competing land uses at the community level. By the end of GEF 5 the project envisions that 30 panachayats adopt SLM practices and around 70,000 hectares of dry agricultural lands under SLM with improved vegetative cover. Component 4 is cross-cutting that will focus on the uptake and replication of community models and pilots across a broader area, with an emphasis on strengthening community systemic capacity. This is consistent with the GEF's support for capacity development, as outlined in the GEF-5 program and in particular is consistent with CD-2 and CD-5 as reflected in Tables A and B above.

125. As per the decisions of the GEF-SGP Steering Committee meeting held in Washington DC on 3 March 2010, a maximum of 20% of the STAR allocations may be used to support demand-driven community-based IW project proposals where synergies with the STAR focal areas can be found. Given the latitude inherent in this proviso, it is

not possible to select a priori the GEF-5 strategic objectives, outcomes and outputs for the IW focal area; these will be identified when grant proposals in this focal area are approved by the National Steering Committee.

126. The present project is positioned within the overarching objective of the India UNDAF, a key outcome (4) of which is that by 2012 'the most vulnerable people, including women and girls, and Government at all levels have enhanced abilities to prepare, respond and adapt to sudden and slow-onset disasters and environmental changes. 'The project aligns well with UNDP efforts to contribute towards the implementation of national policy and legislative frameworks related to environment, reducing greenhouse gas emissions. The project's focus on provision of technical assistance for adoption of energy efficient and environmentally friendly technologies and promotion of bio-energy technology packages to meet the energy demands of rural India directly addresses the UNDAF objectives. In addition the project will complement efforts taken to support integrated approaches for conservation and management of natural resources by strengthening economic incentive structure for conservation and sustainable use, biodiversity conservation outside the Protected Areas, strengthening the implementation of Biological Diversity Act, 2002, developing strategies to arrest land degradation in the country. The project will enable a shift to sustainable practices as detailed in the table below:

Current Practice (without GEF support)	Alternatives to be put in place by the project (with GEF support)	Expected Benefits
Biodiversity conservation and sustainable use principles not adequately mainstreamed into production landscapes and sectors.	Local self governments incorporate improved management practices into village level planning for community managed landscapes and seascapes. Community-led sustainable land-use management regimes integrate biodiversity conservation objectives. Market mechanisms developed (organic agriculture certification) for sustainable use of biodiversity / natural resources.	At least 200,000 hectares of land under improved biodiversity oriented management. At least 30 panchayat level regulations or by-laws incorporate biodiversity conservation objectives. Women's groups incorporate biodiversity objectives into resource use planning for 100,000 ha of rural lands. 4000 ha agricultural land under certification. At least 10 community led tools and methodologies developed and tested for biodiversity mapping, monitoring and valuing in traditional village lands.
Energy efficient technology adoption rates are low in a typical rural Indian household. For example most wood burning stoves are of the traditional "three-stone fire" design. There is virtually no solar adoption. Three-stone stoves do not merely convert fuel carbon into CO_2. Because of poor combustion conditions, such stoves divert a significant portion of fuel carbon into products of incomplete combustion or PIC (*e.g.* CO, CH_4,	Fuel-efficient stoves adopted by 50,000 households by end of project.	Reduced GHG emissions of: 187,500 tCO_2e from fuel-efficient stove adoption over 5 years. Calculation: *For example. The typical household in rural India uses the simple "three stone fire" stove design for cooking and other heating requirements. A fuel-efficient stove such as a rocket stove can save or avoid 1.5 tCO_2e emissions per stove per year (assuming non-sustainable harvesting of biomass)*[51]*. In case of this project, say if 50,000*

[51] MacCarty, N., *et. al*. 2008. "A laboratory comparison of global warming impact of five major types of biomass cooking stoves." Energy for Sustainable Development. Vol XII. No. 2. June 2008. Reference in particular to Table 7.

non-methane hydro-carbons, N_2O), which have greater climate impacts than CO_2.		*fuel-efficient stoves are installed in homes, this alone will save 37,500 tons of avoided tCO_2e /year. Assuming a lifespan of 5 years, that totals 187,500 tCO_2e.*
Availability of proven and efficient renewable energy, low carbon technologies is limited for rural communities in India for reasons described under the barrier section above.	Demonstration and deployment to communities of innovative, low cost renewable energy technologies such as solar and micro-hydro.	Appropriate low carbon and renewable energy technologies result in reduction of 112,500 tons of CO2 emissions or equivalent. At least 10 solar and 6 micro hydro community initiatives reducing GHG emissions.
Diminishing of agro and forest ecosystem services in dry lands of ASAR adversely impact the livelihoods of local communities.	Panchayat-level agricultural practices incorporate SLM principles (agro-ecosystems, water management and harvesting practices). Model community based initiatives for restoration of degraded agricultural land. Community based sustainable agricultural enterprise models demonstrated. Strengthened JFM committees and community enterprises for SFM.	30 panchayats adopt SLM practices. 70,000 hectares of dry agricultural lands under SLM with improved vegetative cover. At least 10 new sources of investment for SLM across drylands in ASAR. New capacities, sources of investment and practices enable improved SFM in forest landscapes by communities. Increased tree cover and biomass in 50,000 hectares of productive forest landscape. At least 10 new sources of investment active across different landscapes for SFM interventions.
Uptake, replication and mainstreaming of community models/pilots on improved resource management into enabling legal, policy and programme framework is inadequate.	New networks for peer-to-peer learning and information sharing and partnership platforms for community-level action on BD, CC, and LD. Business models, guidelines, best practice notes developed, demonstrated and available. Common marketing and branding mechanism for SGP supported initiatives in India.	New and strengthened systemic capacities at the community level enable up-scaling of community know-how and models. Replication of consolidated conservation and sustainable use approaches in 30 new grants. 100% increase in amount of long-term co-funding for India SGP by year 3. At least 40 women/community groups participate in common marketing or branding mechanism.

D. Country Ownership: country eligibility and country driven-ness

127. The project is directly relevant to, supportive of, and consistent with India's national priorities and policies related to global environmental issues and development priorities. To promote conservation and sustainable use of biodiversity and natural resources, India has an extensive body of constitutional provisions, laws and policies. India is signatory to various international conventions and treaties related to environmental protection and has also taken numerous initiatives towards implementation.

128. The key elements of India's National Biodiversity Action Plan (2008) include: strengthening and integration of in situ and on-farm conservation; augmentation of natural resource base and its sustainable utilization; improved regulation of invasive species; assessment of vulnerability and adaptation to climate change and desertification; integration of biodiversity concerns in economic and social development; development of biodiversity databases; strengthening implementation of policy, legislative and administrative measures for biodiversity conservation and management; building of national capacities for biodiversity conservation and appropriate use of new technologies; valuation of goods and services provided by biodiversity and use of economic instruments in decision making processes.

129. Similarly, the National Action Plan on Climate Change (2008) comprising of eight National Missions (National Solar Mission, National Mission on Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining Himalayan Eco-System, National Mission for Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change) provides multi-pronged, long-term and integrated strategies for addressing climate change.

130. Other relevant national policies, legislation and guidelines relevant to this project are: the Biological Diversity Act of 2002, National Environmental Policy, 2006 National Forest Policy of 1988, Indian Forest Act of 1927 and related state legislation, Forest (Conservation) Act of 1980, Wildlife (Protection) Act of 1972, Environmental Act of 1986, The Environment Impact Assessment Notification of 2006, Marine Fishing Policy of 2004, National Wildlife Action Plan (2002-16), National Water Policy (2002), National Conservation Strategy and Policy Statement on Environment and Development (1992), Policy Statement on Abatement of Pollution (1992), National Tourism Policy (1998), National Agricultural Policy (2000), Marine Fishing Policy (2004), The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, National and State Joint Forest Management orders and rules.

131. SGP is in conformity with the national policy and legal framework and shall further support the implementation of these in the national and sub-national context. India has signed the UN Convention on Biological Diversity (UNCBD), UN Framework Convention on Climate Change (UNFCCC) and also the UN Convention to Combat Desertification (UNCCD).

