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Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 15-Feb-2017 | Report No: PIDISDSA21035



BASIC INFORMATION

A. Basic Project Data

Country India	Project ID P158798	Project Name Jharkhand Opportunities for Harnessing Rural Growth Project	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Appraisal Date 01-Feb-2017	Estimated Board Date 24-Apr-2017	Practice Area (Lead) Agriculture
Lending Instrument Investment Project Financing	Borrower(s) Department of Economic Affairs, Ministry of Finance, Government of India	Implementing Agency Department of Rural Development, Government of Jharkhand	

Proposed Development Objective(s)

The PDO is to enhance and diversify household income in select farm and non-farm sectors for targeted beneficiaries in project areas.

Components

Diversified and Resilient Production and Value Addition
Promote Market Access, Skill Development and Pro-Poor Finance Systems
Project Management, M&E and Knowledge Management

Financing (in USD Million)

Financing Source	Amount
Borrower	43.00
International Bank for Reconstruction and Development	100.00
Total Project Cost	143.00

Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue



Note to Task Teams: End of system generated content, document is editable from here.

Other Decision (as needed)

B. Introduction and Context

Country Context

India is on the path to becoming an economic powerhouse, but continues to have a high level of poverty. India was the world's fastest-growing big economy outpacing China with a growth rate of 7.6 percent in 2015–16. The Indian economy has the potential to double its 2009 size by 2019. Much of this growth story is to be scripted by the one billion strong working age population – the largest labor force in the worldⁱ. India still has 21.9 percent of its population living in povertyⁱⁱ, with most of them concentrated in rural areas (80 percent)ⁱⁱⁱ and in 'low-income states' (62 percent)^{iv}. In addition, inequalities across social groups (such as scheduled castes (SCs), scheduled tribes (STs) and women) cause these groups to lag behind the general population.

Agriculture and allied sectors are vital to rural household incomes. While the share of agriculture and allied sectors (including agriculture, livestock, forestry and fisheries) is only 14 percent of the national Gross Domestic Product (GDP) (2015–16), it still supports about 55 percent of the country's workforce^v and contributes to about 60 percent of the total household income of 58 percent of rural households^{vi}. However, the situation of agriculture-dependent households is grim with 22.5 percent of cultivator households and 36 percent of agriculture labor households being poor^{vii}.

Government of India (GoI) has shifted its policy focus from increasing production to enhancing farmer incomes in agriculture and allied sectors. The agriculture development strategy in the past half century focused primarily on raising output for food security and helped food production multiply by 3.7 times while the population multiplied by 2.55 times. However, farmers' incomes remained low at just one-third of the income of non-agricultural workers and have shown a deteriorating trend^{viii}. The GoI in the Union Budget 2016–17 articulated its resolve to double farmer incomes by 2022^{ix}. The issues that it seeks to address include optimal utilization of water resources, creation of new infrastructure for irrigation, conservation of soil fertility and balanced use of fertilizers, provision of value addition and connectivity from farm to markets. In addition, India is: promoting diversification into fruits and vegetables (through the national Mission for Integrated Development of Horticulture (MIDH)); improving livestock production systems including poultry, small ruminants and piggery (through the National Livestock Mission); supporting the adoption of sustainable farming practices (through the National Mission on Sustainable Agriculture (NMSA) and Paramparagat Krishi Vikas Yojana (PKVY)); enabling access to soil testing services (through the Soil Health Card scheme); promoting improved soil and water conservation, irrigation access and water use efficiency (through the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)); building resilience against extreme weather events and climate change (through the National Information Standards Organization (NCIP), National Agricultural Insurance Scheme (NAIS), National Initiative on Climate Resilient Agriculture (NICRA) and intended nationally determined contributions (INDCs)); supporting the creation of producer organizations (POs) as economic



units at the farm level and their linkages with markets and trade (through the Small Farmers Agribusiness Consortium (SFAC)); and focusing on skill development through the National Skill Development Mission (and its constituent schemes such as the Pradhan Mantri Kaushal Vikas Yojana). The Government is also implementing the Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) for creating strong community institutions with an emphasis on financial inclusion as a foundational strategy for poverty reduction.

This provides **an opportunity to build on the existing conducive environment** and enhance incomes of rural households reliant on agriculture and allied sectors.

Sectoral and Institutional Context

Jharkhand has the second-highest poverty rate in the country. Despite having the largest share of the country's mineral resources and impressive economic performance during the 12th Five Year Plan (2012–17), poverty incidence in Jharkhand remains at 37 percent. Progress across social groups is uneven, with SC/STs and women performing significantly worse than other social groups. Nearly half of the ST households (which account for 27 percent of all households) are poor. The Labor Force Participation Rate (LFPR) of Jharkhand (31.4 percent) is lower than that of India (36.4 percent); the LFPR for women is a mere 9.2 percent, much lesser than India's 16.8 percent^x. Jharkhand also scores significantly lower than the country average in most human development indicators. The presence of left wing extremism (LWE) in 21 of the 24 districts^{xi} hinders public and private investments as well as service delivery, especially in the forested and mining areas.

A majority of rural households depend on agriculture and allied sectors for their livelihood, but the contribution of these sectors to household income is limited. More than half the labor force in rural Jharkhand (60 percent^{xii}) depends on agriculture and allied sectors for their livelihood. A large proportion of the agriculture sector includes marginal^{xiii} (63 percent) and small^{xiv} farmers (18 percent)^{xv} practicing rain-fed, single-cropped subsistence farming. The agriculture sector is highly vulnerable to climate change (nine districts are classified as having very high or high vulnerability)^{xvi}. Income from farming contributes to only 31 percent of the household income (and only 6 percent of the cash flow^{xvii}) as against income from wages which accounts for 40 percent of household income^{xviii} (and 28 percent of the cash flow^{xix}). Livestock accounts for a quarter of the household income and is the primary source of earnings for about one-fifth of agricultural households with very small parcels of land^{xx}. Non-timber forest produce (NTFP) and artisanal products contributes to about a quarter of the annual household income in forest and forest-fringe villages^{xxi}. Several factors – poor productivity, access to irrigation, skills, markets and finances – limit the potential of agriculture and allied sectors to contribute substantially to rural household incomes. Vegetable productivity in Jharkhand is less than that in the comparable states of West Bengal and Bihar for most vegetables (tomato, potato, cabbage, cauliflower, brinjal). Livestock productivity also less than 12 percent of that in leading states^{xxii}. Fisheries development is also still nascent and the state ranks 17th in the country in productivity^{xxiii}.

