Food and Agriculture Organization of the United Nations

INDIA
FAO Country Programming Framework 2016 – 2017

INDIA

COUNTRY PROGRAMMING FRAMEWORK

2016-2017

Food and Agriculture Organization of the United Nations
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Requests for copies of this and other FAO India publications should be addressed to:

FAO Representation in India
55 Lodhi Estate
Max Muller Marg
New Delhi - 110003
Tel: +91-11-46532333
Fax: +91-11-24620115

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Design & Print : Nikhil Offset, nikhil223@yahoo.com

Contents

About FAO

The Food and Agricultural Organization of the United Nations (FAO) is a specialized UN agency with three main goals. These are eradication of hunger, food insecurity and malnutrition; the elimination of poverty and the driving forward of economic and social progress for all; and the sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations.

FAO support governments and development partners to design the right policies, programmes and legal frameworks that promote food security and nutrition. FAO has identified five Strategic Objectives to sharpen its focus on fighting hunger and to create more sustainable food systems. This puts FAO in a strong position to support countries that are taking the lead in implementing the Sustainable Development Goals. Through its international expertise FAO is also well positioned to assist broad regional and international partnerships, including South-South cooperation, required to achieve zero hunger by 2030.

FAO's Strategic Objectives

1. Help eliminate hunger, food insecurity and malnutrition
2. Make agriculture, forestry and fisheries more productive and sustainable
3. Reduce rural poverty
4. Enable inclusive and efficient agricultural and food systems
5. Increase the resilience of livelihoods to threats and crises

FAO in India

FAO has enjoyed valuable partnership with India since it began operations in 1948. It continues playing a catalytic role in India's progress in the areas of crops, livestock, fisheries, food security and management of natural resources.

Preface

The Food and Agricultural Organization of the United Nations (FAO) has enjoyed valuable partnership with India since it began operations in 1948. It continues playing a catalytic role in India's progress in the areas of crops, livestock, fisheries, food security, and management of natural resources. This Country Programming Framework, which represents a confluence of India's development goals and FAO's Strategic Framework, was prepared following the expiry of the National Medium Term Priority Framework in 2012 with a strong involvement of national stakeholders, including the private sector and civil society. This framework is largely guided by the meeting in September 2014 between Narendra Damodardas Modi, Prime Minister of India and José Graziano da Silva, the Director General of FAO.

The newly endorsed Country Programming Framework builds upon the experience gained in the past, emphasizing three priority areas: the sustainable development of agriculture, focusing primarily on managing natural resources under threat by applying approaches and tools pioneered by FAO in India. Second, provide critical inputs for improving nutritional status through appropriate analytical work, strategy formulation, and nutrition education; and assisting in diversifying livelihood sources in rain-fed areas. Third, to assist in trans-boundary cooperation and enhance India's contribution to global public good, drawing upon FAO's mandate as an international organization and emerging priorities of GoI with respect to its role in the international arena.

Through this Country Programming Framework, FAO proposes to work closely with the Union and State Governments and like-minded donor partners, including other UN organizations, International Financial Institutions and Civil Society Organizations. In implementing this framework, FAO India will also provide technical assistance to the Government in facilitating the analysis of policy environment through information and evidence across the Country Programming Framework result areas. To that end, it will promote consultative approaches for policy development, providing access to, and making available quality data and information disaggregated by social strata, disadvantageous groups, poverty classes, and gender; and thereby help create policy options that remove exclusion and discrimination and strengthen gender mainstreaming.

The FAO India Country office would like to thank Government of India, state governments and other stakeholders in contributing to the formulation of the Country Programming Framework and reiterates its commitment to work closely with these institutions and individuals in implementing this framework.

Shyam Bahadur Khadka
FAO Representative, India

Abbreviations

AMIS	Agricultural Market Information System
APFAMGS	Andhra Pradesh Farmer Managed Groundwater Systems
CPF	Country Programming Framework
CSO	Civil Society Organization
CoAG	Committee on Agriculture
CoFO	Committee on Forestry
CoFI	Committee on Fisheries
FFS	Farmer Field School
FYI	Five Year Plan
GoI	Government of India
GDP	Gross Domestic Product
GAIN	Global Alliance for Improved Nutrition
GEF	Global Environment Facility
HUN	Hydrological Unit Networks
GoAP	Government of Andhra Pradesh
ICDS	Integrated Child Development Services
ICAR	Indian Council of Agricultural Research
IFAD	International Fund for Agricultural Development
INR	Indian Rupee
IPNM	Integrated Plant Nutrient Management
IUCN	International Union for Conservation of Nature
MNREGA	Mahatma Gandhi National Rural Employment Guarantee Programme
MAFAP	Monitoring and Analyzing Food and Agricultural Policies
MoEFCC	Ministry of Environment, Forests and Climate Change
MoHFW	Ministry of Health and Family Welfare
MoU	Memorandum of Understanding
MoA	Ministry of Agriculture
MoWCD	Ministry of Women and Child Development
NABARD	National Bank for Agriculture and Rural Development
NAPCC	National Action Plan for Climate Change
NCAER	National Council of Applied and Economic Research
NDMA	National Disaster Management Authority
NRLM	National Rural Livelihoods Mission
NMSA	National Mission for Sustainable Agriculture
NICRA	National Innovations on Climate Resilient Agriculture
OECD	Organization for Economic Cooperation and Development
PDS	Public Distribution System
RKVY	Rashtriya Krishi Vikas Yojana
SSC	South South Cooperation
SDG	Sustainable Development Goals
TPPD	Threat of National and Transboundary Plant Pests and Diseases
UTF	Unilateral Trust Fund

Indian Unit of measurement

1 lac	100,000
1 crore	10,000,000

USD 1 = INR 67 (approx)

Executive summary: Instruments and outcomes matrix

Instruments Outcomes	Innovative Pilots	Scaling-up of successful models	Technical Assistance	Capacity building	Policies, institutions and facilitation
Outcome 1 : Sustainable agricultural development	Transformational changes in India's agricultural practice to secure global environmental benefits, enhance food security, and improve livelihood resilience under GEF 6.	Farmers Water Schools to provide appropriate and high quality support to smallholders for adapting to the fast changing agricultural scenario in the state of Uttar Pradesh	Updating / modernisation of forest inventorisation practices in India to contribute to sustainable management of forest resources in India	Communities, state governments, government local, public, and private-sector institutions are assisted to plan, coordinate, implement, and monitor sustainable community based approaches under GEF 6.	Evidence-based, outcome-driven policies, legislation and/ or guidelines to address key issues related to natural resource management climate change etc. are strengthened, and implemented GEF 6.
	Improved groundwater governance through extended pilot to include local self-government institutions.	Resources of the governments and IFIs leveraged for upscaling of groundwater governance (APFAMGS)	Improve productivity of inland, brackish water, and coastal/ artisanal fisheries in select states, such as in Andhra Pradesh	GoI and other stakeholders acquire skills to use of FAO developed tools and methods such as MASSCOTE;	GoI is assisted to develop and implement tools and techniques for monitoring and analysing food and agricultural policies (MAFAP).
	Improved fertility and quality of agricultural soils resulting in sustainable production for resource-poor farmers without the use of external inputs (MiSALT in Mizoram).	Resources leveraged to scale-up SAPPLPP to larger agricultural development/ livelihoods development projects/ contexts.	Implement inclusive, efficient and sustainable value chains in two states under GEF 6.	Actively explore possibility of upscaling UTF projects using GoI financing for participatory groundwater management in several states.	Support informed policy decisions by assisting GoI to collect, analyse, and access timely and reliable information (AMIS).
			Develop a better understanding of the shifting cultivation (Jhum) dynamics and come up with appropriate recommendations through a Forest Policy Study.		Integrated mountain development that redefines the architecture of sustainable development across the Indian Himalayan Region.
Outcome 2: Food and nutrition security	Approaches that enable small farmers to diversify livelihoods by introducing small ruminants and backyard poultry, and thereby enhancing food and nutrition security.	Monitoring trends and analysing the contribution of sectors and stakeholders to food and nutrition security.	Analytical work that helps in improved understanding of the factors affecting nutritional status among most vulnerable groups.		Work as a policy advocate, neutral adviser and advocate for: (i) effective implementation of the provisions made under Zero Hunger Challenge (ZHC). (ii) improved access to women to land, institutional credit, technical advice, capacity building support etc.
		Educating people on nutrition related issues with particular emphasis on women and children by using effective audio-visual methods.	Mainstream nutrition-related intervention by assisting investment projects to develop strategy for improving nutrition status.	Introduce international best practices and global normative work standards; educating people on nutrition related issues with particular emphasis on women and children	(iii) take measures to address serious data gaps in terms gender disaggregation. (iv) improved co-ordination between various forms of grassroots institutions, and the PRIs.