E. Cost-effectiveness

132. In line with the GEF Council's guidance on assessing project cost-effectiveness (Cost Effectiveness Analysis in GEF Projects, GEF/C.25/11, April 29, 2005), the project development team has taken a qualitative approach to identify the most cost-effective strategy for achieving the project objective. Two different scenarios for improved long-term management of natural resources and sustainable use of India's unique biodiversity heritage have been considered, and these are described below.

133. One option would be to continue with and expand the existing approaches for resource management in the country. However, the current paradigm of resources management is complex with diverse baselines, disparate issues, multi-faceted challenges, divergent governance models, and varied stakeholder interests. Despite various initiatives largely driven by the national government, the state of environment in the country remains weak due to inadequate policies and institutions, knowledge and capacity gaps, limited technology support, limited realization

of economic potential of natural resources, limited integration of policies and actions across line agencies on resource management, unclear mandate of community institutions on sustainable resource management, etc. Further, one of the most challenging aspects in this regard is supporting/ mobilizing community institutions to take up effective resource management. This has been found to be of very tall order in the conventional approach. In the business-as-usual scenario, this trend is likely to remain the same or may even worsen especially in the context of fast development taking place in India.

134. It is in this context that an alternate option – 'the SGP approach' was considered and found most appropriate, feasible and cost effective. This approach will focus on community institutions at the grassroots level so that policies and practices at panchayat level related to sustainable resource use are influenced. Since 1992, GEF support has enabled India SGP to improve continuously its cost-effectiveness in generating global environmental benefits (GEB). The 2008 SGP Evaluation analyzed the management costs incurred at the country program and found that "if the SGP were to operate at a higher program expenditure level, the average management costs would be likely to decline as a result of efficiency gains." This project will expand SGP-India's previous grant portfolio, leading to improved cost-effectiveness. This project will build upon cost-effective implementation and management practices already in place such as SGP networks and well-organized financial management, disbursement and procurement procedures developed in collaboration with the CEE. The project will seek new efficiencies in SGP's proven capacity to deliver positive environmental results in a cost-effective manner. This will be done in terms of grant review, disbursement and evaluation/monitoring.

135. The most recent independent evaluation of the SGP by the GEF Evaluation Office found that that the SGP is "efficiently converting inputs into outputs both at the project and country program levels," and further stated that "Since SGP project grants have been effective in generating GEB, it is a cost-effective instrument for the GEF to generate GEB by engaging NGOs and CBOs." The project will maintain and build on the existing in-country SGP networks and capacity to continue delivering positive environmental results in a cost-effective manner. For the project's CC-2 component, cost effectiveness can be presented quantitatively by the unit abatement cost (UAC) in terms of GEF $ investment per tonne of CO_2 reduced, which is calculated to be 9.46 US$/t$CO_2$. The UAC for CC-2 portion of the project is calculated in the following manner: 225,000 tCO_2e from improved biomass cook stoves; at least 12,277 tCO_2e from solar home systems and micro hydro power.

F. Sustainability

136. Aspects of sustainability are integral to SGP project formulation. In the biodiversity component, project processes like evolution of policy frameworks for production sectors, panchayat/ village level model biodiversity conservation plans, and community led tools augmented by expert review of community processes are all indicative of the commitment to sustainability. Further activities like certifications for organic agriculture and market mechanisms (the proposed retailer hubs, SGP store and branding) are all indicative of the sustainable intent of the project.

137. The component on climate change had been designed to exploit local renewable energy sources by communities and includes aspects of energy efficiency in rural processing and household energy. SGP would build community capacity for managing local energy infrastructure like decentralized power generation and mini grids. Further SGP would strive to mainstream its activities and lessons into the various missions under the National Action Plan for Climate Change and contribute to the national effort in Climate Change adaptation and mitigation.

138. Activities under the component of land degradation include improvement of SLM/ SFM practices, improving agro ecosystems, introducing water use efficiency tools contributing to sustainable livelihoods and security for communities. Activities like financial planning, networking with the financial institutions and financial linkages for community based livelihoods would contribute to sustainability of the project grantees. Adopting a mix of approaches would reduce vulnerability and contribute to improved livelihood for communities.

139. Aspects of the project design like mainstreaming SGP activities and lessons into government programmes would contribute to the institutional learning. Increased capacity of communities would also have benefits like minimizing social exclusion. The project will not only focus on trainings and exposure visits to the relevant technologies/ strategies, but also encourage the process at all levels so that the local capacities created are retained in the project partners / implementing institutions. Since, the sustainability of project outcomes is the result of a series of factors working together, the importance of capacity development for institutional sustainability of project outcomes is an assumption underpinning the entire project design. The project will help develop capacities at the individual, community, and institutional level, e.g., training individuals to develop skills and knowledge in managing the cook stoves construction, processing of the medicinal plants and agro based products into end products and water filters (addressing the related POPs affected water bodies).

140. SGP helps bring projects and communities into broader networks of practitioners that provide support after SGP grant completion; it will also facilitate market penetration by communities and their products, and to establish producer associations that take care of communities' business needs and interests beyond grant implementation; Government institutions and their staff, although not directly financed by this project, are involved as much as possible in SGP training and grant activities to ensure full support during and beyond grant implementation. The experience acquired by Government staff and NGOs through their involvement with SGP grant implementation benefits other communities as well. In the past, SGP has already made collaborations and synergistic partnerships with private sector and other donors. This process will be strengthened and shall be key factor for financial sustainability[52].

G. Replicability

141. One of the key hallmarks of the SGP approach is its high potential for replicability; which has been demonstrated in the past successfully. Continuing from that, the project will initiate/ strengthen several mechanisms and practices that would ensure replicability of key project results and successes. These are:

- Support and provide qualitative inputs to project partners in the project design stage for including aspects of sustainability and replicability into project design.
- SGP proposes to allocate funds to replicate consolidated approaches of past SGP projects. This will be carried out through peer-to-peer learning, trainings, exposure trips, use of dissemination mechanisms, SGP store, knowledge platforms, etc.
- Panchayats or local self governments in the project area would be encouraged to recommend tools and plans in other areas leading to replicability of the SGP projects (through peer –to–peer learning and outreach) and therefore enhanced biodiversity conservation through local initiatives and without formal project support (Outcome 1.1).
- Promoting energy efficient and renewable energy technologies in rural communities offers scope for integration of such practices into the national policy processes (e.g., cook stove policy) and also int the the State level climate change action plans. (Component 2 and 4).
- Emphasis on awareness creation and training in all projects of grantees and also at the PMU. This has been built into the project across all components and outputs.
- Creation of new partnership platforms under the SGP umbrella (e.g. participatory monitoring, field visits to partner project sites etc.
- Focus on community livelihoods and emphasis on business models and an entrepreneurial approach at the community level (Output 4.1.2.)
- Common marketing and branding of value added produce of communities under SGP Output 4.1.4.).

[52] In the past, the SGP has experienced that market based approach is a powerful tool for achieving sustainable resource management. In one of the initiatives, a federation of 6 SGP partners produced more than 25 different products based on agro-biodiversity and livestock etc. Encouraged by this, the national government, provided a platform to the SGP partners to showcase their forest based/related products and market the same during the national World Environment Day (WED) Celebrations 2011.

- Further, the lessons learnt from the project implementation shall be captured and disseminated with a view to assist in up scaling, mainstreaming and replication into wider national and sub-national programmes and policy imperatives.

142. A complete component on capacity building and knowledge management (Component 4) is inbuilt into the project design so that communities acquire competence to diagnose problems and develop local solutions. Aspects on institutional capacity building and resource mobilization would be an integral aspect of capacity building.

H. Thematic presence and experience of UNDP in India relevant in the context of SGP.

143. UNDP supports India's efforts to meet its commitments under MEAs while meeting national environmental goals under three thematic areas - climate change, biodiversity conservation, chemical management. This is within the overarching objective of the UNDAF outcome (4.3) that is - by 2012 'the most vulnerable people, including women and girls, and Government at all levels have enhanced abilities to prepare, respond and adapt to sudden and slow-onset disasters and environmental changes.'

