

# Project Administration Manual

Project Number: 51116  
Loan Number: LXXXX  
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People's Republic of China: Yangtze River Green  
Ecological Corridor Comprehensive Agriculture  
Development Project

## ABBREVIATIONS

ADB	–	Asian Development Bank
COCAD	–	City/County Office for Comprehensive Agricultural Development Office
CPMO	–	City/County Project Management Office
CQS	–	consultant qualification selection
DMF	–	design and monitoring framework
EMDP	–	ethnic minority and development plan
EMP	–	environmental management plan
FMA	–	financial management assessment
GAP	–	gender action plan
GDP	–	gross domestic product
GRM	–	grievance redress mechanism
ICB	–	international competitive bidding
LIBOR	–	London interbank offered rate
LIC	–	loan implementation consultant
LURT	–	land use right transfer
<i>mu</i>	–	a Chinese unit of measurement (1 <i>mu</i> = 0.067 hectares)
NCB	–	national competitive bidding
NPS	–	nonpoint source
NPMO	–	National Project Management Office
POCAD	–	Provincial Offices for Comprehensive Agricultural Development
PPMO	–	Provincial Project Management Office
PPMS	–	project performance monitoring system
PRC	–	People's Republic of China
QCBS	–	quality- and cost-based selection
SDAP	–	social development action plan
SHP	–	shopping
SOCAD	–	State Office for Comprehensive Agricultural Development
SOE	–	statement of expenditure
YREB	–	Yangtze River Economic Belt

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### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and the Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The National Project Management Office, located in the Ministry of Agriculture and Rural Affairs (formerly the State Office for Comprehensive Agricultural Development) as project executing agency; the Provincial Project Management Offices of Chongqing, Guizhou, Hubei, Hunan, Sichuan, and Yunnan under the former Provincial Offices for Comprehensive Agricultural Development (POCAD), as the implementing agencies, are wholly responsible for the implementation of the ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. The ADB staff is responsible for supporting implementation, including compliance by the Central Project Management Office and the six implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM; and ensure consistency with the loan and project agreements. Such agreements shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan and project agreements, the provisions of the loan and project agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.



## I. PROJECT DESCRIPTION

### A. Rationale

1. The Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project will be implemented in five provinces and one municipality in the upper and middle reaches of the Yangtze River Basin, notably the provinces of Guizhou, Hubei, Hunan, Sichuan, and Yunnan; and Chongqing Municipality.<sup>1</sup> The proposed project will promote sustainable and modern farming systems to enhance productivity, reduce nonpoint source (NPS) pollution and environmental degradation, and strengthen institutional capacity for coordinated natural resources management.

2. The Yangtze River Economic Belt (YREB) covers nine provinces and two specially administered cities within the Yangtze River Basin. It accounts for more than 40% of the entire PRC population, has 40% of the freshwater resources, serves as the drinking water resource for 400 million people, provides 60% of total fisheries production, has 20% of the total wetland area, and already contributes about 45% of the PRC's economic output. Based on its demographic and geographic assets, the PRC government has earmarked YREB as one of the three key growth engines to ensure the PRC's future economic development.<sup>2</sup> However, development and economic growth in the middle and upper reaches of the YREB are still undermined by (i) slow transformation into green development and economic diversification; (ii) limited integration of waterways, ports, and intermodal logistics; (iii) increasing pollution and pressure on natural resources; and (iv) weak institutional coordination for strategic planning.<sup>3</sup>

3. To address these challenges, the Government of the PRC formulated the YREB development plan 2016–2030,<sup>4</sup> which stipulated the prioritization of ecological protection and promotion of green development as the guiding principle for the YREB development.<sup>5</sup> In this connection, the Asian Development Bank (ADB) and the government have agreed to adopt a framework approach, providing about \$2.0 billion of funding in the YREB during 2018–2020 to strategically program ADB's lending support for development initiatives in the YREB with priority given to the following four areas: (i) ecosystem restoration, environmental protection, and water resources management; (ii) green and inclusive industrial transformation; (iii) construction of an integrated multimodal transport corridor; and (iv) institutional strengthening and policy reform.

4. In the middle and upper reaches of the YREB, the traditional modes of economic development strongly rely on the rural economy and primary sector. However, unsustainable production practices continue to cause environmental degradation and limit the opportunities for improving rural livelihoods. This has severely impacted the water resources that the quality of the river water suffers from increasing NPS pollution because of excessive levels of nitrogen, phosphorus, and pesticide entering water bodies through agricultural chemical runoff.<sup>6</sup>

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<sup>1</sup> Selection criteria included: low and medium agricultural productivity; high risk and occurrence of soil erosion; high levels of agricultural nonpoint source pollution; lack of or outdated infrastructure; and the opportunity to implement integrated watershed management in counties with poverty alleviation priority. The selection criteria and process are summarized in Appendix 2.

<sup>2</sup> The other flagship projects are the Belt and Road Initiative and the Beijing–Tianjin–Hebei Integration.

<sup>3</sup> ADB. 2016. *Yangtze River Economic Belt Environmental Protection and Rehabilitation Project: A Preliminary Study*. Consultant's report. Manila (TA 9044-PRC).

<sup>4</sup> Government of the PRC. 2016. *Outline of the Yangtze River Economic Belt Development Plan, 2016–2030*. Beijing.

<sup>5</sup> Green development aims to (i) change the traditional development model to a sustainable development model; (ii) address the challenges of rapid urbanization; and (iii) serve as a guide to socioeconomic development.

<sup>6</sup> B. Sun et al. 2012. Agricultural Nonpoint Source Pollution in China: Causes and Mitigation Measures. *AMBIO*. Issue 41. pp. 370–379.

Agricultural intensification has degraded the land resources, driven by changes to land use, deforestation, diminished water availability and quality, soil erosion, and reduced soil quality from overuse of chemical fertilizers and pesticides. The loss of agricultural productivity as a result of land degradation in the PRC amounts to an estimated \$37.09 billion per year.<sup>7</sup> Moreover, agriculture is highly vulnerable to climate change. Coping with significant variability in future climatic impacts requires efficient water resource management, increased capacity of agricultural support institutions and stakeholders, improvement of the support services to farmers, and more resilient production and ecosystems.

5. The provinces of Guizhou, Hubei, Hunan, Sichuan, and Yunnan; and the Chongqing Municipality support large rural populations and have an agrarian rural economy.<sup>8</sup> Agriculture, animal husbandry, and fisheries are the main sources of livelihood for the 156.34 million people living in these rural areas, but their per capita disposable income of CNY8,090–CNY12,725 is only 31%–43% of that of their urban counterparts.<sup>9</sup> While the terrains vary—ranging from steep and high mountains to valley bottoms near rivers—they can all be characterized by outdated agricultural production systems and practices, with inefficient use of land and water resources, high rate of land conversions, prevalent soil erosion, excessive fertilizer and pesticide use, outdated or lacking infrastructure, intensive livestock production with improper waste management and disposal practices, and lack of adequate extension services. The difficult terrain, poor land management practices, and limited opportunities to adopt modern and better practices have caused widespread environmental degradation, which is further exacerbated by a changing climate and extreme weather conditions, posing significant challenges for achieving sustainable agriculture and enhancing agricultural productivity and rural livelihoods.

6. Modernizing the agriculture sector is aligned with the National Agricultural Sustainable Development Plan, 2015–2030 and focuses on investments in (i) the protection of water and soil resources, such as construction of high-standard farmland, protection and improvement of cultivated farmland, provision of efficient, water-saving irrigation, and monitoring of agricultural resources; (ii) agricultural and rural environmental control, specifically waste management, chemical fertilizer and pesticide control, recycling and reuse of agricultural film and pesticide packaging, straw utilization, and rural environmental integrated management; and (iii) environmental rehabilitation.<sup>10</sup>

7. Currently, provincial agencies have limited opportunity to cooperate on agricultural development and natural resource management, and to coordinate rural economic development across the YREB because of (i) fragmented responsibilities for natural resource management across the various agencies, (ii) competing priorities and policies within and across sectors, and (iii) limited options and mechanisms for upstream–downstream coordination. A new approach is needed to achieve integrated management and green development that can balance natural

<sup>7</sup> X. Deng and Z. Li. 2016. Economics of Land Degradation in China. In E. Nkonya, et al. *Economics of Land Degradation and Improvement: A Global Assessment for Sustainable Development*. pp. 385–399. Beijing: Springer International Publishing. [https://link.springer.com/chapter/10.1007/978-3-319-19168-3\\_13](https://link.springer.com/chapter/10.1007/978-3-319-19168-3_13)

<sup>8</sup> The contributions of the rural population and the primary industry to the provincial or municipal gross domestic product (GDP) are as follows: Guizhou (55.8% and 15.7%), Hubei (41.9% and 11.2%), Hunan (47.3% and 11.3%), Sichuan (50.7% and 11.9%), Yunnan (54.9% and 14.8%); and Chongqing (37.4% and 7.3%). For the country as a whole, the rural population contributes 42.6% and the primary industry contributes 8.6% to the national GDP.

<sup>9</sup> The provincial per capita GDP is as follows: Guizhou (CNY33,246), Hunan (CNY46,382), Hubei (CNY55,665), Sichuan (CNY40,003), and Yunnan (CNY31,093). The per capita GDP of Chongqing Municipality is CNY58,502. The national per capita GDP is CNY53,980.

<sup>10</sup> Released on 20 May 2015 by the Ministry of Agriculture, the Ministry of Environmental Protection, the Ministry of Finance, the Ministry of Land and Resources, the Ministry of Science and Technology, the Ministry of Water Resources, the National Development and Reform Commission, and the State Forestry Administration.



resource management; improve agricultural productivity and thus food security; and increase the resilience of the environment and people. This will require (i) synergies with other social, economic, and environmental objectives; (ii) enhanced cooperation and coordination within and between provinces beyond administrative barriers; (iii) responsible and inclusive governance; (iv) organized planning; and (v) stronger institutional capacity and cooperation.

8. The “Green Ecological Corridor” is an integrated management approach that aims to unite management and development priorities within the YREB. It aims to restore ecological health by managing the functional ecological zones, strengthening water source protection, applying soil and water conservation, and putting in place risk prevention and control measures.<sup>11</sup> This requires a combination of policy support, targeted research, financial incentives such as eco-compensation, and structural mechanisms to promote integrated and sustainable farming systems to protect and rehabilitate the ecological environment while promoting green economic development.<sup>12</sup> Applied at the scale of the watershed, which serves as the natural environmental management unit, it can enable comprehensive and unified management of natural resources as well as cooperation to share experiences and lessons, and focus on green growth rather than the traditional development model.

9. In line with the State Council’s guidelines to build an “ecological civilization”,<sup>13</sup> the National Development and Reform Commission prepared the YREB Development Plan 2016–2030, emphasizing green development, environmental protection, rehabilitation, and management of water resources (footnote 11). The plan specifically aims to (i) facilitate conservation and highly efficient utilization of natural resources; (ii) strengthen management efforts to improve environmental quality as the core purpose; and (iii) prioritize ecological protection and restoration, and the strengthening of water environmental management.<sup>14</sup>

10. **Strategic fit.** The project will protect the ecological environment, improve water security, increase resilience to climate change, and improve the livelihoods of people. Thus, it is consistent with (i) the PRC’s Thirteenth Five-Year Plan, 2016–2020, which aims to realize “ecological civilization”;<sup>15</sup> (ii) the National Agricultural Sustainable Development Plan, 2015–2030 (footnote 10), which promotes agricultural reform and modernization; (iii) ADB’s Strategy 2030’s operational priorities for rural development and food security and strengthening governance and institutional capacity;<sup>16</sup> (iv) the country partnership strategy for the PRC, 2016–2020, which aims to improve the PRC’s environment and manage climate change by realizing “ecological civilization”;<sup>17</sup> (v) ADB’s Water Operational Plan, 2011–2020, which aims to increase efficiency and productivity in the delivery of water services;<sup>18</sup> (vi) ADB’s Environment Operational Directions, 2013–2020, which promotes green growth, natural capital, good governance, and responding to climate

<sup>11</sup> Government of the PRC. 2016. *Yangtze River Economic Belt: Building the Green Ecological Corridor*. Beijing.

<sup>12</sup> Eco-compensation is a system of incentives and disincentives by both users and producers of ecological services. Incentives refer to a reward or compensation for a right that is forgone to maintain a certain ecosystem service.

<sup>13</sup> “Ecological civilization” refers to achieving harmony between growth, people, and nature; requiring people to respect, protect, and maintain a harmonious relationship with nature. It includes to mitigate ecological damage, relieve pressures on natural resources, and improve the balance between the environment and the economy.

<sup>14</sup> Government of the PRC. 2016. *Notice of the Guidelines on Strengthening the Environmental Pollution Prevention and Management in Yangtze River Golden Waterway*. Beijing.

<sup>15</sup> Government of the PRC. 2015. *Outline of the Thirteenth Five-Year Plan on National Economic and Social Development, 2016–2020*. Beijing.

<sup>16</sup> ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

<sup>17</sup> ADB. 2016. *Country Partnership Strategy: Transforming Partnership: People’s Republic of China and Asian Development Bank, 2016–2020*. Manila.

<sup>18</sup> ADB. 2011. *Water Operational Plan, 2011–2020*. Manila.

change;<sup>19</sup> and (vii) ADB's Operational Plan for Agriculture and Natural Resources, which promotes greater productivity and stronger efficiency in using resources; and greater food safety and quality.<sup>20</sup> It is also in line with the Sustainable Development Goals 5, 6, 8, 13, and 15.<sup>21</sup>

11. **Lessons.** The project proposes an integrated and cross-sector approach to combine structural and nonstructural interventions, including enhancing cooperation between the provinces. It incorporates lessons in agricultural and environmental management such as (i) climate-smart agricultural practices,<sup>22</sup> (ii) watershed-level approach to integrated management of water resources, and (iii) enhanced coordination for watershed and river basin management and protection through ecological corridors. The project also builds on experience from the ongoing Comprehensive Agricultural Development Project,<sup>23</sup> capturing the strong project management capacity and arrangements from the central government's supervision and coordination which provides implementation support and guidance to achieve the overall project goals.

## B. Impact and Outcome

12. The project is aligned with the following impact: environmental protection, rehabilitation, and management of the Yangtze River improved (footnote 4). The project will have the following outcome: sustainability and modernity of agricultural production systems in participating project watersheds increased.<sup>24</sup>

## C. Outputs

13. **Output 1: Modern farming systems constructed.** The output will overhaul outdated and inefficient production systems, making them more efficient, productive, and clean. The output will (i) construct 1,326 kilometers of irrigation and drainage infrastructure, servicing 32,900 hectares (ha) of farmland; 1,610 kilometers of farm access and tractor roads; and 3,535 water storage ponds for irrigation and affiliated water-saving irrigation systems and equipment; (ii) support the uptake of sustainable and locally appropriate climate-resilient land and crop management practices, such as 159 ecological farming sites, 8,104 ha of land levelling, returning straw residue to 3,287 ha of farmland, and 2,320 ha of conservation tillage; and (iii) provide equipment and materials to implement sustainable and modern farming practices, such as 23 sets of farm machinery, 80 ha of greenhouses, and 12,000 square meters of citrus distribution center.

14. **Output 2: Waste and environmental management systems strengthened.** The output will tackle the problems arising from inefficient management of livestock and cropping waste that contribute to NPS pollution. It will improve the environmental quality through soil and water conservation practices. It will (i) apply and promote waste management systems in cropping (collection of plastic film, and fertilizer and pesticide containers for recycling); (ii) establish livestock waste management systems by building biogas plants (21,400 cubic meters), village waste management units (20,308 cubic meters), and organic fertilizer processing plants (400

<sup>19</sup> ADB. 2013. *Environment Operational Directions 2013–2020: Promoting Transitions to Green Growth in Asia and the Pacific*. Manila.

<sup>20</sup> ADB. 2015. *Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific in 2015–2020*. Manila.

<sup>21</sup> United Nations. 2016. *Sustainable Development Goals*. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

<sup>22</sup> Climate-smart agriculture systems: sustainably increasing agricultural productivity and incomes; adapting and building resilience to [climate change](#); and reducing and/or removing greenhouse gas emissions, where possible.

<sup>23</sup> ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for Comprehensive Agricultural Development Project*. Manila.

<sup>24</sup> The design and monitoring framework is in Chapter IX-A.

cubic meters); (iii) promote the use of organic and balanced fertilizers to protect farmland and optimize crop nutrient requirements (25,193 ha); (iv) promote watershed protection and erosion control through reforestation or afforestation of ecological forests and forest shelter belts (11,000 ha), the planting of high-yield and climate-resilient tree and crop varieties (23,425 ha), and protection of sloping land (2,652 ha); and (v) provide 31 sets of equipment for watershed pollution monitoring, and 25,193 sets of integrated pest management materials and equipment.

15. **Output 3: Institutional, technical, and management capacity and coordination strengthened.** The output will bolster institutional capacity and coordination to enable a more unified development pathway. It will (i) raise awareness, promote new technologies, and improve agricultural extension services for farmers and farmer organizations; (ii) enhance environmental protection through organizational capacity building, research projects, and policy studies, such as institutional and legal reform as well as sustainable financing mechanism for protecting Yangtze River in cooperation with the China Council for International Cooperation on Environment and Development;<sup>25</sup> and new technology for modern farming, such as irrigation technologies; (iii) support collaboration across ministries; and (iv) promote trans-provincial cooperation and coordination mechanism.

16. **Project features.** The project features include introducing (i) modern farming practices to enhance productivity; (ii) climate-smart farming practices such as water-saving measures for drip irrigation and water capture technology (adaptation), and balanced fertilizer use and reforestation (mitigation) to enhance climate resilience; (iii) technologies to reduce pollution such as integrated pest management and promotion of organics; and (iv) work at the watershed level to maximize the benefits of environmental rehabilitation and improved natural resource management.

17. **Value additions.** ADB's intervention will add value through institutional, policy, and governance strengthening, and knowledge creation for improving trans-provincial cooperation and coordination. This will build upon ADB's previous knowledge work on the Core Environment Program of the Greater Mekong Subregion Cooperation, creating stronger connectivity and cross-sector links for land use planning based on ecological functional zones, and encouraging greater involvement of local stakeholders to achieve an overall and sustainable improvement in people's lives and the environment. Lessons and knowledge from this project on agriculture development balanced with natural resources and river basin management will be replicable and relevant to other key river basins in the Asia and Pacific region.

18. The list of project provinces and counties is in Table 1, and the description of activities by province is in Table 2.

**Table 1: List of Project Provinces and Counties**

Project Province/ Municipality	Project City	No. of Counties	Project County/District
Yunnan	Qujing	2	Xuanwei City, Huize County
	Zhaotong	6	Zhaoyang District, Qiaojia County, Yongshan County, Yanjin County, Weixin County, Yiliang County
Sichuan	Mianyang	2	Anzhou District, Yanting County
	Guangyuan	3	Wangcang County, Zhaohua District, Jiange County
	Nanchong	2	Nanbu County, Yingshan County

<sup>25</sup> The China Council for International Cooperation on Environment and Development is an international advisory body composed of high-level Chinese and international experts in the field of environment and development that undertake policy and applied research based with the Ministry of Ecology and Environment.

<b>Chongqing</b>	Chongqing	8	Wanzhou District, Fuling District, Jiangjin District, Kaizhou District, Wulong District, Zhong County, Wushan County, Wuxi County
<b>Guizhou</b>	Tongren	8	Bijiang District, Jiangkou County, Dejiang County, Sinan County, Yinjiang County, Songtao County, Yanhe County, Yuping County
<b>Hubei</b>	Yichang	3	Zhijiang City, Dangyang City, Yidu City
	Xianning	1	Chibi City
	Jingzhou	4	Songzi City, Gonggan County, Shishou City, Honghu City
<b>Hunan</b>	Changde	2	Taoyuan County, Li County
	Yiyang	1	Nan County
	Yueyang	1	Pingjiang County
	Shaoyang	1	Dongkou County
	Loudi	1	Shuangfeng County
	Hengyang	1	Hengnan County
	Yongzhou	1	Lengshuitan District
<b>Total</b>		<b>47</b>	

Sources: Domestic feasibility study reports, October 2017.

Table 2: Description of Activities by Province

No.	Component/Subcomponent/Activities	Unit	Project Province						
			Total	Yunnan	Sichuan	Chongqing	Guizhou	Hubei	Hunan
<b>I.</b>	<b>Modern Agricultural Engineering</b>								
<b>1</b>	<b>Agricultural Infrastructure</b>								
1.1	Irrigation and drainage ditches, including								
	Channels	km	658.4	138.0	177.0	-	23.6	231.4	88.4
	Intercepting drains	km	668.4	74.7	279.5	103.3	62.6	114.2	34.1
	Silt traps (Grit or sand chamber)	set	5,897.0	1.0	4,630.0	300.0	550.0	410.0	6.0
	Bridges, culverts, and gates	set	536.0	33.0	-	298.0	-	85.0	120.0
1.2	Dredging, irrigation, and drainage ditches	km	69.5	-	33.0	-	9.0	8.5	19.0
1.3	Check dams (Erosion control weirs)	set	30.0	16.0	-	-	11.0	-	3.0
1.4	New irrigation and drainage stations	set	143.0	4.0	23.0	20.0	9.0	51.0	36.0
1.5	Small water storage works								
	New ponds	set	3,176.0	449.0	1,106.0	783.0	598.0	240.0	-
	Rehabilitation of existing ponds	set	359.0	2.0	138.0	81.0	-	22.0	116.0
1.6	Sprinkler irrigation	ha	2,542.6	-	-	1,187.8	44.8	1,310.0	-
1.7	Micro-Irrigation (including drip irrigation)	ha	240.7	-	26.7	-	80.0	134.0	-
1.8	Length of low-pressure pipelines	km	923.5	337.1	-	518.4	57.5	10.5	1.0
		ha	3,456.8	674.0	-	2,072.5	27.6	662.7	20.0
1.9	Rural roads								
1.9.1	Tractor road								
	Paved roads (Concrete)	km	550.3	-	85.0	-	249.8	208.2	7.3
	Sand-gravel road	km	141.3	-	-	77.8	-	-	63.5
1.9.2	Farm access roads								
	Paved roads (Concrete)	km	850.2	184.8	194.0	178.8	260.8	26.5	5.3
	Sand-gravel roads	km	68.4	68.4	-	-	-	-	-
1.10	New engineering signs	set	2,547.0	-	2,485.0	-	-	62.0	-
<b>2</b>	<b>Agricultural Supporting Measures</b>								
2.1	Land levelling	ha	8,104.0	100.0	-	-	-	8,004.0	-
2.2	New storage facilities (citrus distribution venue)	m <sup>2</sup>	12,100.0	-	-	-	-	12,100.0	-
2.3	Farming tractors and tillage equipment (Agricultural machinery)	set	23.0	5.0	-	-	17.0	1.0	-
2.4	Conservation tillage	ha	2,320.8	-	1,658.1	-	-	662.7	-
2.5	Straw residue retaining practices								
	Leave on field and incorporate	ha	2,677.2	775.7	566.7	-	-	1,334.8	-
	Application of animal manure and straw	ha	610.0	-	-	-	-	-	610.0
	New straw processing machinery	set	275.0	180.0	95.0	-	-	-	-
2.6	Ecological demonstration								
	Ecological planting demonstration base	no.	12.0	1.0	-	11.0	-	-	-
	Ecological breeding demonstration base (rice-aquaculture industry)	no.	147.0	-	-	-	-	2.0	145.0
2.7	New agricultural facilities (greenhouses)	ha	79.8	8.0	-	-	2.5	69.3	-

No.	Component/Subcomponent/Activities	Unit	Project Province						
			Total	Yunnan	Sichuan	Chongqing	Guizhou	Hubei	Hunan
<b>II.</b>	<b>Waste and Environmental Management</b>								
<b>1</b>	<b>Pollutant Emission Reduction</b>								
1.1	Small constructed wetlands	ha	21.0	-	-	-	3.3	1.0	16.7
1.2	Waste collection tanks, including								
	Biogas digesters	m <sup>3</sup>	21,400.0	-	-	-	2,700.0	-	18,700.0
	Anaerobic purification tank	m <sup>3</sup>	20,308.0	-	-	-	-	-	20,308.0
	Straw fermentation tanks	m <sup>3</sup>	840.0	300.0	-	-	-	-	540.0
	Collection tanks for agriculture waste	m <sup>3</sup>	606.0	-	-	-	-	-	606.0
1.3	Sewage collection pipe network	km	14.7	-	-	-	-	2.0	12.7
1.4	Establishment of new sewage treatment facilities	m <sup>2</sup>	5,650.0	-	-	-	-	-	5,650.0
1.5	Safety livestock and poultry manure disposal plant	m <sup>3</sup>	200.0	-	-	-	200.0	-	-
1.6	Pollutant discharge warning monitoring station	set	17.0	-	-	-	4.0	3.0	10.0
1.7	Small watershed comprehensive benefit monitoring point	set	14.0	-	14.0	-	-	-	-
1.8	IPM (pest control)	set	25,193.0	3,528.0	7,011.0	3,152.0	1,207.0	3,524.0	6,771.0
1.9	Application of pesticides and fertilizers								
	Soil testing and formula fertilization	ha	6,914.1	-	566.7	1,846.0	1,207.0	2,194.4	1,100.0
	Bio pesticide extension	ha	11,932.8	3,344.2	550.0	2,701.4	415.0	4,422.2	500.0
	Organic fertilizer extension	ha	9,758.2	3,344.2	566.7	5,360.3	487.0	-	-
1.10	Construction on organic fertilizer processing plant	m <sup>2</sup>	400.0	-	-	-	-	200.0	200.0
1.11	Recycling demonstration of mulching film collection	ha	416.7	-	416.7	-	-	-	-
<b>2</b>	<b>Ecological Belt</b>								
2.1	Ecological protection belt (water and soil conservation forest plantation)								
	New water and soil conservation forest plantation	ha	6,443.8	5,100.0	194.0	-	-	111.8	1,038.0
	Rehabilitation of water and soil conservation forest plantation	ha	4,680.0	-	4,680.0	-	-	-	-
2.2	Ecological economic forest								
	New economic forest	ha	20,481.8	7,614.9	1,511.8	5,080.1	1,092.9	1,583.3	3,598.8
	Upgraded existing economic forest	ha	2,753.3	-	-	2,753.3	-	-	-
2.3	Terrace - slope to ladder project	ha	2,652.6	320.0	1,400.0	906.1	26.5	-	-
2.4	Riverbank ecological revetment slope protection works	km	190.4	-	33.0	-	36.3	96.4	24.7
2.5	Lakes and dikes upgrading	km	9.8	-	-	-	-	9.8	-
2.6	River green belts	ha	10.0	-	-	-	-	-	10.0
2.7	Ecological grass slope protection	ha	298.4	-	-	-	-	-	298.4
2.8	Trees along farm roads	km	750.0	-	-	-	-	-	750.0
<b>III.</b>	<b>Institutional Coordination Strengthened and Capacity Building</b>								
<b>1</b>	<b>Institutional Development and Capacity Building *</b>								
1.1	Institutional capacity building								
	Domestic training	pm	1,064.9	120.0	330.0	229.5	136.0	148.0	101.4
	Overseas training	pm	388.0	15.0	100.0	16.0	129.0	88.0	40.0
1.2	Technical assistant	pm	225.9	8.0	-	47.0	136.0	22.9	12.0
1.3	Farmer cooperative								
	Training and study tours	pm	2,465.4	780.0	280.0	-	112.5	626.3	666.6

No.	Component/Subcomponent/Activities	Unit	Project Province						
			Total	Yunnan	Sichuan	Chongqing	Guizhou	Hubei	Hunan
1.4	Agricultural technology extension								
	Propaganda	pm	2,183.3	100.0	2,083.3				
	Technology extension	pm	1,054.0		433.3	620.7			
<b>2</b>	<b>Research Projects *</b>	set	10.0	4.0	2.0	2.0			2.0
<b>3</b>	<b>Cooperation Platforms *</b>	set	6.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>4</b>	<b>Improved Project Management</b>								
4.1	MIS (equal to PPMS) *	set	6.0	1.0	1.0	1.0	1.0	1.0	1.0
4.2	Office equipment	set	837.0	400.0	82.0	121.0	114.0	32.0	88.0
4.3	Project monitoring								
	EMP monitoring	year		5	5	5	5	5	5
	GAP, SDAP, LURT framework, and EMDP	year		5	5	5	5	5	5

\*Activities will be organized by the NPMO and/or PPMOs.

