Project Information Document/
Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 13-Nov-2018 | Report No: PIDISDSC25438
### BASIC INFORMATION

#### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>P168061</td>
<td></td>
<td>Hubei Safe, Sustainable, Smart Agriculture Project (P168061)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
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<tbody>
<tr>
<td>EAST ASIA AND PACIFIC</td>
<td>Dec 02, 2019</td>
<td>Mar 24, 2020</td>
<td>Agriculture</td>
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</table>

<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Project Financing</td>
<td>People's Republic of China</td>
<td>Hubei Provincial Department of Agriculture</td>
</tr>
</tbody>
</table>

#### Proposed Development Objective(s)

Indicative PDO: To strengthen the management of environmental, climatic, and food safety risks in targeted locations and agri-food value chains in Hubei Province.

### PROJECT FINANCING DATA (US$, Millions)

#### SUMMARY

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total Project Cost</td>
<td>215.00</td>
</tr>
<tr>
<td>Total Financing</td>
<td>200.00</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
<td>100.00</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>15.00</td>
</tr>
</tbody>
</table>

#### DETAILS

**World Bank Group Financing**

- International Bank for Reconstruction and Development (IBRD) 100.00

**Non-World Bank Group Financing**

- Counterpart Funding 100.00
- Borrower 100.00
B. Introduction and Context

Country Context

1. Over recent decades, China has been highly successful in developing an agricultural sector that has ensured the food security of its population. Agricultural production in China has grown by nearly 5% per year since the late 1970s, a remarkable achievement. China’s agricultural total factor productivity growth of 2-3.5% per year since the start of the reforms has been one of the highest in the world. This TFP growth has stemmed from technological innovation, together with economic and institutional reforms. Significant and sustained agricultural growth has helped to lift hundreds of millions of people out of poverty, and reduced hunger by over 70%—more than any other country in Asia.

2. Hubei is a medium-sized province with a population of 59 million people and 185,900 km² of total land area. In 2016, its GDP was RMB 3,266.5 billion (ranking 7th among Chinese provinces), with a per capita GDP of RMB 55,196 (USD 8,133). Situated in the middle branch of the Yangtze River, with the fertile Yangtze-Han River Plain, Hubei Province is one of China’s leading agricultural producers, ranking in the top five provinces for rice, tea, vegetables, freshwater aquaculture, and oilseed production. Agriculture (including cropping, forestry, animal husbandry and fisheries) accounts for 19% of the total provincial GDP and provides livelihoods or employment for some 8.8 million people.

3. Hubei has ambitious goals in relation to agricultural development. As articulated in the provincial 13th 5 Year Plan and in the 2018-2020 Specialty Agricultural Produce Development Plan, Hubei aspires to take advantage of an unmet national demand for safe, high-quality food products from an increasingly urbanizing consumer base. Hubei Province aims to become a national leader in agricultural sustainability, food safety and climate change mitigation and adaptation. The province has the potential to become one of China’s top producers of “cleaner and greener” food, by differentiating itself through the production and environmental practices applied, the quality of its products, and the integrity of its institutional arrangements for food governance.

Sectoral and Institutional Context

4. China’s approach to agricultural development over recent decades has been driven by “The Three Ss”: security, sustainability, and safety— with the emphasis primarily on the first “S”. As noted above, this approach has yielded dramatic results in terms of food security, as well as economic growth, poverty reduction, and diversification of production. China is now the world’s largest producer of cereals, meat, and vegetables. However, these production gains were achieved primarily through heavy intensification of production through increased use of chemical inputs. This has brought major environmental challenges. China produces and uses more synthetic nitrogen fertilizer than any other country, both on an absolute and per hectare basis (World Bank, 2017). Excessive use and run-off of fertilizer has been a major contributor to
the eutrophication of many Chinese lakes and rivers, resulting in major fish kills, biodiversity loss, and loss of recreational services. In China, only around 25% of nitrogen is taken up by crops—compared to 50% in Europe and almost 70% in the U.S. and Canada—with the remainder running off into water sources or entering the air. The misuse of fertilizer is one reason why China’s agriculture has overtaken industry as the dominant source of water pollution.