144. UNDP programme endeavours to help reduce GHGs by providing technical assistance for adoption of energy efficient and environmentally friendly technologies. Through promotion of bio-energy technology packages to meet the energy demands of rural India, biomass resources are being harnessed at community level. Other activities include facilitation of energy efficiency improvements across various sectors (industrial, residential, transport) and promotion of renewable energy technologies and phasing out of ozone depleting substances. UNDP also facilitates the Solution Exchange Community of Practitioners and convenes the inter-agency UNDAF Cluster on Climate Change. In addition, UNDP is facilitating the preparation of the state action plans on climate change. The programme supports vulnerable communities in building their capacities to manage natural resources and to promote sustainable livelihoods by strengthening the institutional capacities at different levels and bringing in behavioural changes to manage natural resources in an integrated, participatory and sustainable manner. The programme aims at supporting efforts towards strategic management of Persistent Organic Pollutants (POPs) and Phase out of Ozone Depleting Substances (ODS) through technical assistance and policy support. The presence and experience of UNDP in India shall further complement the implementation of SGP which shall contribute directly to the implementation of national policy and legislative frameworks related to environment.

Outline the coordination with other related initiatives:

The GEF SGP in India has formed mutually beneficial long-standing relationships with national and community level initiatives and partners, and this project will continue to seek synergies in the coming operational phase by working with relevant stakeholder's in target landscapes in the focal areas supported to ensure coordination of donor funding on relevant initiatives. SGP will also *seek cooperation and formal partnerships with corporate CSR initiatives, relevant GEF MSPs and FSPs and with government programs*. The project will work with various stakeholders including Private sector, State governments, development agencies, Community Organizations, etc (e.g., Bajaj Foundation, JSW Energy, World Food Program and Catholic Relief Services and Community Knowledge Service (Asia)) on joint project identification and financing.

These programs will provide vital "baseline" co-funding to many small incremental grants issued by this project in communities all over the three target landscapes. The grantees provided through the CBOs/NGOs will not duplicate the efforts already being undertaken by these institutions, but will provide the much needed synergy and leverage to the *systems approach to sustainable development* using more simple, easy to understand technologies, processes and skills enhancement in links with the respective government institutions/technology providers. These practices and processes of a *more systems-business approach presently* missing in the works being undertaken through the GEF grants will enhance more environmental and livelihoods benefits at the grassroots. The project office will be based within the Centre for Environment Education, whose management,

operational expertise and co-financing capacity will be critical contributions to the project's work, particularly in strengthening community systemic capacity. The project will work with Institute of Rural Management (IRMA) Anand, Indian Institute of Forest Management (IIFM) Bhopal, KITTS School of Rural Management (KSRM) Bhubaneswar, AN College Patna, and IBS Noida on results-based management: impact assessment, knowledge management, structured documentation of tools, and PRAs.

The Ministry of Environment and Forests will provide critical co-financing in the *form of grants as facilitated to SGP program in the last 4 years* to enable scaling up, awareness creation, and capacity building of the successful project ideas, the SGP partners and the local communities. While implementing the GEF SGP, the lessons learnt from the existing SGP India will be reflected and consolidation of the all the *brownies (*projects) will be considered through further linkages particularly for increased livelihoods and employment opportunities.

The following table summarizes existing GEF projects in India and will serve as basis for building in more complementarities and lessons from these projects into the proposed project under the PPG process.

Table 5: GEF Projects and their Complementarities:

Existing GEF Projects	Main Objective/purpose	Main areas of complementarity
Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States	To mainstream the conservation and sustainable use of medicinal plants into the productive forest sector with particular reference to globally significant medicinal plants.	Community driven approaches to the conservation of medicinal Plants is an important aspect of this project.
Conservation and Sustainable Use of Gulf of Mannar Biosphere Reserve's Coastal Resources	To conserve the globally significant assemblage of coastal biodiversity while securing the livelihood of local communities.	The focus is on empowering local communities to manage local resources in partnership with the government and other stakeholders.
Integrated Land use management to combat land degradation and deforestation in Madhya Pradesh	To address and reverse the process of land degradation in the state of Madhya Pradesh	The project focusess on piloting innovative community driven approaches for addressing land degradation in the Central Indian landscapes.
Sustainable land and ecosystem management in shifting cultivation of Nagaland for ecological and livelihood security	To maintain ecosystem services while also meeting livelihood needs especially in areas affected by shifting cultivation.	The project adopts a cross-sectoral approach involving government departments to ensure that improved LD methods are effectively internalized in the development planning for the State.
Sustainable Participatory Management of Natural Resources to Control Land Degradation in the Thar Desert Ecosystem	To promote sustainable and participatory management of natural resources to achieve ecosystem health and integrity, and improve livelihoods of rural communities in the Thar Desert ecosystems of Rajasthan.	The focus is on sustainable management of community land resources, water bodies and livestock.
Global Solar Water Heating Market Transformation and Strengthening Initiative	To accelerate a sustainable market development of solar water heating in India with good quality products and services.	The focus is on: (i) A reform of the supply chain to a higher level of professionalism (ii) Awareness building, and (iii) Refinement and replication of incentive programmes throughout India.
Biomass Energy for Rural India	To develop a bioenergy package to reduce greenhouse gas emissions.	The project promotes models on sustainable and participatory approach in meeting rural energy needs.

Removal of Barriers to Energy Efficiency and Improvement in the Steel Rerolling Mill Sector in India	To reduce GHG emissions by providing technical assistance to the small and medium-sized steel-rerolling mills in India to enable them to adopt more energy efficient and environmentally friendly technologies.	The project strategy seeks to involve the initial penetration of "low-risk, high efficiency technology packaged in selected small and medium-scale mills.
Removal of barriers to Biomas Power Generation in India.	To remove barriers to the increased use of biomass energy sources for generating electricity for own consumption and export to the grid.	The project aims to accelerate the adoption of environmentally sustainable biomass power and cogeneration of technologies.
Enabling activities for preparation of India's second national communication to the UNFCCC	To enable India prepare its Second National Communication to the UNFCCC	The project also addresses the gaps identified in INC, specifically on capacity building, sector specific climate data acquisitions, etc.
Energy Conservation in small sector tea processing units in South India	To reduce energy consumption from tea processing units in southern India, which will have the additional benefits of restricting greenhouse gas emissions.	It aims to remove barriers and develop replicable strategies for energy efficiency and energy conservation interventions in the tea processing industry.
Energy Efficiency Improvements in the Indian Brick Industry	This project aims to reduce energy consumption in production and promote use of resource efficient bricks, which will have several co benefits including reduced GHG emissions.	Identified major brick producing clusters are developed as demonstrative models by (i) public sector awareness on resource-efficient products, (ii) access to finance for brick kiln entrepreneurs, (iii) knowledge on technology and marketing, (iv) availability of resource efficient technology models through Local Resource Centres, and (v) capacities of brick kiln entrepreneurs.

In addition, the project will collaborate with and benefit from the work of UNEP-GEF's Carbon Benefits Project. The project has budgeted sufficient funds for SGP-India to participate in organized collective training of SGP programs by the CBP. Grantees and staff will be trained in how to use the CBP carbon monitoring tools when they become available later in 2011. This will enable SGP and its grantees to design their carbon monitoring system in accordance with these tools. The CBP will hold a training workshop for the SGP upgraded country programs with relevant outputs as a joint training workshop.

GEF AGENCY INFORMATION:

Confirm the co-financing amount the GEF agency brings to the project:

145. UNDP-India will bring US$ 1,000,000 in co-financing to this project through linkages with its on-going projects.

How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) And staff capacity in the country to follow up project implementation:

146. The present project is positioned within the overarching objective of the UNDAF, a key outcome (4) of which is that by 2012 'the most vulnerable people, including women and girls, and Government at all levels have enhanced abilities to prepare, respond and adapt to sudden and slow-onset disasters and environmental changes.'

The project aligns well with UNDP efforts to contribute towards the implementation of national policy and legislative frameworks related to environment, reducing greenhouse gas emissions. The project's focus on provision of technical assistance for adoption of energy efficient and environmentally friendly technologies and promotion of bio-energy technology packages to meet the energy demands of rural India directly addresses the UNDAF objectives. In addition the project will complement efforts taken to support integrated approaches for conservation and management of natural resources by strengthening economic incentive structure for conservation and sustainable use, biodiversity conservation outside the Protected Areas, strengthening the implementation of Biological Diversity Act, 2002, developing strategies to arrest land degradation in the country.