EMDP = ethnic minority development plan, EMP = environmental management plan, GAP = gender action plan, ha = hectare, IPM = integrated pest management, km = kilometer, kW = kilowatt; LURT = land use right transfer, m<sup>2</sup> = square meter, MIS = management information system, no. = number; pm = person-month, NPMO = National Project Management Office, PPMO = Provincial Project Management Office, PPMS = project performance management system, SDAP = social development action plan.

Sources: Domestic feasibility study reports, October 2017.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 3: Project Readiness Activities**

Indicative Activities	2018				2019		Responsibility
	Q1	Q2	Q3	Q4	Q1	Q2	
Advance contracting actions							NPMO, PPMOs
Retroactive financing actions							NPMO, PPMOs
ADB management review meeting							ADB
Domestic EIA approved							MEE
Domestic FSR approved							NDRC
FCUP submission and approval							NDRC, NPMO
Procurement agent recruited							PPMOs
Loan negotiations							ADB, MOF, NPMO
ADB Board Consideration							ADB
Loan and project agreements signed							ADB, MOF, NPMO
Government legal opinion provided							MOF, NPMO, PPMOs
Government budget inclusion							MOF, NPMO, PPMOs
Loan effectiveness							ADB, MOF

ADB = Asian Development Bank, EIA = environmental impact assessment, FCUP = foreign capital utilization plan, FSR = feasibility study report, MEE = Ministry of Ecology and Environment, MOF = Ministry of Finance, NDRC = National Development and Reform Commission, NPMO= National Project Management Office, PPMO= Provincial Project Management Office.

Source: Asian Development Bank.



## B. Overall Project Implementation Plan

**Table 4: Overall Project Implementation Plan**

No.	Indicative Activities	2018	2019				2020				2021				2022				2023				2024			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
I.	<b>Modern agricultural system applied</b>																									
1.1	Preparation of preliminary and detailed designs																									
1.2	Procurement of civil works and goods																									
1.3	Implementation of civil works for farmland improvement and development																									
1.4	Installation of water collection, storage, and irrigation equipment																									
1.5	Procurement of agricultural equipment and materials for sustainable farming																									
1.6	Application of modern farming technology and practices																									
1.7	Training to farmers on agricultural technology, product quality and certification systems, waste management, and environmental protection																									
1.8	Promoting linkage and cooperation between specialized farmer cooperatives, companies, and farmers																									
II.	<b>Waste and environmental management systems strengthened</b>																									
2.1	Preparation of preliminary and detailed designs																									
2.2	Procurement of civil works and goods																									
2.3	Implementation of civil works for livestock, and aquaculture waste management																									
2.4	Implementation of watershed protection through reforestation and afforestation																									
III.	<b>Institutional capacity and coordination strengthened</b>																									
3.1	Assessment of capacity demands and preparation of detailed training program																									
3.2	Establishment of cooperation platform to provide support for policy review, development and implementation in YRGE related provinces																									
3.3	Trainings to relevant government officials on project management, agricultural technology, waste management, integrated watershed management and environmental protection																									
3.4	Trainings to farmers on agricultural technology and awareness																									
3.5	Implementation of technical assistance and research projects																									
3.6	<b>Reporting and monitoring</b>																									
	Recruitment of project implementation consultants																									
	Conduct trainings on project management																									
	Establishment of MIS (PPMS)																									
	Semiannual project progress reports																									
	Implementation of the EMP, and submission of annual environmental safeguard monitoring reports to ADB																									
	Implementation of the GAP, EMDP, SDAP, LURTF, and submission of semi-annual social safeguard monitoring reports to ADB																									
	Submission of annual project financial statement and audit report																									
	Submission of project completion report																									

Project effectiveness

Physical completion

Loan closing

ADB = Asian Development Bank, EMDP = ethnic minority development plan, EMP = environmental management plan, GAP = gender action plan, LURTF = land use rights transfer framework, OCR = ordinary capital resources, Q = quarter, SDAP = social development action plan.

Source: Asian Development Bank.

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

**Table 5: Project Implementation Organization**

Project Implementation Organizations	Management Roles and Responsibilities
<p><b>Executing Agency:</b></p> <p>National Project Management Office (NPMO), Ministry of Agriculture and Rural Affairs</p>	<ul style="list-style-type: none"> <li>➤ Planning, financing, and overall financial management</li> <li>➤ Overall implementation coordination</li> <li>➤ Guidance on strategic issues and interagency coordination</li> <li>➤ Review of withdrawal applications from PPMOs to ADB and preparation of NPMO withdrawal applications</li> <li>➤ Establishment and management of advance account</li> <li>➤ Signing and implementation of goods and consulting services contracts</li> <li>➤ Consolidation and submission of the updated procurement plan to ADB for approval during project implementation</li> <li>➤ Recruitment of project implementation consultants (PICs)</li> <li>➤ Organize trainings and study tours, monitoring, and evaluation, including project management information system across provinces</li> <li>➤ Consolidation and submission of (i) consolidated semiannual progress reports, midterm report, and project completion report; (ii) consolidated annual environmental and semiannual social safeguards monitoring reports; (iii) annual audit reports; (iv) consolidated project financial statements to ADB and the government</li> </ul>
<p><b>Implementing Agencies:</b></p> <p>Provincial Project Management Offices (PPMOs) through the provincial Department of Finance or its successors</p> <ul style="list-style-type: none"> <li>• Yunnan PPMO</li> <li>• Sichuan PPMO</li> <li>• Chongqing PPMO</li> <li>• Guizhou PPMO</li> <li>• Hubei PPMO</li> <li>• Hunan PPMO</li> </ul>	<ul style="list-style-type: none"> <li>➤ Programming, planning, and organization of provincial program of activities</li> <li>➤ Establishment and management of provincial advance accounts;</li> <li>➤ Signing and implementation of goods and consulting services contracts</li> <li>➤ Management of the CPMOs</li> <li>➤ Implementation of project activities at provincial level such as technical guidance and trainings</li> <li>➤ Organize and conduct the recruitments of procurement agency, and social and environmental monitoring agencies</li> <li>➤ Organize recruitment of the construction supervisory agency and detailed design institutions, which may be conducted by PPMO or CPMO</li> <li>➤ Preparation of withdrawal applications and submission to the NPMO for verification, submission to ADB for approval, and release of loan proceeds to the CPMOs or contractors</li> <li>➤ Ensure environmental and social safeguards are complied with based on ADB's Safeguard Policy Statement (2009)</li> <li>➤ Ensure the CPMOs comply with the ethnic minority development plan, the environmental management plan, the gender action plan, the land use rights transfer framework, and the social development action plan</li> <li>➤ Monitoring of project progress and impact</li> <li>➤ Consolidation of project progress reports from counties into provincial reports and submission to the NPMO</li> <li>➤ Monitoring and reporting of project progress to the NPMO, including (i) semiannual progress report, midterm report, and project completion report; (ii) annual environmental and semiannual social safeguard monitoring progress reports; (iii) annual audit report; and</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
	(d) annual provincial-wide financial statements for submission to the NPMO ➤ Organize and implement training and study tours, monitoring, and evaluation across counties in its relevant province ➤ Organize and conduct procurement activities for civil works, goods, and service contracts in its relevant province ➤ Coordinate trans-provincial meetings for the coordinated Yangtze River environmental development
<b>Project Implementation Units:</b>  City and/or County Project Management Offices (CPMOs)	➤ Daily management of the project, including project implementation ➤ Support preparation of procurement activities including signing and implementation of civil works and goods contracts ➤ Preparation of withdrawal applications and submit to the PPMOs ➤ Provide quality assurance and quality control for the project construction ➤ Check and review construction supervision works by the supervision agency ➤ Organize trainings for farmers and/or farmer cooperatives ➤ Take responsible for maintenance of civil works, goods and community participation ➤ Ensure environmental and social safeguards are complied with based on ADB's Safeguard Policy Statement (2009) ➤ Monitoring and reporting of project progress to the PPMOs, including (i) semiannual progress report, midterm report, and project completion report; (ii) annual environmental and semiannual social safeguard monitoring progress reports; (iii) annual audit report; and (iv) annual county-wide financial statements for submission to the PPMOs
<b>ADB</b>	➤ Support the NPMO to provide trainings related to ADB's policies, including procurement guidelines, financial management, loan disbursement, safeguards, and preparation of progress reports ➤ Provide guidance to ensure compliance with loan and project agreements ➤ Conduct regular loan review missions, a midterm review mission, and a project completion review mission ➤ Review and/or approve procurement actions for the ADB-financed procurement packages ➤ Process withdrawal applications and release loan funds ➤ Monitor project implementation progress ➤ Review annual audit reports and follow up on audit recommendations ➤ Update regularly the project performance review reports with the assistance of the NPMO and the PPMOs ➤ Update regularly the project information documents for public disclosure at the ADB website, including the safeguard documents ➤ Monitor implementation of ADB's anticorruption policies

Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

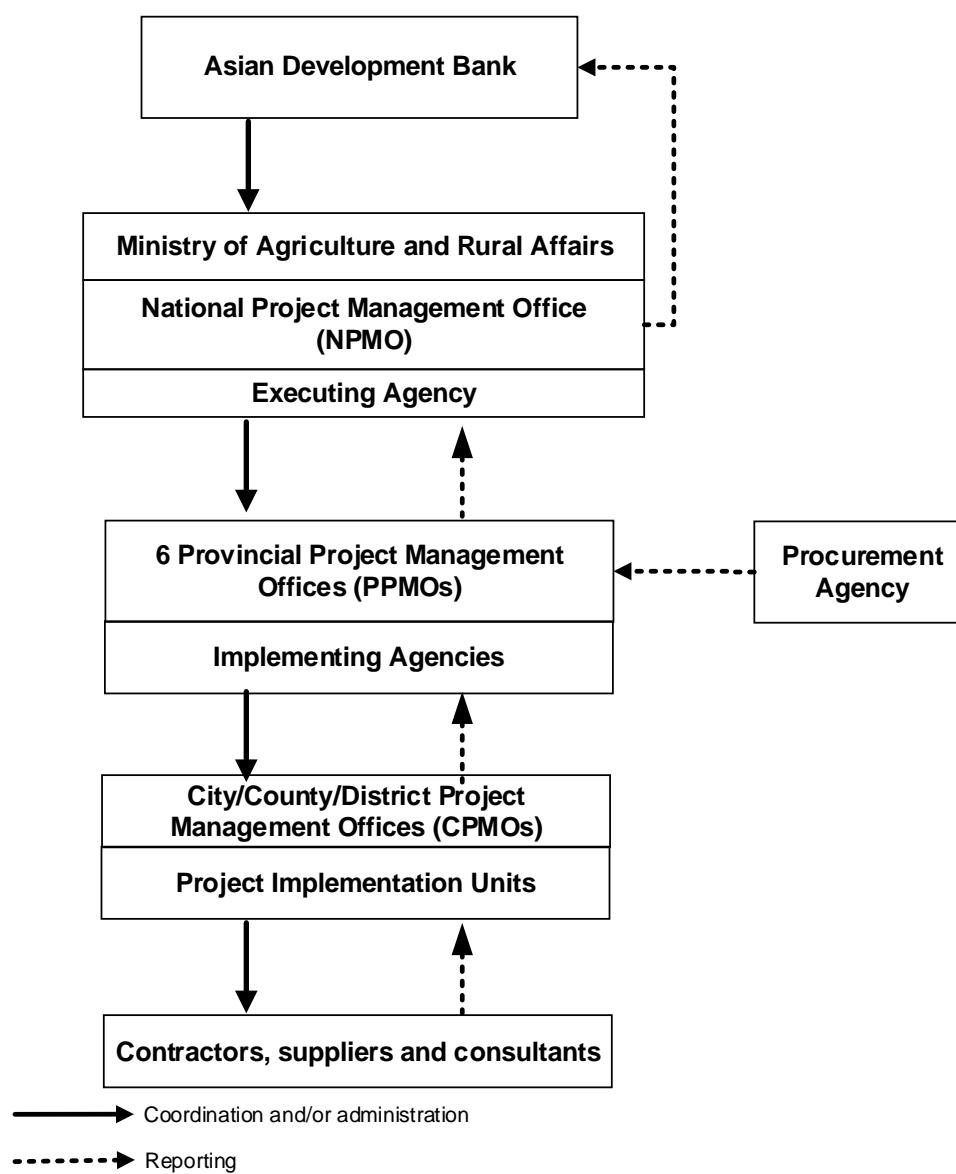
### Executing Agency

National Project  
Management Office

Officer's name: Li Jianmin  
 Position: Director of NPMO, Farmland Construction and Management  
 Department, Ministry of Agriculture and Rural Affairs

(NPMO), Ministry of Agriculture and Rural Affairs	Telephone no.: +86-10-68553366 Fax no.: +86-10-59191323 Email address: ljm68468108@aliyun.com Office address: No.11 Nongzhanguan Nanli, Chaoyang District, Beijing, PRC
<b>Implementing Agencies</b> Yunnan PPMO Department of Finance	Officer's name: Song Jianguang Position: Deputy Director Telephone no.: +86-871-63957247 Fax no.: ynsnfbyzjk@126.com Email address: ynsnfbyhp2@126.com Office address: No. 130, Huashan South Road, Wuhua District, Kunming, Yunnan Province, PRC
Sichuan PPMO Department of Finance	Officer's name: Tao Peng Position: Deputy Director Telephone no.: +86-28-86725925 Fax no.: +86-28-86676176 Email address: 3364642566@qq.com Office address: No.37 of Nanxinjie, Jinjiang District, Chengdu, Sichuan Province,
Guizhou PPMO Department of Finance	Officer's name: Yang Shaoxiang Position: Deputy Director Telephone no.: +86-851-86861072 Fax no.: +86-851-86866865 Email address: 1922507744@qq.com Office address: No. 242 of Zhonghua North Road, Yunyan District, Guiyang, Guizhou Province, PRC
Chongqing PPMO Bureau of Finance	Officer's name: Feng Yongchuan Position: Director Telephone no.: +86-23-89075087 Fax no.: +86-23-89075081 Email address: 1462310338@qq.com Office address: No.3-1 of Jianxin East Road, Guanyinqiao, Jiangbei District, Chongqing Municipality, PRC
Hunan PPMO Department of Finance	Officer's name: Zhao Le Position: Section Staff Telephone no.: +86-731-85165193 Fax no.: +86-731-85165194 Email address: 68191679@qq.com Office address: No.1 of West Road of Tianxin District, Changsha, Hunan Province, PRC
Hubei PPMO Department of Finance	Officer's name: Li Qi Position: Section Staff Telephone no.: +86-27-67818675 Fax no.: +86-27-67818675 Email address: 409480006@qq.com Office address: No.8 of Zhongbei Road, Wuchang District, Wuhan, Hubei Province, PRC
<b>Asian Development Bank</b> East Asia Department Environment, Natural Resources, and Agriculture Division	Staff's name: Qingfeng Zhang Position: Director Telephone no.: +63-2-632-6769/4444 Fax no.: +63-2-636-2534/2444 Email address: qingfengzhang@adb.org Office address: 6 ADB Avenue, Mandaluyong 1550 Manila, Philippines
Mission Leader	Staff's name: Suzanne Kay Robertson Position: Senior Natural Resources and Agriculture Specialist Telephone no.: +63 2 632 4635/4444 Fax no.: +63 2 636 2534/2444 Email address: srobertson@adb.org Office address: 6 ADB Avenue, Mandaluyong 1550 Manila, Philippines

### C. Project Organization Structure



Source: Asian Development Bank

#### IV. COSTS AND FINANCING

19. The project is estimated to cost \$506.8 million. The project investment costs include goods, works, and consulting services to support the rehabilitation and sustainable development of farmland, and equipment and materials, as well as capacity building and training. Cost categories include the following:

Category	Description
Modern farming systems constructed	<ul style="list-style-type: none"> <li>(i) Development of high-quality farmland: irrigation and drainage infrastructure, bridges, culverts and roads, dredging irrigation and drainage canals, and river embankments for flood protection;</li> <li>(ii) Implementation of sustainable and modern farming practices: farm machinery (tractors and implements), integrated pest management equipment (lamps, sticky paper, bio-pesticides);</li> <li>(iii) Demonstration sites, water-saving irrigation, straw residue retaining practices, soil improvement practices, conservation tillage, and organic and balanced fertilizer application; and</li> <li>(iv) Capacity building of specialized farmer cooperatives.</li> </ul>
Waste and environmental management systems strengthened	<ul style="list-style-type: none"> <li>(i) Application of waste management systems for cropping (crop residue, plastic film, and fertilizer and pesticide container collection for recycling); terracing; planting of economic trees; livestock (biogas and fertilizer production); aquaculture (water and sludge treatment for fertilizer) production systems and household waste (bio-digesters); production of organic fertilizer (processing plant); pilot household waste management; plastic film collection; and construction of wetlands, sediment traps and ponds;</li> <li>(ii) Equipment for balanced fertilizer recommendations for optimizing crop nutrient requirements, soil and water quality testing, and monitoring; and</li> <li>(iii) Promotion of watershed protection through reforestation or afforestation, ecological forests, and forest shelter belts.</li> </ul>
Institutional capacity and coordination strengthened	<ul style="list-style-type: none"> <li>(i) Institutional and organizational capacity building: research projects and policy studies such as eco-compensation, and domestic and overseas study tours;</li> <li>(ii) Promotion of integrated watershed management to address trans-provincial water issues by establishing coordination platform;</li> <li>(iii) Farmer and cooperative technical training, extension services strengthening, and delivery improvement; and</li> <li>(iv) Capacity strengthening of project management staff on project management activities, and establishment of project monitoring system.</li> </ul>
Project management	Includes project management capacity building, office equipment, workshops, project monitoring and evaluation, knowledge management, and operations of the PPMOs and the CPMOs as well as the loan implementation consultants.

CPMO = City/County Project Management Office, PPMO = Provincial Project Management Office.

Source: Asian Development Bank.

20. The Government of the PRC has requested a regular loan of \$300 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan and project agreements. Based on

the above loan terms and the borrower's choice of straight-line repayment method, the average loan maturity is 15.25 years, the loan maturity premium payable to ADB will be 0.1% per year. The government will make the loan proceeds available to the provincial governments, which in turn will make the loan proceeds available to the county governments through the prefecture governments on a grant basis and with proper arrangements acceptable to ADB.

21. The ADB loan will finance 59.2% of the total project costs, including expenditures relating to civil works, goods, consulting services, capacity development activities, and taxes and duties of \$11.6 million for eligible ADB-financed expenditures. The national government will finance 3.7% of the total project costs, covering the financing charges during implementation. The provincial and local governments will contribute 30.6% of the total project costs, including the balance in civil works, and training and capacity development; research and monitoring; environmental management and monitoring; surveys, design, and supervision; taxes and duties; and the contingencies. The beneficiaries will contribute 6.5% through in-kind contributions to tend ecological trees (labor and input costs for fertilizer, pesticides, and required equipment) over the 3-year establishment phase and provide labor for small canal dredging works. The in-kind contribution will be recorded at village level and monitored by the CPMOs. The interest and commitment charges to be incurred during implementation will not be capitalized in the loan.

#### **A. Cost Estimates Preparation and Revisions**

22. **Preparation.** The cost estimates were prepared jointly by the design institutes, the Provincial Offices for Comprehensive Agricultural Development (POCADs), the City and/or County Offices for Comprehensive Agricultural Development (COCADs), and ADB with assistance from the technical assistance (TA) consultants. The sources and basis for cost estimates were reviewed during project preparation and had been confirmed by related parties. The process was facilitated by a model in excel software which enabled easy updating or revision, if necessary. The model is maintained by both the PPMOs and ADB.

23. **Revisions.** Revision of cost estimates will be conducted when deemed necessary during implementation. The PPMOs will be responsible in proposing and drafting the revision which will be subject to ADB's approval.

#### **B. Key Assumptions**

24. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: CNY6.6434 = \$1.00 (as of 28 October 2017).
  - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 6: Escalation Rates for Price Contingency Calculation**

Item	2019	2020	2021	2022	2023	Average
Foreign rate of price inflation	1.50%	1.50%	1.60%	1.60%	1.60%	1.56%
Domestic rate of price inflation	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Source: Asian Development Bank estimates.

- (iii) In-kind contributions were calculated in this project.

### C. Detailed Cost Estimates by Expenditure Category

**Table 7: Detailed Cost Estimates by Expenditure Category**

Table 11 Detailed Cost Estimates by Expenditure Category							
	(CNY million)			(\$ million)			
Item	Foreign Exchange	Local Exchange	Total Cost	Foreign Exchange	Local Exchange	Total Cost	% of Total Base Cost
A. Investment Costs							
1. Civil works (ADB financed)	402.2	1,609.0	2,011.2	60.5	242.2	302.7	67.7%
a. Yunnan	76.8	307.1	383.9	11.6	46.2	57.8	12.9%
b. Guizhou	69.8	279.3	349.2	10.5	42.0	52.6	11.7%
c. Sichuan	66.7	266.9	333.6	10.0	40.2	50.2	11.2%
d. Chongqing	63.9	255.5	319.4	9.6	38.5	48.1	10.7%
e. Hunan	61.0	244.1	305.1	9.2	36.7	45.9	10.3%
f. Hubei	64.0	256.0	320.1	9.6	38.5	48.2	10.8%
2. Civil works (non-ADB financed)	23.1	92.5	115.6	3.5	13.9	17.4	3.9%
3. Equipment and materials (ADB financed)	68.4	45.6	114.0	10.3	6.9	17.2	3.8%
a. Yunnan	14.2	9.5	23.7	2.1	1.4	3.6	0.8%
b. Guizhou	8.7	5.8	14.5	1.3	0.9	2.2	0.5%
c. Sichuan	9.1	6.1	15.2	1.4	0.9	2.3	0.5%
d. Chongqing	6.6	4.4	11.0	1.0	0.7	1.7	0.4%
e. Hunan	14.9	9.9	24.8	2.2	1.5	3.7	0.8%
f. Hubei	14.9	9.9	24.9	2.2	1.5	3.7	0.8%
4. Research and development	1.4	12.2	13.6	0.2	1.8	2.0	0.5%
5. Consulting services	0.9	3.7	4.7	0.1	0.6	0.7	0.2%
6. International and domestic training and study tours	28.6	24.9	53.5	4.3	3.7	8.1	1.8%
a. International study tours	26.2	2.9	29.1	3.9	0.4	4.4	1.0%
b. Domestic study tours	2.4	22.0	24.4	0.4	3.3	3.7	0.8%
7. Beneficiary training	188.2	20.9	209.1	28.3	3.1	31.5	7.0%
8. Environment and social monitoring	2.7	24.4	27.1	0.4	3.7	4.1	0.9%
9. Beneficiary contributions	-	219.8	219.8	-	33.1	33.1	7.4%
10. Project management	-	203.2	203.2	-	30.6	30.6	6.8%
Subtotal (A)	715.6	2,256.2	2,971.8	107.7	339.6	447.3	100.0%
Total Base Cost	715.6	2,256.2	2,971.8	107.7	339.6	447.3	100.0%
B. Contingencies							
1. Physical	35.8	101.8	137.6	5.4	15.3	20.7	4.6%
2. Price	45.2	177.1	222.4	4.7	15.4	20.1	4.5%
Subtotal (B)	81.0	279.0	360.0	10.1	30.7	40.8	9.1%
C. Financing Charges During Implementation							
1. Interest during construction	-	118.0	118.0	-	17.2	17.2	3.8%
2. Commitment charges	-	9.7	9.7	-	1.4	1.4	0.3%
Subtotal (C)	-	127.6	127.6	-	18.6	18.6	4.2%
Total Project Cost (A+B+C)	796.6	2,662.7	3,459.3	117.8	388.9	506.8	113.3%

ADB = Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.



## D. Allocation and Withdrawal of Loan Proceeds

**Table 8A: Allocation and Withdrawal of Loan Proceeds**

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project)				
Number	Item	Total Amount Allocated for ADB Financing (\$)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	272,036,939		Up to 100% of eligible expenditures claimed <sup>a</sup>
2	Equipment and materials	17,165,171		100% of eligible expenditures claimed
3	Research and development, consulting services, and international and domestic training and study tours	10,797,890		
3A	National Project Management Office		2,742,720	100% of eligible expenditures claimed
3B	Provincial Project Management Offices		8,055,170	100% of eligible expenditures claimed
Total		300,000,000		

ADB = Asian Development Bank.

<sup>a</sup> Detailed categories and financing percentages to be used during disbursement are in Table 8B of the PAM.

Source: Asian Development Bank estimates.