Access to irrigation is a critical limiting factor affecting crop choice, yield, cropping intensity and ultimately income. Just 13.5 percent of the net sown area in Jharkhand has access to irrigation. Inadequate development and poor maintenance of irrigation infrastructure has led to only 12 percent of



the state's irrigation potential being utilized. Progress in the state has been slow due to the unimodal nature of rainfall and complexities in acquiring land in forests and tribal areas. The Government of Jharkhand (GoJ) is focusing on developing minor irrigation, augmenting available resources through rain-water harvesting and watershed management, and on scaling up water-use efficiency through micro-irrigation. With only 5.72 percent of rural households owning any irrigation equipment (such as pump sets, sprinkler or drip irrigation systems), much needs to be done^{xxiv}.

Poor market access and an underdeveloped financial sector limit the options and incomes of small producers. Lack of aggregated production volumes limits the outreach and bargaining power of rural producers, who end up trading through intermediaries or in small un-organized rural markets at lower prices, thus reducing incomes. The majority of tie-ups of retailers/processers are with medium and large farmers because of the high transaction costs of dealing with a large number of small producers. Jharkhand's existing Producer Organizations (POs) are limited to the fisheries and poultry sub-sectors. The National Bank for Agriculture and Rural Development (NABARD) is in the process of registering 65 POs in agriculture. The focus of the existing POs on post-harvest activities and market linkages is weak. The financial sector is not sufficiently developed to benefit POs for market-based operations. Only about 47 percent of rural households have access to banking services^{xxv}. Jharkhand's credit-deposit ratio in the banking sector is 45 percent^{xxvi} compared to 59 percent for West Bengal – the best performing state in eastern India^{xxvii}. The share of the agriculture sector in the total credit portfolio of the banking sector is 17.6 percent and its contribution to non-performing assets is slightly higher at 20.1 percent^{xxviii}. The women's Self-help groups (SHGs) are an important source of credit to households (providing 31 percent of loans accounting for 18 percent of the loan volume)^{xxix}. However, though 107,955 SHGs in the state have savings bank accounts, 44 percent are yet to be financed by banks^{xxx}.

Persistent gender gaps in agriculture limit women's access and control. Majority of the women in rural Jharkhand work in agriculture, livestock and forestry activities and do major part of the work. The women's burden is further intensified due to migration of men from farming, low and variable farm yields and income, poor food security and nutrition status, and gender gap in wages. Their presence and participation is squeezed around pre-production and production activities, and they are less present in post-harvest activities especially in value addition, accessing markets and controlling cash income. Women continue to lack legal ownership and control of productive resources such as land, irrigation, etc. They also lack access to skill training, extension and advisory services.

Skill development in agriculture and allied areas is lagging behind the growing demand from agriculture production and enterprise. While only about 1 percent of rural households in Jharkhand depend on own enterprises for livelihood,^{xxxi} there is an emerging positive trend with the state now accounting for the highest number of new medium, small and micro enterprises in the agriculture and allied sectors as compared to other states in the region^{xxxii}. These enterprises and the growing diversification into high-value production require a skilled work force. There is an estimated incremental need of about 347,400 people in the unorganized and about 4,000 people (skilled, semi-skilled and low skilled) in the organized agriculture sector in the state during 2017-2022^{xxxiii}. The state Skill Development Mission has also identified skill development^{xxxiv} in the agriculture sector as a priority. However, the rural work force, especially women, face both demand and supply side constraints in utilizing this emerging opportunity. The female work participation rate in the state is only 29 percent and most rural women



workers (about 45 percent) are engaged as unskilled agricultural labour^{xxxv}. Skill training opportunities in the state are limited in terms of the sub-sectors covered, the skill sets offered, availability of training providers, etc^{xxxvi}.

Government of Jharkhand requested the World Bank to support a transformative approach to enhance rural household incomes by developing diversified agriculture and allied sector livelihoods while also addressing the critical challenges described above. Jharkhand has the lowest average monthly expenses (Rs 571) and receipts (Rs 2,049) for crop production per agricultural household among all the major states^{xxxvii}. Moving from this low-productivity/low-income situation onto a high-productivity/high-income trajectory will require building upon the competitive advantages of the state as well as risk mitigation. Diversification into higher value crops presents a significant opportunity. The state has already made rapid progress in horticulture with around 4.27 lakh hectares under vegetables and fruits (out of the net sown area of 23.62 lakh hectares) and an all-India ranking within ten for several vegetable crops. Livestock is one of fastest growing sectors and is a promising high-value option for landless households. Market prices for meat and eggs have increased by 70–100 percent in the past decade in local markets and have also pushed up farm gate prices^{xxxviii}. Fish production has maintained a high growth rate of 17.23 percent over the past 11 years, despite limitations such as dependence on seasonal water bodies and recurrent droughts. Among the NTFP, Jharkhand already contributes to around 57 percent of India's lac production^{xxxix} and around 63 percent of its tassar production^{xl}. There is also emerging small private enterprise activity in the agro-based sector.