147. A professional staff from the Country Office Environment and Energy Unit (EEU) will perform the SGP oversight and will represent UNDP in the NSC. Expertise of other professional staff in EEU in CC, renewable energy, natural resources management and land degradation issues shall also be utilized for the implementation of SGP as required. In addition, the Country Office will contribute the expertise and experience of the Poverty Reduction Unit, and the Democratic Governance Unit as well. The first will contribute to business skills development of SGP grantees, and the second will support the SGP team in addressing land and environmental governance issues.

3. PROJECT RESULTS FRAMEWORK:

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: Outcome 4.3Progress towards meeting national commitment under multilateral environmental agreement; and output 4.3.2 National efforts supported towards conservation and management of natural resources					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy					
	Indicator	**Baseline**	**Targets End of Project**	**Source of verification**	**Risks and Assumptions**
Project Objective[53] To ensure a mosaic of land uses and community practices across the rural landscape to generate sustainable livelihoods and global benefits for BD, LD and CCM.	Number of hectares of land brought under sustainable land and resource management in the Western Ghats (WG), Himalayan Front (HF) and Arid and Semi-Arid Regions (ASAR)	0 ha.	200,000 hectares	Evaluation reports, field visits, case studies, grant reports, proceedings of conferences, workshops	District and local authorities able and willing to participate in taking up new activities and join in the approach.
	# tons of carbon emission reductions achieved through SGP interventions	200,000 metric tonnes per year of CO_2e	75,000 metric tonnes of C_O2e per year reduced	Evaluation records, grantee reports, agreements, project assessments and reports etc.	Communities adopt the measures and ensure proper maintenance of records
	Amount of new and additional financial resources leveraged for community driven sustainable resource management in India.	0	USD 5 million	Government records, letters of commitment form partners, etc	

[53] *Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR*

	Improvement in Systemic Level Indicators of Capacity Development Scorecard (Annex 3)	SYSTEMIC LEVEL (The baselines and targets[54] against the following capacities to be assessed at the time of selecting individual grantees). 1. Capacity to conceptualize and formulate local level policies, actions on sustainable resource use. 2. Capacity to implement programmes and action on sustainable resource use 3. Capacity to engage and build consensus among all stakeholders 4. Capacity to mobilize information and knowledge 5. Capacity to monitor, evaluate and report and learn at the grantee and project levels		Evaluation records, government records, technical capacity studies, etc.	
Component 1; Outcome 1.1: Panchayats (local self governments) incorporate improved management practices into village level planning for community managed landscapes and seascapes enahncing mosaics of landuses and improving biodiversity conservaiton.	Number of panchayats incorporates sustainable management practices into village level resource use plans.	0	30 by year 4	Evaluation reports, assessment studies, government records, technical capacity studies, etc.	
	Number of community led tools and methodologies developed for biodiversity mapping, monitoring and valuation.	0	10	Evaluation records, Grantee reports, government records, meeting of the minutes, technical studies, etc.	Panchyats adopt but not act on the guidelines and sit on them.
	Number of rare and threatened domesticated cultivars/ livestock/ varieties brought under focused conservation practices in the project sites.	0	At least 5	Evaluation records, Grantee reports, government records, technical studies, etc.	More communities may see value and adopt technologies for better livelihoods and enhanced incomes.

[54] Going by the past experience of SGP, a target of 25% over the baseline will be achievable. However, this will be assessed after the individual grantees are selected.

	Number of women groups formed/ strengthened for planning and executing of sustainable natural resource management.	50[55]	100[56]	Evaluation records, Grantee reports, field visits, government records, minutes of meetings, technical studies, etc.	Government and the related departments may be slow to adopt the lessons. ,ore communities may see the livelihoods benefits for better propagation.
	Number of new branding/ geographic indicators/ certified agro-based products developed in the project sites.	0	5 by project end.	Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc.	Leverage of resources from banks under the national guidelines may vary over time.
Component 2; Outcome 2.1: Appropriate energy efficient technologies result in emission reductions.	# of tonnes of CO_2e emission reductions achieved through adoption of energy efficient technologies.	150,000 metric tonnes per year.	225,000 tonnes of CO_2e emission reductions over 3 years.	Report from certification agencies, boards, communities, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc.	Quality of the products to ensured
	# of women involved through SHGs in investments for emissions reductions	to be assessed in the initial phase of the project.	10% increase by end of year 2 and 20% increase by end of year 4	Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	*Operational lifetime of a stove is 3 years*
Component 2 Outcome 2.2 Appropriate renewable energy technologies result in CO2e emission reductions.	# of tonnes CO2e emissions reduced through adoption of renewable energy technologies at local level.	50,000 metric tonnes per year	12,277 tonnes of CO_2e. by end of project.	Reports of field visits, evaluation records, grantee reports, government records, minutes of meetings, technical studies, etc, Special reports	*More women adopt technologies through kinship influence and relationship*
Component 3;	No of hectares of dry	0	70,000 hectares	Reports of field visits,	It is assumed that the NGOs use

[55] This is based on the past experience of the SGP and shall be firmed up after individual grantees are identified.

[56] This is based on the past experience of the SGP and shall be firmed up after individual grantees are identified.

Outcome 3.1 Improved enabling environment at the panchayat level agricultural sector improves management, functionality and cover of agro-ecosystems in ASAR (LD-1).	agricultural lands brought under SLM with improved vegetative cover.			evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	the tools provided by the PMU to correctly maintain and estimate CO2 mitigation data.
	Number of new and additional sources identified for leveraging investment replication/ for SLM across drylands in ASAR.	0	At least 10 new sources	Monthly/quarterly/ midterm / final reports of grantees, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	More communities adopt and implement programs investing own funds and also taking loans to take up the technologies
Component 3; **Outcome 3.2 (LD -2)** New capacities, sources of investment and practices enable improved SFM in forest landscapes by communities.	% density of ground stocking in productive forest landscape in ASAR, HF,WG.	10-40%.	Ground stocking increased to 50%	Monthly/quarterly/ midterm/ final reports of grantees, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	More communities are influnced through kinship relations and adopt the measures
Component 4; **Outcome 4.1** Increased capacity of SGP stakeholders to diagnose and understand the complex and dynamic nature of global environmental problems and to	Number of new grants that replicate consolidated approaches (BD, CC, LD).	0	Replication of consolidated approaches (BD, CC, LD) in at least 30 new grants by year 4.	Monthly/quarterly/ midterm/ final reports of grantees, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	*Communities develop capacities through local institutions and individuals.*
	Increase in amount of co-funding for SGP-India.	0	USD 5 million	Monthly/quarterly/ midterm/ final reports of	More communities adopt and expand the areas seeing the

develop local solutions.				grantees, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	benefits
	Number natural resource based products developed by the GEF SGP partners linked to markets.	25 numbers at present	75 products by project end	Monthly/quarterly/ midterm/ final reports of grantees, Reports of field visits, evaluation records, government records, minutes of meetings, technical studies, etc, Special reports	Some new partners may join with more funds seeing the benefits emerging in the program and the others may share less funding support.
Component 4; **Outcome 4.2** Enhanced capacities of SGP grantees to monitor and evaluated thier projects and enironmental trends	Number of workshops/learning events conducted by the project by the GEF SGP partners/stakeholders	GEF SGP partners/stakeholders	workshops held in the beginning of year 1 to finalise the indicators and targets n the PRF/M&E framwork with all the stakeholders four learning events organised for key stakeholders/SGP grantees for achieving this outcome	Reports of field visits, Past projects Monitoring Evaluation Reports, technical studies, special reports Guidelines of GEF and UNDP SGP etc.	Build the partner's capacity to critically look at individual projects to provide insightful recommendations, share ideas and experiences on systems for M&E framework

5. *MANAGEMENT ARRANGEMENTS*

148. **Project Implementation Arrangements**: The Project is co-financed with primary funding from the GEF, and UNDP acts as the GEF Implementing Agency. The Centre for Environment Education (CEE), which has been the National Host Institution for SGP India before its upgrading, will be the Implementing Partner, taking over the previous role played by UNOPS, and will be responsible for the day-to-day management and implementation of project activities with the support of a full time Country Programme Manager (CPM), the equivalent of the post of National Coordinator in the SGP Operational Guidelines, and under the leadership of the National Steering Committee (NSC). The project will be implemented with UNDP CO support. Project budgets will be approved and project funds released from the GoI as per its requirements and procedures, and MoEF GoI will designate the country GEF Operational Focal Point (OFP) to approve Annual Work Programmes and corresponding budgets, receive audits on behalf of the GoI as well as ensure availability of committed co-financing. UNDP will also ensure that the project receives technical and managerial support, as needed, from the UNDP Country Office, and from the regional team, as well as the global team responsible for project oversight for all upgraded country programme projects.