5. All told, China’s agriculture is also a major contributor to climate change. It is the world’s biggest emitter of GHGs from agriculture, accounting for 13% of the global agricultural emissions total. Chinese agriculture emits an estimated 700 million tons of GHGs, around 11% of the country’s total emissions. It is a major source of the powerful GHGs methane (from paddy fields and livestock manure) and nitrous oxide (from manure and use of nitrogen fertilizers). At least one model projects that agricultural emissions in China will rise to 1,350 million tons by 2050 without serious national mitigation efforts. Climate change also represents a significant risk to Chinese agriculture, with the potential to reduce yields, raise pest and disease pressures, make crops more vulnerable to mycotoxins, and reduce the nutrient value of food. Climate change also poses serious threats to Chinese agriculture, which are expected to accelerate in the future. Temperatures have already increased by 1.2°C over the last 50 years. Precipitation has decreased in the already dry north, while increasing in the flood-prone south. Models project that crop yields in some areas will be reduced by 20% or more by mid-century unless action is taken to build resilience.

6. Addressing environmental challenges has become a priority for the Chinese government. Policies and national development strategies on eco-civilization and green growth were highlights of the keynote speech delivered by China’s President Xi Jinping at the 19th Communist Party Congress held in October 2017, and the 2018 No. 1 Central Document. The National Sustainable Agricultural Development Plan adopted by the Ministry of Agriculture in 2016 includes commitments to treat or utilize 90% of animal waste by 2030, to utilize all crop straw by the same year, to increase nitrogen fertilizer efficiency by 40% by 2020, and to equip 75% of all irrigated farmland with water saving technologies by 2030. China is also increasingly playing a global leadership role on these issues. Under the Paris Climate Agreement, China committed “to promote the low-carbon development in agriculture.”

7. In the meantime, China’s increasingly affluent, sophisticated, and urban consumers are demanding safer, healthier, and greener food. The over-use of agro-chemicals such as pesticides, herbicides, and fertilizers has contributed to soil degradation and contamination of large areas. One sixth of arable land in China suffers from soil pollution, 22 million acres of farmland are contaminated with pesticides, and 13 million tons of crops are contaminated with heavy metals each year (Chinese Ministry of Environmental Protection). The situation has likely led to serious, long-term, adverse health impacts for farmers as well as consumers. A series of scandals related to contaminated or adulterated crop, livestock, and processed food products has received widespread attention in the news and social media. This has caused great concern among Chinese consumers, leading them to seek out products with increasingly higher levels of certification and traceability, or to opt for imports.

8. There is concern that China’s farm structure—with hundreds of millions of farmers exploiting plots of less than a hectare—is contributing to the problem. Older or absentee farmers opt to apply larger amounts of fertilizers all at once instead of distributing smaller amounts over the entire crop cycle due to a lack of labor. Such farmers also tend to overuse pesticides, or use banned and highly toxic substances, raising the level of hazards in the food supply. Fragmented and small farms often do not avail farmers of adequate financial incentive to adopt new and more sustainable technologies and management practices. To address the challenges related to small farm size and employment in the non-farm sector, the Chinese government has set a clear policy direction for professionalization and modernization of its agriculture sector.

9. Hubei Province is a prime example of the broader trends. In an initial project proposal submitted to national authorities and the World Bank, the Hubei provincial government has requested the Bank’s assistance in addressing the challenges it
faces with potential contamination of agri-food products, and the lack of traceability systems and consistent standards. The majority of the challenges described in the proposal derive not from microbial contamination due to improper handling, processing and storage of food products, but from the unsustainable production problems plaguing the sector more generally. For example, Hubei ranks third in the nation in fertilizer use (Mengyao Hou, et al., 2017). A review of soil sample surveys found that 20-30% of Hubei agricultural land is contaminated with heavy metals, ranking near the top of provinces with the highest such incidence. While industrial pollution is a leading source of heavy metal contamination of soil and water, the overuse of pesticides is also a contributor. An estimated one million square kilometers of farmland have experienced soil contamination, including excessive levels heavy metals, due to pesticide overuse. Heavy use of pesticides has been especially common in rice, vegetable, and tea production. Meanwhile, climate change impacts are expected to be especially significant in central and south-eastern China, which includes Hubei.