			Educate people on nutrition related issues by using effective audio-visual methods.		
			Introduce international best practices and global normative work standards on nutrition.		
			Strengthen social protection, and risk management mechanisms to enhance resilience building, especially in arid and disaster risk prone districts.		
Outcome 3: Transboundary issues and India's contribution to global public good				Porcine Reproductive & Respiratory Syndrome (PRRS) infections in piglets designed, developed and deployed in Mizoram;and departmental capacity on animal diseases generally increased.	Support and facilitate India's cooperation with other Member Countries in various aspects of agriculture, fisheries, forestry, and livestock in which India has globally recognised expertise.
				Improve disease control, diagnostic laboratory and epidemiological capacity in the SAARC region under ECTAD.	Facilitate India to fulfil its international commitments.
				Timely and reliable monitoring and forecasting of risks associated with desert locust.	Support/ facilitate India's participation in various FAO Global Committees, such as the Committee on Food Security.

INDIA
FAO Country Programming Framework 2016 – 2017

1. Introduction

This Country Programming Framework (CPF), which represents a confluence of India's development goals and FAO's Strategic Framework, was prepared with a strong involvement of national stakeholders, including the private sector and civil society. This CPF is also guided by the meeting that took place in September 2014 between India's newly elected Prime Minister and the Director General of FAO that focussed on improving nutritional outcomes.

© FAO
GoI-FAO Stakeholder meeting on CPF

2. National context

With an area of 3.29 million square kilometres and a population of 1.25 billion people, India is the world's largest democracy and the seventh-largest country in the world (Annex 1). The country is a mosaic of cultures, religions, languages, and ecosystems. For over 70 percent of rural Indian households, agriculture, including livestock, still remains the principal source of livelihood. With a five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 250 million tonnes in 2014-15, India has moved away from dependence on food aid to become a net food exporter. But with non-agricultural growth rate overtaking agricultural, the share of agriculture in total GDP is projected to further go down from 18 percent in 2013-14 to 7-8 percent by 2019-20.


© FAO
Farmland in project area

Despite achievement of national food self-sufficiency, some new challenges have emerged. Firstly, agricultural growth rate has reduced to 1.7 percent in the last three years. Secondly, serious sustainability issues have emerged. Land degradation constitutes a major threat to India's food and environmental security. So does the rapidly shrinking biodiversity. Large tracts of farmlands in India have become barren due to imbalanced fertilizer use and excessive use of a single fertilizer, urea. About 30 percent of the 5,723 administrative blocks in the country report groundwater dropping to unsustainable levels. Indian agriculture comprises mainly of marginal and small farmers, and 62 percent of Indian farms are rain-fed. The gradual decline in size of farm holdings has made a large proportion of small and marginal farms to look for livelihood opportunities other than in agriculture.

Among other development indicators, incidence of poverty has decreased and is now pegged at nearly 30 percent. States, however, vary significantly in terms of both the incidence and depth of poverty. Similarly, while India has made significant progress in reducing the absolute number of hungry, the country still accounts for a quarter of the world's hungry people. Some 39 percent of Indian children under the age of five are stunted, 15 percent wasted and 29 percent are underweight. In terms of vulnerability and resilience, India has moved out of the short-term relief-response dominated dependency trap and has developed significant capacity in responding to crisis. Owing to male members of farm households migrating to cities, agriculture is getting increasingly feminized. Thus, any strategy to increase agricultural productivity will have to reckon with this factor. In contrast, only a very small proportion of women in the farm households formally own land, limiting their access to institutional credit.

3. Government priorities

Against an actual annual growth rate of 3.3 percent during the previous plan period, the 12th plan period targets a growth rate of 4 percent. The focus now is on achieving a higher growth in Eastern parts of the country where agricultural performance has been lacklustre despite significant comparative agro-ecological advantages. Overall, increasing crop and food productivity in order to ensure food security continues to remain a high priority. This is planned through incentives to states for higher public investments in agriculture and allied sectors; diversification for increased income generation, ensuring supply of agricultural inputs, better soil health management, more effective technology dissemination, and encouraging private investments in agriculture through public-private partnerships. Recent policy pronouncements, such as the Prime Minister's Sinchai Yojana, put emphasis on much higher investments in irrigation. Government of India (GoI) has also radically revamped its crop insurance scheme.

Government priorities for livestock and fisheries constitute prevention and control of animal diseases, development of feed and fodder, increased fish production and welfare of fishers, development of poultry with focus on backyard and rural, development of small ruminants, genetic upgradation of livestock and conservation of indigenous breeds and increased milk production. In agricultural research Government priorities include: better natural resource management and input use efficiency, better genetic exploitation, integrated pest management and commercialization of technologies, development of vaccines and diagnostics, and monitoring of fish resources. A change in nomenclature of the 'Ministry of Agriculture' to the 'Ministry of Agriculture and Farmers Welfare' suggests new emphasis on the distributional aspect of agricultural growth.

4. FAO's Country Programming Framework for India

FAO's programme in India is primarily guided by GOI priorities and further shaped by FAO's corporate priorities that play a catalytic role in supporting India to:

- reduce rural poverty;
- promote inclusive and efficient agricultural and food systems;
- eradicate hunger, food insecurity and malnutrition;
- provide goods and services from agriculture, forestry, and fisheries in a sustainable manner;
- increase resilience;
- provision of global goods.

In doing so, FAO will also address cross-cutting issues such as gender and climate change. These priorities are further consolidated by the five priorities of the FAO Regional Office for Asia and the Pacific (RAP):

- strengthen food and nutritional security;
- foster agricultural production and rural development;
- enhance equitable, productive and sustainable natural resource management and utilization;
- improve capacity to respond to food and agricultural threats and emergencies;
- coping with the impact of climate change on food and agriculture.

Building upon the priorities set by GoI and FAO's global and regional offices, and drawing upon the recently adopted Sustainable Development Goals (SDGs), FAO India has enunciated its priorities in India through The United Nations Development Assistance Framework (UNDAF 2013-2017). This Framework contains the work of all UN entities working in India and has been developed in partnership with the erstwhile Planning Commission of India as GoI's nodal partner, and other partners - both within the UN and outside. This CPF has been formulated with an explicit recognition that while achieving a sharp focus for an agency of the size of FAO in relation to the size and diversity of India poses a major challenge, India does, however, need higher order global expertise to address some of the current and emerging needs and access to best practices in programme design and implementation to resolve some of the problems in agriculture. Given this understanding, the CPF advocates for FAO India to play a catalytic role in contributing to the three main priorities below:

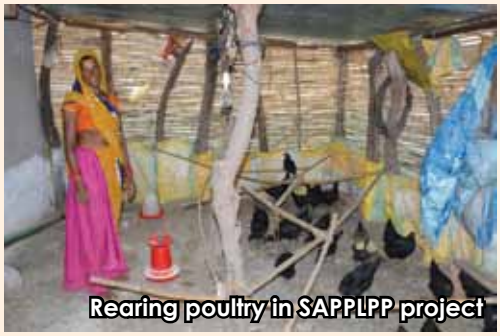
(i) **Sustainable agricultural development**, focusing primarily on managing natural resources that are under threat by:

- applying approaches and tools that have been pioneered by FAO in India to restore degraded lands, and match water demands to supplies by bringing in proven approaches and technologies such as the one on participatory ground water management;
- piloting tailor-made strategies with farming communities so that they can adapt to climate change.

Groundwater management in the field © FAO

(ii) Help ensure **food and nutrition security,** by primarily focusing on:

- providing critical inputs for improving nutritional status through appropriate analytical work, strategy formulation, and nutrition education;
- assisting in diversifying livelihood sources in rain-fed areas, and thereby assisting small farmers build resilience through better management of risks.


Rearing poultry in SAPPLPP project © FAO

(iii) Assist in **trans-boundary cooperation and enhancing India's contribution to global public good,** drawing upon FAO's mandate as an international organization and emerging priorities of GoI with respect to its role in the international arena, and will specifically focus on:

- collaborating on trans-boundary issues;
- supporting and facilitating India's cooperation with other developing countries so they can learn from India's varied experiences and benefit from its expertise in the areas of agriculture and rural development.


Training on Transboundary Animal Diseases © FAO

In pursuing these three priorities FAO India will apply its accumulated experience, skills and methodologies by mainstreaming gender equity, mainly through the empowerment of women, and responding to the negative impacts of climate change.

In playing the catalytic role to assist India to achieve the above objectives, FAO will draw upon its comparative advantage as a specialized agency of the United Nations and use its knowledge gained over the years in designing and implementing programmes in India. It will undertake the following activities:

- pilot innovative approaches that are relevant to India's needs;
- make available successful approaches and tools for scaling-up by other donors or Union and State Governments;
- bring in technical assistance in introducing international best practices and global normative work standards;
- assist in building capacity, where it is critical;
- act as a policy advocate and neutral adviser in areas where it has the expertise.