149. **National Steering Committee (NSC):** NSC will act as the Project Board, responsible for taking appropriate management decisions to ensure that the project is implemented in line with the SGP Operational Guidelines and the agreed project design and is consistent with national and state development policies and priorities. The NSC will meet at least twice a year and for special meetings as needed to provide the required oversight of the project and also ensure the overall coordination of the programme. The membership of the National Steering Committee, which shall be non-governmental in majority in keeping with the SGP Operational Guidelines, will be constituted by UNDP in consultation with the Implementing Partner, and others, as appropriate, with process validation to be done by the UNDP-GEF assigned manager for upgraded SGP Country Programmes. The NSC will include the GEF Operational Focal Point (OFP), a representative of UNDP, and six or more members from civil society, including the private sector, selected in a highly consultative process with the civil society community, with experience in the areas of biodiversity, forestry, climate change, desertification, community and gender-based development, and other areas of importance to the objectives of this project. The chair of the NSC meeting will be nominated as per the Global Guidelines of SGP. The Chairperson can also invite specific technical experts or others to the NSC meetings on an 'as-needed' basis. The Country Programme Manager shall act as the Secretary to the NSC. The NSC shall determine the strategic criteria for project eligibility within the overall framework provided by the SGP Operational Guidelines and the Project Document, shall decide which grants to approve after receiving the reviews of all projects by the Technical Advisory Group, and shall play a crucial role in quality assurance and accountability by ensuring adequate project monitoring and evaluation. The NSC ensures that required resources are committed and arbitrates any conflicts related to the project or negotiates a solution to any problems with external entities. On the approval of the NSC, the GoI designated officer/OFP will sign the AWP with UNDP on an annual basis, as per UNDP rules and regulations.

150. Representatives from the agencies providing co-financing to the project may also be invited to participate in the NSC meetings as appropriate. There will be a balance in selection of the civil society members from all geographic regions of the country and gender while constituting the NSC. A minimum of 60% of the members must be in attendance at a meeting for it to be considered valid, and all proposals will be endorsed by consensus. In addition to approval of SGP grants, the NSC's activities will include strategic efforts in line with the Project and GEF strategic priorities that will enable aggregation of community-driven impacts for global environmental benefits, local-to-global strategic portfolio learning and capacity development, dissemination of best practices, and network building for SGP portfolio grantees. This approach will support the SGP's and GEF's catalytic roles by contributing to replication and up scaling of good practices.

151. **Country Project Management Unit (CPMU):** The CPMU will be the administrative hub for the project and will be housed in the Centre for Environment Education (CEE) as the Implementing Partner for the Small Grants Program. The CPMU will serve as the Secretariat to the NSC and will be responsible for the day-to-day implementation of project activities. The CPMU will constitute a full time Country Programme Manager (CPM) and relevant support staff. The team will work under the guidance of the CEE as Implementing Partner, will be supported by the UNDP Country Office on all matters related to project implementation and will coordinate with the Regional Teams and all grantees. The CPM will also interact with a team of CEE's regional officers.

152. **Project Assurance and other functions**: UNDP will perform the Project Assurance function by providing independent feedback (through periodic monitoring, assessment and evaluation) on how appropriate project milestones are managed and completed. UNDP will provide assistance in Country Program execution services and maintain project budget and project expenditures, assist in recruitments and contracting project personnel and provide technical consultant services, assist in equipment procurement, and provide any other assistance upon request of the CPM. Based on the AWP approved by the NSC and duly signed by the GoI designated officer/OFP, UNDP will release funds to CEE as the Implementing Partner directly, who will then disburse funds to the grantees. Using the UNDP Financial Report format, CEE through the CPMU will report expenditure on a quarterly basis together with a request for advance required for the next quarter. These will be consolidated by the Country Programme Manager and forwarded to UNDP for necessary action. The Combined Delivery report (CDR) prepared by UNDP on a quarterly basis as well as for the annual year–end CDR will be verified and certified by the GoI designated officer/OFP. The executing agency will ensure, and UNDP Country Office will also monitor, project implementation and achievement of the project outputs, guaranteeing the proper use of GEF/UNDP funds. Financial transactions, reporting and auditing will be carried out in compliance with national regulations and UNDP rules and procedures. The NHI will carry out its day-to-day management and monitoring functions through the CPMU. UNDP will assign a Programme Officer in New Delhi, who will be responsible for the project assurance function, together with the Communities Technical Advisor based in New York.

153. **Implementing Partner - Centre for Environment Education (CEE):** The Centre for Environment Education will serve as the Implementing Partner for this project. It will be responsible through its team of officials designated to support implementation of project activities and achievement of results as described in the Results Framework. The Director of CEE will also advise and guide the CPMU. A team of officials from different units such as purchase, administration and audit and accounts of CEE will support the CPMU as required for pre-decided durations. The decentralized operations in the country will be supported through one full time Regional Project Officer (RPO) each from a CEE regional office. There will be seven such officers, one in each of the seven regional offices of CEE i.e. CEE North; CEE East; CEE South; CEE Northeast; CEE Delhi; CEE West and CEE Central.

154. **Project selection:** Project strategy will aim at funding at least three tranches of grant projects during the project timeframe, at least one in each year for the first three years, based on fresh calls for project proposals for each tranche. The projects will be screened by a Technical Advisory Group constituted by the NSC as per the SGP Operational Guidelines and appointed by UNDP. The Technical Advisory Group will recommend a portfolio of proposals for consideration by the NSC for each tranche. The Technical Advisory Group will meet as needed to assess project quality and eligibility. If projects are not performing, CEE will bring these to the attention of the NSC who may request a technical assessment from the Technical Advisory Group, as appropriate.

155. **Financial Arrangements by CEE:** CEE will execute the project in full compliance with national regulations and UNDP rules and procedures, using its standard financial management systems and administrative measures. CEE has suggested that these may include the following: A separate bank account shall be opened and maintained for the project by the CEE at their CPMU Delhi Office. The account shall be operated from Delhi. The CPM shall be responsible to maintain the accounts at CEE Delhi office as per CEE procedures and systems laid and approved by the CEE Director. All the accounting procedures will be made and approved jointly by the CEE Director in accordance with UNDP requirements and shared with UNDP CO. For each reimbursement, proper supporting documents shall be maintained, including original invoices, bills, and receipts pertinent to the transactions at CPMU, including payments from Regional Project Offices. The detailed bills and books of accounts of the project will be kept at Ahmadabad, the NHI Headquarters, as has been successfully done over the last decade in the SGP. Disbursement of cheques to grantees shall be signed by two persons; one signatory shall be the CPM and the other as per the procedures laid down by CEE. For purchases, all capital items purchased under this project by CPMU and RPOs shall follow the CEE purchase procedure/ or will request UNDP CO to make the purchases following their procedures as has been the case for last decade with SGP. As the separate account will be operational through the CPMU at Delhi and the accounts books will be maintained in Ahmadabad, the audit will take place at both the places as per UNDP rules and regulations.

156. **CEE Regional Offices (ROs):** The Regional Offices of the CEE are part of large networks of NGOs, CBOs, academic institutions and government organisations in their own regions. The SGP in India has been taking

advantage of the presence of these offices in several ways. The executing agency leverages the strengths of these offices to effectively implement SGP in a country as diverse as India. These offices service a need of constant accompaniment of the recipients of the SGP in a region where these small partners often lack basic and essential skills and competencies in project management. Each office is supported by a Regional Technical Advisory Group (RTAG) of six members for the SGP Programme and to which the CPM and UNDP Programme Officer are permanent invitees. The RTAG members are drawn from a pool of independent experts representing the GEF thematic areas and representatives having considerable experience in community empowerment. These Committees shall meet to review proposals, promote innovative ways of working and to make recommendations to improve the administration and implementation of grants made. For a RTAG meeting to be considered valid there must be at least four core members present (60%). The RTAGs, with support from Regional Project Officers, will help track progress, provide feedback and also share the impacts and results with the CPM, UNDP and the NSC. They are encouraged to create and ensure synergies with other multilateral agencies and donors.