10. Addressing the current challenges facing China’s agri-food system and positioning the sector to continue to excel into the middle of the century requires working with the government, farmers and the private sector to promote a new approach to agricultural development based on “The New 3 Ss”: Safe, Sustainable, and Smart (both, climate-smart and technology smart). This approach recognizes that food safety, environmental sustainability, and being climate-smart are all related, and that they should be addressed in an integrated and complementary way. For example, on its current path, climate change is expected to exacerbate food safety risks in China. Changing weather patterns could increase pathogen prevalence in agriculture and affect pest distribution, while extreme events like heavy rainfall and flooding can increase the infection risk from pathogens and make plants more susceptible to mycotoxins. By investing in resilience-building measures and cutting emissions, China can reduce food safety risks. As another example, limiting the use of chemical inputs in Chinese agriculture can reduce water pollution, cut GHGs, improve soil structure, and minimize harmful residues on crops.

Relationship to CPF

11. The proposed Hubei Safe, Sustainable, Smart (3S) Agriculture Project is fully aligned with the World Bank’s Country Partnership Strategy (Report 67566-CN) for China (FY2013–2016), discussed by the Board on November 6, 2012. The project responds to the call for strengthening skills, enhancing economic opportunities in rural areas, addressing environmental pollution and improving food safety under the CPS pillar of promoting more inclusive development. The proposed project is also in line with FY13-16 CPS PLR (Report No. 95709-CN), which confirms the WBG’s efforts to promote inclusive development by supporting demonstration projects in rural areas. Finally, the proposed project supports two of the five main priorities outlined in the recently released China Strategic Country Diagnostics: (i) Reduce the disparity in access to quality public services; and (ii) Improve farm productivity and efficiency. Consistent with the implications for China from the capital increase package of the IBRD GDI, the project will focus on policy and institutional innovations while contributing to global public goods, catalyzing private sector solutions, and introducing transformative solutions that generate lessons for lower-income countries.

C. Proposed Development Objective(s)

12. The PDO is: To strengthen the management of environmental, climatic, and food safety risks in targeted locations and agri-food value chains in Hubei Province.

Key Results (From PCN)

13. Key expected results of the project include:
- Improved evidence base for surveillance and monitoring of agro-environmental hazards and food safety risks;  
- Increased area under Good Agricultural Practices (GAP) such as organic, minimum tillage, climate resilient, and sustainable farm management systems;  
- Protocols developed and a monitoring system in place to measure GHG emissions from agriculture;  
- Reduced runoff of pesticides and nutrients;  
- Reduced incidence/levels of specific food safety hazards in marketed rice, tea, and vegetables; and  
- Increased public confidence in the safety and quality of Hubei rice, tea, and vegetables/fruits (based on perceptual surveys).

**D. Concept Description**

14. **Component 1: Agricultural Risk Assessment, Management, and Communications.** This component centers on the development of safe, sustainable, and climate-smart production and processing standards, the strengthening of the evidence base for improved environmental, climatic, and food safety risk management, the strengthening of institutional capacity for developing and effectively utilizing this evidence base, and the development of an improved dialogue with consumers regarding food safety hazards and risks.

15. **Component 2: Demonstration and Replication of Safe and Sustainable Agricultural Practices.** This component will support the demonstration of safe, sustainable, and climate-smart practices in the agri-food system, and the extended adoption of these practices to reduce the vulnerability of agriculture and its own adverse impacts on the environment and human health.