Government of Jharkhand's policies in rural development, agriculture and allied sectors provide a conducive environment for improving incomes by implementing the proposed approach. GoJ's commitment to strengthening value chains and market orientation in agriculture and allied sectors is reflected in the state's food and feed processing industry policies, and in the amendments to the Agricultural Produce Marketing Committee Act which permit establishment of private market yards, direct purchase by bulk buyers from producers, e-trading and contract farming.^{xli} Recently, Jharkhand also joined the 'National Agriculture Market' digital trading platform. The state strategy on agriculture emphasizes on greater access of women to land, credit, seeds and fertilizers. The government also aims to promote drudgery reduction measures, on-farm and non-farm income generating activities, and processing and marketing agro-enterprises for women. Through adoption of the NRLM^{xlii} guiding principles on SHG development, and the emphasis on farmers' participation in irrigation management in its water policy,^{xliii} the GoJ has articulated its support for community-led approaches and women's empowerment. To give greater focus and visibility to gender outcomes, the government has recently initiated a 'Gender Budget'.

World Bank's engagement in Jharkhand through the National Rural Livelihoods Project (NRLP) has built a strong institutional platform of women's self help groups who can spearhead the proposed project. The NRLP has a strong focus on inclusive targeting of the poor, community empowerment and women's social as well as financial inclusion. Its current outreach is to all the 24 districts of the state covering about 46,000 women led SHGs^{xliiv}. The 570,000 women members of SHGs have cumulatively leveraged Rs 35.8 million through internal savings, inter-loaning and bank credit. The NRLP has



demonstrated that the community managed institutions of the poor can function as efficient partners for livelihood enhancement interventions. It has created a large cadre of women community leaders, community mobilisers and resource persons, and has facilitated greater participation of women in decision making. An associated program, the Mahila Kisan Sashaktikaran Pariyojana (MKSP), has built the productive and managerial capacity of about 40,000 women and has enhanced their access and control over better inputs and farm practices. The proposed project will build upon this institutional platform of rural women, targeting a subset of households that are ready to move towards intensification, diversification and enhanced market orientation of production systems. While the Jharkhand Opportunities for Harnessing Rural Growth (JOHAR) project will intervene in several of the sectors that NRLP is also engaged in, the key difference would be its emphasis on aggregation and market linkages, financial interventions and skill development to support high-value production for augmenting cash incomes.

C. Proposed Development Objective(s)

Note to Task Teams: The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

Development Objective(s) (From PAD)

The PDO is to enhance and diversify household income in select farm and non-farm sectors for targeted beneficiaries in project areas.

Key Results

The key project results are:

- 1 Atleast 50% increase in average annual household income (real) of at least 60% of the targeted households
- 2 Atleast 30% increase in the proportion of income (real) from select productive livelihoods sources
- 3 Atleast 2,00,000 farmers reached with agricultural assets or services
- 4 Atleast 30% of project beneficiaries belong to SC/ST categories.

D. Project Description

The project will focus interventions on identified key sub-sectors reaching about 200,000 households in 76 blocks and 19 districts. The target districts and blocks cover locations where Scheduled Tribes comprise the majority population and areas of highest poverty incidence and density. All the target districts are also identified as LWE-affected. The JOHAR project will catapult rural producers onto a faster and higher income growth while building household resilience and managing risk. This will be done through intensification and diversification in agriculture and in the allied sub-sectors of livestock, fisheries and non-timber forest produce. The project is expected to increase annual household cash incomes by at least 50 percent on average at the end of six years relative to current levels.

Project activities are grouped under three main components: (a) Component 1 – Diversified and resilient production and value addition. This will involve support for producer collectives and for intensification



and diversification across the sub-sectors of HVA, livestock, NTFP, fisheries and irrigation. (b) Component 2 – Promoting market access, skill development and pro-poor finance. This will involve support for promoting market access and private sector participation; fostering skill development relevant to the focus value chains; and facilitating the development of pro-poor agricultural finance systems. (c) Component 3 – Project management. This will involve support for project and knowledge management.

Component 1: Diversified and Resilient Production and Value Addition

This component will support collectives of small producers and interventions for diversification, intensification and value-addition in the selected sub-sectors of HVA, livestock, NTFP, fisheries and irrigation.

Sub-component 1.1 Rural Producer Collectives

The objective of this sub-component is to promote collectives of small producers with significant participation of women producers from SHGs. The key strategy adopted will be to build on the work of the existing NRLP where the mobilized households have developed first-level of assets/resources and are significant economic actors in specific sub-sectors/commodities. Close alignment with the institutional structure of SHGs, whose membership base is women from poor households, will ensure that the producer collectives are socially inclusive.

The key activities under the sub-component are: (a) Formation of PGs (about 3400) focusing on production, aggregation and first level of value addition in specific sub-sectors/commodities across HVA, livestock, fisheries and NTFP. (b) Formation of about 30 higher-level POs that will function as business enterprises engaged in aggregation, higher order value addition, branding and marketing. (c) Development of a cadre of community professionals (CPs) who will form and groom the PGs and POs, provide grassroots level extension services, facilitate linkages with markets and financial institutions, and assist in data management. The CPs include Ajeevika Krishi Mitra (AKM) for HVA, Ajeevika Pashu Sakhi (APS) for livestock, Ajeevika Matsya Mitra (AMM) for fisheries, Ajeevika Vanopaj Mitra (AVM) for NTFP, as well as PG facilitators and book-keepers. (d) Garnering financial support in the form of startup capital to PGs and POs, and part-financing of the PO business plan to supplement funding mobilized through convergence or from formal financial institutions (FFIs). (e) Technical support to JSLPS on promotion and strengthening of PGs and POs through a Technical Support Agency (TSA). Capacity building of CPs is described under Component 2. A large number of women from SHGs will be mobilized under this sub-component as members and leaders of the PGs and POs, and as CPs. Through ongoing and new partnerships with resource agencies on implementing more engendered production and agribusiness models, the project will focus on providing greater visibility and formal recognition to women producers.