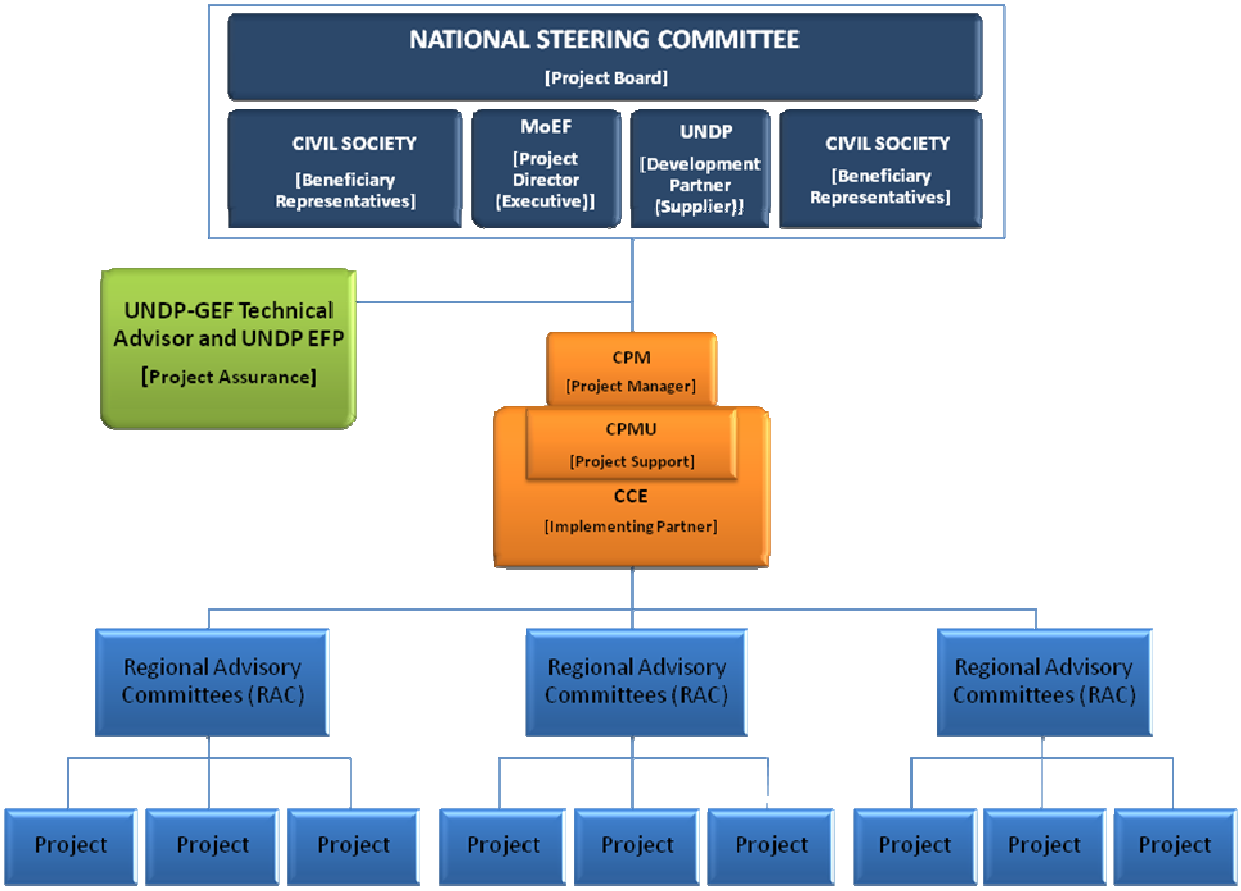
157. **Regional Advisory Committees (RACs):** CEE has 7 regional offices and each office is supported through a Regional Advisory Committee (RACs) of 6 members for the SGP Programme which includes the CPM and Programme Officer, UNDP. The RAC members are drawn from a pool of independent experts representing the three GEF thematic areas and two representatives having considerable experience in community empowerment. These Committees shall meet at least three times a year to review proposals, promote innovative ways of working and to make recommendations to improve the administration and implementation of grants made. The RACs with support from Regional Project Officers will help track progress, provide feedback and also share the impacts and results with the CPM and UNDP. They are encouraged to create and ensure synergies with other multilateral agencies and donors. The Regional Advisory Committees will meet in the first week of April, September, and December every year during the tenure of the project. The NSC meetings will be held within one month of these meetings preferably in May, October and January of every year.

158. **Technical support to the project**: The project will solicit the support of experts and specialists in different thematic areas to extend technical support to project partners. A roster of experts will be created at the national and regional levels who will be engaged on a periodic basis for special capacity needs of the partner agencies. The need of engaging specialists will be gauged on completion of a capacity gap assessment of the partners.

159. **Project Audit Arrangements**: The project will be audited in accordance with UNDP Financial Regulations and Rules and applicable audit policies and guidelines.

160. **Use of Institutional Logos on Project Deliverables**: The programme will ensure good visibility to the GEF supported programme by using the global GEF SGP branding in all electronic and printed materials, both by the SGP Country Programme and by SGP grantees. SGP will also apply the following GEF UNDP policy: *"The GEF logo should appear on all relevant project publications, including amongst others, project hardware and other purchases with GEF funds. Any citation in publications regarding projects funded by GEF should also acknowledge the GEF. Logos of the Implementing Partner, Executing Agency and the Responsible Party will also appear on all publications. Where other agencies and project partners have provided support (through co-financing) their logos may also appear on project publications"*.

161. **Project selection criteria for participating communities will include the following:** The selection of individual projects under the SGP will be based on the global GEF SGP guidelines/templates and the country programme strategy, India. The templates will be tailored to address the needs and priorities locally of the area and the country. Priority will be given to those proposals aimed at meeting the explicit objectives of GEF SGP, including improved natural resource management, addressing land degradation, global environment benefits, people's participation, flexibility, partnership and transparency in their approach, building more viable local institutions, leveraging more in cash and in kind co-financing, demonstrating high replicability and potential for upscaling, creating local ownerships, addressing livelihoods, equality and gender concerns and sensitivities. Training of the local women and men villagers, as village volunteers will be a criteria to determine eligibility of the proposals.



** 1 - National Steering Committee shall comprise one Representative of UNDP; one Representative from Ministry of Environment & Forests (GEF OFP) and 7 specialists as chairs of the 7 Regions. They can be Specialists in Gender/LD/CBD/CC/POP/Pvt. Sector/ Livelihoods. Country Programme Manager will act as the Secretary.

**2 - Regional Advisory Committees shall comprise 4 specialists in Gender/LD/CBD/CC/POP/Private Sector/Livelihood and one representative of UNDP and Country Project Manager. Regional Coordinator of CEE will act as the Secretary. There will be 7 Regional Advisor committee formed in 7 office of CEE i.e. CEE East (Orissa), CEE North East (Guwahati), CEE Central (Pune), CEE South (Bangalore), CEE North (Lucknow), CEE Delhi (Delhi) and CEE West (Ahmadabad)

6. MONITORING AND EVALUATION (M&E)

The project will be monitored through the following M&E activities.

Portfolio of Upgraded Country Programmes

162. The UNDP Communities Cluster will monitor the implementation of the portfolio of the upgraded SGP countries and will promote and support cross fertilisation and learning among the country programs and with the Global SGP. The SGP CPMT will monitor SGP Country program for compliance with the SGP Global Operational Guidelines. It will encourage more participatory monitoring and evaluation systems. The SGP in India believes that monitoring and evaluation is an occasion to review past work, obtain feedback from an outside agency that is not immersed in day to day implementation and review, reconsider project and program levels goals, achievements, stresses, barriers etc. M&E procedures would be carried out routinely but considering that M&E is also learning and information sharing tool, the SGP at the programme level encourages peer exchanges, people's process monitoring systems.