**Table 8B: Detailed Allocation and Withdrawal of Loan Proceeds**

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project)				
Number	Item	Total Amount Allocated for ADB Financing (\$)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	272,036,939		
1A	Yunnan		44,992,022	77.9% of total expenditure claimed
1B	Guizhou		45,488,304	86.5% of total expenditure claimed
1C	Sichuan		45,646,431	90.9% of total expenditure claimed
1D	Chongqing		47,093,341	98.0% of total expenditure claimed
1E	Hunan		44,641,569	97.2% of total expenditure claimed
1F	Hubei		44,175,272	91.7% of total expenditure claimed
2	Equipment and materials	17,165,171		
2A	Yunnan		3,567,450	100% of eligible expenditures claimed
2B	Guizhou		2,180,058	100% of eligible expenditures claimed
2C	Sichuan		2,283,093	100% of eligible expenditures claimed
2D	Chongqing		1,658,624	100% of eligible expenditures claimed
2E	Hunan		3,734,263	100% of eligible expenditures claimed
2F	Hubei		3,741,683	100% of eligible expenditures claimed
3	Research and development, consulting services, and international and domestic training and study tours	10,797,890		
3A	National Project Management Office		2,742,720	100% of eligible expenditures claimed
3B	Provincial Project Management Offices		8,055,170	100% of eligible expenditures claimed
Total		300,000,000		

ADB = Asian Development Bank.

## E. Detailed Cost Estimates by Financier

Table 9: Detailed Cost Estimates by Financier  
(\$ million)

Item	ADB		Beneficiaries		Provincial and County Governments		Central Government		Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
<b>A. Investment Costs</b>									
1. Civil works (ADB financed)	272.0	89.9%	-	0.0%	30.7	10.1%	-	0.0%	302.7
a. Yunnan	45.0	77.9%	-	0.0%	12.8	22.1%	-	0.0%	57.8
b. Guizhou	45.5	86.5%	-	0.0%	7.1	13.5%	-	0.0%	52.6
c. Sichuan	45.6	90.9%	-	0.0%	4.6	9.1%	-	0.0%	50.2
d. Chongqing	47.1	98.0%	-	0.0%	1.0	2.0%	-	0.0%	48.1
e. Hunan	44.6	97.2%	-	0.0%	1.3	2.8%	-	0.0%	45.9
f. Hubei	44.2	91.7%	-	0.0%	4.0	8.3%	-	0.0%	48.2
2. Civil works (non-ADB financed)	-	0.0%	-	0.0%	17.4	100.0%	-	0.0%	17.4
3. Equipment and materials (ADB financed)	17.2	100.0%	-	0.0%	-	0.0%	-	0.0%	17.2
a. Yunnan	3.6	100.0%	-	0.0%	-	0.0%	-	0.0%	3.6
b. Guizhou	2.2	100.0%	-	0.0%	-	0.0%	-	0.0%	2.2
c. Sichuan	2.3	100.0%	-	0.0%	-	0.0%	-	0.0%	2.3
d. Chongqing	1.7	100.0%	-	0.0%	-	0.0%	-	0.0%	1.7
e. Hunan	3.7	100.0%	-	0.0%	-	0.0%	-	0.0%	3.7
f. Hubei	3.7	100.0%	-	0.0%	-	0.0%	-	0.0%	3.7
4. Research and development	2.0	100.0%	-	0.0%	-	0.0%	-	0.0%	2.0
5. Consulting services	0.7	100.0%	-	0.0%	-	0.0%	-	0.0%	0.7
6. International and domestic training and study tours	8.1	100.0%	-	0.0%	-	0.0%	-	0.0%	8.1
a. International study tours	4.4	100.0%	-	0.0%	-	0.0%	-	0.0%	4.4
b. Domestic study tours	3.7	100.0%	-	0.0%	-	0.0%	-	0.0%	3.7
7. Beneficiary training	-	0.0%	-	0.0%	31.5	100.0%	-	0.0%	31.5
8. Environment and social monitoring	-	0.0%	-	0.0%	4.1	100.0%	-	0.0%	4.1
9. Beneficiary contributions	-	0.0%	33.1	100.0%	-	0.0%	-	0.0%	33.1
10. Project management	-	0.0%	-	0.0%	30.6	100.0%	-	0.0%	30.6
<b>Subtotal (A)</b>	<b>300.0</b>	<b>67.1%</b>	<b>33.1</b>	<b>7.4%</b>	<b>114.2</b>	<b>25.5%</b>	<b>-</b>	<b>0.0%</b>	<b>447.3</b>
<b>Total Base Cost</b>	<b>300.0</b>	<b>67.1%</b>	<b>33.1</b>	<b>7.4%</b>	<b>114.2</b>	<b>25.5%</b>	<b>-</b>	<b>0.0%</b>	<b>447.3</b>
<b>B. Contingencies</b>									
1. Physical	-	0.0%	-	0.0%	20.7	100.0%	-	0.0%	20.7
2. Price	-	0.0%	-	0.0%	20.1	100.0%	-	0.0%	20.1
<b>Subtotal (B)</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>		<b>40.8</b>	<b>100.0%</b>	<b>-</b>	<b>0.0%</b>	<b>40.8</b>
<b>C. Financing Charges During Implementation</b>									
1. Interest during construction	-	0.0%	-	0.0%	-	0.0%	17.2	100.0%	17.2
2. Commitment charges	-	0.0%	-	0.0%	-	0.0%	1.4	100.0%	1.4
<b>Subtotal (C)</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>0.0%</b>	<b>18.6</b>	<b>100.0%</b>	<b>18.6</b>
<b>Total Project Cost (A+B+C)</b>	<b>300.0</b>	<b>59.2%</b>	<b>33.1</b>	<b>6.5%</b>	<b>155.0</b>	<b>30.6%</b>	<b>18.6</b>	<b>3.7%</b>	<b>506.8</b>
Taxes and duties included <sup>a</sup>	11.6	69.0%	-	0.0%	5.2	31.0%	-	0.0%	16.8

ADB = Asian Development Bank.

<sup>a</sup> The provincial and county governments will finance the taxes and duties in cash.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

## F. Detailed Cost Estimates by Outputs and/or Components

**Table 10: Detailed Cost Estimates by Outputs and/or Components**  
(\$ million)

Item	Modern farming systems applied			Waste and environmental management systems strengthened		Institutional capacity and coordination strengthened		Project management	
	Total Cost	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Costs</b>									
1. Civil works (ADB financed)	302.7	186.0	61.4%	116.8	38.6%	-	0.0%	-	0.0%
a. Yunnan	57.8	41.5	71.8%	16.3	28.2%	-	0.0%	-	0.0%
b. Guizhou	52.6	38.9	74.0%	13.7	26.0%	-	0.0%	-	0.0%
c. Sichuan	50.2	26.4	52.6%	23.8	47.4%	-	0.0%	-	0.0%
d. Chongqing	48.1	30.0	62.5%	18.0	37.5%	-	0.0%	-	0.0%
e. Hunan	45.9	13.4	29.1%	32.6	70.9%	-	0.0%	-	0.0%
f. Hubei	48.2	35.8	74.3%	12.4	25.7%	-	0.0%	-	0.0%
2. Civil works (non-ADB financed)	17.4	1.1	6.5%	16.3	93.5%	-	0.0%	-	0.0%
3. Equipment and materials (ADB financed)	17.2	1.6	9.3%	12.7	74.0%	2.9	16.7%	-	0.0%
a. Yunnan	3.6	0.2	5.4%	2.7	74.9%	0.7	19.7%	-	0.0%
b. Guizhou	2.2	0.4	20.6%	0.9	41.7%	0.8	37.8%	-	0.0%
c. Sichuan	2.3	0.1	3.1%	1.9	81.6%	0.3	15.2%	-	0.0%
d. Chongqing	1.7	-	0.0%	1.4	84.8%	0.3	15.2%	-	0.0%
e. Hunan	3.7	0.0	0.2%	3.4	91.6%	0.3	8.2%	-	0.0%
f. Hubei	3.7	0.9	23.3%	2.4	65.1%	0.4	11.6%	-	0.0%
4. Research and development	2.0	-	0.0%	-	0.0%	2.0	100.0%	-	0.0%
5. Consulting services	0.7	-	0.0%	-	0.0%	0.7	100.0%	-	0.0%
6. International and domestic training and study tours	8.1	-	0.0%	-	0.0%	8.1	100.0%	-	0.0%
a. International study tours	4.4	-	0.0%	-	0.0%	4.4	100.0%	-	0.0%
b. Domestic study tours	3.7	-	0.0%	-	0.0%	3.7	100.0%	-	0.0%
7. Beneficiary training	31.5	0.2	0.7%	25.2	80.0%	6.1	19.3%	-	0.0%
8. Environment and social monitoring	4.1	-	0.0%	-	0.0%	4.1	100.0%	-	0.0%
9. Beneficiary contributions	33.1	-	0.0%	33.1	100.0%	-	0.0%	-	0.0%
10. Project management	30.6	-	0.0%	-	0.0%	-	0.0%	30.6	100.0%
<b>Subtotal (A)</b>	<b>447.3</b>	<b>188.9</b>	<b>42.2%</b>	<b>204.0</b>	<b>45.6%</b>	<b>23.8</b>	<b>5.3%</b>	<b>30.6</b>	<b>6.8%</b>
<b>Total Base Cost</b>	<b>447.3</b>	<b>188.9</b>	<b>42.2%</b>	<b>204.0</b>	<b>45.6%</b>	<b>23.8</b>	<b>5.3%</b>	<b>30.6</b>	<b>6.8%</b>
<b>B. Contingencies</b>									
1. Physical	20.7	9.4	45.6%	8.5	45.6%	1.2	41.3%	1.5	7.4%
2. Price	20.1	10.4	52.0%	8.0	39.8%	0.1	39.8%	1.5	7.5%
<b>Subtotal (B)</b>	<b>40.8</b>	<b>19.9</b>	<b>48.8%</b>	<b>16.5</b>	<b>40.6%</b>	<b>1.3</b>	<b>3.2%</b>	<b>3.0</b>	<b>7.5%</b>
<b>C. Financing Charges During Implementation</b>									
1. Interest during construction	17.2	9.2	53.4%	7.0	40.5%	1.0	6.1%	-	0.0%
2. Commitment charges	1.4	0.8	56.9%	0.6	39.5%	0.1	3.7%	-	0.0%
<b>Subtotal (C)</b>	<b>18.6</b>	<b>10.0</b>	<b>53.6%</b>	<b>7.5</b>	<b>40.5%</b>	<b>1.1</b>	<b>5.9%</b>	<b>-</b>	<b>0.0%</b>
<b>Total Project Cost (A+B+C)</b>	<b>506.8</b>	<b>218.8</b>	<b>43.2%</b>	<b>228.1</b>	<b>45.0%</b>	<b>26.2</b>	<b>5.2%</b>	<b>33.6</b>	<b>6.6%</b>

ADB = Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

## G. Detailed Cost Estimates by Year

**Table 11: Detailed Cost Estimates by Year**  
(\$ million)

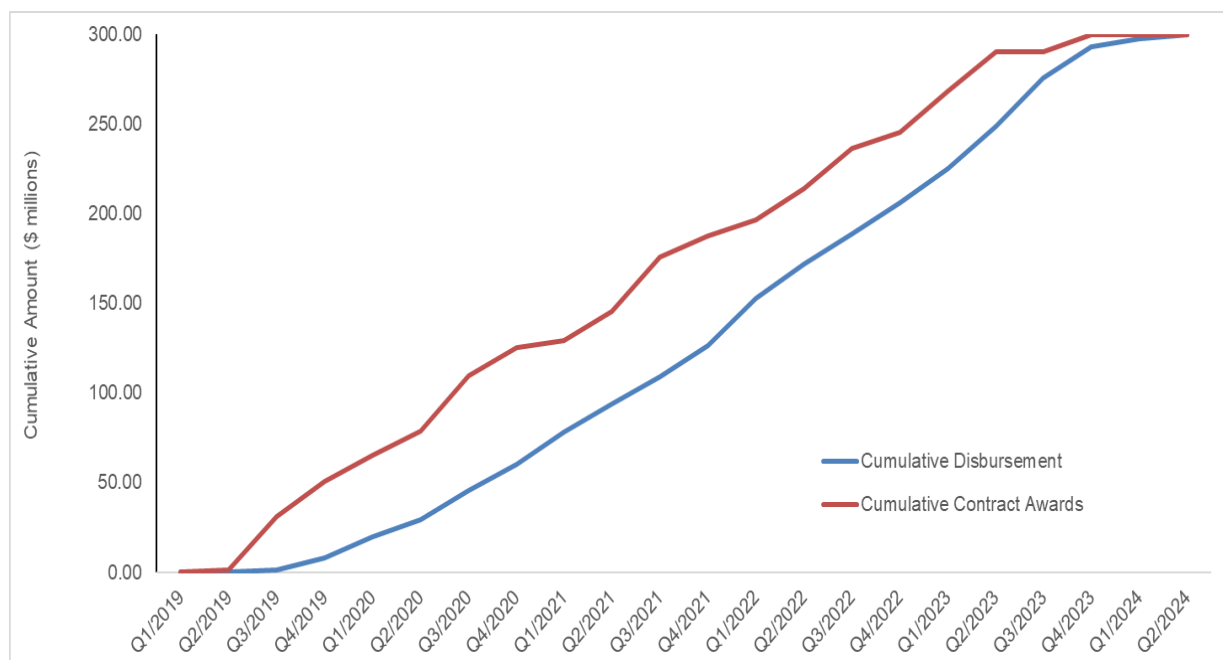
Item	Total Cost	2019	2020	2021	2022	2023
<b>A. Investment Costs</b>						
1. Civil works (ADB financed)	302.7	5.9	48.6	60.1	88.5	99.7
a. Yunnan	57.8	-	9.6	19.4	7.3	21.4
b. Guizhou	52.6	-	10.7	5.6	11.3	25.0
c. Sichuan	50.2	-	3.8	14.9	11.5	20.0
d. Chongqing	48.1	0.6	1.1	0.4	30.1	15.9
e. Hunan	45.9	4.9	13.1	6.9	10.2	10.8
f. Hubei	48.2	0.5	10.2	12.9	18.1	6.5
2. Civil works (non-ADB financed)	17.4	3.48	3.47	3.48	3.50	3.48
3. Equipment and materials (ADB financed)	17.2	1.0	7.0	5.4	1.9	1.8
a. Yunnan	3.6	0.2	0.7	2.5	0.1	0.1
b. Guizhou	2.2	0.1	1.5	0.1	0.1	0.4
c. Sichuan	2.3	0.1	1.4	0.5	0.3	-
d. Chongqing	1.7	0.1	0.3	0.1	0.3	0.8
e. Hunan	3.7	0.3	2.5	0.4	0.2	0.4
f. Hubei	3.7	0.1	0.5	1.9	1.0	0.1
4. Research and development	2.0	0.2	0.4	0.4	0.4	0.6
5. Consulting services	0.7	0.1	0.1	0.1	0.2	0.2
6. International and domestic training and study tours	8.1	0.8	1.5	1.6	1.7	2.4
a. International study tours	4.4	0.4	0.8	0.9	0.9	1.3
b. Domestic study tours	3.7	0.4	0.7	0.7	0.8	1.1
7. Beneficiary training	31.5	6.3	5.3	6.3	7.3	6.3
8. Environment and social monitoring	4.1	0.4	0.8	0.8	0.9	1.2
9. Beneficiary contributions	33.1	-	4.7	11.0	12.0	5.3
10. Project management	30.6	6.1	5.6	6.1	6.7	6.1
<b>Subtotal (A)</b>	<b>447.3</b>	<b>24.3</b>	<b>77.4</b>	<b>95.5</b>	<b>122.9</b>	<b>127.2</b>
<b>Total Base Cost</b>	<b>447.3</b>	<b>24.3</b>	<b>77.4</b>	<b>95.5</b>	<b>122.9</b>	<b>127.2</b>
<b>B. Contingencies</b>						
1. Physical	20.7	1.2	3.6	4.2	5.5	6.1
2. Price	20.1	0.5	3.1	5.0	5.9	5.6
<b>Subtotal (B)</b>	<b>40.8</b>	<b>1.7</b>	<b>6.7</b>	<b>9.2</b>	<b>11.4</b>	<b>11.7</b>
<b>C. Financing Charges During Implementation</b>						
1. Interest during construction	17.2	0.1	1.1	2.9	5.2	8.0
2. Commitment charges	1.4	0.4	0.4	0.3	0.2	0.1
<b>Subtotal (C)</b>	<b>18.6</b>	<b>0.6</b>	<b>1.5</b>	<b>3.2</b>	<b>5.4</b>	<b>8.1</b>
<b>Total Project Cost (A+B+C)</b>	<b>506.8</b>	<b>26.6</b>	<b>85.6</b>	<b>107.8</b>	<b>139.7</b>	<b>147.0</b>

ADB = Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

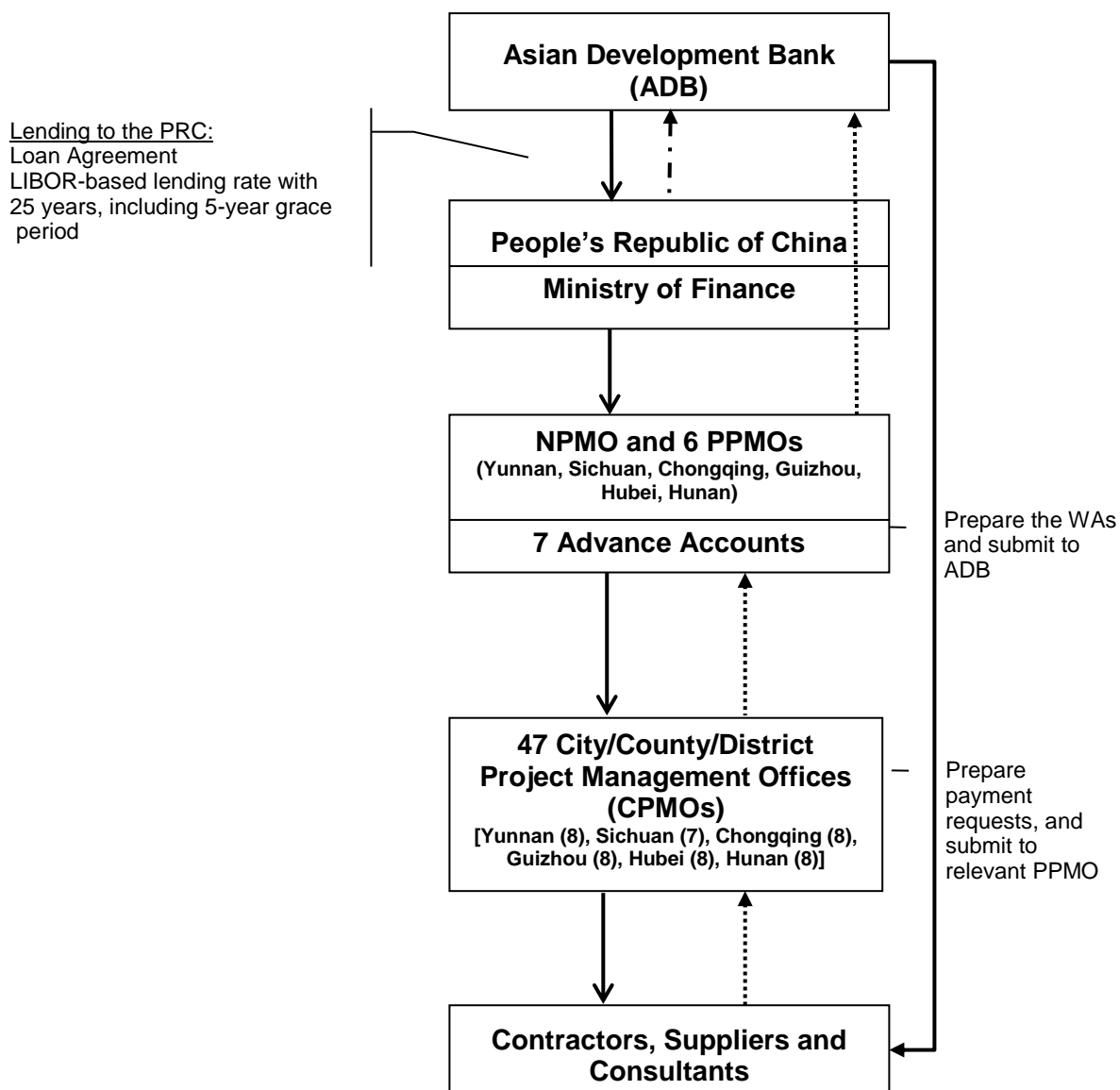
## H. Contract and Disbursement S-Curve



Year	Contract Awards					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2019	0.00	1.31	29.58	19.99	50.88	0.00	0.06	1.27	6.66	7.99
2020	14.24	13.75	30.65	15.60	74.24	11.65	9.72	15.94	14.89	52.20
2021	3.96	16.45	30.29	11.74	62.44	18.02	15.41	15.55	17.45	66.43
2022	8.93	17.23	22.85	8.63	57.64	25.90	19.44	16.90	17.28	79.51
2023	22.87	22.17	0.00	9.77	54.80	18.84	23.54	27.33	17.21	86.93
2024	0.00	0.00			0.00	4.45	2.49			6.94
<b>Total</b>					<b>300.00</b>					<b>300.00</b>

Note: Numbers may not sum precisely because of rounding.  
Source: Asian Development Bank estimates.

## I. Fund Flow Diagram



→ Indicative funds flow

- • → Repayment

.....► Flow of WAs and payment requests

CPMO = City/County Project Management Office, LIBOR = London interbank offered rate, NPMO = National Project Management Office, PPMO = Provincial Project Management Office, PRC = People's Republic of China, WA = withdrawal application.

Source: Asian Development Bank estimates.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

25. The financial management assessment (FMA) was conducted in September 2017 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note.<sup>26</sup> The FMA considered the capacity of the NPMO, formerly known as SOCAD, the PPMOs (then POCADs), and the CPMOs (then COCADs), including fund flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements.

26. Based on the assessment, before considering mitigation measures, the overall financial management risk of NPMO, the six POCADs, and the COCADs is moderate. The FMA identified the main financial management risks as (i) moderate inherent risk (moderate country-specific risks and entity-specific risks); (ii) low control risk (moderate risks for implementing agencies, and low risks for fund flow, staffing, accounting and reporting, internal audit, external audit, reporting and monitoring, and information systems); and (iii) comparatively high level of financial management capacities (high capacities for financial accounting, entry treasury, statutory reporting, budgeting, and project budgeting and costing; and medium capacities for management accounting and reporting, financial modeling and project evaluation techniques, and internal control and audit). The NPMO, the PPMOs, and the CPMOs have agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in Table 12.

**Table 12: Financial Management Action Plan**

Action	Responsibility	Timing
Preparation of financial management manual	NPMO, consultants	1 month after the loan effectiveness
Recruitment of experienced consultants to enhance operational capacities and provide training	ADB, NPMO	1 month before the loan effectiveness
Training on ADB's financial management requirements, including accounting and auditing, loan disbursement, and foreign exchange risk management to the PPMOs and the CPMOs	ADB, NPMO, consultant	2 months after the loan effectiveness

ADB = Asian Development Bank, CPMO = City/County Project Management Office, NPMO = National Project Management Office, PPMO = Provincial Project Management Office.

Source: Asian Development Bank.

### B. Disbursement

#### 1. Disbursement Arrangements for ADB Funds

27. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),<sup>27</sup> and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and

<sup>26</sup> ADB. 2005. *Financial Management and Analysis of Projects*. Manila; ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila; and ADB. 2015. *Financial Management Technical Guidance Note: Financial Management Assessment*. Manila.

<sup>27</sup> The handbook is available electronically from the ADB website. <http://www.adb.org/documents/loan-disbursement-handbook>

procedures is available.<sup>28</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

28. The PPMOs will prepare withdrawal applications and submit them to NPMO for verification, and thereafter the PPMOs will submit them to ADB for approval. The NPMO will prepare withdrawal applications and submit them to ADB for approval. At the end of each year, the NPMO will prepare realistic projections of contract awards and disbursements for the following year and submit them to ADB.

29. The NPMO, the PPMOs, and the CPMOs will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing withdrawal applications. The NPMO will consolidate and send the withdrawal applications to ADB.

30. **Advance fund procedure.** The NPMO and PPMOs will establish each an advance account (seven advance accounts in total) promptly after loan effectiveness at a commercial bank satisfactory to ADB. The currency of the advance accounts is the United States dollar. The advance accounts are to be used exclusively for ADB's share of eligible expenditures. The NPMO and PPMOs, who administer the advance accounts are accountable and responsible for proper use of advances to the advance accounts.

31. The loan proceeds will be released from the PPMOs' advance accounts based on the claims made by the CPMOs.

32. The total outstanding advance to each advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. The NPMO and PPMOs may request for initial and additional advances to its advance accounts based on an Estimate of Expenditure Sheet setting out the estimated expenditures to be financed through the account for the forthcoming 6 months.<sup>29</sup> Supporting documents should be submitted to ADB or retained by the NPMO, the PPMOs, or the CPMOs in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time), and other detailed arrangements agreed by ADB and the government (footnote 27). The *Loan Disbursement Handbook* describes which supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of the advance accounts.

33. **Statement of expenditure procedure.**<sup>30</sup> The statement of expenditure (SOE) procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. The borrower is required to retain all records (e.g., contracts, purchase orders, invoices, bills, receipts, subloan agreements) evidencing eligible expenditures to enable ADB's representative to examine such records. Such records should be retained for at least 1 year following receipt by ADB of the final APFS or 2 years after the loan closing date, whichever is later.

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<sup>28</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

<sup>29</sup> The estimate of expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),

<sup>30</sup> The SOE forms are available in Appendixes 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).



34. **Reimbursement.** The reimbursement procedure is a disbursement procedure where ADB pays from the loan account to the borrower's account for the eligible expenditure which have been incurred and paid for by the borrower out of its budget allocation or its own resources. Use of the procedure is encouraged for all eligible expenditures when the borrower has sufficient resources. Under this procedure, ADB's payment are made only to the borrower.

35. Before the submission of the first withdrawal application, the central government and provincial governments should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is stipulated in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the PPMOs or the CPMOs, and subsequently claimed to ADB through reimbursement; or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The NPMO and PPMOs should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements system is encouraged for submission of withdrawal applications to ADB."<sup>31</sup>

## **2. Disbursement Arrangements for Counterpart Fund**

36. Counterpart funds will come from national, provincial, and local governments. The national government will provide \$18.6 million, or 3.7% of the total project cost, to cover the financing charges during implementation. Provincial and local governments will contribute \$155.0 million, or 30.6% of the total project cost, to finance civil works; materials such as organic fertilizer and bio pesticide; environmental management and monitoring; social safeguards monitoring; surveys, design, and supervision; taxes and duties for civil works and research; and part of contingencies. The beneficiaries will provide in-kind contributions amounting to \$33.1 million equivalent, or 6.5% of the total project cost, for soil improvement and small canal dredging, and contingencies. Counterpart funds will be disbursed and liquidated following the current NPMO (formerly SOCAD) financial management manual for domestically financed comprehensive agricultural development projects.