4.1. Sustainable agricultural development

Under this area, FAO India will play a catalytic role in providing assistance to create enabling frameworks for economically, socially and ecologically sound production systems that focus on resource use efficiency, agro-biodiversity, climate change adaptation and ecosystem services, and participatory management of natural resources. To this end, it will:

4.1.1 Pilot innovative approaches that are relevant to India's needs by undertaking the following initiatives:

- Develop and implement a multi-sector Programmatic Framework under GEF 6 to achieve transformational changes in India's agricultural practices to secure global environmental benefits, enhance food security, and improve livelihood resilience (Annex 2);
- Build upon the success of Andhra Pradesh Farmer Managed Groundwater Systems (APFAMGS) in improving governance of groundwater resources and thereby ensuring the sustainable use of available groundwater, undertake extended pilot that involves local self-government institutions;
- Use cover crops, including leguminous tree species, to improve the fertility and quality of agricultural soils as a means for resource-poor farmers to achieve sustainable production without the use of external inputs as currently experimented under MiSALT in Mizoram[1].
- Make available successful models for scaling-up by other donors or Union and State Governments, and also proactively advocating for the take-up of these models. This will be pursued by:
  - ❑ scale-up of the Farmers Water School (FWS) to develop skills of primary producers, and build capacity of government and other institutions, in particular, water users association, to provide appropriate and high quality support to smallholders to adapt to the fast changing agricultural scenario in the state of Uttar Pradesh;

Key features of APFAMGS

1 Farmers manage their groundwater systems in 650 villages in seven drought-prone districts of Andhra Pradesh.

2 Established 878 Farmer Field/ Water Schools. Major elements include training and usage of Hydro-Ecosystem Analysis (HESA) and Crop Water Budgeting.

3 Groundwater Management Committee (GMC) volunteers trained on collection and recording rainfall data.

4 About 6,500 farm families enabled for adoption of alternative agricultural practices suiting the availability of groundwater.

Impact

1 Improved governance of common property resources.

2 Limited conflicts between upstream and downstream groundwater users through new knowledge on groundwater movement and availability.

3 Returns per unit of water improved efficiency in use of natural resources (water, land, soil, biomass) increased.

Uttar Pradesh Water Sector Restructuring Project (UPWSRP)

"Technical Assistance Consultancy from FAO will combine professional support and institution building in UPWSRP. FAO will make optimum use of the relevant experience and know-howon farmer education and group technical skills using Farmer Water Schools. FAO anticipates that the project will result in sustained productivity growth rates by improving on-farm crop and water management (through knowledge and skill development) among smallholder farmers through innovative extension/farmer education".

[1]This pilot combines the Sloping Land Agricultural Technology (SALT) with the traditional Mizo practice of using logs laid across slopes in agricultural fields to contain soil erosion (hence the acronym MiSALT).

- leverage resources of governments, NGOs, and International NGOs (INGOs) to enhance development programme for animal husbandry, dairying and fisheries, with special focus on small ruminants and backyard poultry keeping in mind the need for the diversification of livelihoods, and thereby assist farmers to adapt to the negative impact generated by climate change;
- leverage resources of Government of Andhra Pradesh, other state governments and International Financial Institutions (IFIs) for proven elements of APFAMGS.

One of the key elements of the project was changing perception of farmers on groundwater from that of a private resource to that of a common good. This transformation was largely due to the coming together of the community for forming habitation level Groundwater Management Committees that addressed common issues by involving farmers in data collection, analysis and interpretation.


Subharathi conducting GMC meeting © FAO

Subharathi lives in a remote village in Anantapurdistrict of Andhra Pradesh. Her village is surrounded by farm fields all around and a large irrigation tank in the middle. In the last few years there had been acute scarcity of water more so for drinking purpose. “Nature has been unkind to us and the rainfall has failed to bless the village. I am told this is all due to our negligence in respecting various forms of nature. I wish we respect and fear nature and offer it our daily prayers” she remarked. As the monsoon has been failure many wells including very deep borewells have started to give reduced amount of water affecting the crops. “I became very concerned when the wells began to give limited water and some of them went dry. A curse of nature I believed”.

Her perception changed when the APFAMGS project started in her village a few years back. “I was told that the project shared our concern on groundwater and informed me that they will not give anything in the form of material or money but can provide skills, knowledge and information”. They discussed community water issues not only of our village but also of surrounding villages. Subharthi was a keen learner and soon became a member of the village GMC.

The role of GMC was to measure groundwater levels, quantity of water pumped from the wells, rainfall and water quality. “This was interesting and different to the things I did at home and the farm. I looked forward to the GMC meetings and contribute to discussions. In fact, I could sit along with other male farmers. The project and our involvement in GMC gave us a new standing and social status”. As member of the GMC, they approached the rural water supply department and successfully addressed the issue of drinking water. This

gave her the confidence to believe solutions to village problems could be solved by coming together and approaching the concerned government department.

After regular collection of water level data, groundwater pumping and rainfall data for one year, a meeting was organized by the project with farmers from neighbouring villages of Upparavanka drainage. “It was in this meeting that we realised all the habitations belong to a single drainage family, so we all are kins. Those who are in the upper side of our habitation are the elders and the one below are the younger brothers/sisters. We all have to respect each other and follow the family tradition of sharing and giving”. In this meeting all the data brought by the various habitations were entered into a single book as a joint family account and earnings/spending worked out. Many farmers who have been members for long participated enthusiastically.

After the accounts were evaluated it was explained that expenditure exceeded income. The groundwater pumping exceeded the available amount of groundwater and so it is the falling groundwater levels and not the curse of nature. “This I believe is like withdrawing more money from the bank account than saved. This means clear indebtedness. I always managed my expenditure matching with our income. Now here I am in drainage, tapping more groundwater than I possess”. Since then Subharathi has made conscious efforts to use less water for irrigation. She is also trying to grow other crops that require less water and can sustain her livelihood. As GMC member she also tries to ensure that she and her fellow farmers draw only that amount of water from their well which they are eligible of.

4.1.2 Bring in technical assistance to introduce international best practices and global normative work standards, mainly through following initiatives:

- updating forest inventorisation practices in India and contributing to sustainable management of forest resources;
- undertaking a Forest Policy Study in Mizoram to develop better understanding of the shifting cultivation (Jhum) dynamics in the state, and come up with appropriate recommendations;

Jhum cultivation

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- improving productivity of inland, brackish water, and coastal/ artisanal fisheries in selected states, such as in Andhra Pradesh;
- developing inclusive and sustainable value chains for key crops and agro-industrial products.


Fisherman bargaining prices for the day's catch © FAO

4.1.3 Assist in building local and national capacity mainly by:

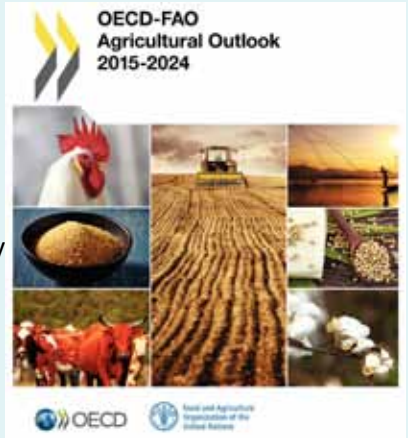
- enhancing capacity of communities and public and private-sector institutions for sustainable community based approaches to coordinate, plan, implement, and monitor programmes relating to landscape approaches, organic agriculture, community management of commons, land and water management linked to agriculture and allied sectors, biodiversity conservation, livestock management, and climate change using the GEF-funded programme;
- assisting GoI and other stakeholders with skills to use FAO developed tools and methods such as Mapping System and Services for Canal Operation Techniques (MASSCOTE), including water accounting as part of the package[2] that helps in conserving energy and water innovatively and effectively;
- actively exploring the possibility of upscaling Unilateral Trust Fund (UTF) projects using GoI financing for participatory groundwater management in several States, in conjunction with groundwater mapping, water conservation and sound water accounting;
- encouraging, through its various programmes, the Integrated Plant Nutrient Management (IPNM) practices together with other agronomic management practices which enhance soil organic matter/soil carbon restoration and application of Conservation Agriculture principles;
- supporting the fisheries sector through global and regional initiatives and projects, such as Bay of Bengal Large Marine Ecosystem Project (BOBLEME II), which is currently under design, or Blue Growth, including aquaculture value chain analyses and fish losses.

[2] Water accounting will aim mainly at avoiding possible negative impacts such as water=-logging, salinity or reduction of water availability downstream FAO will also make an effort to support e one or more FAO Reference Centre(s) that can assist in propagating integrated water resources management.