Country Programme Level

163. **Project Start Up:** A Project Inception Workshop will be held within the first 2 months of project start with all those as assigned roles in the project organization structure: the UNDP Regional Technical advisor, the UNDP Country Office SGP Focal Point, NSC members, CPM, as well as other stakeholders. The Inception Workshop is crucial to brief all participants on the new requirements for a GEF Full Size project and to building ownership for the project results.

164. **The Inception Workshop will address a number of key issues including:** Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP Communities Senior Technical Advisor (STA), UNDP CO SGP Focal Point and UNDP Regional Technical Advisor (RTA), NSC members, and others will be invited. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed and agreed as required.

- Based on the project results framework finalize the first annual work plan, and agree on a schedule for grant approval for the entire project life.
- Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.

165. **An Inception Workshop** report is a key reference document and must be prepared by the CPM and shared with participants to formalize various agreements and plans decided during the meeting and shared with participants to formalize various agreements and plans decided during the meeting.

166. **112. Plan and schedule National Steering Committee (NSC)**: Roles and responsibilities of all project team organisation structure should be agreed and meetings planned. The first National Steering Committee meeting should be held within the first 12 months following the inception workshop.

167. **Quarterly Monitoring:** Progress made shall be monitored in the UNDP Enhanced Results Based Managment Program. Based on information recorded in ATLAS by UNDP will have access to updated financial information in ongoing manner.

168. Information on the grant portfolio shall be updated in the SGP Global Database and the Project Intranet. Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Based on the information recorded in the ATLAS by the CO and the SGP CPM, Project Progress Reports (PPR) can be generated in the Executive snap shot. Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

169. **Annual Monitoring:** Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period **(1 July to 30 June)**. The APR/PIR combines both UNDP and GEF reporting requirements. The CPR will prepare the APR/PIR with inputs from the UNDP CO, SGP focal Point, RTA.The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well. The RTA and the UNDP CO conduct jointvisits with the CPM on the agreed schedule in the project's

Inception Report/Annual Work Plan to assess first hand project progress. Other members of the NSC/RCMs may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project CPM, UNDP CO team and NSC members.

170. **Mid-term of project cycle:** The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (approximately May 2014). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. Ideally , the Mid Term Evaluation should be conducted with similar terms of refrence for all the GEF-5 SGP Upgraded Country Programs concurrently. The objective is to facilitate comparison of the experiences between all upgraded country programs and to distil common lessons to inform similar upgrading processes for other SGP countries programs. The organization, terms of reference and timing of the mid-term evaluation will be decided in consultation with the SGP Central Program Management Unit (CPMT), the UNDP GEF Results Management Advisor, the Communities STA, the RTA, the CO, and the CPM. The TORs shall be validated by the UNDP Evaluation Office. Given the pilot nature of the first group of upgrading process, summarize the lessons learned, and provide recommendations to the GEF Secretariat and the Global SGP concerning the upgrading of the other country programs. The mid term evaluation requires a management response, which will be uploaded to UNDP corporate systems, and to **UNDP Evaluation Resource Center (ERC)**. The project may also seek additional funding from the GEF.

171. **End of Project**: An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. (Approximately on October 2016). The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The UNDP STA, in consultation with SGP CPMT, will prepare the Terms of Reference for this evaluation. The TORs shall be validated by the UNDP Evaluation Office. Given the pilot nature of the first group of upgrading process, summarize the lessons learned, and provide recommendations to the GEF Secretariat and the Global SGP concerning the upgrading of the other country programs. The final evaluation requires a management response, which should be uploaded to PIMS and to **UNDP Evaluation Resource Center (ERC)**.

172. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

173. **Learning and Knowledge Sharing:** Particular attention will be paid to the GEF Focal Area "learning objectives" to ensure that experiences emerging from local level implementation of technologies, approaches and policies feed into the wider portfolio. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects, in particular to other SGP upgrading countries. The project team will participate in at least one workshop with other SGP upgraded countries to share experiences. Ideally, this workshop should take place as part of the mid term evaluation. The detailed objective(s), venue, agenda, and timing of the workshop will be determined by the STA in consultation with the SGP country teams, the respective RTAs and the evaluation team.

174. Finally, there will be a two-way flow of information between this project and other projects of a similar focus in the upgraded countries and the global GEF SGP program. The project partners, NHI teams will be encouraged to have mutual exchange visits so as to learn and contribute to eco sensitive sustainable development knowledge sharing platforms links will be established with the MoEF GOI, state governments and other donors agencies,, market based exhibitions and fairs.Such Flow of information should cover substantive and operational information, experiences and

lessons. The knowledge management tool kits prepared will act as catalyst communicators –understanding the realities of village life, documenting best practices, assisting village communities in linking to markets through business models.

175. **Individual Grant M&E**: The following minimum standards shall be applied for individual grant M&E. The formats for all the different reports will be re visited and will be based on the global guidelines for the GEF SGP. **117. Ex-ante Visits**: The project team will undertake ex-ante visits on a risk basis to grant requesting organizations upon grant approval by the NSC and prior to the signature of the MOA between UNDP and the grantee.

176. **Field Monitoring Visits:** Every project will be visited at least twice in its lifetime, upon receipt of the first progress report from beneficiary organizations and during the following year. NSC members with relevant expertise in project-related technical areas may join the CPM during these visits as appropriate. The use of Interns will be encouraged so that the documentation can happen for the very locally based CBOs. This practice has been a success in the SGP India program.

177. **Progress Reports**: Beneficiary organizations will submit a quarterly and an annual progress reports to the CPM along with a financial report. A forecast of resources needed in the following period should be submitted by the grantee to the CPM as a requirement for disbursement of next instalment. All the reports by the organizations will be supported by the audited utilization certificates duly signed by the Certified Chartered Accountant.

Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

178. **Final Report**: Beneficiary organizations will submit a final report summarizing global benefits and other results achieved, outputs produced, and lessons learned. The final report should also include a final financial statement supported by the audited utilization certificates duly signed by the Certified Chartered Accountant.

179. **Final Evaluation**: A final evaluation will be done for each project. The CPM should validate the terms of reference for these evaluations and vet the evaluation consultant. The cost of evaluation will be part of the grant budget.

180. **Small Grants Audit:** The SGP Country Program Manager (CPM) will organize audits to selected grantee organization on a risk basis**.** The cost of these audits will be charged to the specific grant project budget. Audits will be conducted following UNDP Financial Regulations and Rules and related audit policies.

7. Table: M& E work plan and budget

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
Inception Workshop and Report	▪ Country Programme Manager ▪ UNDP CO, UNDP GEF	Indicative cost: $10,000	Within first two months of project start up
Measurement of Means of Verification of project	▪ UNDP GEF RTA/ Country Programme Manager will oversee the hiring of specific	To be finalized in Inception Phase and	Start, mid and end of project (during

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
results.	studies and institutions, and delegate responsibilities to relevant team members.	Workshop.	evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	▪ Oversight by Country Programme Manager ▪ Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	▪ Country Programme Manager and team ▪ UNDP CO ▪ UNDP RTA ▪ UNDP EEG	None	Annually
Periodic status/ progress reports	▪ Country Programme Manager and team	Indicative costs: $14,000	Quarterly
Mid-term Evaluation	▪ Country Programme Manager and team ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team)	Indicative cost: $50,000	At the mid-point of project implementation.
Final Evaluation	▪ Country Programme Manager and team, ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team)	Indicative cost : $50,000	At least three months before the end of project implementation
Project Terminal Report	▪ Country Programme Manager and team ▪ UNDP CO ▪ Local consultants	Indicative costs: $ 40,000	At least three months before the end of the project
Visits to field sites	▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives ▪ NHI teams, CPM	For GEF supported projects, paid from IA fees and operational budget. Travel: $36,000	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US$ 200,000	

Legal Context:

181. This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

182. Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner. The implementing partner shall:

- put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

183. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

184. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by

the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via **http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm**. This provision will be included in all sub-contracts or sub-agreements entered into under this Project Document.