### **C. Accounting**

37. The NPMO, each PPMO, and each CPMO will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following Accounting Methods for Projects Financed by the World Bank (reference No. 2000 [13]).<sup>32</sup> Each CPMO will prepare annual financial statements for submission to the NPMO through each PPMO after its consolidation. The NPMO will consolidate all annual project accounts and financial statements for the project in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

### **D. Auditing and Public Disclosure**

38. The NPMO and each PPMO will cause the detailed central and provincial project financial statements to be audited in accordance with the International Standards on Auditing and the PRC's auditing standards by an auditor acceptable to ADB. The audited central and provincial

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<sup>31</sup> The Client Portal for Disbursement system facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The forms to be completed by the borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

<sup>32</sup> Accounting regulations issued by the Ministry of Finance for all foreign aid-funded projects.

project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the NPMO.

39. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover whether the (i) project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) proceeds of the loan were used only for the purposes of the project; and (iii) borrower or executing agency was in compliance with the financial covenants contained in the legal agreements.

40. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision; and followed up regularly with all concerned, including the external auditor.

41. The government, the NPMO, the PPMOs, and the CPMOs have been made aware of ADB's approach to delayed submission; and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>33</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower); or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB; or if the audits are substantially delayed. ADB reserves the right to verify the project's financial account to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

42. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.<sup>34</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements not later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter and additional auditor's opinions will not be disclosed.<sup>35</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

43. Advance contracting will apply to the urgent procurement of civil works and goods. All advance contracting and retroactive financing will be undertaken in conformity with ADB's

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<sup>33</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>34</sup> Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>35</sup> This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

Procurement Guidelines (2015, as amended from time to time) and will require ADB's prior review and approval of each step.<sup>36</sup>

44. **Retroactive financing.** Retroactive financing will apply to the urgent procurement of civil works and goods. Retroactive financing will be subject to a maximum amount equivalent to 20% of the loan amount for eligible expenditures incurred prior to loan effectiveness, but not earlier than 12 months before the loan agreement is signed.

## **B. Procurement of Goods, Works, and Consulting Services**

45. All procurement of the ADB-financed works and goods will be undertaken in accordance with ADB's Procurement Guidelines.

46. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines.

47. A procurement plan indicating threshold and review procedures; works, goods, and consulting service contract packages; and national competitive bidding guidelines are in Section C.

### **1. International and National Competitive Biddings**

48. The international competitive bidding (ICB) will be used for contracts estimated to cost \$40 million equivalent or above for civil works, and \$3 million equivalent or above for goods. The latest ADB-standard ICB document which can be downloaded from the ADB website will be used for the ICB. The national competitive bidding (NCB) will be used for contracts estimated to cost over \$100,000 equivalent and less than \$40 million equivalent for civil works, and over \$100,000 equivalent and less than \$3 million equivalent for goods. For procurement under the NCB, the following provisions will be applied: (i) the advertisement will be limited to the national press, an official gazette, or an open access website; (ii) standard bidding documents issued by the Ministry of Finance will be used; and (iii) bidding documents will only be in the Chinese (except for contracts which require ADB's prior review and approval), and the currency for bidding and payment will be in Chinese yuan. Unless otherwise agreed between the NPMO, the PPMOs, and ADB; and set forth in the procurement plan. Procurements under the ICB and the NCB will use the single-stage, one-envelope procedure.

### **2. Shopping**

49. Shopping will be used for the ADB-financed contracts estimated to cost \$100,000 equivalent or below.

### **3. Community Participation**

50. Where, in the interest of project sustainability or to achieve certain specific social objectives of the project, it is desirable under selected project components to call for the participation of local communities and/or nongovernment organizations in the delivery of services, community participation may be used as a method of procurement for small civil works packages. Currently, there are no packages to be procured through community participation in the

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<sup>36</sup> Available at: <https://www.adb.org/documents/adb-procurement-policy>

procurement plan, but this method is included to provide flexibility in the event that the need for community participation arises.

#### **4. Consulting Services**

51. All ADB-financed individual consultants, consulting firms, and monitoring agencies will be recruited according to ADB's Guidelines on the Use of Consultants by the Asian Development Bank and Its Borrowers (2013, as amended from time to time).<sup>37</sup> The indicative terms of reference for the loan implementation consultants are in Appendix 1.

#### **5. Thresholds for the ADB Review**

52. For (i) all ADB-financed ICB and NCB contracts for advance contracting, (ii) the first ADB-financed ICB and NCB contracts for civil works and goods for each of the Chongqing Municipality; and the provinces of Guizhou, Hubei, Hunan, Sichuan, and Yunnan; and (iii) all the other ADB-financed contracts for works and goods estimated to cost \$10 million equivalent or above, ADB's prior review and approval of the following documents (if applicable) will be required: invitation for bids, bidding documents, bid evaluation report, draft negotiated contract, signed contract, and contract variations.

53. The other ADB-financed contracts for civil works and goods will be subject to post review; and for each contract, (i) ADB's approval of the invitation for bids and bidding document (if applicable) will not be necessary as long as the relevant first bidding document approved by ADB is used as a model without substantial modification; (ii) procurement process can be conducted without ADB's prior approval; and (iii) after the contract is signed, the bid evaluation report (if applicable) and signed contract needs to be submitted to ADB for post-facto review and approval.

54. For all consultant recruitments (including the recruitments of monitoring agencies), ADB's prior review and approval of each step will be required.

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<sup>37</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>. Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

## C. Procurement Plan

55. The procurement plan shall be updated as needed throughout the duration of the project.

### Basic Data

<b>Project Name:</b> Yangtze River Green Ecological Corridor Agriculture Development Project	
<b>Project Number:</b> 51116-002	<b>Approval Number:</b>
<b>Country:</b> People's Republic of China	<b>Executing Agency:</b> National Project Management Office, Ministry of Agriculture and Rural Affairs
<b>Project Procurement Classification:</b> A	<b>Implementing Agency:</b> Chongqing Municipal, Guizhou Provincial, Hubei Provincial, Hunan Provincial, Sichuan Provincial, and Yunnan Provincial Project Management Offices, Department of Finance
<b>Procurement Risk:</b> Moderate	
<b>Project Financing Amount:</b> <b>ADB Financing:</b> \$300.0 million <b>Non-ADB Financing:</b> \$206.8 million	<b>Project Closing Date:</b> 30 November 2024
<b>Date of First Procurement Plan:</b> 22 November 2017	<b>Date of this Procurement Plan:</b> 27 September 2018

## 1. Methods, Thresholds, Review and Procurement Plan

### a. Procurement, Consulting Methods and Thresholds

56. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of works and goods and consultant recruitments:

Procurement of Works and Goods		
Methods	Threshold	Comments
International competitive bidding for works	=> \$40,000,000	
International competitive bidding for goods	=> \$3,000,000	
National competitive bidding for works	> \$100,000 and < \$40,000,000	
National competitive bidding for goods	> \$100,000 and < \$3,000,000	
Shopping for works and goods	=< \$100,000	For shopping, ADB will normally review the award of contract on a post-facto basis. Use of this method is subject to ADB's Procurement Guidelines.
Community participation	=<30,000	

ADB = Asian Development Bank.

Consulting Services	
Method	Comments
Quality-and cost-based selection	=> \$200,000 The following submissions are required for prior review and approval by ADB: Submission 0 (budget, terms of reference, etc.), Submission 1 (short-list, draft request for proposal, etc.), Submission 2 (evaluation of technical proposals), Submission 3 (evaluation of financial proposals and overall ranking), Submission 4 (draft negotiated contract), and Submission 5 (signed contract).
Selection Based on the Consultants' Qualifications	< \$200,000 The following submissions are required for prior review and approval by ADB: Submission 0 (budget, terms of reference, etc.), Submission 1 (evaluation of expressions of interest, first ranked firm, and draft request for proposal), Submission 2-3 (evaluation of technical and financial proposals), Submission 4 (draft negotiated contract), and Submission 5 (signed contract).
Individual consultant selection)	The following submissions are required for prior review and approval by ADB: Submission 1 (short-list, evaluation of consultants, first ranked consultant, and draft contract), and Submission 2 (signed contract).

ADB = Asian Development Bank.

**b. Goods and Works Contracts Estimated to Cost \$1 Million or More**

57. The following table lists goods and works contracts over the life of the project to cost more than \$1 million.

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
<b>1. Guizhou Province</b>							
<b>1.1 Works</b>							
<b>(Bijiang District)</b>							
CW1A01-GZBJ2018-01	7.3 km intercepting drain, 5 weirs, 3 pump stations, and 55 ponds rehabilitation, etc.	1,169.77	NCB	Prior	1S1E	Q2/2019	First NCB works for Guizhou  For advance contracting and retroactive financing
CW1A01-GZBJ2018-02	21.9 km concrete road	1,095.30	NCB	Post	1S1E	Q3/2023	
CW1A03-GZBJ2021-01	1.0 km dredging and 3.3 km riverbank protection	1,267.42	NCB	Post	1S1E	Q2/2021	
<b>(Dejiang County)</b>							
CW1A01-GZDJ2019-01	1 pump station, 12 ha pipeline, and micro Irrigation	1,048.80	NCB	Post	1S1E	Q4/2022	
<b>(Sinan County)</b>							
CW1A02-GZSN2019-02	34.1 km concrete road	1,593.11	NCB	Post	1S1E	Q4/2019	
CW1A04-GZSN2021-02	22.2 km concrete road	1,130.36	NCB	Post	1S1E	Q2/2021	
<b>(Songtao County)</b>							
CW1A01-GZST2018-01	2.2 km Intercepting drain, sprinklers, 23 ponds rehabilitation, and 3.0 km dredging	1,022.76	NCB	Post	1S1E	Q3/2023	
CW1A01-GZST2018-02	29.8 km concrete road	1,173.92	NCB	Post	1S1E	Q1/2022	
<b>(Yanhe County)</b>							
CW1A01-GZYL2019-01	21.2 km concrete road	1,153.75	NCB	Post	1S1E	Q4/2022	
CW1A01-GZYL2020-01	1.8 km channel, 3 weirs, 52 ponds rehabilitation, etc.	1,103.02	NCB	Post	1S1E	Q1/2022	
<b>(Yinjiang County)</b>							
CW1A01-GZYJ2018-02	25.8 km concrete road and 3.6 ha pipeline	1,179.92	NCB	Post	1S1E	Q1/2022	
CW1A01-GZYJ2019-02	25.8 km concrete road and 2.4 ha pipeline	1,178.42	NCB	Post	1S1E	Q3/2019	
CW1A01-GZYJ2020-02	23.9 km concrete road and 3.6 ha pipeline	1,038.73	NCB	Post	1S1E	Q1/2022	
<b>(Yuping County)</b>							
CW1A01-GZYP2019-04	25 ponds rehabilitation and 5.5 km riverbank protection	1,046.15	NCB	Post	1S1E	Q4/2019	
CW1A01-GZYP2020-01	5.3 km incepting drain, 4 km concrete road, 9 ha sprinkler irrigation, and 2 ha greenhouses	1,119.56	NCB	Post	1S1E	Q1/2022	
<b>2. Hubei Province</b>							
<b>2.1 Works</b>							
<b>(Honghu City)</b>							
CW2B02-HBHH2020-01	CW for 24.33 km riverbank protection works	1,417.53	NCB	Post	1S1E	Q1/2020	
<b>(Songzi City)</b>							

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW2B02-HBSZ2019-01	CW for 13.72 km riverbank protection works	1,154.52	NCB	Post	1S1E	Q1/2021	
CW2B02-HBSZ2019-02	CW for 13.72 km riverbank protection works	1,154.52	NCB	Post	1S1E	Q3/2021	
CW2B02-HBSZ2020-01	CW for 13.72 km riverbank protection works	1,154.52	NCB	Post	1S1E	Q1/2020	
CW2B02-HBSZ2020-02	CW for 13.72 km riverbank protection works	1,154.52	NCB	Post	1S1E	Q3/2021	
CW2B02-HBSZ2021-01	CW for 13.72 km riverbank protection works	1,154.52	NCB	Post	1S1E	Q1/2021	
<b>(Zhijiang City)</b>							
CW1A04-HBJZ2019-01	CW for 51.88 km hardened road (concrete)	1,089.86	NCB	Post	1S1E	Q1/2021	
<b>(Gongan County)</b>							
CW1A01-HBGA2019-01	CW for 40.5 km channel construction	1,020.92	NCB	Post	1S1E	Q1/2021	
<b>3. Hunan Province</b>							
<b>3.1 Works</b>							
<b>(Lengshuitan District)</b>							
CW1A-HNLST2021-01	8.3 km channel, 8.6 km sand-gravel and concrete roads, 18 ponds rehabilitation, etc.	1,579.82	NCB	Post	1S1E	Q2/2021	
CW2B-HNLST2018-01	46.7 ha water and soil conservation	1,499.13	NCB	Post	1S1E	Q2/2020	
<b>(Dongkou County)</b>							
CW2B-HNDK2019-01	151.1 ha water and soil conservation	1,271.96	NCB	Post	1S1E	Q2/2019	
<b>(Hengnan County)</b>							
CW2B-HNHN2020-01	10.6 ha water and soil conservation and 104.4 ha ecological grass protection	1,070.18	NCB	Post	1S1E	Q2/2022	
<b>(Li County)</b>							
CW2B-HNLI2020-01	10.8 km riverbank protection	4,427.22	NCB	Post	1S1E	Q2/2022	
<b>(Nan County)</b>							
CW2A-HNNA2019-01	2,165 anaerobic purification tanks and 10 pollutant discharge warning monitoring stations	1,393.26	NCB	Post	1S1E	Q2/2019	
CW2A-HNNA2020-01	2,165 anaerobic purification tanks	1,318.00	NCB	Post	1S1E	Q2/2022	
CW2A-HNNA2021-01	2,165 anaerobic purification tanks	1,318.00	NCB	Post	1S1E	Q2/2021	
<b>(Pingjiang County)</b>							
CW2A-HNPJ2019-01	2,598 anaerobic purification tanks	1,559.45	NCB	Post	1S1E	Q2/2020	
<b>(Shuangfeng County)</b>							
CW2B-HNSF2019-01	88.5 ha water and soil conservation, 3.6 km riverbank protection, and 8.4 ha ecological grass protection	2,321.14	NCB	Post	1S1E	Q2/2019	
CW2B-HNSF2020-01	66.4 ha water and soil conservation and 10.0 ha river greenbelt	1,271.92	NCB	Post	1S1E	Q2/2022	
<b>(Taoyuan County)</b>							
CW2A-HNTY2019-01	12 sewage treatment stations	3,445.37	NCB	Post	1S1E	Q2/2019	
<b>3.2 Goods</b>							
<b>(Pingjiang County)</b>							

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
GP1B-HNPJ2019-01	2,325 pest control facilities	1,119.91	NCB	Post	1S1E	Q2/2019	
<b>4. Sichuan Province</b>							
<b>4.1 Works</b>							
<b>(Anzhou District)</b>							
CW1A01-SCAZ2018-01	6.6 km channel, 2 pump stations, 7.4 km concrete road, 53 ponds, 2.2 km dredging, 102.2 ha conservation tillage, 229 km riverbank protection, 75.9 ha terracing, etc.	1,579.92	NCB	Post	1S1E	Q3/2023	
CW1A01-SCAZ2019-01	4.3 km channel, 4 pump stations, 4.9 km concrete road, 35 ponds, 1.4 km dredging, 67.2 ha conservation tillage, 1.4 km riverbank protection, 49.9 ha terracing, etc.	1,038.60	NCB	Post	1S1E	Q1/2023	
<b>(Zhaohua District)</b>							
CW1A01-SCZH2019-01	3.7 km channel, 6.3 km concrete road, 44 ponds, 31.5 ha conservation tillage, 44.9 ha terracing, etc.	1,373.19	NCB	Post	1S1E	Q1/2023	
CW1A01-SCZH2020-01	3.7 km channel, 6.3 km concrete road, 44 ponds, 31.5 ha conservation tillage, 44.9 ha terracing, etc.	1,376.06	NCB	Post	1S1E	Q2/2020	
CW1A01-SCZH2021-01	3.5 km channel, 6.0 km concrete road, 43 ponds, 29.9 ha conservation tillage, 42.6 ha terracing, etc.	1,302.25	NCB	Post	1S1E	Q1/2023	
<b>(Jiange County)</b>							
CW1A01-SCJG2018-01	7.3 km channel, 8.0 km concrete road, 29 ponds, 0.45 km dredging, 49.6 ha conservation tillage, 0.5 km riverbank protection, 47.6 ha terracing, etc.	1,262.12	NCB	Post	1S1E	Q3/2019	
CW1A01-SCJG2019-01	6.7 km channel, 7.3 km concrete road, 26 ponds, 0.4 km dredging, 45.3 ha conservation tillage, 0.4 km riverbank protection, 43.5 ha terracing, etc.	1,152.70	NCB	Post	1S1E	Q2/2021	
CW1A01-SCJG2019-02	6.7 km channel, 7.3 km concrete road, 26 ponds, 0.4 km dredging, 45.3 ha conservation tillage, 0.4 km riverbank protection, 43.5 ha terracing, etc.	1,152.70	NCB	Post	1S1E	Q2/2021	
CW1A01-SCJG2020-01	7.2 km channel, 7.9 km concrete road, 28 ponds, 0.4 km dredging, 48.7ha conservation tillage, 0.4 km riverbank protection, 46.8 ha terracing, etc.	1,239.22	NCB	Post	1S1E	Q2/2020	
CW1A01-SCJG2020-02	7.2 km channel, 7.9 km concrete road, 28 ponds, 0.4 km dredging, 48.7ha conservation tillage, 0.4	1,239.22	NCB	Post	1S1E	Q2/2020	



Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
	km riverbank protection, 46.8 ha terracing, etc.						
CW1A01-SCJG2021-01	7.0 km channel, 7.8 km concrete road, 28 ponds, 0.4 km dredging, 47.9 ha conservation tillage, 0.4 km riverbank protection, 46.0 ha terracing, etc.	1,218.01	NCB	Post	1S1E	Q2/2021	
CW1A01-SCJG2021-02	7.0 km channel, 7.8 km concrete road, 28 ponds, 0.4 km dredging, 47.9 ha conservation tillage, 0.4 km riverbank protection, 46.0 ha terracing, etc.	1,218.01	NCB	Post	1S1E	Q2/2021	
<b>(Nanbu County)</b>							
CW1A01-SCNB2018-01	7.0 km channel, 8.9 km concrete road, 44 ponds, 3.0 km dredging, 26.2 ha conservation tillage, 3.0 km riverbank protection, 22.7 ha terracing, etc.	1,045.54	NCB	Post	1S1E	Q3/2023	
CW1A01-SCNB2019-01	6.7 km channel, 8.6 km concrete road, 42 ponds, 2.9 km dredging, 25.3 ha conservation tillage, 2.9 km riverbank protection, 21.9 ha terracing, etc.	1,009.56	NCB	Post	1S1E	Q2/2021	
CW1A01-SCNB2019-02	6.7 km channel, 8.6 km concrete road, 42 ponds, 2.9 km dredging, 25.3 ha conservation tillage, 2.9 km riverbank protection, 21.9 ha terracing, etc.	1,009.56	NCB	Post	1S1E	Q2/2021	
CW1A01-SCNB2020-01	6.9 km channel, 8.8 km concrete road, 43 ponds, 2.9 km dredging, 25.9 ha conservation tillage, 2.9 km riverbank protection, 22.5 ha terracing, etc.	1,032.84	NCB	Post	1S1E	Q2/2020	
CW1A01-SCNB2020-02	6.9 km channel, 8.8 km concrete road, 43 ponds, 2.9 km dredging, 25.9 ha conservation tillage, 2.9 km riverbank protection, 22.5 ha terracing, etc.	1,032.84	NCB	Post	1S1E	Q2/2020	
<b>(Wangcang County)</b>							
CW1A01-SCWC2018-01	3.0 km channel, 6.6 km concrete road, 26 ponds, 33 ha conservation tillage, 47.3 ha terracing, etc.	1,102.67	NCB	Prior	1S1E	Q2/2019	First NCB works for Sichuan
<b>(Yanting County)</b>							
CW1A01-SCYT2019-01	3.0 km channel, 5.9 km concrete road, 5.4 ha micro irrigation, 30 ponds, 1.0 km dredging, 75.3 ha conservation tillage, 1.0 km riverbank protection, 35.6 ha terracing, etc.	1,069.62	NCB	Post	1S1E	Q1/2023	
CW1A01-SCYT2020-01	3.5 km channel, 6.7 km concrete road, 6.1 ha micro irrigation, 34 ponds, 1.2 km dredging, 85.9 ha conservation tillage, 1.2 km riverbank protection, 40.6 ha terracing, etc.	1,219.70	NCB	Post	1S1E	Q2/2020	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A01-SCYT2020-02	3.5 km channel, 6.7 km concrete road, 6.1 ha micro irrigation, 34 ponds, 1.2 km dredging, 85.9 ha conservation tillage, 1.2 km riverbank protection, 40.6 ha terracing, etc.	1,219.70	NCB	Post	1S1E	Q2/2020	
<b>(Yingshan County)</b>							
CW1A01-SCYS2018-01	4.7 km channel, 1 pump station, 13.5 km concrete road, 36 ponds, 50.0 ha conservation tillage, 31.6 ha terracing, etc.	1,032.38	NCB	Post	1S1E	Q3/2019	
CW1A01-SCYS2018-02	4.74 km channel, 1 pump station, 13.5 km concrete road, 36 ponds, 50.0 ha conservation tillage, 31.6 ha terracing, etc.	1,032.38	NCB	Post	1S1E	Q3/2023	
CW1A01-SCYS2019-01	5.7 km channel, 1 pump station, 16.2 km concrete road, 43 ponds, 60.0 ha conservation tillage, 110.0 ha terracing, etc.	1,238.25	NCB	Post	1S1E	Q2/2021	
CW1A01-SCYS2020-01	4.8 km channel, , 1 pump station, 13.8 km concrete road, 37 ponds, 51.0 ha conservation tillage, 93.6 ha terracing, etc.	1,053.95	NCB	Post	1S1E	Q2/2020	
<b>5. Yunnan Province</b>							
<b>5.1 Works</b>							
<b>(Overall Yunnan)</b>							
<b>(Xuanwei City)</b>							
CW1B05-YNXW2020-01	8 ha greenhouses	1,354.73	NCB	Post	1S1E	Q1/2020	
CW2B01-YNXW2019-01	733.3 ha water and soil conservation	1,121.41	NCB	Post	1S1E	Q3/2022	
<b>(Zhaoyang District)</b>							
CW1A02-YNZY2020-01	20.0 km sand-gravel roads	1,051.04	NCB	Post	1S1E	Q3/2020	
<b>(Huize County)</b>							
CW1A02-YNHZ2020-01	11.0 km concrete road	1,008.68	NCB	Post	1S1E	Q3/2020	
<b>(Qiaojia County)</b>							
CW1A01-YNQJ2019-01	12.7 km intercepting drain	1,332.69	NCB	Post	1S1E	Q2/2022	
<b>(Weixin County)</b>							
CW1A02-YNWX2019-01	16.0 km concrete road	1,332.69	NCB	Post	1S1E	Q3/2022	
CW1A02-YNWX2019-02	16.5 km concrete road	1,380.29	NCB	Post	1S1E	Q4/2022	
CW1A02-YNWX2020-01	15.4 km concrete road	1,285.09	NCB	Post	1S1E	Q1/2020	
<b>(Yiliang County)</b>							
CW1A02-YNYL2019-01	15.2 km concrete road	1,509.89	NCB	Post	1S1E	Q3/2022	
<b>(Yongshan County)</b>							
CW1A05-YNYS2020-01	167 ponds	1,068.35	NCB	Post	1S1E	Q3/2020	
CW2B01-YNYS2019-01	728.0 ha water and soil conservation	1,199.05	NCB	Post	1S1E	Q2/2022	
<b>5.2 Goods</b>							
<b>(Zhaoyang District)</b>							

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior/post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
GP-YNZY-01	1,000 pest control facilities	1,204.20	NCB	Post	1S1E	Q3/2020	

ha = hectare, km = kilometer, NCB = national competitive bidding, Q = quarter, 1S1E = one stage one envelope.

<sup>1</sup> Prequalification of bidders and domestic preference are not applicable. For NCB, standard bidding document issued by the Ministry of Finance will be used.

### c. Consulting Services Contracts

58. The following table lists consulting services contracts over the life of the project.

Package Number	General Description	Estimated Value (\$'000)	Recruitment Method	Review (prior/post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS-SR-NPMO/PPMOs	For researches	1,437.52	QCBS/CQS	Prior	Q2/2019-Q4/2023	STP/BTP	One contract will be advance contracting Multiple contracts by NPMO or PPMOs
CS-TA-NPMO/PPMOs	For project implementation, institutional development, and capacity building	700.09	QCBS/CQS/ICS	Prior	Q4/2018-Q4/2023	STP/BTP	Multiple contracts by NPMO
CS-CP-NPMO/PPMOs	For cooperation platform establishment	605.11	QCBS/CQS/ICS	Prior	Q2/2019-Q4/2023	STP/BTP	Multiple contracts by NPMO

BTP = biodata technical proposal, CQS = consultants' qualifications selection, ICS = individual consultant selection, Q = quarter, QCBS = quality- and cost-base selection, NPMO = national project management office, PPMO = provincial project management office, STP = simplified technical proposal.

Source: Asian Development Bank.

### d. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

59. The following table groups smaller-value works, goods, and consulting services contracts for which the activity is either ongoing or expected to commence.