4.1.4 As a policy advocate and neutral adviser, provide policy support for ensuring sustainable agricultural development and natural resource management; and thereby:

- enabling creation and adoption of evidence-based, outcome-driven policies, legislation and/ or guidelinesat national and state levels to address key issues related to natural resource management such as biodiversity loss, deforestation, land degradation and climate change;
- assisting GoI to developand implement tools and techniques for monitoring and analysing food and agricultural policies, mainly by initiating FAO's global project Monitoring and Analysing Food and Agricultural Policies (MAFAP) in India;
- assisting GoI to collect, analyse, and access timely and reliable information relating to inputs, costs, outputs, prices, trade etc. that support informed policy decisions, achieved mainly by implementing the Agricultural Markets Information System (AMIS);
- Provide technical assistance for integrated mountain development that redefines the architecture of sustainable development across the Indian Himalayan Region.

The AMIS initiative aims to address the gaps and shortcomings of existing agricultural market information systems at the country level, by establishing a global monitoring system for important commodities. The project comes out with two OECD-FAO Agricultural Outlook for rabi (winter) and kharif (summer) seasons. There is also a medium-term outlook that makes forecast of global scenarios for coming five-ten years.
These agricultural outlooks are expected to enable more informed decision-making and more effective policy advice, contributing to improved food security at the global level.



Furthermore, FAO and the Indian Council of Agricultural Research (ICAR) are discussing an MoU that will help India benefit from international best practices that FAO can bring.

4.2. Food and nutrition security

In assisting India to ensure food and nutrition security FAO India will:

- provide critical inputs in the form of analytical work or technical support in order to improve nutritional knowledge at the policy level so that nutritional objectives are effectively mainstreamed;
- enable adoption of livelihood activities and farm and non-farm agricultural practices that enable farmers to be more resilient and absorb shocks through better management of risks. This will be achieved by:

4.2.1. Piloting innovative approaches that enable small farmers, mainly in rain-fed areas facing agrarian distress, to diversify their livelihoods through introduction of small ruminants and backyard poultry, building on the South Asia Pro-poor Livestock Policy Programme (SAPPLPP) experience.

Pashu Sakhi: Women help enhance rural livelihoods

Saad, a remote village in Jhabua district of Madhya Pradesh with 350 households largely relied on farming as their sole source of income generation. They were dependent on rains for irrigation and most often erratic rain patterns led to crop failure pushing them into poverty trap repeatedly. The FAO supported SAPPLPP project was very timely as it introduced these families to alternative source of income through backyard poultry. Rearing and selling chicken in the local market started fetching them good money and soon many families joined in keeping backyard poultry.

However, in due course there was a rising problem of poultry deaths caused by viral infections (New Castle disease). “Chicken mortality reached as high as 75 percent” says Neema Bai of Saad village. This situation was addressed by the project by training local women in basic veterinarian skills for poultry. These women are referred to as pashu/murgisakhi (animal/chicken’s friend). With their hands on knowledge and timely intervention, they have brought down poultry deaths to around 40 percent,” says Prem Thakur from the village.

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Dittu Bai Parmar at work

Dittu Bai Parmar, a secondary school graduate, underwent a five-day residential training on basic veterinarian skills organized by project partners along with 16 others. All of them work as pashu sakhi who try to reduce poultry mortality by regularly going to houses and checking the health of poultry and providing basic vaccinations. Dittu Bai Parmar attributes the fall in poultry mortality to timely vaccination and deworming. She is readily available on mobile phone and attends to everyone very promptly. Her rates for vaccination and deworming services are as low as INR 2 per bird.

At the beginning of the project, Dittu Bai was making INR 1000. Now, she earns more than double per month, as she also treats goats. Not a large sum by city standards but, as she says, “I don’t have to ask the moneylender when it’s time to buy books or school uniforms for the children or for treatment of small ailments.”

Bringing technical assistance to:

- undertake analytical work that helps in improved understanding of factors that affect nutritional status amongst the most vulnerable groups;
- mainstream nutrition-related intervention by collaborating with investment projects and programmes to develop appropriate strategies that improve nutrition status of project-participant households;
- assist in educating people on nutrition related issues such as the urgent need to diversify diets by using effective audio-visual methods, targeting women and children in particular;
- introduce international best practices and global normative work standards, educating people on nutrition related issues with particular emphasis on women and children;
- strengthen social protection, and risk management (including crop insurance) mechanisms to enhance resilience building, especially in arid and disaster-risk prone districts;
- encourage and assist, where feasible, in integrating nutrition into the agriculture extension curriculum, aimed at raising nutritional awareness to bring about behavioural changes among farmers and rural households using, for example, community study programs such as the Farmer Field Schools.

4.2.2. Working closely as a policy advocate, neutral adviser, in areas where it has domain expertise and can offer sound technical advice and/ or capacity building support, FAO India will work closely with various levels of government, UN/ bilateral/ multilateral agencies and CSOs, and advocate for:

- effective implementation of the provisions made under Zero Hunger Challenge (ZHC);
- improved access of women to land, institutional credit, technical advice and capacity building support, providing more resources to women farmers;
- taking measures to address glaring gaps in gender disaggregated data on land and asset ownership as well as farm technology adoption;

Launched by UN Secretary-General Ban Ki-moon in 2012, the Zero Hunger Challenge is his personal vision of a world without hunger – and a global call to action to achieve zero hunger. This requires comprehensive efforts to ensure that every man, woman and child enjoy their Right to Adequate Food; women are empowered; priority is given to family farming; and food systems everywhere are sustainable and resilient

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- improved co-ordination between various forms of grassroots institutions, such as Self-Help Groups, users groups, common interest groups on the one hand and the Panchayat Raj Institutions (PRIs) on the other for enhancing the quality of service delivery as well as increasing accountability of these institutions to their respective members.

4.3. Trans-boundary co-operation and India's contribution to global public good

FAO will continue to support India to access global public good in crucial areas such as trans-boundary crop, livestock, and fish diseases and pests, fishery management, food safety and climate change. During this programme cycle, FAO India will lay greater emphasis on assisting India in contributing to these global public goods. It will assist in bringing India's perspective to the international processes through which global public goods are developed. This fits well with India's richness as a source of development lessons that FAO can help in capturing and disseminating internationally. In addition, FAO India will assist selected Indian institutions to further develop as centres of excellence and assist others to be accredited by FAO as international knowledge centres. Within this broad framework, FAO India will undertake to:

4.3.1 Assist India build capacity to:

- improve disease control, diagnostic laboratory and epidemiological capacity in the South Asian Association for Regional Cooperation (SAARC) countries through the Emergency Centre for Transboundary Animal Diseases (ECTAD);

Backyard poultry in a typical rural household © FAO

- contribute to the FAO Commission for Controlling the Desert Locust in South-West Asia (SWAC) initiative;
- strengthen capacity of department staff and farmers, especially women who largely take care of livestock, about the symptoms and management of animal diseases, most importantly through bio-security, monitoring and surveillance such as was undertaken for Porcine Reproductive & Respiratory Syndrome (PRRS) infections in piglets in the state of Mizoram;

4.3.2 Facilitate to help India:

- fulfil its international commitments through a range of interventions needed in the backdrop of FAO Director-General exercising depositary functions in respect of multilateral treaties concluded outside the FAO framework (Annex 3);
- support other member countries to learn and implement its successful policies and practices and benefit from India's extensive expertise in various aspects of agriculture, fisheries, forestry, and livestock.

In catalysing India's technical support to other developing countries, FAO India will draw upon its global network of country and regional/ sub-regional offices and engage them in identifying development impediments and priorities. Thereby, it will facilitate India's assistance to these countries through interventions that are relevant, efficient and effective.

5. Implementation, monitoring and reporting arrangements

5.1 Implementation strategy

Since FAO's role in India is mainly to catalyse knowledge that are relevant to the country's needs, FAO proposes to work closely with the union and state governments and like-minded donor partners, including other UN organizations, IFIs and CSOs. FAO will increasingly collaborate with the chambers of commerce and trade and industry federations keeping in view their increasing involvement in storage, processing and marketing of agricultural produce.

In implementing this CPF, FAO India will also provide technical assistance to the Government focussing mainly on catalysing and facilitating analysis of the policy environment through information and evidence across the CPF result areas. To that end, it will promote consultative approaches for policy development, providing access to - and making available - quality data and information disaggregated by social strata, disadvantageous groups, poverty classes, and gender; and thereby help create policy options that remove exclusion and discrimination and strengthen gender mainstreaming.