8. Annexes

A. Terms of Reference

1) Country Programme Manager:

CPM has the lead responsibility for overall management of the country programme implementation as defined in the global SGP guidelines and by the NSC and acts as the National Project Manager. The functions include:

- Promoting the program's objectives, procedures and achievements among non-governmental NGOs/CBOs, programme management, monitoring and evaluation, including creating systems.
- Developing and Implementing Country Program Strategy (CPS) in collaboration with NSC and other stakeholders
- Linkages with Government, NGO networks and scaling up – assisting NGOs/CBOs in formulation of project proposals, ensuring technical/substantive quality.
- Serving as Secretariat to the NSC, pre screening project proposals, and guiding and ensuring technical and substantive quality by working closely with the UNDP CO, NHI and related stakeholders.
- Disseminating guidelines and information materials to CBOs and NGOs seeking financial and technical support under the program.
- Working actively with CBOs and NGOs—both in the office and in the field in preparation of project concepts and proposals to ensure that individual projects fit the GEF/SGP strategic framework and authorizing and managing project planning grants as required in discussion with Regional Cells of the NHI.
- Awareness creation on the SGP, documentation and facilitation of SGP website
- Identification of potential partners, national consultants to develop awareness raising materials about the program and lessons learned.
- Technical backstopping, capacity building of existing & potential partners, NHI teams, Regional Cells and other stakeholders.
- Ensuring sound programme monitoring and evaluation including periodic project site visits and links with the District Collectors and related government and other officials.
- Organizing stakeholder workshops and project development sessions for NGOs, CBOs and other related stakeholders to explain the program, and to assist potential applicants in making the link between local environment problems and the global concerns of the GEF focal areas and operational program with UNDP CO and others.
- Resource mobilization for co-financing projects, in particular for baseline activities
- Supervising national SGP team members, provide necessary guidance including to the Regional teams. Organizing meetings as required of relevant SGP India partners i.e. NHI Director, Ministry of Environment and Forests, UNDP CO Focal point.
- Developing and implementing communications/information dissemination strategies to reach a wide range of target audience along with the South Asia GEF SGP KM and communications facilitator.
- Reporting and apprising to the UNDP CO/NHI Director/ as required.
- Apprise the Regional Project Officers, who facilitate the programme activities in the respective regions as per the latest guidelines. Apprise the Regional Cell Coordinators/Associates and the Regional Committee members about the developments in GEF SGP priorities, guidelines, priorities, etc.

2) Terms of Reference for the Project Officers: (Programme Management)

Provide overall support to the CPM in planning, appraisal and necessary implementation support in line with the approved UNDP CO contract guidelines. This includes working closely with the CPM in pre screening concepts, preparing work plan and other budgets necessary for the projects.

- Preparation of guidelines and other guiding documents. Maintenance of E-network and database for the partners.
- Assist CPM in preparation of publication material/CDs/brochures and related documents and also provide technical and back up support necessary for the SGP. Providing feedback to partners on reports, projects and related events.
- Facilitating the CPM in preparation and sharing of articles/case studies/success stories on the various networks and donors etc.
- Compiling materials for NHI office, Regional cells and various networks on monthly basis.

- Awareness creation on the SGP, documentation and management of SGP website. On regular and continued basis upload materials on the website.
- Support the CPM in Compiling Semi/Annual Report/Face forms as per UNDP Co Guidelines
- Preparation of summary of new projects, filing systems and maintain documentation for the SGP portfolio. Ensure all submission of data timely
- Facilitate the CPM in preparing/drafting compiling, filing, summarizing of NSC Agenda and minutes preparation of meetings.
- Preparation of activity report for UNDP CO every quarter.
- Enable and help organize workshops, meetings, round tables, events and missions for the SGP. Writing of theme papers with SGP partners and the CPM
- Monitoring & evaluation of projects, pre-scrutiny of NGO applying for grants; preparation of MoAs, getting them vetted, checked and given to the UNDP CO. Sending vendor forms and authorizations of OP-V, for grant processing's.
- Any other responsibility assigned by the CPM.

3. Project Officer (Accounts and Administration)

- Provide overall support to the CPM in planning, finalizing budget revisions and time extensions for the projects and seeing that the justifications are in line with work of such nature. Communicating the same to all the Regional Cells/ Grantees.
- Prepare all the budget lines, formats and the AWP reports, Face forms etc as per the UNDP CO norms and guidelines.
- Record, verify and review of budget and utilization certificates of SGP partners.
- Timely and monthly updating of disbursement tables, with correct dates and sanctions/approvals.
- Follow-up with MoEF GOI and the UNDP with regards to payments release for grantees and other payments as and when due.
- Preparation and sending of UCs to UNDP CO as required after linking with CEE accounts. Based on the approved budget, get account codes for various heads for each Regional Cell from Accounts Department.
- Send the budget break up with account heads and account codes to each RC within two weeks on receipt of grants. Maintain all accounts as per the procuders of the UNDP, GEF SGP and CEE. Ensure timely and complete audits, maintainence of all records both at the project and program levels.
- Any other responsibility assigned by the CPM

4) Regional Project Officers (RPOs) at Regional Cells of CEE: The following are the responsibilities at the levels of RPOs.

- Support CPM in organizing Workshops/Meetings/Seminars for potential grantees to not only orient on SGP, but also to enhance their capacities to develop and submit high quality proposals innovative, community led ideas into proposals.
- Facilitate exchange visits for the Grantee partners and provide day to day support for the program in the regions to the CPM.
- Disseminate and outreach of GEF Small Grants Programme through various media, visits, meetings, seminars, mails and partnership with institutions. Special effort to reach out to NGOs/CBOs in states /areas where there are few or no ongoing projects and working pro actively with indigenous and vulnerable communities.
- Combining approaches at the local, regional government and institutional level with bottom-up approaches rooted in sharing and enhancing regional, national and local knowledge between the SGP and other partners. Help produce knowledge products, lessons learnt and best practices or other useful materials.
- Assess, identify and mobilize relevant external knowledge and resources to grantees and stakeholders to improve the understanding and quality of proposals/actions within the SGP focal areas. Also provide the social and technical advice through partners, institutions and self.
- Distil knowledge through effective monitoring and evaluation of the SGP projects, and make links to the markets and knowledge networks through development of valuable KM tools and implementation guidelines.
- Enable and guide the NGO/CBOs for developing ideas into GEF thematic specific concept papers and project proposals. Provide all backup and clarity on the various formats and thematic areas and send the same for

submitting new proposals or during the ongoing projects to the respective Grantees and Partners. Also ensures the focus on the Millennium, Development Goals (MDGs).

- Ensure credibility of the organizations through pre-monitoring visits; verify track records and performance from various sources and encourage that equitable benefits occur to the poor and women.
- Identifies and seeks opportunities for capacity building/development of the partners.
- Facilitate and monitor projects, do the timely and necessary Midterm/Final evaluation of projects along with the support of the CPM and the RAC and NSC members.
- Promotes wide range of civil society participation and involvement in the local communities' efforts along with SGP objectives through effective communication and advocacy work.
- Conduct Regional committee meetings, analyze proposals through timely, more open, transparent, accountable policy and decision-making processes; and forward the recommendations to the CPM for considerations in the NSC.
- Access to good quality information and integration of impacts from the grantees with guidance from the CPM on both micro and macro level projections.
- Ensure that the SGP will work with all communities, and have no discrimination for class, age, education, socio-economic, creed and gender. Any other responsibility assigned by the CPM/CEE.

5) Communications Officer:

The following are the responsibilities of the officer concerned.

- Responsible for the development, maintenance and regular update of the website. Inputs from RCs/CPM and other offices as required.
- Preperation of the monthly e-magazine for the GEF SGP, other knowledge management documents for the program and the individual projects as required
- Compling the annual reports in partnership with other officials. Make the required presentations, reports, workshop proceedings etc as required in the program.
- Link the program and the grantee partners with the range of other partners in consonance with the CPM.
- Prepare materials for the exhiobitions, fairs, market links etc for the products through the grantees of the GEF SGP.
- Document and also link the requirements on the results based approaches in the projects for the CPMT, UNDP HQs and other offices. Document the 'Experiences and Learnings' section in every 3 months. Also share and link the partners to various awards, recognition etc as required.
- Create Standard Paragraphs that can be used for publication, reports, documents etc. Any other works as required by the CPM.

B. Project Work Plan

Attached to this document

C. Project Cooperation Agreement

Attached to this document