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior/post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
<b>1. Guizhou Province</b>							
<b>1.1 Works (Bijiang District)</b>							
CW1A01-GZBJ2018-03	Septic tank and livestock waste treatment	472.65	NCB	Post	1S1E	Q1/2022	
CW1A02-GZBJ2019-01	8 silt traps, 22 ponds rehabilitation, 1.0 km dredging, and livestock waste disposal	281.81	NCB	Post	1S1E	Q4/2022	
CW1A02-GZBJ2019-02	13.2 km concrete road	657.18	NCB	Post	1S1E	Q4/2019	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A03-GZBJ2020-01	4.9 km intercepting drain, 8.7 km concrete road, 33 ponds rehabilitation, etc.	875.49	NCB	Post	1S1E	Q1/2022	
CW1B01-GZBJ2018-01	25.2 ha economic forest	208.63	NCB	Post	1S1E	Q3/2023	
CW1B01-GZBJ2019-01	25.2 ha economic forest	208.63	NCB	Post	1S1E	Q1/2022	
CW1B01-GZBJ2020-01	12.6 ha economic forest	104.31	NCB	Post	1S1E	Q1/2022	
<b>(Dejiang County)</b>							
CW1A01-GZDJ2018-01	4.1 km intercepting drain, 21 ponds rehabilitation, etc.	417.84	NCB	Post	1S1E	Q3/2019	
CW1A01-GZDJ2018-02	16.1 km concrete road	803.46	NCB	Post	1S1E	Q3/2019	
CW1A01-GZDJ2018-03	16.1 km concrete road	803.46	NCB	Post	1S1E	Q1/2022	
CW1A01-GZDJ2018-04	16.1 km concrete road	803.46	NCB	Post	1S1E	Q1/2022	
CW1A01-GZDJ2018-05	16.1 km concrete road	803.46	NCB	Post	1S1E	Q1/2022	
CW1A01-GZDJ2019-02	5.7 km riverbank protection	861.00	NCB	Post	1S1E	Q4/2019	
CW2A-GZDJ2019-01	84.0 ha economic forest	695.43	NCB	Post	1S1E	Q4/2022	
<b>(Jiangkou County)</b>							
CW1A01-GZJK2018-01	1.8 km channel, 15 weirs, 18 ponds rehabilitation, livestock waste disposal, 1.3 km riverbank protection, 10.5 ha terracing, etc.	740.46	NCB	Post	1S1E	Q3/2023	
CW1A01-GZJK2018-02	16.1 km concrete road	988.15	NCB	Post	1S1E	Q1/2022	
CW1A02-GZJK2019-01	2.9 km channel, 5.2 ha sprinkler irrigation, 20 ponds rehabilitation, 1.3 km riverbank protection, 10.5 ha terracing, etc.	757.09	NCB	Post	1S1E	Q4/2022	
CW1A02-GZJK2019-02	14.4 km concrete road	860.84	NCB	Post	1S1E	Q4/2019	
CW1A03-GZJK2020-01	2.2 km channel, 13 ponds rehabilitation, 0.6 km riverbank protection, 9.3 ha terracing, etc.	530.85	NCB	Post	1S1E	Q1/2022	
CW1A03-GZJK2020-02	14.4 km concrete road	860.84	NCB	Post	1S1E	Q1/2022	
CW1A04-GZJK2021-01	1.2 km channel, 2 pump stations, 1.5 km concrete road, 3 ponds rehabilitation, etc.	389.46	NCB	Post	1S1E	Q1/2021	
CW1B01-GZJK2018-01	21.1 ha economic forest	157.30	NCB	Post	1S1E	Q3/2023	
CW1B02-GZJK2019-01	27.8 ha economic forest	206.97	NCB	Post	1S1E	Q4/2022	
CW1B03-GZJK2020-01	35.5 ha economic forest	264.92	NCB	Post	1S1E	Q4/2022	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1B04-GZJK2021-01	26.6 ha economic forest	198.69	NCB	Post	1S1E	Q2/2021	
<b>(Sinan County)</b>							
CW1A01-GZSN2018-01	0.4 km intercepting drain, 7.1 km concrete road, 6 ponds rehabilitation, 1.0 km dredging, etc.	894.40	NCB	Post	1S1E	Q3/2023	
CW1A02-GZSN2019-01	1.7 km intercepting drain, 44 ponds rehabilitation, etc.	387.18	NCB	Post	1S1E	Q4/2022	
CW1A03-GZSN2020-01	0.4 km intercepting drain, 55 ponds rehabilitation, etc.	441.81	NCB	Post	1S1E	Q1/2022	
CW1A03-GZSN2020-02	18.7 km concrete road	942.45	NCB	Post	1S1E	Q1/2022	
CW1A04-GZSN2021-01	0.7 km intercepting drain, 7.8 km concrete road, 17 ponds rehabilitation, etc.	737.75	NCB	Post	1S1E	Q2/2021	
CW2A-GZSN2018-01	13.3 ha economic forest	110.32	NCB	Post	1S1E	Q3/2023	
CW2A-GZSN2019-01	32.8 ha economic forest	271.55	NCB	Post	1S1E	Q4/2022	
CW2A-GZSN2019-02	35.9 ha economic forest	297.01	NCB	Post	1S1E	Q4/2019	
CW2A-GZSN2020-01	20.5 ha economic forest	169.72	NCB	Post	1S1E	Q4/2022	
<b>(Songtao County)</b>							
CW1A01-GZST2018-03	3 septic tanks	948.31	NCB	Post	1S1E	Q1/2022	
CW1A02-GZST2019-01	2.5 km intercepting drain, sprinklers, 18 ponds rehabilitation, etc.	319.02	NCB	Post	1S1E	Q4/2022	
CW1A02-GZST2019-02	20.1 km concrete road	842.88	NCB	Post	1S1E	Q4/2019	
CW1A02-GZST2019-03	3.8 km riverbank protection	975.40	NCB	Post	1S1E	Q4/2022	
CW1A02-GZST2019-04	2 septic tanks	632.21	NCB	Post	1S1E	Q4/2019	
CW1A03-GZST2020-01	2.8 km channel, 22.0 km concrete road, 6.0 km pipeline, etc.	957.63	NCB	Post	1S1E	Q1/2022	
CW2A-GZST2018-01	44 sprinklers	109.01	NCB	Post	1S1E	Q3/2019	
CW2A-GZST2019-01	18 sprinklers	44.53	SHP	Post		Q4/2022	
<b>(Yanhe County)</b>							
CW1A01-GZYH2018-01	5.2 km channel, 1 erosion control weir, 42 ponds rehabilitation, etc.	867.14	NCB	Post	1S1E	Q3/2019	
CW1A01-GZYH2018-02	10.4 km concrete road	571.27	NCB	Post	1S1E	Q1/2022	
CW1A01-GZYH2019-02	1.0 km dredging	135.47	NCB	Post	1S1E	Q4/2019	
CW1A01-GZYH2019-03	7.5 km riverbank protection	903.15	NCB	Post	1S1E	Q4/2022	
CW1A01-GZYH2019-04	7.5 km riverbank protection	903.15	NCB	Post	1S1E	Q4/2019	
CW1A01-GZYH2020-02	11.4 km concrete road	593.67	NCB	Post	1S1E	Q1/2022	
CW1A01-GZYH2021-01	0.4 km channel, 1 pump, 2.1 km dredging, etc.	560.59	NCB	Post	1S1E	Q1/2021	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A01-GZYH2021-02	13.8 km concrete road	649.67	NCB	Post	1S1E	Q1/2021	
<b>(Yinjiang County)</b>							
CW1A01-GZYZ2018-01	1.3 km intercepting drain, 36 ponds rehabilitation, 1 septic tank, etc.	691.69	NCB	Post	1S1E	Q3/2019	
CW1A01-GZYZ2019-01	6.0 km intercepting drain, 42 ponds rehabilitation, 1 septic tank, etc.	915.68	NCB	Post	1S1E	Q4/2022	
CW1A01-GZYZ2020-01	0.4 km intercepting drain, 18 ponds rehabilitation, etc.	179.54	NCB	Post	1S1E	Q1/2022	
CW1A01-GZYZ2021-01	0.9 km intercepting drain, 24 ponds rehabilitation, etc.	250.39	NCB	Post	1S1E	Q1/2021	
CW1A01-GZYZ2021-02	10.5 km concrete road	533.00	NCB	Post	1S1E	Q1/2021	
CW2A-GZYZ2018-01	22.0 ha economic forest	145.58	NCB	Post	1S1E	Q3/2019	
CW2A-GZYZ2019-01	37.4 ha economic forest	247.48	NCB	Post	1S1E	Q4/2022	
CW2A-GZYZ2019-02	30.8 ha economic forest	203.81	NCB	Post	1S1E	Q4/2019	
CW2A-GZYZ2020-01	19.8 ha economic forest	131.02	NCB	Post	1S1E	Q1/2022	
<b>(Yuping County)</b>							
CW1A01-GZYP2018-01	1.2 km channel and 6.2 km concrete road	347.17	NCB	Post	1S1E	Q3/2019	
CW1A01-GZYP2019-01	5.0 km channel, 2 pump stations, 7.2 ha sprinkler irrigation, 0.5 ha greenhouse, artificial wetlands, etc.	847.44	NCB	Post	1S1E	Q4/2022	
CW1A01-GZYP2019-02	15.4 km concrete road	861.31	NCB	Post	1S1E	Q4/2019	
CW1A01-GZYP2019-03	15.4 km concrete road	861.31	NCB	Post	1S1E	Q4/2022	
CW1B-GZYP2018-02	35.1 ha economic forest	290.29	NCB	Post	1S1E	Q1/2022	
CW1B-GZYP2019-05	62.3 ha economic forest	516.07	NCB	Post	1S1E	Q4/2022	
<b>1.2 Goods</b>							
<b>(Overall Guizhou)</b>							
GP-MIS-GZ	PPMS equipment	100.85	NCB	Post	1S1E	Q4/2018	
GP3C-OE-GZ2018	Office equipment	421.47	NCB	Prior	1S1E	Q2/2019	First NCB goods for Guizhou
GP-AgriM-GZ2018-03	Agricultural machinery	39.56	SHP	Post		Q3/2019	
GP-AgriM-GZ2019-02	Agricultural machinery	140.65	NCB	Post	1S1E	Q3/2019	
GP-AgriM-GZ2020-02	Agricultural machinery	39.56	SHP	Post		Q3/2020	
GP-IPM-GZ2018-01	Pest control facilities	172.60	NCB	Post	1S1E	Q3/2019	
GP-IPM-GZ2019-01	Pest control facilities	499.63	NCB	Post	1S1E	Q3/2019	
GP-IPM-GZ2020-01	Pest control facilities	163.52	NCB	Post	1S1E	Q1/2022	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
GP-IPM-GZ2021-01	Pest control facilities	72.67	SHP	Post		Q1/2021	
GP-TeaPro-GZ2018-02	Tea processing equipment	301.05	NCB	Post	1S1E	Q3/2019	
<b>(Yuping County)</b>							
GP1B-GZYP2019-01	6.9 ha sprinkler irrigation equipment	114.25	NCB	Post	1S1E	Q4/2022	
GP1B-GZYP2020-01	6.9 ha sprinkler irrigation equipment	114.25	NCB	Post	1S1E	Q1/2022	
<b>2. Hubei Province</b>							
<b>2.1 Works</b>							
<b>(Chibi City)</b>							
CW1A01-HBCB2018-01	CW for 10.5 km channel construction	225.41	NCB	Post	1S1E	Q3/2021	
CW1A01-HBCB2019-01	CW for 18.9 km intercepting drain	677.18	NCB	Post	1S1E	Q1/2021	
CW1A01-HBCB2020-01	CW for 18.9 km intercepting drain	677.18	NCB	Post	1S1E	Q1/2020	
CW1A01-HBCB2021-01	CW for 18.9 km intercepting drain	677.18	NCB	Post	1S1E	Q1/2023	
CW1A01-HBCB2021-02	CW for 18.9 km intercepting drain	677.18	NCB	Post	1S1E	Q1/2021	
CW1A02-HBCB2020-01	CW for 5 sets irrigation and drainage ditches affiliated facilities and 1 newly established irrigation and drainage station	122.56	NCB	Post	1S1E	Q1/2020	
CW1A04-HBCB2019-01	CW for 19.85 km hardened road (concrete)	544.88	NCB	Post	1S1E	Q1/2023	
CW1A04-HBCB2019-02	CW for 19.85 km hardened road (concrete)	544.88	NCB	Post	1S1E	Q1/2023	
CW1A08-HBCB2019-01	CW for 3 sets new pond establishment	667.37	NCB	Post	1S1E	Q1/2021	
CW1A08-HBCB2019-02	CW for 3 sets new pond establishment	667.37	NCB	Post	1S1E	Q1/2021	
CW1A08-HBCB2020-01	CW for 5 sets new pond establishment	889.82	NCB	Post	1S1E	Q1/2023	
CW1A09-HBCB2020-01	CW for 8.5 km dredging, irrigation and drainage ditches and 1 ecological breeding demonstration base	347.62	NCB	Post	1S1E	Q1/2020	
<b>(Dangyang City)</b>							
CW1A01-HBDY2018-01	CW for 28 km channel	410.93	NCB	Post	1S1E	Q1/2022	
CW1A01-HBDY2018-02	CW for 4.5 km intercepting drain	628.14	NCB	Post	1S1E	Q3/2021	
CW1A01-HBDY2019-01	CW for 28 km channel	410.93	NCB	Post	1S1E	Q1/2023	
CW1A01-HBDY2019-02	CW for 3 km intercepting drain	418.76	NCB	Post	1S1E	Q1/2021	
CW1A03-HBDY2019-01	CW for 30 sets newly established irrigation and drainage station	153.54	NCB	Post	1S1E	Q4/2020	
CW1A04-HBDY2019-01	CW for 22 km hardened road (concrete)	435.09	NCB	Post	1S1E	Q1/2022	

[illegible]



Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A01-HBSS2018-01	CW for 8.35 km channel	652.25	NCB	Post	1S1E	Q3/2021	
CW1A01-HBSS2019-01	CW for 8.35 km channel	652.25	NCB	Post	1S1E	Q1/2022	
CW1A01-HBSS2019-02	CW for 6.82 km intercepting drain	884.34	NCB	Post	1S1E	Q4/2020	
CW1A03-HBSS2019-01	CW for 84 sets newly established irrigation and drainage station and 17 km hardened road (concrete)	744.59	NCB	Post	1S1E	Q1/2023	
CW1A03-HBSS2019-02	CW for 10.5 km low pressure pipeline engineering	776.71	NCB	Post	1S1E	Q1/2021	
CW1B01-HBSS2020-01	CW for 203 ha land levelling and 200 ha greenhouse construction	606.62	NCB	Post	1S1E	Q1/2020	
<b>(Songzi City)</b>							
CW1A03-HBSZ2018-01	CW for 28 km hardened road (concrete)	340.19	NCB	Post	1S1E	Q3/2021	
CW1A06-HBSZ2019-01	CW for 533.33 ha sprinkler irrigation construction	416.20	NCB	Post	1S1E	Q1/2023	
CW1A08-HBSZ2019-01	CW for 42 sets new pond establishment and 62 sets engineering signs	597.96	NCB	Post	1S1E	Q3/2021	
CW2A10-HBSZ2020-01	CW for 2 sets organic fertilizer processing plant construction	15.84	SHP	Post		Q1/2020	
CW2B01-HBSZ2020-01	CW for 15.9 ha newly establishment of water and soil conservation forest plantation	332.55	NCB	Post	1S1E	Q3/2021	
CW2B01-HBSZ2021-01	CW for 15.9 ha newly establishment of water and soil conservation forest plantation	332.55	NCB	Post	1S1E	Q3/2021	
<b>(Yidu City)</b>							
CW1A01-HBYD2018-01	CW for 20 sets silt trap and 8 sets Affiliated facilities	328.15	NCB	Post	1S1E	Q3/2019	
CW1A01-HBYD2019-01	CW for 5.2 km intercepting drain	668.48	NCB	Post	1S1E	Q3/2019	
CW1A01-HBYD2019-02	CW for 5.2 km intercepting drain	668.48	NCB	Post	1S1E	Q1/2022	
CW1A04-HBYD2018-01	CW for 11.3 km hardened road (concrete)	596.08	NCB	Post	1S1E	Q4/2020	
CW1A06-HBYD2019-01	CW for 33.33 ha sprinkler irrigation area construction	376.31	NCB	Post	1S1E	Q1/2023	
CW1A08-HBYD2019-01	CW for 19 sets new pond establishment and 0.3 km dredging, irrigation	181.38	NCB	Post	1S1E	Q3/2019	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
	and drainage ditches						
CW1B02-HBYD2019-01	7,260 m <sup>2</sup> warehouse	601.05	NCB	Post	1S1E	Q3/2021	
CW1B02-HBYD2019-02	4,840 m <sup>2</sup> warehouse	400.70	NCB	Post	1S1E	Q2/2020	
CW2B02-HBYD2019-02	CW for 1.75 km riverbank protection works	387.59	NCB	Post	1S1E	Q3/2021	
<b>(Zhijiang City)</b>							
CW1A01-HBZJ2018-01	CW for 2.2 km channel construction, 6 sets silt trap and 8 sets irrigation and drainage pumping station	159.50	NCB	Post	1S1E	Q3/2019	
CW1A06-HBZJ2019-01	CW for 200 ha sprinkler irrigation area construction	451.44	NCB	Post	1S1E	Q4/2020	
CW1A07-HBZJ2019-01	CW for 133.33 ha micro irrigation (including drip irrigation)	243.85	NCB	Post	1S1E	Q3/2021	
CW1A08-HBZJ2020-01	CW for 127 sets new pond establishment	676.61	NCB	Post	1S1E	Q1/2020	
CW1B06-HBZJ2020-01	CW for 1 ecological breeding demonstration base	525.29	NCB	Post	1S1E	Q3/2021	
CW2B01-HBZJ2019-01	CW for 66.67 ha newly establishment of water and soil conservation forest plantation	161.44	NCB	Post	1S1E	Q3/2019	
CW2B02-HBYD2019-01	CW for 1.75 km riverbank protection works	387.59	NCB	Post	1S1E	Q1/2021	
CW2B06-HBZJ2019-01	CW for 133.35 ha terrace	602.10	NCB	Post	1S1E	Q3/2019	
CW2B06-HBZJ2020-01	CW for 133.35 ha terrace	602.10	NCB	Post	1S1E	Q4/2020	
<b>(Gongan County)</b>							
CW1A01-HBGA2018-01	CW for 34.5 km channel construction	869.68	NCB	Post	1S1E	Q3/2019	
CW1A01-HBGA2019-02	CW for 5.24 km intercepting drain	466.63	NCB	Prior	1S1E	Q2/2019	First NCB works for Hubei
CW1A01-HBGA2019-03	CW for 5.24 km intercepting drain	466.63	NCB	Post	1S1E	Q3/2021	
CW1A03-HBGA2018-01	CW for 8 sets newly established irrigation and drainage station and 22 sets Rehabilitation of pond	180.63	NCB	Post	1S1E	Q3/2019	
CW1A04-HBGA2019-01	CW for 9.5 km hardened road (concrete)	481.32	NCB	Post	1S1E	Q3/2019	
CW1A04-HBGA2019-02	CW for 9.5 km hardened road (concrete)	481.32	NCB	Post	1S1E	Q1/2021	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A04-HBGA2019-03	CW for 3 km hardened road (concrete)	301.05	NCB	Post	1S1E	Q3/2019	
CW1A06-HBGA2019-01	CW for 23.3 ha 6.sprinkler irrigation area	667.91	NCB	Post	1S1E	Q3/2019	
CW1B01-HBGA2020-01	CW for 4,000 ha land levelling and 13.3 ha greenhouse	511.79	NCB	Post	1S1E	Q1/2020	
<b>2.2 Goods</b>							
<b>(Overall Hubei)</b>							
GP-MIS-HB	GP	100.85	NCB	Post	1S1E	Q4/2018	
GP3C-OE-HB2018	GP for 32 sets office equipment for COCADs	332.65	NCB	Prior	1S1E	Q2/2019	First NCB goods for Hubei
<b>(Chibi City)</b>							
GP2A07-HBCB2020-1	GP for 800 sets IPM facilities (pest control)	315.67	NCB	Post	1S1E	Q1/2020	
GP2A07-HBCB2020-2	GP for processing machinery	722.52	NCB	Post	1S1E	Q1/2020	
<b>(Dangyang City)</b>							
GP2A07-HBDY2021-01	GP for 400 sets IPM facilities (pest control)	361.26	NCB	Post	1S1E	Q1/2021	
<b>(Honghu City)</b>							
GP1B03-HBHH2019-01	GP for 1 set farming machinery	150.53	NCB	Post	1S1E	Q1/2022	
GP2A07-HBHH2020-01	GP for 33 sets IPM facilities (pest control)	29.80	SHP	Post		Q3/2021	
<b>(Shishou City)</b>							
GP2A07-HBSS2020-01	GP for 710 sets IPM (pest control)	534.36	NCB	Post	1S1E	Q1/2020	
<b>(Songzi City)</b>							
GP2A07-HBSZ2021-01	GP for 200 sets IPM facilities (pest control)	105.37	NCB	Post	1S1E	Q1/2021	
<b>(Yidu City)</b>							
GP2A05-HBYD2018-01	GP for 9 sets Pollutant Discharge Warning Monitoring Station	30.11	SHP	Post		Q3/2019	
GP2A07-HBYD2021-01	GP for 681 sets IPM facilities (pest control)	406.42	NCB	Post	1S1E	Q2/2021	
<b>(Zhijiang City)</b>							
GP2A07-HBZJ2021-01	GP for 400 sets IPM facilities (pest control)	180.63	NCB	Post	1S1E	Q3/2021	
<b>(Gongan County)</b>							
GP2A07-HBGA2020-01	GP for 300 sets IPM facilities (pest control)	471.52	NCB	Post	1S1E	Q1/2020	
<b>3. Hunan Province</b>							
<b>(Lengshuitan District)</b>							
CW1A-HNLST2018-01	5.0 km channel, 5.8 km sand-gravel and concrete roads, 13 ponds rehabilitation, etc.	947.89	NCB	Post	1S1E	Q2/2020	
CW1A-HNLST2019-01	3.3 km channel, 2.5 sand-gravel and concrete roads, 12	631.93	NCB	Post	1S1E	Q2/2019	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
	ponds rehabilitation, etc.						
CW2A-HNLST2018-01	23 bases for crop waste	2.08	SHP	Post		Q2/2020	
CW2B-HNLST2020-01	20.0 water and soil conservation	642.48	NCB	Post	1S1E	Q2/2022	
<b>(Dongkou County)</b>							
CW1A-HNDK2018-01	1.8 km intercepting drain and 5 ponds rehabilitation	422.32	NCB	Post	1S1E	Q2/2020	
CW1A-HNDK2019-01	2.3 km intercepting drain and 6 ponds rehabilitation	527.89	NCB	Post	1S1E	Q2/2019	
CW1A-HNDK2020-01	2.3 km intercepting drain and 6 ponds rehabilitation	527.89	NCB	Post	1S1E	Q2/2022	
CW1A-HNDK2021-01	1.8 km intercepting drain and 5 ponds rehabilitation	422.32	NCB	Post	1S1E	Q2/2021	
CW1A-HNDK2022-01	0.9 km intercepting drain and 3 ponds rehabilitation	211.16	NCB	Post	1S1E	Q2/2022	
CW2B-HNDK2018-01	113.3 ha water and soil conservation	953.97	NCB	Post	1S1E	Q2/2020	
CW2B-HNDK2020-01	113.3 ha water and soil conservation	953.97	NCB	Post	1S1E	Q2/2022	
<b>(Hengnan County)</b>							
CW1A-HNHN2018-01	1 silt trap, 1.4 km sand-gravel road, and 5 ponds rehabilitation	62.79	SHP	Post		Q2/2020	
CW1A-HNHN2019-01	3 silt traps, 3.5 km sand-gravel road, and 12 ponds rehabilitation	156.98	NCB	Post	1S1E	Q2/2019	
CW1A-HNHN2019-02	36 pump stations and 0.5 km pipeline	135.95	NCB	Post	1S1E	Q2/2019	
CW1A-HNHN2021-01	2 silt traps, 2.1 km sand-gravel road, and 7 ponds rehabilitation	94.19	SHP	Post		Q2/2021	
CW2A-HNHN2018-01	260 anaerobic purification tanks	156.55	NCB	Post	1S1E	Q2/2020	
CW2A-HNHN2019-01	1.7 ha artificial wetland and 4.5 km sewage collection pipe	972.49	NCB	Post	1S1E	Q2/2019	
CW2A-HNHN2019-02	1 organic fertilizer processing plant	52.68	SHP	Post		Q2/2019	
CW2A-HNHN2021-01	4.5 km sewage collection pipe	224.28	NCB	Post	1S1E	Q2/2021	
CW2B-HNHN2018-01	7.8 ha water and soil conservation and 81.2 ha ecological grass protection	803.18	NCB	Post	1S1E	Q2/2020	
CW2B-HNHN2019-01	3.3 ha water and soil conservation and 104.4 ha ecological grass protection	600.21	NCB	Post	1S1E	Q2/2019	
<b>(Li County)</b>							
CW1A-HNLI2018-01	4.2 km channel, 1 weir, and 5.4 km concrete road, etc.	370.54	NCB	Prior	1S1E	Q1/2019	First NCB works for Hunan For

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
							advance contracting and retroactive financing
CW1A-HNLI2019-01	5.2 km channel, 1 weir, 6.7 km concrete road, etc.	463.18	NCB	Post	1S1E	Q2/2019	
CW1A-HNLI2020-01	5.2 km channel, 1 weir, 6.7 km concrete road, etc.	463.18	NCB	Post	1S1E	Q2/2022	
CW1A-HNLI2021-01	4.2 km channel, 1 weir, and 5.4 km concrete road, etc.	370.54	NCB	Post	1S1E	Q2/2021	
CW1A-HNLI2022-01	2.1 km channel, 2.8 km concrete road, etc.	185.27	NCB	Post	1S1E	Q2/2022	
<b>(Nan County)</b>							
CW1A-HNNA2020-01	8.0 km dredging	165.68	NCB	Post	1S1E	Q2/2022	
CW1B-HNNA2019-01	57 ecological breeding demonstration bases	235.72	NCB	Post	1S1E	Q2/2019	
CW1B-HNNA2020-01	44 ecological breeding demonstration bases	176.79	NCB	Post	1S1E	Q2/2022	
CW1B-HNNA2021-01	44 ecological breeding demonstration bases	176.79	NCB	Post	1S1E	Q2/2021	
CW2A-HNNA2018-01	280 crop waste collection tanks	25.29	SHP	Post		Q2/2020	
CW2A-HNNA2022-01	269 anaerobic purification tanks	118.63	NCB	Post	1S1E	Q2/2022	
CW2B-HNNA2019-01	2.0 km riverbank protection	189.97	NCB	Post	1S1E	Q2/2019	
CW2B-HNNA2021-01	7.0 km riverbank protection	664.89	NCB	Post	1S1E	Q2/2021	
<b>(Pingjiang County)</b>							
CW1A-HNPJ2018-01	6.0 km channel, 1 pond rehabilitation, etc.	281.59	NCB	Post	1S1E	Q2/2020	
CW1A-HNPJ2019-01	7.5 km channel, 1 pond rehabilitation, etc.	351.99	NCB	Post	1S1E	Q2/2019	
CW1A-HNPJ2020-01	7.5 km channel, 1 pond rehabilitation, etc.	351.99	NCB	Post	1S1E	Q2/2022	
CW1A-HNPJ2021-01	6.0 km channel, 1 pond rehabilitation, etc.	281.59	NCB	Post	1S1E	Q2/2021	
CW1A-HNPJ2022-01	3.0 km channel, 1 pond rehabilitation, etc.	140.80	NCB	Post	1S1E	Q2/2022	
CW2A-HNPJ2022-01	532 anaerobic purification tanks	325.13	NCB	Post	1S1E	Q2/2022	
CW2B-HNPJ2018-01	105.2 ha water and soil conservation	745.25	NCB	Post	1S1E	Q2/2020	
CW2B-HNPJ2019-01	140.2 ha water and soil conservation	993.67	NCB	Post	1S1E	Q2/2019	
CW2B-HNPJ2020-01	105.2 ha water and soil conservation	745.25	NCB	Post	1S1E	Q2/2022	
<b>(Shuangfeng County)</b>							