5.2 Resource requirement and sourcing

This CPF will initiate a number of activities that will be implemented over a period of next three to seven years. The resource requirement for this period is estimated at about US$ 47,165,300. Of this, US$ 952,300 is already committed by allocations from ongoing projects, leaving a funding gap of US$ 46,213,000 which FAO expects to mobilize through TCP, GEF, and other donor/government resources. These will be further complemented by resources from FAO's regional and head offices through regionally and globally funded projects as well as core resources. FAO India will also closely collaborate with TCI, which leads FAO efforts to generate greater and more effective public and private investments in agriculture and rural development. The primary thrust of this CPF, however, is partnering with GoI. While the Government needs FAO's assistance, it also has the financial resources to cover associated

costs. In contrast, the potential to develop partnerships with bi-lateral donors and funding agencies in India is very limited. On the positive side, India continues to remain a major client of the World Bank and IFAD, and FAO will work closely with those IFIs. Of the total amount mobilised, about US$ 6 million is projected to be utilised over next two years.

5.3 Monitoring and reporting arrangements

Monitoring delivery of activities and outputs will be undertaken by FAO India, with accountability to stakeholders assured through the annual stakeholder consultation. The annual report prepared by the FAO Representative, and submitted to FAO HQ and to RAP, will account for the use of funds entrusted to FAO India. In the attached results framework and the indicative TCP pipeline (Annex 4), monitoring mechanisms are spelt out in such a manner that the goals and objectives of each project directly contribute to the CPF outputs. A final review of this CPF will be made during preparation of the next CPF. It will assess:

- relevance, efficiency, effectiveness, impact and sustainability of FAO support to the country;
- credibility, impartiality, transparency, gender mainstreaming and usefulness of FAO's contribution during the CPF cycle;
- identify lessons learnt in implementing the CPF, to be taken into account during formulation of the next CPF.

Annex 1:

Country context and priorities of agriculture in India

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Farmer in the field

1. Agriculture in India

India is the world's largest democracy and the seventh-largest country in the world with an area of 3.29 million square kilometres and a population of 1.25 billion people. The country is a mosaic of cultures, religions, languages, and ecosystems. It also has the world's second-largest pool of technical and scientific personnel. For over 70 percent of rural Indian households, agriculture, including livestock, still remains the principal source of livelihood. The share of agriculture in total GDP was 18 percent in 2013-14 and is projected to reduce to 7-8% by 2019-20[3]. Therefore, for the vast majority still dependent on agriculture and livestock, improving incomes depends critically on enhancing agricultural performance. Simultaneous efforts are required to find new employment avenues for the disproportionately large labour force that is still on the farm. The average size of land in India has reduced to 1.15 hectare per farm holding. Small marginal farmers now comprise 85 percent of total holding, occupying about 49 percent of the total area under farming[4]. Small ruminant rearing is a key livelihood activity for small farmers and landless families. Around 70 percent of India's goat and sheep are reared by such poor groups, and has a large participation of women.

Agriculture in India grew at 3 percent over the past six decades. This growth has fallen to 1.7 percent in the last three years, and is a cause for concern. State wise growth trends shows some states have recorded average annual growth of 4 percent and above during the 11 Plan – demonstrating that action at the state level can improve performance. The slow performing states need to give more focus on key growth drivers such as technology[5], inputs, and management of natural resources, investments, market infrastructure, price incentives, convergence and programme delivery and diversification from cereals to high value agricultural commodities.

Despite the recent slowdown, food grain production increased from 50 million tonnes in 1950-51 to an estimated 251 million tonnes in 2014-15. India has now moved away from dependence on food aid to become a net food exporter. Agricultural export as a percentage of agricultural GDP has increased from 9 percent in 2008-09 to 14 percent in 2013-14. With an annual output of 132 million tonnes in 2012-13, India remains the world's largest producer of milk. It is also the world's biggest producer of pulses and second largest producer of sugar. Globally, India ranks second in fish production and aquaculture, next only to China.

2. Government programme priorities addressing challenges

2.1 Inclusive growth

In India, the poverty figure is pegged at nearly 30 percent as per the Rangarajan Committee Report (2014)[6]. States, however, vary significantly in terms of both the incidence and depth of poverty. Extreme poverty exists more among small producers, landless labourers, rural wage earners, women and population groups living in remote and resource-poor areas. The gradual decline in size of farm holdings has made a majority of small and marginal farms unviable. The Socio Economic and Caste Census (2011) reports that almost 40 percent of rural households

[3] NCAER (2013) Agricultural Outlook and Situation Analysis Reports: First Annual Medium-Term Agricultural Outlook Report. February, 2013.
[4] Agricultural Statistics at a Glance 2014. New Delhi: Oxford University Press, Ministry of Agriculture, Government of India, 2015
[5] Report of the Working Group on Agricultural Research and Education for the With Five Year Plan: 2012-17, Volume - I, Planning Commission, Government of India, December, 2011, New Delhi.
[6] Report of the Expert Group to Review the Methodology for Measurement of Poverty. Planning Commission June 2014

fall under the "excluded" category, as they do not fulfil the basic 14 parameters of inclusion[7]. Barely 8.3 percent of rural households reported a monthly income of over INR 10,000 for the highest earning member. Almost 50 percent of rural households derive their income mainly from casual manual labour, and 30 percent from cultivation. The Census further reports that among households who do own land;

- 40 percent is not irrigated,
- only four percent own some sort of mechanised agricultural equipment,
- only 10 percent own any irrigation equipment. Less than four percent have an agricultural (Kisan) credit card that entitles them to subsidised credit for each cropping season.

The Planning Commission of India had highlighted a number of key issues essential for inclusive growth: better performance in agriculture; reducing vulnerabilities of small and marginal farmers, especially women; agro-processing, supply chains, and technical personnel for providing inputs into various aspects of farming. The Twelfth Plan suggests adopting growth strategies that simultaneously address challenges of energy, water and the environment.

A range of GoI initiatives aim to address inclusiveness. To illustrate, the Mahatma Gandhi National Rural Employment Guarantee Programme (MNREGA) assures at least 100 days of employment to rural households; the Public Distribution System (PDS) provides subsidised food grains to millions Below Poverty Line (BPL) families and the National Rural Livelihoods Mission (NRLM) enables rural poor to increase household income through sustainable livelihood programmes. The government also offers price incentives in the form of Minimum Support Price for procuring selected food grains.

The government's priorities in markets and marketing[8] channels focus on initiating reforms in agricultural markets and setting up new and strengthening existing value chains. In July 2015, GoI approved the creation of a common electronic platform that will soon allow farmers and traders to sell their produce to buyers uniformly across the country. The Small Farms Agribusiness Consortium of the MoA is promoting Farmer Producer Organizations to create sustainable agri-value chains. It has set a target of INR 850,000 crore for agriculture credit for 2015-16. It has decided to raise the corpus of Rural Infrastructure Development Fund to INR 25,000 crore and allocated INR 5,000 crore for the Warehouse Infrastructure Fund.

India also faces the threat of national and trans-boundary plant pests and diseases. The Government's priorities include providing timely and accurate information; and infrastructure promoting food safety, cross-boundary information sharing mechanisms and coordinated efforts; and strengthening the national quarantine and bio-security umbrella.

2.2 Hunger, food insecurity and malnutrition

While India has made significant progress in reducing the absolute number of hungry, the country still accounts for a quarter of the world's hungry. Some 39 percent of Indian children under the age of five are stunted, 15 percent wasted and 29 percent are underweight[9]. A 2015 study by the Global Alliance for Improved Nutrition (GAIN) shows rising incidence of malnutrition-related diseases among women. It also reports an alarming 74 percent of Indian children under five-years being anaemic.

[7] The parameters are listed here: http://www.secc.gov.in/staticReport
[8] Report of the Working Group on Agricultural Marketing Infrastructure, Secondary Agriculture and Policy Required for Internal and External Trade for the 12th Five Year Plan 2012-17, Planning Commission, GoI, December, 2011, New Delhi
[9] Rapid Survey on Children 2013-2014. New Delhi: Ministry of Women and Child Development, Government of India. 2014

GoI recognizes the need for a comprehensive social protection system to reduce poverty and vulnerability and runs a number of programmes to that end. For example, the Mid-Day Meal Scheme provides hot cooked meal to around 100 million school going children; the Nirmal Bharat Abhiyan accelerates sanitation coverage in rural areas; the National Rural Drinking Water Programme provides safe drinking water; and the Indira Gandhi Matritva Sahyog Yojana which offers maternity benefits.

2.3 Sustainability of agricultural development

Indian agriculture comprises mainly of marginal and small farmers. A large part of these farms are rain-fed, spread over 200 million hectares (mha) and constitute 62 percent of the country's total geographical area. Rain-fed agriculture supports 40 percent of the country's population, and has a large share of the cropped area under rice (42 percent), pulses (77 percent), oilseeds (66 percent) and coarse cereals (85 percent). It hosts 78 percent of cattle, 64 percent of sheep and 75 percent of goats. Increased focus on water conservation and its sustainable utilization in rain-fed areas is key to the development of these areas.