Sub-component 1.2 High-Value Agriculture Development

The objective of this sub-component is to promote the adoption of market-led HVA systems by the targeted households. HVA will mainly focus on year-round cultivation of vegetables in the midland. In



addition, to help provide better food security to households, it will also demonstrate technologies for improving productivity and reducing climate risk in paddy. In the uplands it will demonstrate new high-yielding varieties of pulses, oilseeds and millets. Thus, in combination, while vegetable cultivation will provide a quantum jump in income, other measures will enhance food security and help reduce risk by diversifying the cropping portfolio. Also, innovations piloted under the Bank supported Sustainable Livelihoods and Adaptation to Climate Change (SLACC) project, such as community based soil testing, increasing organic content of soils, ICT-based crop extension and weather forecasting will be scaled up through this sub-component.

The key activities under this sub-component are: (a) Facilitation of participatory HVA crop selection by farmers through training on utilization of multiple information inputs (including market information, feedback from crop trials, nutrition and food security status, etc.) in selecting HVA crops. Crops chosen would help households earn an income of Rs 25,000–100,000 and bring at least 0.3 acres of land under HVA (examples include tomato, chilli, capsicum, watermelon, cucurbits, cole crops). Most households will be able to set aside this parcel of land as the average landholding is about 1.17 ha. (b) Facilitation of community-based planning such that each PG will undertake coordinated cultivation of 1–2 crops in a season and achieve sufficient production volume for effective technology transfer and efficient input–output marketing. A one-time grant support limited to 30 percent of the cost of inputs for HVA crop cultivation will be provided to the producers through PGs. (c) Training of farmers through CPs (AKMs and senior AKMs) on aspects including production of high quality planting materials through nurseries, soil-testing based crop fertilizer management, pest surveillance, integrated pest management, etc. In addition to training, handholding will be provided through information and communications technology (ICT)-based on time crop advisory services for selected HVA crops to the CPs/PGs/POs through smart phones. The ICT-based crop advisory service will also provide information to POs on crop status that can help in planning for marketing. (d) Establishment of village resource centers that will provide need-based services/products such as nurseries to produce quality planting material, soil testing laboratories, agrimachinery hiring centers, etc. (e) Establishment of cluster service centers to enable value addition through facilities for cleaning, sorting, grading, packing, cooling, drying and storage facilities as per the crop requirement and market demand. (f) Partnerships with technical service providers (such as World Vegetable Center, Professional Assistance for Development Action (PRADAN), Transforming Rural India Foundation (TRIF), Mobile Agriculture School and Services (MAAS)) to develop standardized package of practices for chosen HVA crops, deliver training and provide ICT-based crop advisory services. Convergence with existing GoJ programs is envisaged for several activities in this sub-component including establishment of soil testing labs, nurseries, vermicompost units, agri-machinery banks, sorting & grading facilities, solar drying units, etc.

Sub-component 1.3 Livestock Development

The objective of this sub-component is to support the targeted households in asset creation, productivity enhancement and market access of selected livestock (broilers, layers, pigs, goats and dual purpose backyard poultry). Given the major role of women, especially from marginal and landless households, in the small ruminant sector, this component will have a large number of women as beneficiaries as well as CPs.



The key activities are: (a) Establishment of breeding villages for pig and goat rearing including support for procurement of breeding stock and village sanitization. (b) Introduction of improved breeds through support for procurement of high quality boars, bucks, pullets, chicks, etc., from private sector enterprises and breeding villages. (c) Provision of working capital to PGs to meet health care and feed cost for one production cycle. (d) Support for establishment of composite feed mills. (e) Support for construction of scientific housing for livestock. (f) Support for vaccination programs for disease prevention. (g) Capacity building on productivity enhancement (improved breeding, health, feeding, housing and management) that will include skill training of producers as well as other need-based training through Farmer Field Schools and exposure visits. Continued extension support will be provided to producers through CPs (Pashu Sakhis). Services of TSAs will be hired to provide capacity building support. (h) Support for partnerships would be contracted with key NGOs and private sector agencies (for example, PRADAN, Jharkhand Womens' Poultry Self-Supporting Cooperative Federation, Heifer International, Tata Trusts, Kegg Farms) to implement the activities for specific sub-sectors. The Global Alliance for Livestock Veterinary Medicines (GALVmed) would be contracted to support supply chain management for vaccines and training Pashu Sakhis in maintaining records. Support through convergence with existing GoJ programs is envisaged for several activities in this sub-component including housing for livestock, introduction of improved breed animals, establishment of feed plants, etc.

Sub-component 1.4 Fishery Development

The objective of this sub-component is to enhance fish production and marketing by the targeted households. The sub-component will focus on farm pond production, fry production and reservoir/cage production.

The key activities to be supported are: (a) Demonstrations/pilots on improved technologies including short production cycle models involving fast growing fish varieties, cage culture of *Pangasius* in reservoirs, improved stocking, intensification of fish seed production in small ponds, improved fish culture in farm ponds/Dobhas, introduction of formulated fish feeds that use locally available ingredients, promotion of appropriate innovative technologies (e.g. lining in Dobhas), etc. (b) Financial support through grants to SHGs for on-ward lending to PGs for fisheries, as well as through direct grants to PGs for pond improvement and procuring basic equipment. (c) Training of fish farmers in PGs, SHGs and their federations through the Directorate of Fisheries of the GoJ, extension support institutions (Krishi Vignana Kendras) as well as NGOs with expertise in this area. Exposure visits will be organized to facilitate learning from best practitioners within and outside the state. (d) Establishment of technical advisory centers at the district level to cater to the needs of small fish farmers. (e) Augmentation of state hatchery infrastructure. (f) Studies on governance and policy reforms including leasing of water bodies for fisheries, aquaculture insurance, information management to support stocking programs and subsidy schemes. (g) Development and deployment of mobile applications that will enable Global Positioning System (GPS) tagging of production ponds, geographic information system (GIS)-based analysis, disseminate technical advice on production, record production, relay market information, etc. Convergence support is foreseen for several activities in this sub-component including training, provision of aquaculture equipment, hatchery development, fish production, etc.