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A-HNSF2018-01	1.8 km channel, 4.5 km sand-gravel road, 2 ponds rehabilitation, 5.0 km dredging, etc.	191.68	NCB	Post	1S1E	Q2/2020	
CW1A-HNSF2019-01	1.0 km channel, 2.5 km sand-gravel road, 1 pond rehabilitation, 2.8 km dredging, etc.	106.49	NCB	Post	1S1E	Q2/2019	
CW1A-HNSF2020-01	1.2 km channel, 3.0 km sand-gravel road, 1 pond rehabilitation, 3.3 km dredging, etc.	127.79	NCB	Post	1S1E	Q2/2022	
CW2A-HNSF2019-01	8.0 ha artificial wetlands	72.25	SHP	Post		Q2/2019	
CW2A-HNSF2020-01	18 septic tanks and 0.9 km sewage collection pipe	347.86	NCB	Post	1S1E	Q2/2022	
CW2A-HNSF2021-01	6 sewage treatment stations	284.49	NCB	Post	1S1E	Q2/2021	
CW2A-HNSF2022-01	2.8 km sewage collection pipe	273.68	NCB	Post	1S1E	Q2/2022	
CW2B-HNSF2018-01	66.40 ha water and soil conservation	522.31	NCB	Post	1S1E	Q2/2020	
<b>(Taoyuan County)</b>							
CW1A-HNTY2018-01	3.4 km channel, 3 ponds rehabilitation, etc.	640.20	NCB	Post	1S1E	Q2/2020	
CW1A-HNTY2019-01	4.3 km channel, 4 ponds rehabilitation, etc.	800.25	NCB	Post	1S1E	Q2/2019	
CW1A-HNTY2020-01	4.3 km channel, 4 ponds rehabilitation, etc.	800.25	NCB	Post	1S1E	Q2/2022	
CW1A-HNTY2021-01	3.4 km channel, 4 ponds rehabilitation, etc.	640.20	NCB	Post	1S1E	Q2/2021	
CW1A-HNTY2022-01	1.7 km channel, 2 ponds rehabilitation, etc.	320.10	NCB	Post	1S1E	Q2/2022	
CW2A-HNTY2021-01	7 ha artificial wetlands	63.22	SHP	Post		Q2/2021	
CW2B-HNTY2018-01	1.3 km riverbank protection and river greenbelt	927.19	NCB	Post	1S1E	Q2/2020	
<b>3.2 Goods</b>							
<b>(Overall Hunan)</b>							
GP-MIS-HN	PPMS equipment	100.85	NCB	Post	1S1E	Q4/2018	
GP-OE-HN2018	Office equipment	204.86	NCB	Prior	1S1E	Q1/2019	First NCB goods for Hunan For advance contracting and retroactive financing
<b>(Lengshuitan District)</b>							
GP1B-HNLST2020-01	494 pest control facilities	237.95	NCB	Post	1S1E	Q2/2022	
<b>(Dongkou County)</b>							
GP1B-HNDK2020-01	335 pest control facilities	161.36	NCB	Post	1S1E	Q2/2022	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
<b>(Hengnan County)</b>							
GP1B-HNHN2019-01	300 pest control facilities	144.50	NCB	Post	1S1E	Q2/2019	
GP1B-HNHN2021-01	15 sewage treatment station equipment	159.56	NCB	Post	1S1E	Q2/2021	
<b>(Li County)</b>							
GP1B-HNLI2018-01	190 pest control facilities	91.52	SHP	Post		Q2/2020	
GP1B-HNLI2019-01	190 pest control facilities	91.52	SHP	Post		Q2/2019	
<b>(Nan County)</b>							
GP1B-HNNA2019-01	1,250 pest control facilities	602.10	NCB	Post	1S1E	Q2/2019	
<b>(Shuangfeng County)</b>							
GP1B-HNSF2019-01	0.5 km pipe and 1,537 pest control facilities	747.87	NCB	Post	1S1E	Q2/2019	
<b>(Taoyuan County)</b>							
GP1B-HNTY2019-01	150 pest control facilities	72.25	SHP	Post		Q2/2019	
<b>4. Sichuan Province</b>							
<b>4.1 Works</b>							
<b>(Anzhou District)</b>							
CW1A01-SCAZ2020-01	4.1 km channel, 4 pump stations, 4.7 km concrete road, 33 ponds, 1.4 km dredging, 64.0 ha conservation tillage, 1.4 km riverbank protection, 47.5 ha terracing, etc.	990.25	NCB	Post	1S1E	Q2/2020	
CW2B01-SCAZ2018-01	21.3 ha water and soil conservation	25.99	SHP	Post		Q3/2023	
CW2B01-SCAZ2019-01	19.4 ha water and soil conservation	23.68	SHP	Post		Q2/2021	
CW2B03-SCAZ2018-01	7.7 ha economic forest	51.71	SHP	Post		Q3/2023	
CW2B03-SCAZ2019-01	99.7 ha economic forest	672.17	NCB	Post	1S1E	Q1/2023	
CW2B03-SCAZ2020-01	46.0 ha economic forest	310.23	NCB	Post	1S1E	Q2/2020	
<b>(Zhaohua District)</b>							
CW1A01-SCZH2018-01	2.0 km channel, 3.4 km concrete road, 24 ponds, 17.0 ha conservation tillage, 24.2 ha terracing, etc.	741.47	NCB	Post	1S1E	Q3/2019	
CW2B01-SCZH2018-01	82.7 ha water and soil conservation	24.08	SHP	Post		Q3/2019	
CW2B01-SCZH2019-01	108.5 ha water and soil conservation	31.61	SHP	Post		Q2/2021	
CW2B01-SCZH2020-01	113.7 ha water and soil conservation	33.12	SHP	Post		Q2/2020	
CW2B01-SCZH2021-01	108.5 ha water and soil conservation	31.61	SHP	Post		Q2/2021	
CW2B03-SCZH2018-01	27.7 ha economic forest	119.23	NCB	Post	1S1E	Q3/2019	
CW2B03-SCZH2019-01	28.3 ha economic forest	121.83	NCB	Post	1S1E	Q2/2021	
CW2B03-SCZH2020-01	28.3 ha economic forest	121.83	NCB	Post	1S1E	Q2/2020	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW2B03-SCZH2021-01	27.7 ha economic forest	119.23	NCB	Post	1S1E	Q2/2021	
<b>(Jiange County)</b>							
CW2B01-SCJG2018-01	337.3 ha water and soil conservation	51.25	SHP	Post		Q3/2019	
CW2B01-SCJG2019-01	426.2 ha water and soil conservation	64.76	SHP	Post		Q2/2021	
CW2B01-SCJG2020-01	491.3 ha water and soil conservation	74.65	SHP	Post		Q2/2020	
CW2B01-SCJG2021-01	338.5 ha water and soil conservation	65.60	SHP	Post		Q1/2023	
CW2B03-SCJG2018-01	76.3 ha economic forest	306.25	NCB	Post	1S1E	Q3/2019	
CW2B03-SCJG2019-01	82.2 ha economic forest	330.46	NCB	Post	1S1E	Q2/2021	
CW2B03-SCJG2020-01	172.0 ha economic forest	690.94	NCB	Post	1S1E	Q2/2020	
CW2B03-SCJG2021-01	82.2 ha economic forest	330.46	NCB	Post	1S1E	Q2/2021	
<b>(Nanbu County)</b>							
CW1A01-SCNB2021-01	6.4 km channel, 8.2 km concrete road, 40 ponds, 2.7 km dredging, 24.1 ha conservation tillage, 2.7 km riverbank protection, 20.9 ha terracing, etc.	962.30	NCB	Post	1S1E	Q1/2023	
CW1A01-SCNB2021-02	6.4 km channel, 8.2 km concrete road, 40 ponds, 2.7 km dredging, 24.1 ha conservation tillage, 2.7 km riverbank protection, 20.9 ha terracing, etc.	962.30	NCB	Post	1S1E	Q1/2023	
CW2B01-SCNB2018-01	110.8 ha water and soil conservation	91.04	SHP	Post		Q3/2023	
CW2B01-SCNB2019-01	208.2 ha water and soil conservation	170.88	NCB	Post	1S1E	Q1/2023	
CW2B01-SCNB2020-01	206.2 ha water and soil conservation	169.31	NCB	Post	1S1E	Q2/2020	
CW2B01-SCNB2021-01	208.1 ha water and soil conservation	170.88	NCB	Post	1S1E	Q1/2023	
CW2B03-SCNB2018-01	43.6 ha economic forest	248.57	NCB	Post	1S1E	Q3/2023	
CW2B03-SCNB2019-01	74.8 ha economic forest	426.45	NCB	Post	1S1E	Q1/2023	
CW2B03-SCNB2020-01	72.2 ha economic forest	411.55	NCB	Post	1S1E	Q2/2020	
CW2B03-SCNB2021-01	76.1 ha economic forest	433.74	NCB	Post	1S1E	Q1/2023	
<b>(Wangcang County)</b>							
CW1A01-SCWC2019-01	2.4 km channel, 5.4 km concrete road, 21 ponds, 27 ha conservation tillage, 38.7 ha terracing, etc.	898.84	NCB	Post	1S1E	Q1/2023	
CW1A01-SCWC2019-02	2.4 km channel, 5.4 km concrete road, 21 ponds, 27 ha conservation tillage, 38.7 ha terracing, etc.	898.84	NCB	Post	1S1E	Q1/2023	



Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A01-SCWC2020-01	2.6 km channel, 5.7 km concrete road, 22 ponds, 28.0 ha conservation tillage, 41 ha terracing, etc.	955.65	NCB	Post	1S1E	Q2/2020	
CW1A01-SCWC2020-02	2.6 km channel, 5.7 km concrete road, 22 ponds, 28.0 ha conservation tillage, 41 ha terracing, etc.	955.65	NCB	Post	1S1E	Q2/2020	
CW1A01-SCWC2021-01	2.5 km channel, 5.6 km concrete road, 22 ponds, 27 ha conservation tillage, 40 ha terracing, etc.	935.60	NCB	Post	1S1E	Q1/2023	
CW1A01-SCWC2021-02	2.5 km channel, 5.6 km concrete road, 22 ponds, 27 ha conservation tillage, 40 ha terracing, etc.	935.60	NCB	Post	1S1E	Q2/2021	
CW2B01-SCWC2018-01	256.8 ha water and soil conservation	75.27	SHP	Post		Q3/2019	
CW2B01-SCWC2019-01	318.3 ha water and soil conservation	93.32	SHP	Post		Q2/2021	
CW2B01-SCWC2020-01	318.3 ha water and soil conservation	93.32	SHP	Post		Q2/2020	
CW2B01-SCWC2021-01	313.2 ha water and soil conservation	91.83	SHP	Post		Q2/2021	
CW2B03-SCWC2018-01	65.1 ha economic forest	310.24	NCB	Post	1S1E	Q3/2019	
CW2B03-SCWC2019-01	72.8 ha economic forest	346.99	NCB	Post	1S1E	Q2/2021	
CW2B03-SCWC2020-01	72.8 ha economic forest	346.99	NCB	Post	1S1E	Q2/2020	
CW2B03-SCWC2021-01	72.8 ha economic forest	346.99	NCB	Post	1S1E	Q2/2021	
<b>(Yingshan County)</b>							
CW2B01-SCYS2018-01	182.3 ha water and soil conservation	140.43	NCB	Post	1S1E	Q3/2023	
CW2B01-SCYS2019-01	193.4 ha water and soil conservation	148.77	NCB	Post	1S1E	Q2/2021	
CW2B01-SCYS2020-01	190.8 ha water and soil conservation	147.33	NCB	Post	1S1E	Q2/2020	
CW2B03-SCYS2018-01	93.7 ha economic forest	518.44	NCB	Post	1S1E	Q3/2023	
CW2B03-SCYS2019-01	44.4 ha economic forest	245.83	NCB	Post	1S1E	Q2/2021	
CW2B03-SCYS2020-01	61.8 ha economic forest	342.09	NCB	Post	1S1E	Q2/2020	
<b>(Yanting County)</b>							
CW1A01-SCYT2018-01	2.5 km channel, 4.9 km concrete road, 4.5 ha micro irrigation, 25 ponds, 0.9 km dredging, 63.2 ha conservation tillage, 0.9 km riverbank protection, 29.9 ha terracing, etc.	897.01	NCB	Post	1S1E	Q3/2023	
CW1A01-SCYT2018-02	2.5 km channel, 4.9 km concrete road, 4.5 ha micro irrigation, 25 ponds, 0.9 km dredging, 63.2 ha	897.01	NCB	Post	1S1E	Q3/2023	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
	conservation tillage, 0.9 km riverbank protection, 29.9 ha terracing, etc.						
CW2B01-SCYT2019-01	118.6 ha water and soil conservation	33.87	SHP	Post		Q2/2021	
CW2B01-SCYT2020-01	118.6 ha water and soil conservation	30.85	SHP	Post		Q2/2020	
CW2B03-SCYT2018-01	38.5 ha economic forest	188.85	NCB	Post	1S1E	Q3/2023	
CW2B03-SCYT2019-01	8.3 ha economic forest	40.86	SHP	Post		Q2/2021	
CW2B03-SCYT2020-01	137.3 ha economic forest	674.32	NCB	Post	1S1E	Q2/2020	
<b>4.2 Goods</b>							
<b>(Oveall Sichuan)</b>							
GP-MIS-SC	PPMS equipment	100.85	NCB	Post	1S1E	Q4/2018	
GP3C-OE-SC2018	Office equipment	246.86	NCB	Prior	1S1E	Q1/2019	First NCB goods for Sichuan For advance contracting and retroactive financing
GP-AgriM-SC2018	11 processing machinery	71.50	SHP	Post		Q2/2019	
GP-IPM-SC2018	320 pest control facilities	529.01	NCB	Post	1S1E	Q4/2019	
GP-IPM-SC2019	230 pest control facilities	380.22	NCB	Post	1S1E	Q4/2019	
GP-IPM-SC2020	290 pest control facilities	479.41	NCB	Post	1S1E	Q4/2020	
GP-IPM-SC2021	160 pest control facilities	264.50	NCB	Post	1S1E	Q4/2021	
GP-Lab-SC2018	2 laboratory instruments	210.74	NCB	Post	1S1E	Q4/2019	
<b>5. Yunnan Province</b>							
<b>5.1 Works</b>							
<b>(Xuanwei City)</b>							
CW1A01-YNXW2018-01	2.9 km intercepting drain	471.40	NCB	Prior	1S1E	Q2/2019	First NCB works for Yunnan
CW1A01-YNXW2019-01	2.3 km intercepting drain	385.69	NCB	Post	1S1E	Q3/2019	
CW1A01-YNXW2019-02	138.0 km channel and 1 erosion control weir	292.02	NCB	Post	1S1E	Q3/2019	
CW1A02-YNXW2019-01	5.7 km concrete roads	826.69	NCB	Post	1S1E	Q3/2019	
CW1A02-YNXW2019-02	4.2 km sand-gravel roads	313.64	NCB	Post	1S1E	Q4/2022	
CW1A02-YNXW2020-01	7.9 km sand-gravel roads	580.24	NCB	Post	1S1E	Q1/2020	
CW1A02-YNXW2020-02	9.2 km sand-gravel roads	674.33	NCB	Post	1S1E	Q3/2020	
CW1A03-YNXW2019-01	70.0 km pipeline	715.00	NCB	Post	1S1E	Q3/2022	
CW1A05-YNXW2020-01	30 ponds	252.88	NCB	Post	1S1E	Q3/2020	
CW2B03-YNXW2019-01	133.3 ha economic forest	325.59	NCB	Post	1S1E	Q3/2022	
<b>(Zhaoyang District)</b>							
CW1A01-YNZY2018-01	10.0 km channel	602.10	NCB	Post	1S1E	Q4/2019	
CW1A01-YNZY2018-02	3.9 km intercepting drain	545.96	NCB	Post	1S1E	Q4/2019	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
CW1A01-YNZY2019-01	2.1 km intercepting drain	293.98	NCB	Post	1S1E	Q2/2022	
CW1A01-YNZY2019-02	4 erosion control weirs	270.95	NCB	Post	1S1E	Q4/2022	
CW1A01-YNZY2019-03	4 irrigation and drainage stations	903.83	NCB	Post	1S1E	Q2/2022	
CW1A02-YNZY2019-01	15.0 km sand-gravel roads	792.89	NCB	Post	1S1E	Q2/2022	
CW1A05-YNZY2020-01	70 ponds	842.94	NCB	Post	1S1E	Q3/2020	
CW2B01-YNZY2020-01	413.3 ha water and soil conservation	406.42	NCB	Post	1S1E	Q3/2020	
CW2B03-YNZY2019-01	450.0 ha economic forest	237.08	NCB	Post	1S1E	Q3/2022	
CW2B03-YNZY2020-01	550.0 ha economic forest	289.76	NCB	Post	1S1E	Q3/2020	
CW2B04-YNZY2019-01	40.0 ha terracing	97.54	SHP	Post		Q3/2022	
CW2B04-YNZY2019-02	60.0 ha terracing	146.31	NCB	Post	1S1E	Q4/2022	
<b>(Huize County)</b>							
CW1A01-YNHZ2018-01	11.9 km channel	662.69	NCB	Post	1S1E	Q4/2019	
CW1A01-YNHZ2018-02	11.9 km channel	662.69	NCB	Post	1S1E	Q4/2019	
CW1A01-YNHZ2019-01	10.6 km intercepting drain	813.74	NCB	Post	1S1E	Q2/2022	
CW1A01-YNHZ2019-02	30 erosion control weirs	371.80	NCB	Post	1S1E	Q4/2022	
CW1A02-YNHZ2019-01	5.9 km concrete roads	543.13	NCB	Post	1S1E	Q2/2022	
CW1B01-YNHZ2020-01	40.0 ha land levelling	331.16	NCB	Post	1S1E	Q1/2020	
CW1B01-YNHZ2020-02	60.0 ha land levelling	496.73	NCB	Post	1S1E	Q3/2020	
CW1B04-YNHZ2020-01	Ecological planting demonstration bases	365.78	NCB	Post	1S1E	Q1/2020	
CW1B04-YNHZ2020-02	Ecological planting demonstration bases	447.06	NCB	Post	1S1E	Q3/2020	
CW2A02-YNHZ2020-01	30 straw fermentation tanks	67.74	SHP	Post		Q3/2020	
CW2B01-YNHZ2020-01	66.7 ha water and soil conservation	150.53	NCB	Post	1S1E	Q3/2020	
CW2B03-YNHZ2019-01	850.0 ha economic forest	604.55	NCB	Post	1S1E	Q2/2022	
CW2B03-YNHZ2020-01	460.0 ha economic forest	326.46	NCB	Post	1S1E	Q1/2020	
CW2B03-YNHZ2020-02	390.0 ha economic forest	278.09	NCB	Post	1S1E	Q3/2020	
<b>(Qiaojia County)</b>							
CW1A01-YNQJ2018-01	18.0 km channel	812.84	NCB	Post	1S1E	Q4/2019	
CW1A01-YNQJ2019-02	6.0 km intercepting drain	627.15	NCB	Post	1S1E	Q4/2022	
CW1A03-YNQJ2019-01	60.0 km pipeline	541.89	NCB	Post	1S1E	Q2/2022	
CW1A05-YNQJ2020-01	60 ponds	722.52	NCB	Post	1S1E	Q3/2020	
CW2B03-YNQJ2019-01	230.0 ha economic forest	619.04	NCB	Post	1S1E	Q3/2022	
CW2B03-YNQJ2019-02	219.0 ha economic forest	589.32	NCB	Post	1S1E	Q4/2022	
CW2B03-YNQJ2020-01	212.0 ha economic forest	569.51	NCB	Post	1S1E	Q1/2020	
CW2B03-YNQJ2020-02	259.0 ha economic forest	698.27	NCB	Post	1S1E	Q3/2020	
<b>(Weixin County)</b>							
CW1A01-YNWX2018-01	13.8 km channel	415.45	NCB	Post	1S1E	Q4/2019	
CW1A01-YNWX2019-01	12.0 km intercepting drain	506.40	NCB	Post	1S1E	Q3/2022	

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CW1A01-YNWX2019-02	10.3 km intercepting drain and 52 erosion control weirs	509.65	NCB	Post	1S1E	Q4/2022	
CW1A02-YNWX2020-02	9.1 km concrete road	761.54	NCB	Post	1S1E	Q3/2020	
CW1A05-YNWX2020-01	20 ponds	290.81	NCB	Post	1S1E	Q1/2020	
CW1A05-YNWX2020-02	2 ponds rehabilitation	158.05	NCB	Post	1S1E	Q3/2020	
CW2B01-YNWX2019-01	242.0 ha water and soil conservation	553.69	NCB	Post	1S1E	Q3/2022	
CW2B01-YNWX2020-01	198.0 ha water and soil conservation	453.02	NCB	Post	1S1E	Q3/2020	
CW2B04-YNWX2019-01	140.0 ha terracing	388.36	NCB	Post	1S1E	Q3/2022	
<b>(Yanjin County)</b>							
CW1A01-YNJY2018-01	17.2 km channel	776.71	NCB	Post	1S1E	Q4/2019	
CW1A02-YNJY2019-01	15.6 km concrete road	699.94	NCB	Post	1S1E	Q3/2022	
CW1A02-YNJY2020-01	17.7 km concrete road	793.27	NCB	Post	1S1E	Q1/2020	
CW1A02-YNJY2020-02	18.7 km concrete road	839.93	NCB	Post	1S1E	Q3/2020	
CW1A03-YNJY2019-01	15.1 km pipeline	907.67	NCB	Post	1S1E	Q3/2022	
CW1A03-YNJY2020-01	11.0 km pipeline	927.99	NCB	Post	1S1E	Q3/2020	
CW1A05-YNJY2020-01	5 ponds	112.89	NCB	Post	1S1E	Q3/2020	
CW2B01-YNJY2019-01	330.0 ha water and soil conservation	461.58	NCB	Post	1S1E	Q3/2022	
CW2B01-YNJY2019-02	339.0 ha water and soil conservation	472.65	NCB	Post	1S1E	Q4/2022	
CW2B01-YNJY2020-01	550.0 ha water and soil conservation	769.30	NCB	Post	1S1E	Q1/2020	
CW2B01-YNJY2020-02	506.0 ha water and soil conservation	707.75	NCB	Post	1S1E	Q3/2020	
CW2B01-YNJY2020-03	475.0 ha water and soil conservation	665.91	NCB	Post	1S1E	Q3/2020	
<b>(Yiliang County)</b>							
CW1A01-YNYL2018-01	16.9 km channel	508.78	NCB	Post	1S1E	Q4/2019	
CW1A01-YNYL2018-02	7.8 km intercepting drain	469.64	NCB	Post	1S1E	Q4/2019	
CW1A01-YNYL2019-01	9.1 km channel, 33 weirs, etc.	639.73	NCB	Post	1S1E	Q3/2022	
CW1A02-YNYL2020-01	7.0 km concrete road	691.06	NCB	Post	1S1E	Q1/2020	
CW1A02-YNYL2020-02	7.1 km concrete road	702.68	NCB	Post	1S1E	Q3/2020	
CW1A02-YNYL2020-03	3.0 km sand-gravel road	342.45	NCB	Post	1S1E	Q3/2020	
CW1A03-YNYL2020-01	30.5 km pipeline	505.01	NCB	Post	1S1E	Q3/2020	
CW1A05-YNYL2020-01	97 ponds	116.81	NCB	Post	1S1E	Q3/2020	
CW2B01-YNYL2019-01	126.7 ha water and soil conservation	504.11	NCB	Post	1S1E	Q3/2022	
CW2B03-YNYL2019-01	192.0 ha economic forest	467.66	NCB	Post	1S1E	Q3/2022	
CW2B03-YNYL2020-01	234.7 ha economic forest	571.58	NCB	Post	1S1E	Q3/2020	
<b>(Yongshan County)</b>							
CW1A01-YNYS2018-01	16.9 km channel	509.38	NCB	Post	1S1E	Q4/2019	
CW1A01-YNYS2019-01	11.3 km channel, etc.	384.74	NCB	Post	1S1E	Q2/2022	
CW1A02-YNYS2019-01	24.0 km concrete road and 8.9 km sand-gravel road	719.59	NCB	Post	1S1E	Q2/2022	
CW1A03-YNYS2019-01	155.6 km low pressure pipeline	701.45	NCB	Post	1S1E	Q2/2022	

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CW2B01-YNYS2020-01	392.0 ha water and soil conservation	645.64	NCB	Post	1S1E	Q3/2020	
CW2B03-YNYS2019-01	251.5 ha economic forest	683.02	NCB	Post	1S1E	Q2/2022	
CW2B03-YNYS2019-02	111.1 ha economic forest	301.59	NCB	Post	1S1E	Q4/2022	
CW2B03-YNYS2020-01	290.7 ha economic forest	789.46	NCB	Post	1S1E	Q3/2020	
CW2B04-YNYS2019-01	80.0 ha terracing	144.50	NCB	Post	1S1E	Q2/2022	
<b>5.2 Goods</b>							
<b>(Overall Yunnan)</b>							
GP-MIS-YN	PPMS equipment	100.85	NCB	Post	1S1E	Q4/2018	
GP3C-OE-YN2018	Office equipment	602.10	NCB	Prior	1S1E	Q1/2019	First NCB goods for Yunnan For advance contracting and retroactive financing
<b>(Xuanwei City)</b>							
GP-YNXW-01	5 farm tractors	75.26	SHP	Post		Q3/2021	
GP-YNXW-02	250 pest control facilities	150.53	NCB	Post	1S1E	Q3/2020	
<b>(Huize County)</b>							
GP-YNHZ-01	150 straw processing machinery	90.32	SHP	Post		Q3/2021	
<b>(Qiaojia County)</b>							
GP-YNQJ-01	1,000 pest control facilities	602.10	NCB	Post	1S1E	Q3/2020	
<b>(Weixin County)</b>							
GP-YNWX-01	310 pest control facilities	186.65	NCB	Post	1S1E	Q3/2020	
<b>(Yanjin County)</b>							
GP-YNYJ-01	200 pest control facilities	120.42	NCB	Post	1S1E	Q3/2020	
<b>(Yiliang County)</b>							
GP-YNYL-01	30 processing machinery	27.09	SHP	Post		Q3/2021	
GP-YNYL-02	410 pest control facilities	246.86	NCB	Post	1S1E	Q3/2020	
<b>(Yongshan County)</b>							
GP-YNYS-01	358 pest control facilities	161.06	NCB	Post	1S1E	Q4/2019	
<b>6. Chongqing</b>							
<b>6.1 Works</b>							
<b>(Fuling District)</b>							
CW1A01-CQFL2018-01	1.8 km Intercepting drain, 9.8 km pipeline, 43 ponds, etc.	690.18	NCB	Post	1S1E	Q4/2021	
CW1A01-CQFL2019-01	2.2 km Intercepting drain, 12.1 km pipeline, 53 ponds, etc.	855.82	NCB	Post	1S1E	Q2/2021	
CW1A01-CQFL2020-01	1.5 km Intercepting drain, 9.8 km pipeline, 37 ponds, etc.	607.36	NCB	Post	1S1E	Q4/2022	
CW1A01-CQFL2020-02	1.5 km Intercepting drain, 9.8 km pipeline, 37 ponds, etc.	607.36	NCB	Post	1S1E	Q2/2021	