Land degradation constitutes a major threat to India's food and environmental security. Of the total geographical area of 328.73 m ha, about 120.40 m ha is affected by varying degrees of land degradation. A quarter of India's geographical area is affected by desertification resulting in annual soil loss of about 5.3 billion tonnes through erosion. Besides, water and wind erosions are widespread across the country. As much as 5.3 billion tonnes of soil gets eroded every year. Similarly, soil, biodiversity is rapidly shrinking. Moreover, large farmland areas in India have become barren due to imbalanced fertilizer use and the excessive use of urea. Responding to the progressive deterioration in soil health, India recently launched an ambitious initiative on providing soil health cards to farmers.

Falling groundwater tables across the country is another area of concern as about 30 percent of the 5723 administrative blocks in the country report groundwater dropping to unsustainable levels. The deteriorating quality of groundwater is another threat. A new INR 50,000 crore five-year scheme called Pradhan Mantri Krishi Sinchay Yojana (Prime Ministers' Agriculture Irrigation Plan) aims to promote the concept of "per drop more crop" by improving irrigation efficiency.

To ensure better availability of technical information to farmers, the National Mission on Agricultural Extension and Technology was launched in 2014, a follow up to the National Skill Development Policy (2009) which envisions empowering individuals through improved skills, knowledge and nationally/internationally recognized qualifications. India also makes substantial investments in agricultural research and development. Similarly, there are initiatives to prevent and control animal diseases, develop feed and fodder resources, increase fish production and improve the welfare of fisher-folks. Efforts are also on to develop the poultry sector with focus on backyard poultry, development of small ruminants, genetic up-gradation of livestock, and conservation of indigenous breeds.

2.4 Vulnerability and resilience

Overall, India has moved out of the short-term relief-response dominated dependency trap in which many developing countries still find themselves. The country has vast experience in managing droughts, so at the macro-scale the Government has progressively improved resilience of the national food system. India is a founding member of the Global Agricultural Monitoring and Information System (AMIS), an FAO-G-20 initiative. It has a well-developed and resourced NDMA and several other resilience building programmes such as the National Innovations on Climate Resilient Agriculture (NICRA), crop insurance schemes, and the National Action Plan for Climate Change (NAPCC) with eight National Missions under it.

India has long been an essential and effective partner in Desert Locust information and control systems nationally and globally. However, the same is not true about other trans-boundary threats, particularly of animal (including zoonotic) diseases like the highly pathogenic Avian Influenza, Peste de Petits Ruminants, Newcastle disease, and Foot and Mouth Disease. Veterinary services do not sufficiently reach a majority of small ruminant holding communities, nearly all in rain-fed areas, where over 70 percent of livestock keepers are women. Similarly, up to 20 percent of its districts, nearly all in rain-fed areas, are affected by socio-political unrests of various intensities. As a result, millions of people across India continue to be affected by disasters and crises.

Annex 2:

Green Agriculture: Transforming Indian agriculture to promote global conservation benefits

Farmland in project area © FAO

1. Introduction

This programme will be funded under GEF-6 and is being developed in close collaboration with Ministry of Agriculture (MoA) and Ministry of Environment, Forests and Climate Change (MoEFCC). This multi-sector project is proposed to be implemented in the states of Uttarakhand, Rajasthan, Madhya Pradesh, Odisha and Mizoram. It seeks to achieve transformative changes in policy, capacity development, practice, and knowledge management across the agriculture and allied sectors, and in the selected project areas and at the national level as briefly described below.

2. Components

The programme will comprise two broad components:

Component 1: Governance of India's agriculture and allied sectors mainstreams biodiversity, land degradation, climate change mitigation and sustainable forest management seeks to enable production and adoption of a "Common Vision for Sustainable Agriculture in India". This includes a landscape approach based prioritization criteria and outcome-based indicators jointly by ministerial and departmental stakeholders. This component will to bring in improved institutional alignment and coordination for targeted approaches to green agriculture and allied sector transformations. As part of this, the programme will seek to identify and prioritise key conservation landscapes in the project areas, and develop national and state-level green landscape conservation strategies including policy and institutional coordination revisions to incentivize Green-Agriculture implementation. Component 1 will also include the development of a Green Landscape tool-box which will help key programme partners describe and prioritize Green-Agriculture interventions. These interventions will be supported by a Green Landscape monitoring program to enable and support data mechanisms and management for decision-making and evidence-based policymaking.

Indicative results expected from this component will include conservation priority productive landscapes identified nationally that benefit from improved agricultural practices, national and state-level policies or programs designed to improve conservation outcomes related to agriculture (e.g., National Mission for Sustainable Agriculture). Five states will adopt and operationalize Green Landscape Conservation Strategies, realigning national investments annually to support conservation oriented agriculture, annually increasing users of operational Green-Agriculture knowledge base and tool box. These efforts will increase CO2e sequestration nationally through improved agriculture, sustainable forest management and land management practices.

Component 2: Agricultural practices deliver biodiversity, land degradation, climate change mitigation and sustainable forest management benefits seeks to carry out specific programme site selections in each state and develop operational programme strategies. Key interventions are likely to include Green-Agriculture Farmer Field Schools, Green Landscape conservation strategies, Green Agriculture demonstrations and pilots, and the integration of knowledge management interventions. Lessons learnt from pilot interventions under this component will be captured and interventions up-scaled over time.

Indicative results expected from this component will include agricultural practices on priority landscapes that yield benefits for biodiversity, land degradation, climate change mitigation and sustainable forest management; increased participation of farmers in Green-Agriculture Farmer Field Schools and application of Green-Agriculture practices. It expects to see an increase in the number of hectares of productive landscapes strategically managed to deliver global and national conservation benefits; protected areas with co-management agreements between productive and protected landscapes; and increase in hectares of agricultural lands actively sustaining agro-biodiversity and incorporating traditional knowledge. It hopes to establish the globally important agricultural heritage sites; improved capacities of agriculture, forestry, and wildlife extension agents; and increased CO2e sequestration at the pilot site level through improved agriculture, sustainable forest management, and better and management practices.

3. Project states and priority areas

The proposed project seeks to work in five states (Rajasthan, Madhya Pradesh, Orissa, Uttarakhand, and Mizoram) and will include multi-sector, state-specific interventions in at least two districts in each state, under biodiversity, land degradation, climate change mitigation, and sustainable forest management. It is expected that at least 800,000 ha will be in the globally important biodiversity areas using biodiversity and climate-smart management by households and communities, with inter-sectoral governmental support. This will help in conserving biodiversity, improving land management and significantly mitigating climate change.

State-wise indicative details are given below.

- **Landscape level sustainable agriculture and biodiversity conservation including ecological restoration of rangelands, in the Thar Desert of Western Rajasthan**

  Interventions under this programme will be carried out in two contiguous districts of Western Rajasthan, Barmer and Jaisalmer on a landscape level. The project will aim to address issues of agriculture-people-protected area interfaces and conflicts to enhance biodiversity conservation outcomes. It especially aims at preserving habitat of the globally significant, highly endangered and IUCN Red-Listed Great Indian Bustard and other key species in the 3,162 Sq. Km. Desert National Park, and in the wider landscape surrounding the protected area. The two districts together have about 665 villages. While direct project interventions are likely to be carried out in approximately 200 villages, indirect interventions are expected to reach out to all the 665 villages.

- **Landscape level sustainable agriculture and biodiversity conservation including ecological restoration of ravine landscapes, in the Chambal Areas of Madhya Pradesh**

  Interventions under this programme will aim to address issues of agriculture-people-protected area interfaces and conflicts to enhance biodiversity conservation outcomes, especially relating to the globally significant and endangered biodiversity and wildlife (including the Gangetic Dolphin, the Gharial, etc.) in the National Chambal Sanctuary (NCS) area, a 5,400 Sq. Km tri-state protected IUCN Category IV protected area, and in the wider landscape outside the protected area. It also aims to protect agriculture and enhance resilience and livelihood security of communities

in the ravines areas through securing fodder, fuel, and small timber. While specific districts have not been chosen, the project hopes to work in two districts of the state (out of Morena, Bhind, Gwalior, Shivpuri, Sheopur, Guna and Mandsaur) and ravine affected agricultural areas of these districts.

- While specific districts have not yet been chosen for the states of Uttarakhand, Mizoram and Odisha, interventions in these states too will be along the same lines as outlined for Rajasthan and Madhya Pradesh.

Annex 3:

International and multi-lateral treaties and international voluntary instruments

Bio-diversity degradation © FAO

The Republic of India is a party to the following treaties:

- International Treaty on Plant Genetic Resources for Food and Agriculture;
- Agreement for the Establishment of the Indian Ocean Tuna Commission;
- Agreement for the Establishment of a Regional Animal Production and Health Commission for Asia and the Pacific;
- Agreement for the Establishment of an FAO Commission for Controlling the Desert Locust in South-West Asia;
- Convention Placing the International Poplar Commission within the framework of FAO;
- Plant Protection Agreement for the Asia and Pacific Region;

Multilateral treaties concluded outside the framework of FAO include:

- Agreement for the Establishment of the Global Crop Diversity Trust;
- Agreement on the Network of Aquaculture Centres in Asia and the Pacific;
- Agreement for the Establishment of the Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia and Pacific Region;
- Agreement for the Establishment of a Centre on Integrated Rural Development for Asia and the Pacific.