Sub-component 1.5 Non-Timber Forest Produce Development

The objective of this sub-component is to supplement household earnings through enhanced value addition of NTFPs for the targeted households, especially the particularly vulnerable tribal groups (PVTGs). NTFPs can be gathered from natural forests or in some cases (lac for example) through cultivation. For most NTFPs, production is viewed as a supplementary livelihood activity and therefore, the sub-component will focus on blocks with high potential for NTFP production as well as other primary income sources such as HVA and livestock. The NTFPs selected for the intervention are: lac production on semialata, ber and kusum trees; tamarind fruit; moringa leaves; lemon grass; chironji fruit; tulsi leaves; and honey. The sub-component will also explore potential value-addition of select NTFP through creation of artisanal crafts (for example, bamboo craft, lac jewelry, etc.).

The key activities under the sub-component are: (a) Analytical studies on value chains of selected NTFPs. (b) Investments to: improve timely supply of quality seed material for the selected NTFPs (brood lac, semialata saplings, etc.), provide necessary inputs to farmers (equipment, cultivation cost, etc.), and develop supportive products or services such as manufacture of apiary boxes. (c) Establish primary and advanced processing units at the cluster level for value addition. (d) Establish a state level center of excellence for research and development and quality control. (e) Training and exposure visits for producers on scientific production/collection, post-harvest management, processing and marketing. (f) innovative pilot interventions such as on artisanal products. Convergence with existing GoJ programs is foreseen for activities including input supply, establishment of processing units and support services.

Sub-component 1.6 Irrigation System Development

The objective of this sub-component is to provide access to community-based micro irrigation to targeted households practicing HVA cropping system. Access to irrigation is essential for taking up HVA in the Rabi season while critical irrigation is essential in the Kharif season to reduce weather based risks. This will be achieved by creating/augmenting water sources (primarily surface and sub-surface flows in streams), providing water-lifting devices and establishing water distribution systems such that all HVA farmers have critical irrigation during Kharif and at least 60 percent HAV farmers have regular irrigation during Rabi. Given the smallholdings of farmers and their relative inability to make large investments individually, the project will support micro-irrigation schemes that are community owned, operated and maintained.

The activities supported under the sub-component are: (a) Preparation of micro-irrigation plans through a TSP who will carry out site survey, design and plan preparation. The plan will include details of water sources, lifting devices, distribution systems, command area and irrigation schedule. It will also provide detailed specifications of materials, their costs and an implementation schedule. (b) Creation of the micro-irrigation infrastructure that will involve: gravity-based diversion of hill streams to lower areas; solar-, electric- and diesel-based lifting devices with GPRS-enabled starter connected to a mobile application that will help track usage of micro-irrigation sub-projects; distribution systems that enable operation of drip irrigation systems; small irrigation pump sets for use with farm ponds, wells, etc. (c) Demonstration of low-cost drip irrigation, alternate row flooding, etc., to reduce water usage. (d) Formation of water user groups under the technical supervision of the TSP with membership of all HVA farmers in the command area for participating in planning, development, operation and maintenance of



the micro-irrigation infrastructure. The user group members will pay user charges to cover costs of operation and maintenance. The micro-irrigation infrastructure will be part-financed through convergence with existing schemes of the GoJ that support seepage tanks, solar powered pumps, drip irrigation, etc.

Component 2: Promoting Market Access, Skill Development and Pro-poor Finance

This component will involve support for promoting market access and private sector participation, fostering skill development relevant to the focus value chains and facilitating the development of pro-poor agricultural finance systems.

Sub-component 2.1 Market Access and Private Sector Participation

The objective of this sub-component is to strengthen forward and backward market linkages for rural producers in the HVA, livestock, fisheries and NTFP sectors.

In order to achieve the objective, the project will support the following activities: (a) Market intelligence and information: Product-based market assessment studies will be supported, that will identify opportunities to increase participation in value chains, identify constraints to market access and information, and provide a better understanding of market prices, volumes and channels. The studies will also cover the role and contribution of women across the value chains, and provide better understanding of the constraints and opportunities for strengthening women's participation in selected commodities. A technology-based market information platform will be supported for providing producers with real-time market price information to facilitate informed market decisions, transparency and reduce the role of intermediaries. The platform will equip the women producers with the tools to engage and negotiate with the local and regional markets more profitably. Training will be provided to subscribers to enable full adoption of this technology. (b) Forward market linkages: Partnerships will be built with selected agencies for turnkey projects on scaling up existing models that successfully link markets with producers through various market-led strategies. Senior AKMs will be capacitated to function at the cluster level as market champions to match market information with local capabilities to effectively promote linkages of PGs and POs with the markets. (c) Business Development Cell (BDC) of public-private-community partnerships (PPCPs) will be established in JSLPS and will facilitate partnerships with private sector companies, industry associations, government departments, etc. on forward and backward value-chain linkages across the various sub-sectors. The BDC will identify opportunities for investment based on up-to-date cluster and district-level information. The Cell will also support innovation and entrepreneurship through provision of technical and incubation support to emerging entrepreneurs and micro-enterprises. The assistance will cover establishment of linkages with financial institutions, e-marketing platforms and private companies (for back-end operations, extension services, processing facilities, marketing, etc.).

Sub-component 2.2 Skill Development and Entrepreneurship in Focus Value Chains

The objective of this sub-component is to upgrade skills of individual entrepreneurs, CPs and service providers in agriculture and allied sectors in order to build their capacity for entrepreneurship and for training/technical service delivery to producers.