16. **Component 3: Project and Knowledge Management.** In addition to conventional project management and M&E functions, this component would include support for institution strengthening, (making possible links to payment for environmental services and climate-smart agriculture, laying foundation for MRV protocols for GHG emissions, etc.), activities in knowledge management, to gather and share the experiences and lessons learned from the project (such as technical innovations, cost-benefits of different agricultural practices on different scales, and cost effectiveness of different regulatory oversight activities), both in relation to risk assessment and monitoring and to the demonstration and scaling-up successful CSA and GAP practices.

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**SAFEGUARDS**

**A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

17. The proposed project will support specific food safety and environmental improvement activities in 10-14 counties of Hubei province. The specific project counties will be further identified during project preparation. However, it is expected that majority of the project counties are located in the catchment of Yangtze River or its tributaries.

18. Hubei Province is in the central part of China and at the middle stream of the Yangtze River. Hubei is surrounded by mountain ranges to the east, west and north. Among its total land area 185,900 km2, the mountains account for 56%, while hills and plains accounting for 24% and 20% respectively. Hubei has an abundant surface water resources. There are 4,228 large rivers, at a total length of 59.2 thousand km. In addition, Hubei is renowned for its significant number of lakes,
most of which are distributed in the Hanjiang Plain. Currently, there are 755 lakes with a combined surface area being 2,706 km².

19. Hubei is in the subtropical region where the monsoon prevails. Apart from the mountainous area, Hubei is characterized with wet climate, long period free of frost, and rich precipitation. The provincial annual temperature averages 15°C-17°C. The coldest days are typically in January with the temperature averaging 2°C-4°C, while the highest temperature typically occurring in July ranging between 27°C-29°C. The precipitation declines from south to north in Hubei, and most takes place in June and July each year. The annual precipitation in Hubei is 800 mm-1600 mm.

B. Borrower’s Institutional Capacity for Safeguard Policies

20. The Hubei Department of Agriculture (HDOA) will be the lead agency for the proposed project, under which the Provincial Project Management Office (PPMO) will been established to take overall responsibilities for the project implementation, management and coordination. Based on the project design, the participating project counties/cities/districts will set up their own County/City Project Management Offices (CPMOs) to implement their activities. The HDOA has experience of implementing previous World Bank funded projects and is currently implementing the IFAD financed project. Experienced consultants will be hired to prepare the safeguard instruments for the project during the preparation, and the project will also develop and implement safeguard capacity building plan for the Borrower, which will help to build and maintain a well-functional mechanism and strong capacity for safeguard management throughout the project preparation and implementation.

C. Environmental and Social Safeguards Specialists on the Team

Yongli Wang, Environmental Specialist
Aimin Hao, Social Specialist

D. Policies that might apply

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
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</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The project is designed to improve food safety and environmental management and to reduce food safety and environmental pollution risks and reduce GHG emission in rice, fruits, vegetables, tea and rape seed value chains through capacity building activities such as training, small scale productive infrastructure investments in targeted demonstration areas (new construction or rehabilitation of high-efficiency irrigation, production roads, storage, processing centers, etc.), establishment of data platforms and traceability systems, promotion of good agricultural practice to reduce the use of agrochemicals, and upgrading of testing equipment and labs. The project may also provide support to agro-enterprises to upgrade their facilities to meet required food safety and environmental standards.</td>
</tr>
</tbody>
</table>
Per OP4.01, the project is proposed as a category B given the nature and the scale of environmental and social issues involved.

As the exact location of investments may not be determined up front, the Environment and Social Management Framework (ESMF) is proposed as the appropriate safeguard instrument to guide the screening and assessment of environmental and social impacts of the subprojects to be identified during the project implementation. Accordingly, the ESMF will include procedures for subproject screening, environmental document preparation, information disclosure and public consultation, GRM, review and approval. It will also include a PMO capacity-building plan and a generic Environmental Code of Practice (ECOP) for each type of physical activity to be supported by the project, e.g., small infrastructure for storage, processing centers, labs; small irrigation facilities; and small production roads, which will be used in the preparation of the ESMP during project implementation for each sub-project.