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CW1A04-CQFL2018-01	39.6 ha sprinkler irrigation	77.49	SHP	Post		Q4/2021	
CW1A04-CQFL2020-01	26.4 ha sprinkler irrigation	116.24	NCB	Post	1S1E	Q4/2022	
CW2B01-CQFL2018-01	3 ecological planting demonstration bases and 40.0 ha water and soil conservation	207.72	NCB	Post	1S1E	Q4/2021	
CW2B01-CQFL2019-01	40.0 ha water and soil conservation	162.57	NCB	Post	1S1E	Q2/2021	
CW2B03-CQFL2018-01	200.0 ha economic forest	586.91	NCB	Post	1S1E	Q4/2021	
CW2B03-CQFL2019-01	170.0 ha economic forest	486.71	NCB	Post	1S1E	Q2/2021	
CW2B03-CQFL2020-01	130.0 ha economic forest	357.87	NCB	Post	1S1E	Q4/2022	
<b>(Jiangjin District)</b>							
CW1A01-CQJJ2018-01	2.2 km intercepting drain, 4.9 km sand-gravel and concrete roads, 3.2 km pipeline, 3 ponds, etc.	725.44	NCB	Post	1S1E	Q4/2021	
CW1A01-CQJJ2018-02	2.8 km intercepting drain, 5.2 km sand-gravel and concrete roads, 3.4 km pipeline, 3 ponds, etc.	770.78	NCB	Post	1S1E	Q4/2021	
CW1A01-CQJJ2019-01	2.2 km intercepting drain, 4.9 km sand-gravel and concrete roads, 3.2 km pipeline, 3 ponds, etc.	725.44	NCB	Post	1S1E	Q1/2023	
CW1A01-CQJJ2019-02	2.2 km intercepting drain, 4.9 km sand-gravel and concrete roads, 3.2 km pipeline, 3 ponds, etc.	725.44	NCB	Post	1S1E	Q1/2023	
CW1A01-CQJJ2019-03	2.2 km intercepting drain, 4.9 km sand-gravel and concrete roads, 3.2 km pipeline, 3 ponds, etc.	725.44	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2019-04	2.8 km intercepting drain, 5.2 km sand-gravel and concrete roads, 3.4 km pipeline, 3 ponds, etc.	770.78	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2019-05	1.6 km intercepting drain, 3.7 km sand-gravel and concrete roads, 2.4 km pipeline, 2 ponds, etc.	544.08	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2020-01	1.9 km intercepting drain, 4.3 km sand-gravel and concrete roads, 2.8 km	634.76	NCB	Post	1S1E	Q4/2022	

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	pipeline, 2 ponds, etc.						
CW1A01-CQJJ2020-02	1.9 km intercepting drain, 4.3 km sand-gravel and concrete roads, 2.8 km pipeline, 2 ponds, etc.	634.76	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2020-03	1.9 km intercepting drain, 4.3 km sand-gravel and concrete roads, 2.8 km pipeline, 2 ponds, etc.	634.76	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2020-04	1.9 km intercepting drain, 4.3 km sand-gravel and concrete roads, 2.8 km pipeline, 2 ponds, etc.	634.76	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2021-01	2.8 km intercepting drain, 5.2 km sand-gravel and concrete roads, 3.4 km pipeline, 3 ponds, etc.	770.78	NCB	Post	1S1E	Q2/2021	
CW1A01-CQJJ2021-02	2.8 km intercepting drain, 5.2 km sand-gravel and concrete roads, 3.4 km pipeline, 3 ponds, etc.	770.78	NCB	Post	1S1E	Q2/2021	
CW2B01-CQJJ2019-01	19.2 ha water and soil conservation	15.14	SHP	Post		Q1/2023	
CW2B01-CQJJ2020-01	19.2 ha water and soil conservation	15.14	SHP	Post		Q4/2022	
CW2B03-CQJJ2018-01	197.9 ha economic forest and 1 ecological planting demonstration base	208.81	NCB	Post	1S1E	Q4/2021	
CW2B03-CQJJ2019-01	247.4 ha economic forest	223.38	NCB	Post	1S1E	Q2/2021	
CW2B03-CQJJ2020-01	197.9 ha economic forest	178.70	NCB	Post	1S1E	Q4/2022	
CW2B03-CQJJ2021-01	63.6 ha economic forest	57.44	SHP	Post		Q2/2021	
<b>(Kaizhou District)</b>							
CW1A01-CQKZ2018-01	1.3 km intercepting drain, 1.9 ha terracing, etc.	545.34	NCB	Post	1S1E	Q3/2019	First NCB works for Chongqing
CW1A01-CQKZ2018-02	1.3 km intercepting drain, 1.9 ha terracing, etc.	545.34	NCB	Post	1S1E	Q3/2019	
CW1A01-CQKZ2019-01	1.5 km intercepting drain, 2.3 ha terracing, etc.	647.59	NCB	Post	1S1E	Q1/2023	
CW1A01-CQKZ2019-02	1.5 km intercepting drain, 2.3 ha terracing, etc.	647.59	NCB	Post	1S1E	Q2/2021	
CW1A01-CQKZ2020-01	1.2 km intercepting drain, 1.8 ha terracing, etc.	511.25	NCB	Post	1S1E	Q4/2022	
CW1A01-CQKZ2020-02	1.2 km intercepting drain, 1.8 ha terracing, etc.	511.25	NCB	Post	1S1E	Q2/2021	

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CW1A04-CQKZ2018-01	30.0 ha sprinkler irrigation	85.80	SHP	Post		Q3/2019	
CW1A04-CQKZ2019-01	30.0 ha sprinkler irrigation	85.80	SHP	Post		Q1/2023	
CW1A04-CQKZ2020-01	30.0 ha sprinkler irrigation	85.80	SHP	Post		Q4/2022	
CW1A04-CQKZ2021-01	30.0 ha sprinkler irrigation	85.80	SHP	Post		Q2/2021	
CW2B03-CQKZ2018-01	174.0 ha water and soil conservation and 115.2 ha economic forest	269.89	NCB	Post	1S1E	Q4/2021	
CW2B03-CQKZ2019-01	134.4 ha economic forest	305.57	NCB	Post	1S1E	Q2/2021	
CW2B03-CQKZ2020-01	115.2 ha economic forest	261.91	NCB	Post	1S1E	Q4/2022	
CW2B03-CQKZ2021-01	115.2 ha economic forest	261.91	NCB	Post	1S1E	Q2/2021	
<b>(Wanzhou District)</b>							
CW1A01-CQWZ2019-01	4.5 km intercepting drain, 4.5 km concrete road, 13.5 km pipeline, 20 ponds, 9 ha terracing, etc.	895.41	NCB	Post	1S1E	Q1/2023	
CW1A01-CQWZ2020-01	3.8 km intercepting drain, 3.8 km concrete road, 11.4 km pipeline, 17 ponds, 7.6 ha terracing, etc.	756.12	NCB	Post	1S1E	Q4/2022	
CW1A01-CQWZ2021-01	1.7 km intercepting drain, 1.7 km concrete road, 5.1 km pipeline, 8 ponds, 3.4 ha terracing, etc.	338.27	NCB	Post	1S1E	Q2/2021	
CW1A04-CQWZ2018-01	136.0 ha sprinkler irrigation	399.19	NCB	Post	1S1E	Q4/2021	
CW1A04-CQWZ2019-01	158.7 ha sprinkler irrigation	465.73	NCB	Post	1S1E	Q1/2023	
CW1A04-CQWZ2020-01	136.0 ha sprinkler irrigation	399.19	NCB	Post	1S1E	Q4/2022	
CW1A04-CQWZ2021-01	136.0 ha sprinkler irrigation	399.19	NCB	Post	1S1E	Q2/2021	
CW2B03-CQWZ2018-01	136.0 ha economic forest	307.07	NCB	Post	1S1E	Q4/2021	
CW2B03-CQWZ2019-01	158.7 ha economic forest	358.25	NCB	Post	1S1E	Q2/2021	
CW2B03-CQWZ2020-01	136.0 ha economic forest	307.07	NCB	Post	1S1E	Q4/2022	
CW2B03-CQWZ2021-01	136.0 ha economic forest	307.07	NCB	Post	1S1E	Q2/2021	
<b>(Wulong District)</b>							
CW1A01-CQWL2018-01	5.4 km intercepting drain, 2.2 km sand-gravel and concrete roads, 38.1 km pipeline, 4 ponds, etc.	581.00	NCB	Post	1S1E	Q4/2021	
CW1A01-CQWL2018-02	5.4 km intercepting drain, 2.2 km sand-gravel and concrete roads, 38.1 km pipeline, 4 ponds, etc.	581.00	NCB	Post	1S1E	Q4/2021	



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CW1A01-CQWL2019-01	3.0 km intercepting drain, 1.2 km sand-gravel and concrete roads, 21.2 km pipeline, 2 ponds, etc.	322.78	NCB	Post	1S1E	Q1/2023	
CW1A01-CQWL2020-01	5.1 km intercepting drain, 2.1 km sand-gravel and concrete roads, 36.0 km pipeline, 3 ponds, etc.	548.73	NCB	Post	1S1E	Q4/2022	
CW1A01-CQWL2020-02	5.1 km intercepting drain, 2.1 km sand-gravel and concrete roads, 36.0 km pipeline, 3 ponds, etc.	548.73	NCB	Post	1S1E	Q2/2021	
CW1A01-CQWL2021-01	6.0 km intercepting drain, 2.4 km sand-gravel and concrete roads, 42.3 km pipeline, 4 ponds, etc.	645.56	NCB	Post	1S1E	Q2/2021	
CW2B01-CQWL2019-01	18.0 ha water and soil conservation	40.24	SHP	Post		Q1/2023	
CW2B03-CQWL2018-01	200.0 ha economic forest	466.29	NCB	Post	1S1E	Q4/2021	
CW2B03-CQWL2019-01	240.0 ha economic forest	559.55	NCB	Post	1S1E	Q1/2023	
CW2B03-CQWL2020-01	120.0 ha economic forest	279.77	NCB	Post	1S1E	Q4/2022	
CW2B03-CQWL2021-01	240.0 ha economic forest	559.55	NCB	Post	1S1E	Q2/2021	
<b>(Wushan County)</b>							
CW1A01-CQWS2018-01	1.6 km intercepting drain, 5.8 km concrete road, 5.1 km pipeline, 5 ponds, 32.3 ha terracing, etc.	799.59	NCB	Post	1S1E	Q4/2021	
CW1A01-CQWS2019-01	0.9 km intercepting drain, 3.2 km concrete road, 2.9 km pipeline, 3 ponds, 18.2 ha terracing, etc.	449.77	NCB	Post	1S1E	Q1/2023	
CW1A01-CQWS2019-02	1.0 km intercepting drain, 3.4 km concrete road, 3.0 km pipeline, 4 ponds, 19.2 ha terracing, etc.	474.76	NCB	Post	1S1E	Q2/2021	
CW1A01-CQWS2020-01	1.0 km intercepting drain, 5.6 km concrete road, 5.0 km pipeline, 3 ponds, 31.3 ha terracing, etc.	774.60	NCB	Post	1S1E	Q4/2022	
CW1A04-CQWS2019-01	53.3 ha sprinkler irrigation	156.55	NCB	Post	1S1E	Q1/2023	
CW1B06-CQWS2018-01	2 ecological planting demonstration bases	30.11	SHP	Post		Q3/2019	

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CW2B01-CQWS2018-01	20.0 ha water and soil conservation	54.19	SHP	Post		Q3/2019	
CW2B01-CQWS2019-01	26.7 ha water and soil conservation	72.25	SHP	Post		Q1/2023	
CW2B01-CQWS2020-01	20.0 ha water and soil conservation	54.19	SHP	Post		Q1/2020	
CW2B03-CQWS2018-01	200.0 ha economic forest	541.89	NCB	Post	1S1E	Q2/2021	
CW2B03-CQWS2019-01	266.7 ha economic forest	722.52	NCB	Post	1S1E	Q1/2023	
CW2B03-CQWS2020-01	200.0 ha economic forest	541.89	NCB	Post	1S1E	Q4/2022	
<b>(Wuxi County )</b>							
CW1A01-CQWX2019-01	1.4 km intercepting drain, 1 pump station, 10.0 km concrete road, 14.4 ha terracing, etc.	820.69	NCB	Prior	1S1E	Q2/2019	First NCB works for Chongqing
CW1A01-CQWX2019-02	1.4 km intercepting drain, 1 pump station, 10.0 km concrete road, 14.4 ha terracing, etc.	820.69	NCB	Post	1S1E	Q2/2021	
CW1A01-CQWX2020-01	1.5 km intercepting drain, 1 pump station, 11 km concrete road, 15 ha terracing, etc.	854.89	NCB	Post	1S1E	Q4/2022	
CW1A01-CQWX2020-02	1.6 km intercepting drain, 1 pump station, 13 km concrete road, 16.2 ha terracing, etc.	923.28	NCB	Post	1S1E	Q2/2021	
CW1A04-CQWX2019-01	54.9 ha sprinkler irrigation	161.23	NCB	Post	1S1E	Q2/2021	
CW1A04-CQWX2020-01	59.5 ha sprinkler irrigation	174.67	NCB	Post	1S1E	Q4/2022	
CW2B03-CQWX2019-01	183.4 economic forest	459.55	NCB	Post	1S1E	Q2/2021	
CW2B03-CQWX2020-01	183.4 ha economic forest	459.55	NCB	Post	1S1E	Q4/2022	
<b>(Zhong County)</b>							
CW1A01-CQZX2018-01	1.2 km intercepting drain, 1 pump station, 2.7 km sand-gravel and concrete roads, 15.4 ha terracing, etc.	709.06	NCB	Post	1S1E	Q4/2021	
CW1A01-CQZX2018-02	1.2 km intercepting drain, 1 pump station, 2.7 km sand-gravel and concrete roads, 15.4 ha terracing, etc.	709.06	NCB	Post	1S1E	Q4/2021	
CW1A01-CQZX2019-01	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q2/2021	
CW1A01-CQZX2019-02	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads,	678.23	NCB	Post	1S1E	Q2/2021	

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
	14.7 ha terracing, etc.						
CW1A01-CQZX2019-03	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q2/2021	
CW1A01-CQZX2020-01	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q4/2022	
CW1A01-CQZX2020-02	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q2/2021	
CW1A01-CQZX2020-03	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q2/2021	
CW1A01-CQZX2020-04	1.2 km intercepting drain, 1 pump station, 2.6 km sand-gravel and concrete roads, 14.7 ha terracing, etc.	678.23	NCB	Post	1S1E	Q2/2021	
CW1A04-CQZX2018-01	72.2 ha sprinkler irrigation	293.28	NCB	Post	1S1E	Q4/2021	
CW1A04-CQZX2019-01	61.5 ha sprinkler irrigation	249.83	NCB	Post	1S1E	Q2/2021	
CW1A04-CQZX2020-01	77.5 ha sprinkler irrigation	315.01	NCB	Post	1S1E	Q4/2022	
CW1A04-CQZX2021-01	32.1 ha sprinkler irrigation	130.35	NCB	Post	1S1E	Q2/2021	
CW1A04-CQZX2022-01	24.1 ha sprinkler irrigation	97.76	SHP	Post		Q2/2022	
CW2B03-CQZX2018-01	1 ecological planting demonstration base and 218.5 ha economic forest	459.13	NCB	Post	1S1E	Q4/2021	
CW2B03-CQZX2019-01	258.3 ha economic forest	524.82	NCB	Post	1S1E	Q2/2021	
CW2B03-CQZX2020-01	258.3 ha economic forest	524.82	NCB	Post	1S1E	Q4/2022	
CW2B03-CQZX2021-01	258.3 ha economic forest	524.82	NCB	Post	1S1E	Q2/2021	
<b>6.2 Goods</b>							
<b>(Overall Chingqing)</b>							
GP-MIS-CQ	PPMS equipment	100.85	NCB	Post	1S1E	Q4/2018	
GP3C-OE-CQ2018	121 office equipment	151.71	NCB	Prior	1S1E	Q1/2019	First NCB goods for Chongqing For advance

Package Number	General Description	Estimated Value (\$'000)	Procurement Method	Review (prior /post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments <sup>1</sup>
							contracting and retroactive financing
<b>(Jiangjin District)</b>							
GP2A-CQJJ2018-01	630 pest control facilities	281.21	NCB	Post	1S1E	Q3/2019	
GP2A-CQJJ2019-01	630 pest control facilities	281.21	NCB	Post	1S1E	Q1/2023	
GP2A-CQJJ2020-01	630 pest control facilities	281.21	NCB	Post	1S1E	Q4/2022	
GP2A-CQJJ2021-01	630 pest control facilities	281.21	NCB	Post	1S1E	Q2/2021	
GP2A-CQJJ2022-01	630 pest control facilities	281.21	NCB	Post	1S1E	Q2/2022	
<b>7. NPMO</b>							
GP-MIS-NPMO	For cooperation platform establishment	605.11	NCB	Prior	1S1E	Q2/2019-Q4/2023	First NCB goods for NPMO For advance contracting and retroactive financing

ha = hectare, km = kilometer, m2 = square meter, NCB = national competitive bidding, NPMO = national project management office, PPMS = project performance management system, Q = quarter, SHP = shopping, 1S1E = one stage one envelope.

<sup>1</sup> Prequalification of bidders and domestic preference are not applicable. For NCB, standard bidding document issued by the Ministry of Finance will be used.

## 2. Non-ADB Financing

60. The following table list works, goods, and consulting services contracts over the life of the project, financed by non-ADB sources.

General Description	Estimated Value (Cumulative, \$ million)	Estimated Number of Contracts	Procurement Method	Comments
<b>1. Guizhou Province</b>				
<b>1.1 Works and Goods</b>				
Soil testing and formula fertilization	0.94	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	0.66	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
<b>1.2 Services</b>				
Training to farmer cooperatives	1.52	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	5.09	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.76	1	Domestic method	Advertisement date in Q3 2018
<b>2. Hunan Province</b>				
<b>2.1 Works and Goods</b>				
Application of animal manure in 8 project counties	0.30	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Biogas tanks	1.87	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Soil testing and formula fertilization	0.89	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	0.26	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023

General Description	Estimated Value (Cumulative, \$ million)	Estimated Number of Contracts	Procurement Method	Comments
Ecological economic forest	11.88	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
<b>2.2 Services</b>				
Training to farmer cooperatives	0.30	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	5.11	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.68	1	Domestic method	Advertisement date in Q3 2018
<b>3. Hubei Province</b>				
<b>3.1 Works and Goods</b>				
Soil testing and formula fertilization	1.43	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	3.84	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Organic fertilizer extension	0.90	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Economic forest	2.24	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Straw application in field	0.58	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
<b>3.2 Services</b>				
Training to farmer cooperatives	1.29	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	5.51	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.63	1	Domestic method	Advertisement date in Q3 2018
<b>4. Sichuan Province</b>				
<b>4.1 Works and Goods</b>				
Straw application in field	0.18	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Soil testing and formula fertilization	0.13	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	0.37	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Organic fertilizer extension	0.38	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Mulching film collection for recycling	0.19	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
<b>4.2 Services</b>				
Training to farmers for agricultural technology extension	1.07	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Training to farmer cooperatives	0.04	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	4.54	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.81	1	Domestic method	Advertisement date in Q3 2018
<b>5. Yunnan Province</b>				
<b>5.1 Works and Goods</b>				
Straw application in field	0.23	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	2.94	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Organic fertilizer extension	2.94	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
<b>5.2 Services</b>				
Training to farmers for agricultural technology extension	9.27	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Support to farmer cooperatives	0.00	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	1.37	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.40	1	Domestic method	Advertisement date in Q3 2018
<b>6. Chongqing Municipality</b>				
<b>6.1 Works and Goods</b>				

General Description	Estimated Value (Cumulative, \$ million)	Estimated Number of Contracts	Procurement Method	Comments
Soil testing and formula fertilization	0.14	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Bio pesticide extension	1.02	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Organic fertilizer extension	8.33	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Ecological planting demonstration base and water and soil conservation	0.10	2	Domestic method	Advertisement date in Q3 2018
<b>6.2 Services</b>				
Training to farmers for agricultural technology extension	0.43	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Design institutes, procurement agencies, and construction supervision consultants	5.37	multiple	Domestic method	Advertisement in Q3 2018-Q3 2023
Environmental and external social monitoring	0.45	1	Domestic method	Advertisement date in Q3 2018

Q= quarter.

### 3. National Competitive Bidding

#### a. Regulation and Reference Documents

61. The procedures to be followed for the NCB shall be those set forth in the Government Procurement Law of People's Republic of China approved on 29 June 2002 (revised August 2014) and the Law of the People's Republic of China on Bid Invitation and Bidding of the People's Republic of China promulgated on 30 August 1999 (revised on 28 December 2017), with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of ADB's Procurement Guidelines.

#### b. Procurement Procedures

##### (i) Competitive Bidding Procedure (Procurement Law Art. 26 and Law on Bidding Art. 10)

62. Public tendering is the acceptable method of government procurement, and public invitation is the accepted bid invitation mode.

##### (ii) Eligibility

63. The eligibility of bidders shall be as defined under section I of the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the guidelines, as amended from time to time.

##### (iii) Advertising

64. All invitations to prequalify or to bid shall be advertised in the national press (China Daily Newspaper) or a free and open access website ([www.chinabidding.com](http://www.chinabidding.com)). Such advertisement shall be made in sufficient time for prospective bidders to obtain prequalification or bidding documents and prepare and submit their responses. In any event, a minimum preparation period of twenty-eight (28) days shall be given. The preparation period shall count (a) from the date of advertisement; or (b) when the documents are available for issue, whichever date is later. The advertisement and the prequalification and bidding documents shall specify the deadline for such submission.

**(iv) Bidding Period**

65. The minimum bidding period is 28 days prior to the deadline for the submission of bids.

**(v) Participation by Government-Owned Enterprises**

66. Government-owned enterprises in the borrower's country may be permitted to bid if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the borrower and/or the project executing agency.

**(vi) Rebidding**

67. Re-bidding shall not be allowed solely because the number of bids is less than three (3).

**c. Bidding Documents**

**(vii) Qualification Requirements**

68. Qualification requirements of bidders and the method of evaluating the qualification of each bidder shall be specified in detail in the bidding documents; and in the prequalification documents, if the bidding is preceded by a prequalification process.

**(viii) Bid Submission and Opening**

69. Bidders shall be allowed to submit bids by mail or by hand.

70. All bids shall be opened in public, and all bidders shall be afforded an opportunity to be present (either in person or through their representatives) at the time of bid opening; but bidders shall not be required to be present at the bid opening.

**(ix) Bid Evaluation and Award**

71. No bid may be rejected solely on the basis that the bid price falls outside any standard contract estimate, or margin or bracket of average bids established by the borrower and/or the project executing agency.

72. Each contract shall be awarded to the lowest-evaluated responsive bidder; that is, the bidder who meets the appropriate standards of capability and resources; and whose bid has been determined (i) to be substantially responsive to the bidding documents, and (ii) to offer the lowest evaluated cost. The winning bidder shall not be required, as a condition of award, to undertake responsibilities for work not stipulated in the bidding documents; or otherwise, to modify the bid as originally submitted.

**(x) ADB Policy Clauses**

73. Each contract financed with the proceeds of the loan shall provide that the suppliers and contractors shall permit ADB, at its request, to inspect their accounts and records relating to the performance of the contract; and to have said accounts and records audited by auditors appointed by ADB.

74. A provision shall be included in all bidding documents for the NCB works and goods contracts financed by ADB, stating that the borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question.

75. A provision shall be included in all bidding documents for the NCB works and goods contracts financed by ADB, stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if at any time it determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices; or any integrity violation in competing for, or in executing, the ADB-financed contract.



## VII. SAFEGUARDS

76. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), the ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

### A. Environment

77. The project was classified by ADB as category B, and an initial environmental examination (IEE) report and an environmental management plan (EMP) are requirements under ADB's Safeguard Policy Statement (2009).<sup>38</sup> During the mission, working meetings were held with SOCAD, the POCADs, the TA consultants, and the design institutes to discuss and address remaining safeguard issues for preparation of the project IEE and EMP.

78. **Project benefits.** The environmental assessment confirmed that the project will generate multiple environmental benefits. The project is expected to generate multiple significant environmental benefits. The major anticipated environmental benefits include (i) decreasing the chemical fertilizer and pesticide application rate and total quantity, and contribution to the control of NPS pollution in the project region; (ii) reduced soil erosion and improved soil quality; (iii) recycling of agricultural waste and its reuse as fertilizer resources, and promotion of green agricultural development; (iv) improving of water use efficiency; and (v) increased climate resilience. They will contribute to the improvement of the Yangtze River ecological environmental quality, the development of sustainable agriculture, and income generation for farmers.

79. No significant adverse impacts were identified. The potential risks that have been assessed in detail include (i) use of additional water resources; (ii) erosion from construction activities; (iii) irrigation water quality; (iv) impact of irrigation tail water on ambient water quality; (v) lake eutrophication; (vi) water impoundments; (vii) pollution prevention and public health; (viii) protected areas and protected species; and (ix) physical and cultural resources. Construction and rehabilitation works are small and relatively simple. Some counties may increase overall water usage, which are all located in areas where water resources are more abundant. Potential erosion risks can be mitigated adequately. The impacts on water quality or eutrophication are considered negligible, as the usage of agrochemicals per hectare will be reduced. No project activities will be carried out in environmentally sensitive areas. No physical, historical, and cultural relic sites or natural reserves have been discovered in the project area.

80. **Environmental management plan.** The EMP include a detailed description of the potential environmental impacts and mitigation measures, environmental monitoring program, public consultation program, reporting and supervision, feedback and adjustment mechanism, and institutional responsibilities. The project will not generate significant adverse environmental impacts, provided the mitigation measures and monitoring arrangements in the EMP are appropriately implemented.