Additionally, a number of international instruments of a voluntary nature (non-legally-binding) have been approved by FAO State Members, including India. Some of them are:

- Principles for Responsible Investment in Agriculture and Food Systems;
- Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication;
- Voluntary Guidelines for Flag State Performance;
- International Code of Conduct on Pesticide Management;
- Voluntary Guidelines on the Responsible Governance of Tenure of Land;
- Fisheries and Forests in the Context of National Food Security;
- Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security;
- Code of Conduct for Responsible Fisheries.

Annex 4:

Results framework, Resource requirements and TCP pipeline

HUN meeting in APFAMGS project

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Results framework, Resource requirements and TCP pipeline

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
Overall Goal			
Contribute to sustainability and enhanced resilience of the agriculture and allied sectors in India			47,165,300
Outcomes			
FAO India, working in close coordination with the Government of India and other partners, plays a catalytic role and supports India towards achievement of three broad outcomes:			
(i) Sustainable agricultural development, focusing primarily on managing natural resources that are under threat; **[Corporate Output 20201:**Government (central and states) and other partner/collaborating agencies are supported to analyse governance issues and options for sustainable agricultural production and natural resources management	Tools pioneered by FAO in India applied to restore degraded lands and match water demands to supplies by bringing in proven approaches and technologies such as in participatory ground water management; and by piloting tailor-made strategies with farming communities so that they can adapt to climate change	GoI and FAO statistics, data, reports, field visits, etc.	42,250,300
(ii) Reducing vulnerability in order to ensure food and nutrition security, primarily focusing to diversify the sources of livelihood in rainfed areas and thereby assist small farmers to build resilience; **[Corporate Output 10201**: Improving capacities of governments and stakeholders for strategic coordination across sectors and stakeholders for food security and nutrition]	Risks at multiple levels managed by filling high-level technical and policy gaps and building capacities of the small farmers and herders, government agencies and other partners	GoI and FAO statistics, data, reports, field visits, etc.	1,595,000

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
(iii) Increasing GoI's involvement and visibility in international cooperation drawing upon FAO's mandate as an international organization and emerging priorities of government **[Corporate Output 50101**: Improving capacities to formulate and promote risk reduction and crisis management policies, strategies and plans]	Collaboration operationalised on (a) trans-boundary issues and (b) South-South Cooperation through facilitating other developing countries to learn from India's experiences and access Indian expertise in the areas of agriculture and rural development in the form of South-South Cooperation	GoI and FAO statistics, data, reports, field visits, etc.	3,320,000
Results/Outputs for Outcome 1: Sustainable agricultural development			
Innovative pilot approaches that are relevant to India's needs **[Corporate Output 20103**: Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition to more sustainable agricultural production systems]	Programmatic Framework under GEF 6 to achieve transformational changes in India's agricultural practice to secure global environmental benefits, enhance food security, and improve livelihood resilience (see Annex 3) approved by GEF Secretariat and implementation initiated;	GoI and GEF Secretariat endorsements, Project ProDoc and CEO Endorsement, etc.; GoI and FAO reports, field visits, meeting minutes, etc.	Total: 4,070,000 Available: 60,000 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 3,960,000 • TCP: 50,000 Implementing partners: MoA; and state governments
[Corporate Output 20201:Government (central and states) and other partner/ collaborating agencies are supported to analyse governance issues and options for sustainable agricultural production and natural resources management	Improved groundwater governance in Andhra Pradesh (building upon the success achieved by APFAMGS) resulting in improving resource availability and sustainable use of available groundwater (including through extended pilot to include local self-government institutions)	Project documents, GoAP and FAO data, reports, field visits, meeting minutes, etc.	Total: 142,300 Available: 142,300 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state government of Andhra Pradesh/ Bharti Integrated Rural Development Society.

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
	Improved fertility and quality of agricultural soils through introduction of leguminous cover crops including tree species resulting in sustainable production for resource-poor farmers without the use of external inputs (as being experimented under MiSALT in Mizoram[10])	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 200,000 Available: 200,000 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state government of Mizoram
Successful models for scaling-up by other donors or Union and state governments; active advocacy uptake of models by other stakeholders/partners **[Corporate Output 20103**: Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition to more sustainable agricultural production systems]	Farmers Water Schools experience from Andhra Pradesh scaled-up to develop skills of primary producers and capacity of the government and other institutions, in particular, water users associations, to provide appropriate and high quality support to smallholders to adapt to the fast changing agricultural scenario in the state of Uttar Pradesh	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 1,900,000 Available: 0 Targets: • Voluntary (including UTF): 1,900,000 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state government of Uttar Pradesh
	Resources of the Government of Andhra Pradesh, other state governments and international financial institutions leveraged for upscaling the proven elements of APFAMGS	Central/state government and FAO data, reports, meeting minutes, etc.	Total: 1,200,000 Available: 0 Targets: • Voluntary (including UTF): 1,200,000 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state governments

[10]This pilot combines the Sloping Land Agricultural Technology (SALT) with the traditional Mizo practice of using logs laid across slopes in agricultural fields to contain soil erosion (hence the acronym MiSALT).

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
	Resources of governments, NGOs, and INGOs leveraged to scale-up SAPPLPP or introduce the successful elements of SAPPLPP to larger agricultural development/ livelihoods development projects/ contexts	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 250,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 250,000 • TCP: 0 Implementing partners: MoA; and state governments
International best practices and global normative work standards in technical assistance introduced in various projects through FAO technical assistance **[Corporate Output 20403**: Capacity development support provided to institutions at national and regional levels to plan for and conduct data collection, analyses, application and dissemination]	Updating/ modernising of (and capacity building of stakeholders for) forest inventorisation practices in India to contribute to sustainable management of forest resources in India	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 397,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 397,000 Implementing partners: MoEFCC; Forest Survey of India (FSI); state governments
	Forest Policy Study in Mizoram undertaken with a view to develop a better understanding the shifting cultivation (Jhum) dynamics in the state and come up with appropriate recommendations	Study reports, meeting minutes, etc.	Total: 50,000 Available: 50,000 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state government of Mizoram
[Corporate Output 10201: Improving capacities of governments and stakeholders for strategic coordination across sectors and stakeholders for food security and nutrition]	FAO technical assistance and inputs to national and state government on making small-holder agriculture, livestock and fisheries sustainable and competitive resulting in improved production strategies for the agriculture, livestock and fisheries sector in at least one state	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 180,000 Available: 0 Targets: • Voluntary (including UTF): 180,000 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state governments

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
[Corporate Output 40203: Value chain entities are provided with technical and managerial support to promote inclusive, efficient and sustainable agri-food chains]	FAO technical support to implement inclusive, efficient and sustainable value chains in two states under GEF 6	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 460,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 460,000 • TCP: 0 Implementing partners: MoA, MoEFCC; other selected partners; and state governments
Increased local, state and national capacities for sustainable natural resource management **[Corporate Output 20103:** Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition to more sustainable agricultural production systems]	Under the GEF-funded programme, communities, state governments, government local, public, and private-sector institutions successfully plan, coordinate, implement, and monitor sustainable community based approaches in programmes relating to input and other subsidies, landscape approaches, organic agriculture, community management of commons, land and water management linked to agriculture and allied sectors, land degradation, biodiversity conservation, livestock management, and climate change	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 31,036,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 31,036,000 • TCP: 0 Implementing partners: MoA, MoEFCC; other selected partners; and state governments

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
	GoI and other stakeholders acquire skills to use of FAO developed tools and methods such as MASSCOTE[11];	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 200,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 200,000 • TCP: 0 Implementing partners: MoA, MoEFCC; other selected partners; and state governments
Enhanced adoption of integrated and multi-sectoral approaches and policies for ecosystem valuation, management and restoration by stakeholders **[Corporate Output 20102:** Integrated and multi-sectoral approaches for ecosystem valuation, management and restoration are identified, assessed, disseminated and their adoption by stakeholders is facilitated	Evidence-based, outcome-driven policies, legislation and/ or guidelines to address key issues related to natural resource management such as biodiversity loss, deforestation, land degradation and climate change, developed, strengthened, and implemented at national and state levels under GEF 6	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 700,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 700,000 • TCP: 0 Implementing partners: MoA; NCAER; and ICAR
[Corporate Output 40303: Systems are established and countries are supported to monitor, analyse and manage the impacts of global trade, food, and agriculture policies on food systems]	1 FAO TA project with ICAR under FAO's global project, "Monitoring and Analysing Food and Agricultural Policies – MAFAP" in India signed, initiated, and under implementation	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 1,040,000 Available: 300,000 Targets: • Voluntary (including UTF): 440,000 • SSC or other partnerships: 0 • TCP: 300,000 Implementing partners: MoA; NCAER; and ICAR
[Corporate Output 20102: Integrated and multi-sectoral approaches for ecosystem valuation, management and restoration are identified, assessed, disseminated and their adoption by stakeholders is facilitated	FAO TA to MoA on the G20 initiative (AMIS) - 3 India Agricultural Outlooks released by GoI; 1 awareness generation programmes on FAO data sources and their use; and India's participation at AMIS meetings	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 125,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 125,000 Implementing partners: MoA; MoEFCC, state governments

[11]They were used extensively in Karnataka and some other states and FAO will make an effort to have a FAO Reference centre (or more).