The specific activities financed will include: (a) participatory technical evaluations of focus value chains across HVA, livestock, fisheries and NTFP sub-sectors to identify skill gaps and opportunities for skills up-gradation; (b) hiring technical partner organizations and resource people to develop curricula for training to address these gaps; (c) developing training delivery systems (including pre- and post-training services) through partnerships with support organizations and developing a pool of master trainers within the state; (d) provision of training programs for community professionals including AKM for HVA, para-vets and APS for livestock, AMM for fisheries, AVM for NTFP, and micro-enterprise consultants (MEC) for entrepreneurship; (e) provision of training programs for service providers including soil sample collectors, soil testing analysts, nursery entrepreneurs and assistants, irrigation operators and repairers, agriculture machinery operators and repairers, hatchery entrepreneurs and workers, feed plant operators, etc.; (f) provision of training for entrepreneurs; (g) liaising with the National Skills Development Corporation and the relevant Sector Skills Council for accreditation of training providers and certification of trainees; (h) an innovation marketplace program that will help to identify promising innovations in the agriculture and allied sectors that can be supported for scaling up into enterprises through the BDC described under sub-component 2.1.

Sub-component 2.3 Pro-poor Agricultural Finance Systems

The objective of this sub-component is to support producer collectives (PGs and POs) and their enterprises in accessing financial services, especially credit and insurance, to support production and resilience. In doing so the sub-component will reduce the gender gap in access to credit. The project shall follow three major pathways for channelizing credit: (a) credit from VOs/FFIs to the SHGs, and/or, from FFIs to Joint Liability Groups (b) partnerships with FFIs for credit targeted at individual producers (c) credit from FFIs for POs by leveraging their equity capital base.

The sub-component will work on both the demand side and supply side for enabling effective and sustainable linkages between providers and users of financial services. The major activities proposed on the demand side are: (i) needs assessment; (ii) customer segmentation; and (iii) financial education of the producers covered by the project. The major activities proposed on the supply side are: (a) landscape mapping; (b) risk profiling; (c) technical assistance to build capacities and enable partnerships with formal financial institutions; (d) demand-driven design of credit and insurance products; and (e) financial services delivery. This sub-component shall be steered by a Financial Inclusion and Mainstreaming team in the Project Management Unit (PMU). The team will be responsible for expanding access to financial services through multiple pathways outlined above and supporting risk management on both the supply side and demand side through measures such as financial education; coverage of individual producers under credit bureau; and effective management of data related to financial services to individual producers covered under the project.

Component 3: Project & Knowledge Management

The objective of this component is to establish effective project management and facilitate strong knowledge management. The project will support the following activities: (a) Project management: This sub-component will support project coordination, implementation, financial management,



environmental and social safeguards management, and monitoring at the state and district levels. It will include establishment of state- and district-level PMUs in JSLPS, staff and consultant expenses, procurement of resource/support agencies and service providers, office infrastructure, logistics support, management information system (MIS), GIS, ICT-mediated citizen engagement systems, and other operational expenses. Project monitoring, learning and evaluation systems will be supported through this sub-component. The sub-component will also invest in capacity building of human resources in the JSLPS. (b) Knowledge management: This sub-component will support research and innovation by national and state institutions, agriculture universities, NGOs, etc. to bridge key knowledge and technology gaps. Knowledge products in the form of policy papers and experience sharing seminars will be organized. An 'innovation fund' will also be ear-marked to support exploration and piloting of innovations in production, technology and marketing systems, social inclusion approaches, etc.

E. Implementation

Institutional and Implementation Arrangements

The JOHAR project will be implemented by GoJ's Rural Development Department. The JSLPS, an autonomous registered society under the aegis of the RDD, is designated as the special purpose vehicle for project implementation. JSLPS has a Governing Council headed by the Principal Secretary, Rural Development with participation from the line departments, private sector and NGOs. JSLPS is presently implementing the ongoing Bank-financed NRLP. JSLPS has a high quality and flexible HR policy that governs the existing NRLP project and new projects such as JOHAR. The JSLPS will be responsible for the overall outputs and outcomes of the project, for mobilizing co-financing through convergence, for sourcing required technical support through partnerships, etc. The key line departments that the JSLPS will partner with for implementation of the various activities are: Department of Agriculture (encompassing Directorates of agriculture, horticulture, animal husbandry, fisheries), and the Department of Forest, Environment and Climate Change. The line departments will provide technical support through training and extension services, and financial support through convergence with government schemes. The institutional arrangements will be as follows:

State level: The project would be steered by a High Level Steering Committee headed by the Chief Secretary and comprising the principal secretaries of the relevant departments (Rural Development Department, Department of Agriculture and the Department of Forest, Environment and Climate Change). A State Project Management Unit (SPMU) for JOHAR headed by the Chief Executive Officer (CEO) of JSLPS would be established within the JSLPS. The SPMU will be ring-fenced, to a large extent, from the other implementation arrangements in JSLPS for NRLP and for other bilateral projects being overseen by JSLPS. JOHAR will also have a dedicated Project Director (a senior government official from the Indian Civil Services on deputation) who works under the CEO. The SPMU will have a multi-disciplinary team of staff and technical consultants who will work exclusively for JOHAR. The team will include thematic leads (equivalent to state program managers or SPM) in the areas: HVA, livestock, fisheries, NTFP, irrigation and skills and jobs. For the systems-related functions (human resources, M&E, finance, procurement and safeguards), the SPMU will include leads (equivalent to program managers) that will work under the SPMs already existing in JSLPS. Each line department will also designate nodal officers within their departments/directorates to coordinate with the SPMU. The SPMU along with the



nodal officers in the line departments will work with the District Project Management Units (DPMUs) of the JSLPS to implement the project in the field. A BDC at the state level will be headed by a CEO and will include managers for PPCP and agribusiness/value chain development.