The ESMF will be prepared in parallel with the social assessment of the project and will integrate the key findings from the social assessment.

Per OP4.01, during ESMF preparation public consultation and information disclosure will be carried out through questionnaire surveys, interviews and public meetings. Public opinions will be incorporated into the project design and EA. The full ESMF will be disclosed locally and on the Bank’s website. Consultations on the ESMP, to be prepared during project implementation, will be carried out with affected people and disclosed locally and on the Bank’s website once the draft ESMP is ready.

<table>
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<tr>
<th>Performance Standards for Private Sector Activities OP/BP 4.03</th>
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<th>TBD</th>
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<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
<td>Given the nature and the environmental context of the project, some activities may affect natural habitats. However, screening criteria for excluding the activities from critical natural habitats will be established in the ESMF to avoid critical natural</td>
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</table>

Nov 12, 2018
<table>
<thead>
<tr>
<th>Category</th>
<th>Op/Bp</th>
<th>Impact</th>
<th>Description</th>
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<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td></td>
<td>The project is not expected to directly or indirectly impact on the health and quality of forests.</td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>Yes</td>
<td></td>
<td>The project will finance capacity building and training activities which is expected to lead to reduction of pesticide use in farming systems or substitution of more toxic pesticides towards less toxic biopesticides to encourage the move towards green or organic product certification. This is expected to have positive effect on the environment and reduce pesticide residues in agricultural produce. The project will support big data applications and traceability systems to monitor and collect data on transport, storage or utilization of hazardous chemicals, pesticides, fertilizers or any similar products by farmers/producers/retailers and improve the testing of pesticide residues in agricultural produce. A PMP will be developed as an integral part of the EMP during the implementation to help manage the procurement of pesticide, and health and safety of people. The ESMF will include a ToR for development of the PMP.</td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>No</td>
<td></td>
<td>The project will not involve any physical cultural resources. Sub-project screening criteria of ESMF will include the requirement on avoidance or potential significant impacts on PCRs. Chance-find procedures will be included in the EMP.</td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>Yes</td>
<td></td>
<td>Ethnic minorities are present in targeted project areas. Impact to ethnic minorities and opportunities to engage ethnic minorities will be further assessed, based on which necessary instrument will be prepared. If impacts on ethnic minority groups are confirmed by the social assessment through prior informed and free consultations, an Ethnic Minority Development Plan (EMDP) will be prepared before project appraisal to ensure participation and equal benefits for local ethnic minorities. An Ethnic Minority Development Framework (EMDF) will be prepared to guide future participation by EMs if no impacts are identified at the appraisal stage. The EMDF will be included in the ESMF as an annex.</td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>Yes</td>
<td></td>
<td>Some project activities may include land acquisition/involuntary resettlement or temporary restriction of access to livelihoods and income</td>
</tr>
</tbody>
</table>
generating activities during civil works associated with the project. Because the exact nature and location of civil works may not be determined up front, the Borrower will prepare a Resettlement Policy Framework (RPF) which will be consulted upon, validated in-country and at the World Bank, and publicly disclosed before project appraisal. A RAP or ARAPs will be prepared if details of livelihood impacts are clear before appraisal. A social impact assessment (SIA) will be conducted by the borrower to assess impacts on local communities, and the SIA report will be included as an annex of the ESMF.

<table>
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<tr>
<th>Safety of Dams OP/BP 4.37</th>
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<tbody>
<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>No</td>
</tr>
<tr>
<td>Projects in Disputed Areas OP/BP 7.60</td>
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**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Dec 30, 2019

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

It is expected that the EIA and social assessment work will start in early 2019 and the draft reports will be submitted to the Bank by August 2019.
CONTACT POINT

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Lead Agriculture Economist

Borrower/Client/Recipient

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APPROVAL

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Country Director: Harold L. Bedoya 15-Nov-2018