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
[Corporate Output 20202: Countries are supported to strengthen national governance frameworks that foster sustainable agriculture production and natural resource management]	FAO technical assistance project on enabling environments integrated mountain development including mountain agriculture, forestry and biodiversity conservation.	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 300,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 300,000 Implementing partners: MoA; ICAR
	FAO – ICAR joint initiative on improved agricultural research and development initiatives in India	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 300,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 300,000 Implementing partners: MoA; ICAR
Results/Outputs for Outcome 2: Reducing vulnerability			
Innovative pilots approaches that help reduce risk of seasonal food and nutritional insecurity **[Corporate Output 10201:** Improving capacities of governments and stakeholders for strategic coordination across sectors and stakeholders for food security and nutrition]	FAO technical support to approaches that enable small farmers, mainly in arid rain-fed areas, to diversify livelihoods by introducing small ruminants and backyard poultry, building upon the experience gained from SAPPLPP piloted and tested	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 200,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 200,000 Implementing partners: MoRD, MoA, NABARD, state governments
[Corporate Output 30201: Evidence-based policy support and capacity development in the formulation and implementation of policies, strategies and programmes that generate decent rural employment with particular focus on fostering youth and rural women's economic and social empowerment]	FAO technical support to (a) strengthening social protection, and (b) risk management (including crop insurance) mechanisms to enhance resilience building, especially in arid and disaster risk prone districts		

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
[Corporate Output 10301: Improving capacities of governments and stakeholders to monitor trends and analyse the contribution of sectors and stakeholders to food security and nutrition] **[Corporate Output 10101:** Improving capacities of governments and stakeholders for developing sectoral and cross-sectoral policy frameworks and investment plans and programmes for food security and nutrition]	FAO technical assistance support in the Country aimed at monitoring trends and analysing the contribution of sectors and stakeholders to food security and nutrition resulting in: • FAO data and knowledge products across food security and nutrition are accessible for monitoring and analysis; • Food security and nutrition analysis products are regularly communicated/ disseminated to meet short-term and medium/long-term policy-making requirements.	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 20,000 Available: 0 Targets: • Voluntary (including UTF): 20,000 • SSC or other partnerships: 0 • TCP: 0 Range of Central ministries; state governments; state Agricultural Universities; ICAR
[Corporate Output 10103: Improving capacities in governments and stakeholders for human resource and organizational development in the food security and nutrition domain]	Initiative on educating people on nutrition related issues with particular emphasis on women and children, by using effective audio-visual methods designed, developed and deployed	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 125,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 125,000 Implementing partners: MoWCD
	FAO technical assistance and advocacy in India for initiatives in 5 states to enhance farm productivity and improve nutrition under GEF 6 PFD	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 750,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 750,000 • TCP: 0 Implementing partners: MoA; state governments

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
Increased capacity of department staff and farmers, especially women who largely take care of livestock, about the symptoms and management of animal diseases **[Corporate Output 50301:** Improving capacities of countries, communities and key stakeholders to implement prevention and mitigation good practices to reduce the impacts of threats and crises]	Capacity building for, for Porcine Reproductive &Respiratory Syndrome (PRRS) infections in piglets designed, developed and deployed in Mizoram	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 200,000 Available: 200,000 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; and state government of Mizoram
Improving capacities of governments and stakeholders for developing sectoral and cross-sectoral policy frameworks and investment plans and programmes for food security and nutrition **[Corporate Output 10101:** Improving capacities of governments and stakeholders for developing sectoral and cross-sectoral policy frameworks and investment plans and programmes for food security and nutrition]	FAO TA and advocacy in India resulting in: (a) 2 activities for better implementation of policies on food security and nutrition; (b) 5 policy dialogues on the incorporation of food security and nutrition into particular policies and/ or programmes; (c) 1 advocacy initiative under the Zero Hunger Challenge; and (d) FAO's sharing of best practices on food security and nutrition at 5 national/ international events	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 300,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 300,000 Implementing partners: MoA; MoWCD; MoHRD; MoHFW; and state governments
Results/Outputs for Outcome 3: (a)Trans-boundary issues and (b) South-south cooperation			
Improved capacities of government agencies to formulate and promote risk reduction and crisis management policies, strategies and plans **[Corporate Output 50101:** Improving capacities to formulate and promote risk reduction and crisis management policies, strategies and plans]	FAO TA through The Emergency Centre for Trans-boundary Animal Diseases (ECTAD) for contributing to improving disease control, diagnostic laboratory and epidemiological capacity in the South Asian Association for Economic Cooperation (SAARC) countries	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 3,200,000 Available: 0 Targets: • Voluntary (including UTF): • SSC or other partnerships: 3,200,000 • TCP: 0 Implementing partners: MoA; MoEFCC; and state governments

Narrative Summary	Objectively Verifiable Indicators (by end-2017)	Means of Verification	Resource Requirements (USD)
Improved capacities of government agencies, communities and key stakeholders to implement prevention and mitigation good-practices to reduce the impacts of threats and crises **[Corporate Output 50301:** Improving capacities of countries, communities and key stakeholders to implement prevention and mitigation good practices to reduce the impacts of threats and crises]	Timely and reliable monitoring and forecasting of risks associated with trans-boundary threats from animal diseases and plant pests under the FAO Commission for Controlling the Desert Locust in South-West Asia (SWAC)	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: (HQ funded and not accounted for total programme) Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: MoA; MoEFCC; and state governments
Enhanced government capacity to implement and apply international (including regional) instruments **[Corporate Output 20303:** Stakeholders are supported to facilitate implementation and application of international/ regional instruments and the recommendations/requirements of related governance mechanisms]	FAO support to global goods as agreed upon by FAO Governing Bodies globally and the Regional Conference for Asia and the Pacific (APRC), and supporting India fulfil its international commitments. FAO support for India's participation in various FAO Global Committees, including CFS, CoAG, CoFO, and CoFI.	documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Available: 0 Targets: • Voluntary (including UTF): 20,000 • SSC or other partnerships: 0 • TCP: 0 Implementing partners: Range of Central Ministries
Strengthened organizational and institutional capacities of public and private institutions, organizations and networks to support innovation and transition toward more sustainable agricultural production systems **[Corporate Output 20103:** Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition to more sustainable agricultural production systems]	FAO supported South-South cooperation initiatives to other member countries, building on India's successful policies and practices and extensive expertise in various aspects of agriculture, fisheries, forestry, and livestock management	Project documents, state government and FAO data, reports, field visits, meeting minutes, etc.	Total: 100,000 Available: 0 Targets: • Voluntary (including UTF): 0 • SSC or other partnerships: 100,000 • TCP: 0 Implementing partners: MoA; MoWCD; MoHRD; MoHFW; and state governments

TCP Pipeline Table

No	Description	USD	Biennium
1	Strengthening National Forest Inventory and Monitoring Protocols and Capacities in India	397,000	2014/2015
2	Implementing the Monitoring and Analyzing Food and Agricultural Policies (MAFAP) Programme in India	300,000	2016/2017
3	Support to the Indian Mountain Initiative (IMI)	125,000	" "
4	FAO technical support to approaches that enable small farmers, mainly in arid rainfed areas, to diversify livelihoods by introducing small ruminants and backyard poultry, building upon the experience gained from SAPPLPP piloted and tested	200,000	" "
5	Initiative on educating people on nutrition related issues with particular emphasis on women and children, by using effective audio-visual methods	125,000	" "
6	GEF 6 bridging project	50,000	" "
	Total TCP/TCPF allocation for 2014/15-2016/17	**1,197,000**	
B. Increased Allocation, and/or possible pipeline for 2017/18-2019/20			
1	FAO – ICAR joint initiative on improved agricultural research and development initiatives in India	300,000	
2	FAO Technical Assistance in India resulting in: (a) advocacy initiative under the Zero Hunger Challenge; (b) mainstreaming policies on food security and nutrition in investment projects; and (c) policy engagement on the incorporation of food security and nutrition into particular policies and/or programmes.	300,000	
	Total	**600,000**	

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