District Level: The DPMU for JOHAR will be established in each of the 19 districts within the existing DPMU of JSLPS. The DPMU will be staffed with a multi-disciplinary team of technical consultants whose expertise will be mapped to the specific sub-sectors being focused upon in the district and could include experts in HVA, irrigation, livestock, fisheries and NTFP. Depending on the degree of support needed from line departments, a dedicated JOHAR technical extension officer will be placed in the district units of the line departments to work the DPMU. These officers would be responsible for ensuring smooth convergence with the department (including access to government grant schemes, training and technical support, etc.). The Producer Organization Support Cell at the district level will be staffed by a maximum of two district managers for agribusiness /value chain development

Block Level: Each of the 76 blocks would have a dedicated JOHAR Block Coordinator reporting to the Block Project Manager of JSLPS. Two to three field thematic coordinators (with academic background in agriculture or allied sciences) will provide technical support and coordination services to each block. The coordinators will work closely with community resource persons (CRPs) at the village level and senior CRP at the cluster level. The CRPs in turn are responsible for the formation and functioning of producer groups and provide the last mile link in delivering project services to producer groups.

Community Institutions: JOHAR will work with the community institutions that are supported by the NRLP including the SHGs and their federations. Small producers will be aggregated around key sub-sectors to form PGs and larger POs (companies, cooperatives). About 3,400 PGs and 30 POs are expected to be formed/supported across the various sub-sectors.

Partnerships: The project will be implemented in close association with the NRLM and will explore partnerships with select national missions such as the National Skill Development Mission and the National Mission for Sustainable Agriculture. Technical and research institution partners such as the International Rice Research Institute (IRRI), World Vegetable Center, MS Swaminathan Research Foundation (MSSRF), Syngenta Foundation, Directorate of Oil Seeds Research, Pulse Research Institute, Horticulture Research Institute, International Livestock Research Institute (ILRI), etc. for the provision of technical support through development of package of practices, training of trainers for extension, etc. NGOs (Tata Trusts, PRADAN, Heifer International, etc.) will be partners supporting field implementation in specific thematic and geographical areas. Partnerships with financial institutions are planned to enhance access to relevant financial services by producers. Partnerships with agencies working on models for linking markets with producers are envisaged and turnkey initiatives will be designed and implemented by the selected agencies.

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The project will be implemented in 76 blocks and 19 districts across the state. Project activities cover most of the state which comprises of the Chotanagpur Plateau, a part of Deccan bio-geographic province. It is a hilly undulating plateau characterized by predominantly dense tropical forests to sub-tropical mixed forests and tribal settlements. About 29% of total landmass is under forest cover with one tiger reserve, one elephant reserve and 10 Wild Life Sanctuaries. The total agricultural land in the state is 26 lakh ha. Most of the agriculture in state is rain fed and majority of the production is confined to kharif (single crop). 40% of area is under mono cropping mostly paddy. Jharkhand has sizable tribal population (26.3%) which is predominantly rural (91%) and significantly concentrated in 13 districts. About 111 blocks in 15 districts come under the Fifth Schedule Areas. Tribals are going to be significant project participants and beneficiaries in a large number of JOHAR clusters. Presence of left wing extremism (LWE) in many of the project areas poses social and implementation risks to the project. The Project area includes administrative units (“blocks”) that are fully or partially within sub-catchments of the Ganges River basin (including for example, the Sone and Gandak sub-basins), which are considered part of an international waterway as defined in OP 7.50. In these areas, Project activities that involve water use or potential pollution (fisheries, and high-value agriculture) would be excluded. The remainder of the Project area is within coastal drainage basins including the Brahmani, Baitarani, Subernarekha and Damodar. These are not considered to be international waterways and thus no exclusion of water-using interventions would be required under the Project.

G. Environmental and Social Safeguards Specialists on the Team

Anupam Joshi,Varun Singh

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The policy was triggered to assess the potential impacts of the proposed investments in High Value Agriculture, Irrigation, Livestock, Fisheries, Non Timber Forest Produce and value chain related infrastructure. An Environmental Assessment study has been conducted covering a sample of 6 districts covering all 3 Agro Climatic Zones. The Assessment has identified potentially adverse impacts of the mentioned interventions and required mitigations.
Natural Habitats OP/BP 4.04	No	The project activities will not result in significant



		conversion or degradation of critical natural habitats or any habitat loss.
Forests OP/BP 4.36	No	The project interventions will not bring any management changes to the forest resources in the state.
Pest Management OP 4.09	Yes	This policy is triggered as there is likelihood of use of pesticides and other agrochemicals especially in High Value Agriculture interventions and also once project investments on irrigation are realized. The project has prepared a Pest Management Plan which would be promoted widely in the agriculture and irrigation clusters.
Physical Cultural Resources OP/BP 4.11	No	The project will not impact any physical, cultural and/or religious sites. Therefore the policy is not triggered
Indigenous Peoples OP/BP 4.10	Yes	OP 4.10 on Indigenous Peoples (IPs) is applicable as Jharkhand has a high percentage of tribal population, and tribal population will be significant project beneficiaries in majority of the project clusters
Involuntary Resettlement OP/BP 4.12	No	OP 4.12 is not applicable as JOHAR will not involve any compulsory acquisition of private land
Safety of Dams OP/BP 4.37	No	The project will not support construction, refurbishment and replacement of equipment etc. of any dams and therefore this policy is not triggered.
Projects on International Waterways OP/BP 7.50	No	The Project area includes administrative units (“blocks”) that are fully or partially within sub-catchments of the Ganges River basin (including for example, the Sone and Gandak sub-basins), which are considered part of an international waterway as defined in OP 7.50. In these areas, Project activities that involve additional water use or pollution (fisheries, and high-value agriculture) would be excluded. The remainder of the Project area is within coastal drainage basins including the Brahmani, Baitarani, Subernarekha and Damodar. These are not considered to be international waterways and thus no exclusion of water-using interventions would be required under the Project. Given the exclusions of Project interventions of the type given in paragraph 2 of OP 7.50 in any areas deemed to be international waterways under paragraph 1 of OP 7.50, the policy is therefore not triggered.
Projects in Disputed Areas OP/BP 7.60	No	No disputed areas are involved; therefore this policy is not triggered.



KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The project investments could have potential adverse impacts on soil and agrobiodiversity due to higher use of agrochemicals especially pesticides, promotion of improved/hybrid varieties etc. However, given the small size of community-level investments and wide geographical distribution of the investments across over 80 blocks of the State, no large scale, significant and/or irreversible impacts are anticipated.

Tribal communities and areas will be among significant participants and beneficiaries of project interventions and investments, especially on livestock and non-timber forest products (NTFP). JOHAR will be advancing and building upon the social mobilisation and institution building that has already happened in the tribal areas under the ongoing Bank-supported National Rural Livelihoods Project (NRLP). The main safeguard issue here is ensuring the participation and support of the scheduled tribes, including Particularly Vulnerable Tribal Groups, in project activities. From a broader social perspective, the key is to balance the economic/commercial objectives of the project with the social imperative of promoting the participation of marginalized groups in a state where Scheduled Tribes (ST) and Scheduled Castes (SC) are in sizable numbers, and where presence of Left Wing Extremist (LWE) groups creates some implementation risks and challenges. No large scale/significant, adverse social impacts are envisaged.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: Future activities could include expansion of the project activities, development of value chain and market related infrastructures etc. These anticipated activities due to their limited nature, are not likely to have any potential indirect and/or long term impacts.

Over the longer term, rural producers in agriculture, horticulture, forestry and fishery subsectors will be more integrated with value chains and agri-markets leading to greater socioeconomic inclusion. Significant mobilization of farmers and other rural producers, including tribal and vulnerable populations, may have indirect impact on mitigating the LWE conflict. The project will contribute to reduction in gender gaps for women who are largely concentrated in the agriculture and farming sectors.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. Under the irrigation interventions, alternate devices are considered for water use efficiency (low cost drip) and use of renewable energy (solar pumps).

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The borrower has completed the Environmental Assessment (EA) and prepared an Environment Management Framework (EMF), which provides a negative list, legal and regulatory framework, screening criteria and checklists, etc. It also provides list of potential impacts and their mitigation measures and an implementation plan along with a



budget. The Jharkhand State Livelihood Promotion Society (JSLPS) has been implementing the Bank-supported National Rural Livelihoods Project (NRLP), and has implemented good environmental management practices in livelihoods such as – System of Crop Intensification, efficient irrigation, and Community Managed Sustainable Agriculture. Capacity building of the JSLPS staff on environmental safeguards will be undertaken on effective integration of safeguards mechanisms into the project interventions in the areas of agriculture, community-based micro irrigation, fishery, livestock and NTFP. JSLPS' capacity would be strengthened through engagement of dedicated agriculture specialists who will be trained on effective integration of environmental safeguards into the agriculture package of practices and additional TA support from environment consultants.

JSLPS has undertaken a social assessment exercise to understand and address the key social impacts, risks, issues and opportunities related to JOHAR project interventions, and address them through specific measures. Based on the social assessment, JSLPS has prepared a Social Management Framework (SMF) that comprises specific strategies related to i) Consultation, Participation and Inclusion, specially of more vulnerable social groups; ii) Tribal Development Framework; ii) Gender and Women's Empowerment; iii) Citizen's Engagement and iv) addressing implementation challenges related to LWE. The SMF also includes a screening checklist for identifying, and mitigating any minor, local level, adverse social impacts related with community subprojects. While JSLPS has strong experience of working with rural communities in remote, excluded tribal areas, it would need capacity building, handholding support and TA to implement the social safeguard/development strategies in the context of an agriculture and agribusiness project. Under JOHAR, JSLPS' capacity would be strengthened through engagement of dedicated social safeguards specialists, design and delivery of a capacity building program, effective integration of social safeguards into project cycle, as well as TA support from the Bank.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The primary project beneficiaries, and key stakeholders, include women and men farmers (small and marginal), livestock rearers, fishers and tribal communities dependent on forest produce. Participation of women, scheduled caste and scheduled tribe households among the project beneficiaries is a key results indicator of JOHAR.

The first round of stakeholder consultations were carried out during the Environment Assessment (EA) to elicit the views of the stakeholders on the key environmental issues in different sectors and solutions/best practices. The draft Environment Management Framework (EMF) report will be disclosed on the project website and a disclosure workshop will be conducted to share the key findings of the EA and the proposed arrangements with the stakeholders. The EMF will be finalized after integrating the relevant suggestions from the stakeholders.

JSLPS has undertaken extensive stakeholder consultations in proposed JOHAR clusters of Ranchi, Gumla, Khunti, Palamu, West Singhbhum, and Dumka districts in order to get stakeholder/beneficiary feedback on key social issues, impacts/risks as well as good practices and opportunities for enhancing the social benefits of JOHAR for women, smallholders, landless and vulnerable SC and ST households. These consultations have involved rural producers and producer collectives, women's SHGs and their higher federations, Panchayati Raj Institutions (PRI) representatives, leading NGOs and their networks, sectoral line agencies, district administrations, and district/field teams of JSLPS, and other private sector foundations/bodies. Informed consultations supported by local facilitators specially reached out to beneficiaries, producer groups (PGs), SHGs/Federations, formal/informal leaders and NGOs in tribal areas.

The social management and tribal development framework will be disclosed on the JSLPS website and in the project districts, as well as the Bank's InfoShop.



B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission to InfoShop	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
10-Feb-2017	13-Feb-2017	

"In country" Disclosure

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank	Date of submission to InfoShop
10-Feb-2017	13-Feb-2017

"In country" Disclosure

Pest Management Plan

Was the document disclosed prior to appraisal?	Date of receipt by the Bank	Date of submission to InfoShop
Yes	10-Feb-2017	13-Feb-2017

"In country" Disclosure

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

In-country disclosure is expected



C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

Yes

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes



All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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Approved By

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Practice Manager/Manager:	Shobha Shetty	15-Feb-2017
Country Director:	Luc Lecuit	16-Feb-2017

Note to Task Teams: End of system generated content, document is editable from here.

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