81. **Environmental management plan implementation responsibilities.** The NPMO will have the overall accountability for the overall project for ensuring compliance with the PRC's laws and regulations as well as the provisions of ADB's Safeguard Policy Statement (2009). Six PPMOs will be responsible for ensuring the implementation of the specific mitigation measures in cooperation with the CPMOs as prescribed in the EMP. Internal monitoring and inspection will be

<sup>38</sup> ADB's Safeguard Policy Statement (2009) is available both in English and Chinese language. <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf> and <http://www.adb.org/Documents/Translations/Chinese/Safeguard-Policy-Statement-cn.pdf> )

conducted by the environmental monitoring agencies to be contracted by each PPMO. They will be responsible to undertake regular environmental monitoring and inspection activities before, during, and after construction as well as in the event of emergencies as indicated in the EMP.

82. **Training.** Environmental officers in the PPMOs and the CPMOs will receive training in environmental management, environmental monitoring and supervision, mitigation planning, emergency response, environmental policy-making, and other environmental management techniques. The PPMOs will ensure that the training plan defined in the EMP is implemented. The loan implementation environmental specialist will facilitate the training. The scope of training will also include the efficient and effective environmental monitoring during project operation.

83. **Environmental management plan costs.** Cost estimates for mitigation measures, environmental monitoring, and training in the EMP procedures are estimated in the EMP. The PPMOs will bear the internal monitoring costs as part of their implementation functions, and the cost of environmental monitoring by the environmental monitoring agency which will be recruited by each PPMO. During project implementation, the budgets will be adjusted based on actual requirements. The costs for all mitigation measures to be undertaken by the contractors during construction will be included in the contract documents.

## **B. Involuntary Resettlement**

84. The project was classified by ADB as category C on involuntary resettlement according to ADB's Safeguard Policy Statement (2009). The project will not involve involuntary land acquisition and resettlement impacts. Of an estimated total of 1,400,622 *mu* of land area under the project, 1,348,905 *mu* belongs to beneficiary farmers' own land where agricultural activities will be undertaken; and it does not require any land use rights transfer (LURT). The construction of farming facilities, such as irrigation network or farm access roads, will be located on existing rights of way; or on the beneficiary villages' unutilized land areas. The beneficiary villages have confirmed to provide 5,379 *mu* of land for such facilities. The plantation activities will be undertaken in the leased land, obtaining land use rights; and 45,938 *mu* of mostly unutilized slope land has been leased by cooperatives. In addition, 400 *mu* of existing state-owned land will be used for bridge and embankment upgrading.

85. The due diligence review has been conducted for the LURT contracts or agreements ensure that these are voluntary, transparent, fair, and beneficial to farmers. In addition, a LURT framework has been prepared providing guidance for future contracts that may be needed during project implementation. Consultations have been undertaken with local people, village committees, and farmer cooperatives during project preparation; and they will be further consulted during project implementation. The project-specific grievance redress mechanism (GRM) has been established and incorporated into the LURT framework. The project will engage an external social monitoring agency to verify and monitor the LURT agreements and submit the semiannual social monitoring reports to ADB during project implementation.

## **C. Indigenous Peoples**

86. The project was classified by ADB as category B on indigenous peoples according to ADB's Safeguard Policy Statement (2009). The Guizhou Province's project area has 44.19% ethnic minority beneficiaries and 27 ethnic minority villages; and the Yunnan Province's project

area has 4.60% ethnic minority beneficiaries and 4 ethnic minority villages.<sup>39</sup> The ethnic minority communities are expected to benefit from the project without significant adverse impacts. An ethnic minority development plan (EMDP) has been prepared for the project in consultation with local stakeholders, including the ethnic minorities in accordance with ADB's Safeguard Policy Statement (2009). The EMDP includes adequate measures to ensure that ethnic minorities can participate and benefit from project activities, and adverse impacts to them are avoided or mitigated. The EMDP has been disclosed publicly and posted on the ADB website.<sup>40</sup>

#### **D. Grievance Redress Mechanism**

87. A GRM has been developed in compliance with the requirements in ADB's Safeguard Policy Statement (2009) to address environmental, health, safety, and social concerns associated with construction, operation, and land transfer arrangements under the project. The details of the GRM, including a time-bound flow chart of procedures, are included in the EMP and the LURT framework. The complaint channels are slightly different for environmental and social issues, but the each PPMO will maintain an integrated system to document, follow-up, and report on all cases to the NPMO and ADB.

#### **E. Capacity for Implementation and Monitoring of Social and Safeguard Measures**

88. The NPMO will coordinate the implementation and monitoring of the overall project. The PPMOs and the CPMOs will be responsible for day-to-day implementation and periodic monitoring of the project's social and safeguard measures in relevant provinces and counties. In coordination with the PPMOs and the CPMOs, the NPMO has endorsed and committed to implement the project's social and safeguard plans (EMDP, LURT framework, etc.). The NPMO has experience in the implementation of the ADB project, but most PPMOs and the CPMOs do not have such experience. To implement social and safeguard measures properly, (i) the NPMO, the PPMOs, and the CPMOs will each appoint focal staff; (ii) focal staff will be provided with training in relevant measures; (iii) loan consultants will be recruited to assist in the implementation and internal monitoring of social and safeguards measures; and (iii) an independent monitoring agency (or experts) will be recruited for external monitoring.

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<sup>39</sup> Project areas in other project provinces may either not have or have only a very small percentage of scattered ethnic minority population as follows: Sichuan (0.250%), Hubei (0.301%), Hunan (0.017%) and Chongqing (0.000%).

<sup>40</sup> The EMDP was posted on ADB website before ADB's Management Review Meeting. While some changes were made in the name of the central project management office after the web posting of the EMDP, this is not expected to involve any changes to the project impact and to the implementation of the EMDP. The relevant implementing agencies will implement the EMDP as approved by ADB.

### VIII. GENDER AND SOCIAL DIMENSIONS

89. **Gender.** The project has been classified as effective gender mainstreaming category, following ADB's Guidelines for Gender Mainstreaming Categories of the ADB Projects (2012). Women are key stakeholders and their participation will be crucial to the success of the project. Women are burdened with both agricultural and household work, and most of them are engaged in labor-intensive farming with low income. They have lower education and knowledge of agricultural technology, low employment opportunities, and much lower representation in decision making on political and external affairs.

90. The project is intended to be particularly beneficial to women, who will also have important roles in sustainable farming activities because of higher out-migration of males to urban areas. Women will significantly benefit from the project. Improved high quality farmland and sustainable and modern farming practices will provide opportunities for women to participate in profitable economic activities. It will result in increased incomes and capacity strengthened. Environmental management and trainings will increase their awareness and improve their living environment and quality of life. During the survey, women groups expressed their strong support to the project; and expect that it will create local employment and income opportunities.

91. A gender action plan (GAP) has been developed to ensure women's engagement and development. It includes the following key measures: (i) 30% of jobs in project construction and operation intended for women; and 40% of jobs in farmer cooperatives' related works intended for women; (ii) 40% participation by women in consultation, decision making, and awareness education; (iii) 40% participation by women in training and capacity-building activities for farmers; and (iv) 30% representation by women in training to the CPMOs and/or the PPMOs. The design and monitoring framework (DMF) includes key gender targets and indicators.

92. **Poverty and social.** The project is in counties designated as either national or provincial poverty counties or less-developed counties eligible for the central government's support for the middle and western provinces in the PRC. They have low levels of industrialization and economic growth, which is largely reliant on agricultural and traditional services. Of the 47 project counties, 31 are national and/or provincial poverty counties. The poverty ratio in the direct project areas is much higher in Yunnan (21%) and Guizhou (15%), followed by Sichuan (6%), Hunan (5%), Hubei (3%), and Chongqing (4%). The major causes of poverty are (i) lack of high-quality farmland; (ii) poor agricultural facilities and limited farm products; (iii) lack of income-generating opportunities; and (iv) lack of human and social capital.

93. The project's poverty reduction impacts and socioeconomic benefits will be significant. Many farmers will engage in developing high-quality farmland, implementing sustainable and modern farming practices, waste and environmental management, voluntary land leasing, employment opportunities, and human capacity building. The poor and rural farmers will directly benefit from the project, particularly on employment opportunities. It is estimated that a total of 1.787 million residents in the project areas will benefit from the project, including 284,881 in Yunnan, 178,895 in Sichuan, 145,541 in Guizhou, 155,028 in Hubei, and 856,785 in Hunan, and 165,882 in Chongqing. Significant portions of the beneficiaries include the poor (7.96%) and ethnic minorities (4.39%). In addition, the project will provide 25,078 full-time and 45,883 part-time employment opportunities for local residents, including the poor, ethnic minorities, and women.

94. Developing sustainable modern farming system and rural waste and environmental management will result in increased income and improved living standards among the project

beneficiaries, including the poor, women, and ethnic minorities. The project will invest on agriculture facilities and equipment to create opportunities for new modern farming practices. Farmers will be able to grow high-value crops (vegetables, fruits, oil teas, herb medicines) after project construction and skill training. Local residents will also earn income from employment and other income-generating opportunities during project construction.

95. Through the improved long-term agricultural productivity as well as environmental protection and rehabilitation, the 47 counties can attract more investment and businesses, and generate additional employment and income-generating opportunities for the poor and local residents.

96. A social development action plan (SDAP) has been developed to ensure farmer's rights, interests, and participation while maximizing project benefits to them.

Table 13: Gender Action Plan

Main Task and/or Proposed Actions	Targets and Indicators <sup>a</sup>	Timeframe	Responsibility	Funds and Resources
<b>A. Output 1: Modernized Farming Systems Constructed</b>				
<p>A.1 Public participate during the project design and implementation, such as terracing sloping land, crop selection, and agricultural infrastructure improvement</p> <p>A.2 Participate in the maintenance and management of irrigation, roads facilities, etc.</p> <p>A.3 Establish equipment and materials maintenance and management mechanism by village committees and farmers cooperatives</p>	<p><b>Targets:</b> 1,162,905 persons, including at least</p> <ul style="list-style-type: none"> <li>➤ 40% women participants in activities under A1 (terracing, etc.)</li> <li>➤ 40% women participants in activities under A2 (irrigation, roads facilities, river management, etc.)</li> <li>➤ 40% women participants in training for equipment and materials maintenance and management mechanism</li> </ul> <p><b>Baseline:</b> N/A</p>	2019–2024	CPMOs, township government, village committees, farmers cooperatives, ACWF, design institute, social consultant	<p>Project budget</p> <p>Operation budgets of village committees and farmers cooperatives</p>
<b>B. Output 2: Waste and Environmental Management Systems Strengthened (Agricultural Nonpoint Source Pollution Reduced)</b>				
B.1 Public participate in the selection and development of economic forests or ecological forests construction sites	<p><b>Targets:</b> 453,037 persons, including at least</p> <ul style="list-style-type: none"> <li>➤ 40% women participants in project design, site selection, and development of economic and ecological forests</li> </ul> <p><b>Baseline:</b> N/A</p>	2019–2024	CPMOs, township government and village committees, farmer cooperatives, ACWF, design institute, social consultant	Project budget
B.2 Develop and implement through community participation and consultation a rural waste management handbook and relevant measures, including soil testing and formulated fertilization, pesticide residues recovery, and plastic film and straw collection	<p><b>Targets:</b> 1,116,690 persons, including at least</p> <ul style="list-style-type: none"> <li>➤ 40% women participants in rural waste management manual development and implementation</li> </ul> <p><b>Baseline:</b> N/A</p>	2019–2024	CPMOs, township government and village committees, farmer cooperatives, ACWF, design institute, social consultant	Project budget
<b>C. Training, Awareness Raising, and Capacity Building for Farmers (All Outputs)</b>				
C.1 Undertake publicity for public awareness on straw returning, soil and water conservation, agricultural waste recycling, water-saving irrigation, and water resources protection. Publicity materials will be printed and disseminated in the form of posters, wall calendars, etc.	<p><b>Targets:</b> 110,602 persons, including at least</p> <ul style="list-style-type: none"> <li>➤ 40% women participants</li> </ul> <p><b>Baseline:</b> N/A</p>	2019–2024	CPMOs, ACWF, Forest Bureau, Labor and Social Security Bureau, Water Resources Bureau, Water Conservation Bureau, Education Bureau	Project budget and relevant local department's daily budget
C.2 Provide training and capacity building program to farmers on the following: (i) water-saving irrigation (ii) application of organic fertilizer, balanced chemical fertilizer and green manure, and straw residue retaining practices	<p><b>Targets:</b> 110,602 persons including at least</p> <ul style="list-style-type: none"> <li>➤ 40% women participants to receive public awareness education and training</li> <li>➤ Women consulted about training time, type, and location</li> </ul> <p><b>Baseline:</b> N/A</p>	2019–2024	CPMOs, ACWF, Forest Bureau, Labor and Social Security Bureau, Water Resources Bureau, Water Conservation Bureau, Education Bureau	Project budget and relevant local department's budget

Main Task and/or Proposed Actions	Targets and Indicators <sup>a</sup>	Timeframe	Responsibility	Funds and Resources
(iii) soil improvement practices (land subsoiling) (iv) conservation tillage (v) variety promotion and variety improvement of food crops and economic crops (vi) awareness of environmental protection (vii) pest, flood, and forest fire prevention education (viii) micro-business (ix) electricity education (x) promotion of agricultural technology				
C.3 Provide training to farmer cooperatives on operation, production technology, marketing, and management	<b>Targets:</b> 47,444 persons including at least ➤ 40% women participants ➤ Women consulted about training time, type, and location <b>Baseline:</b> N/A	2019–2024	CPMOs, farmer cooperatives, ACWF	Project budget and relevant local department's budget
<b>D. Generating Job Opportunities to Increase Residents' Income (All Outputs)</b>				
D.1 Provide employment to the local people in the operation of the farmer cooperatives D.2 Engage local people as construction workers during project construction D.3 Engage local laborers during project operation D.4 Ensure that women workers have equitable access to toilet, shower, and washroom facilities at project work stations; and these facilities are separated for men and women workers.	<b>Targets:</b> ➤ Additional 23,815 full-time jobs opportunities in the operation of the farmer cooperatives, including 40% of new jobs for women ➤ During project construction, additional 28,419 part-time jobs during construction works, including 30% of construction jobs for women ➤ During project operation, additional 1,263 new full-time jobs and 17,464 part-time jobs, including 30% jobs for women ➤ Project work stations have relevant separate facilities for women workers. <b>Baseline:</b> 0	2019–2024	Contractors, CPMOs, farmer cooperatives, ACWF	Farmer cooperatives' and contractors' budgets
<b>E. Comply with Labor Laws and Core Labor Standards</b>				
(i) Comply with labor law and core labor standards, including ensuring the absence of child labor, providing minimum wage and equal pay for equal work, and ensuring occupational health safety (ii) Contractors and workers participate in public health knowledge promotion and trainings regarding prevention and control of HIV/AIDS, STI, and other infectious disease	<b>Targets:</b> ➤ All women workers receive training on their rights ➤ Ensure the 100% compliance of all labor standards <b>Baseline:</b> N/A	2019–2024	CPMOs, contractors, Center for Disease Control, ACWF, village committees, farmer cooperatives	Project budget  Government budget  Farmer cooperatives' operation budget

Main Task and/or Proposed Actions	Targets and Indicators <sup>a</sup>	Timeframe	Responsibility	Funds and Resources
(iii) Conduct publicity activities on AIDS and STI to the construction personnel (iv) Distribute study and publicity materials (e.g., posters and brochures) regarding the prevention and treatment of HIV/AIDS and STI (v) Provide specific measures on health and safety for the construction personnel				
<b>F. Voluntary Land Use Right Transfer to Ensure Benefits to Farmers</b>				
(i) Provide information about specific purposes of the project and the land use (ii) Conduct consultation process with contracting party disaggregated by sex, ethnicity, and geographic region (iii) Ensure that the land use rights transfer contracts and/or agreements are signed without any pressure, and comply with legal and policy requirements (iv) Ensure that farmers fairly receive rental payments (equivalent to average annual output value or market price, or adjusted periodically) (v) Ensure that contracting parties have access to grievance redress mechanism in case of any disputes (vi) Ensure that farmers are provided with a written contract prepared in a simple language understandable to the contracting parties (vii) Ensure verification and monitoring of agreements between the contracting parties (farmer households, farmer cooperatives, and village committees)	<b>Target:</b> 100% or all agreements are verified, including consent of both spouses; and confirmation that agreed rents and/or benefits have been provided <b>Baseline:</b> 0	2019–2024	CPMOs, Forest Bureau, Land Resources Bureau, township-level technical extension stations, ACWF  External monitor	Project budget and relevant local department's budget
<b>G. Project Management Support</b>				
G.1 Appoint a social focal person within each PPMO and each CPMO, and provide training to the social focal persons to ensure effective GAP implementation	<b>Targets:</b> ➤ At least one social focal staff appointed at each CPMO and PPMO ➤ 100% of the social focal staff receive training on GAP <b>Baseline:</b> 0	2019–2024	CPMOs, PPMOs, ACWF	Project capacity building and/or training budget



<b>Main Task and/or Proposed Actions</b>	<b>Targets and Indicators<sup>a</sup></b>	<b>Timeframe</b>	<b>Responsibility</b>	<b>Funds and Resources</b>
G.2 Collect data disaggregated by sex, ethnicity, and geographic region	<b>Target:</b> Disaggregated data by sex, ethnicity, and geographic region collected during project implementation <b>Baseline:</b> 0	2019–2024	CPMOs, farmer cooperatives, ACWF, POCADs, social consultant	Project capacity building budget
G.3 Recruit social consultants for supporting the PPMOs and the CMPOs in the implementation of GAP and social measures	<b>Target:</b> Qualified social and gender consultants recruited <b>Baseline:</b> 0	2019–2024	PPMOs/NPMO	Project consulting service budget
G.4 Recruit external monitoring agency/expert to monitor GAP and social measures	<b>Target:</b> Semiannual social monitoring report prepared <b>Baseline:</b> N/A	2019–2024	PPMOs/ NPMO	Project consulting service budget
G.5 Establish effective grievance redress mechanisms and inform stakeholders	<b>Target:</b> All local villages and/or farmers, including women, know about the grievance redress mechanism <b>Baseline:</b> 0	2019–2024	CPMOs, farmer cooperatives, ACWF, PPMOs, social consultant	Project budget
G.6 Provide training on gender mainstreaming of agricultural investments so that employment and income benefits ensure equality of investment	<b>Target:</b> Training provided to each CPMO and PPMO, with at least 30% of the participants being women <b>Baseline:</b> 0	2019–2024	CPMOs, PPMOs, social consultant	Project budget

ACWF = All China Women's Federation, AIDS = acquired immune deficiency syndrome, CPMO = County Project Management Office, GAP = gender action plan, NPMO = National Project Management Office, PPMO = Provincial Project Management Office, HIV = human immunodeficiency virus, STI = sexually-transmitted infections,

<sup>a</sup> Targets were estimated by the design institutes based on the feasibility study report and will be reconfirmed or updated based on the detailed design during project implementation.

Source: Asian Development Bank estimates.

Table 14: Social Development Action Plan<sup>a</sup>

Proposed Actions or Activities	Main Beneficiaries and/or Stakeholders	Targets <sup>b</sup>	Time-frame	Responsibility	Funds and Resources
<b>I. Measures for Enhancing the Project Social Benefits</b>					
<b>A. Output 1: Modernized Farming Systems Constructed</b>					
A.1 Public participate during the project design and implementation, such as terracing sloping land, crop selection, and agricultural infrastructure improvement A.2 Participate in the maintenance and management of irrigation, roads facilities, etc. A.3 Establish equipment and materials maintenance and management mechanism by village committees and farmers cooperatives	Farmers, poor households, village committees, farmer cooperatives	<b>Targets:</b> 323,934 households, 1,162,905 persons, 108,941 poor people; 557 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, township government, village committees, and farmer cooperatives	Project budget  Operation budgets of village committees and farmer cooperatives
<b>B. Output 2: Waste and Environmental Management Systems Strengthened (Agricultural Nonpoint Source Pollution Reduced)</b>					
B.1 Public participate in the selection and development of economic forests or ecological forest construction sites	Farmers, poor households, and village committees, farmer cooperatives	<b>Targets:</b> 94,090 households, 453,037 persons, 50,364 poor people, 227 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, township government, village committees, and farmer cooperatives	Project budget
B.2 Develop and implement through community participation and consultation a rural waste management handbook and relevant measures, including soil testing and formulated fertilization, pesticide residues recovery, and plastic film and straw collection	Farmers, poor households, village committees, farmer cooperatives	<b>Targets:</b> 311,829 households, 1,116,690 persons, 82,905 poor people, 387 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, township government, village committees, and farmer cooperatives	Project budget
<b>C. Training, Awareness Raising, and Capacity Building for Farmers (All Outputs)</b>					
C.1 Undertake publicity for public awareness on straw returning, soil and water conservation, agricultural waste recycling, water-saving irrigation, and water resources protection. Publicity materials will be printed and disseminated in the form of posters, wall calendars, etc.	Farmers, poor households	<b>Targets:</b> 69,533 households, 110,602 persons, 15,452 poor people, 724 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, ACWF, Forest Bureau, Labor and Social Security Bureau, Water Resources Bureau, Water Conservation Bureau, Education Bureau	Project budget and relevant local department's budget

<b>Proposed Actions or Activities</b>	<b>Main Beneficiaries and/or Stakeholders</b>	<b>Targets<sup>b</sup></b>	<b>Time-frame</b>	<b>Responsibility</b>	<b>Funds and Resources</b>
C.2 Provide training and capacity building program to farmers on the following: (i) water-saving irrigation (ii) application of organic fertilizer, balanced chemical fertilizer and green manure, and straw residue retaining practices (iii) soil improvement practices (land subsoiling) (iv) conservation tillage (v) variety promotion and variety improvement of food crops and economic crops (vi) Awareness of environmental protection (vii) Pest, flood, and forest fire prevention education (viii) Micro-business (ix) electricity education (x) promotion of agricultural technology	Farmers, poor HHs,	<b>Targets:</b> 69,533 households, 110,602 persons, 15,452 poor people, 724 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, ACWF, Forest Bureau, Labor and Social Security Bureau, Water Resources Bureau, Water Conservation Bureau, Education Bureau	Project budget and relevant local department's budget
C.3 Provide training to farmer cooperatives on operation, production technology, marketing, and management	Farmers, poor HHs, FCs	<b>Targets:</b> 12,933 households, 47,444 persons, 7,207 poor people, 423 beneficiary villages. <b>Baselines:</b> N/A	2019–2024	CPMOs, and FCs	Project budget and relevant local department's budget
C.4 Provide the training as follows: (i) Training in local language (ii) Agricultural technical training in time according to the local crop growing season	Farmers, poor HHs, FCs	<b>Targets:</b> 69,533 households, 110,602 persons, 15,452 poor people, 724 beneficiary villages <b>Baselines:</b> N/A	2019–2024	CPMOs, and FCs	Project budget and relevant local department's budget
<b>D. Generating Job Opportunities to Increase Residents' Income (All Outputs)</b>					
D.1 Providing employment opportunities to the local people during the operation of the farmer cooperatives	Farmers, poor households, and female laborers	<b>Target:</b> Additional 23,815 full-time jobs opportunities, including 3,650 jobs for poor households <b>Baseline:</b> 0	2019–2024	CPMOs, farmer cooperatives	Farmer Cooperatives' operation budget
D.2 Employing local residents during the construction of the project	Farmers, poor households, and female laborers	<b>Target:</b> During project construction, additional 28,419 part-time jobs for construction workers, including 4,401 for poor households. <b>Baseline:</b> 0	2019–2024	Contractors, CPMOs, farmer cooperatives	Contractor's budget

Proposed Actions or Activities	Main Beneficiaries and/or Stakeholders	Targets <sup>b</sup>	Time-frame	Responsibility	Funds and Resources
D.3 Employing local residents during the operation of the project.	Farmers, poor households, and female laborers	<b>Targets:</b> During project operation, additional 1,263 new full-time jobs, including 200 for poor households; and 17,464 new part-time jobs, including 2,957 for poor households. <b>Baselines:</b> 0	2019–2024	Contractors, CPMOs, farmer cooperatives	Contractor's budget
<b>II. Measures for Mitigating Negative Impacts or Social Risks</b>					
<b>E. Comply with Labor Laws and Core Labor Standards</b>					
(i) Compliance with labor law and core labor standards, including ensuring the absence of child labor, providing minimum wage and equal pay for equal work, and ensuring occupational health safety (ii) Contractors and workers participate in public health knowledge promotion and training regarding prevention and control of HIV/AIDS, STI, and other infectious disease (iii) Conduct publicity activities on AIDS and sexually transmitted diseases to the construction personnel (iv) Distribute study and publicity materials (e.g., posters and brochures) regarding the prevention and treatment of HIV/AIDS and STI (v) Provide specific measures on health and safety for the construction personnel	Farmers, contractors, workers, female laborers	<b>Target:</b> Ensure the 100% compliance of all labor standards <b>Baseline:</b> N/A	2019–2024	CPMOs, contractors, Center for Disease Control, ACWF, social and gender specialists, township government, village committees, farmer cooperatives	Project budget  Government ordinary activity budget  FCs operation budget
<b>F. Voluntary Land Use Right Transfer to Ensure Benefits to Farmers</b>					
(i) Provide information about specific purposes of the project and the land use (ii) Conduct consultation process with contracting parties (iii) Ensure that the LURT contracts and/or agreements are well signed without any pressure, and comply with legal and policy requirements (iv) Ensure that the farmers fairly receive rental payments (equivalent to average annual output value or market price, or adjusted periodically) (v) Ensure that the contracting parties have access to grievance redress mechanism in case of any disputes (vi) Ensure that the farmers are provided with a written contract prepared in a simple language	Farmers, poor households, farmer cooperatives, village committees	<b>Target:</b> 100% of LURT agreements will be verified and monitored <b>Baseline:</b> 0	2019–2024	CPMOs, Forest Bureau, and township-level technical extension stations  External monitor	Project budget and relevant local department's budget

Proposed Actions or Activities	Main Beneficiaries and/or Stakeholders	Targets <sup>b</sup>	Time-frame	Responsibility	Funds and Resources
understandable to the contracting parties (vii) Ensure verification and monitoring of agreements between the contracting parties (farmer households, farmer cooperatives, and village committees)					
<b>III. Project Management Support</b>					
G.1 Appoint a social focal person within each PPMO and each CPMO; and provide training to the social focal persons to ensure effective implementation of the GAP, LURT framework, SDAP, EMDP, and other social aspects.	CPMOS, farmer cooperatives, and PPMOs	<b>Targets:</b> At least one social focal person at each PPMO and each CPMO; and 100% of the CPMO and PPMO staff will receive training on the GAP, LURT framework, SDAP, EMDP, etc. <b>Baselines:</b> 0	2019–2024	CPMOs, social consultants, farmer cooperatives, PPMOs	Project capacity building and/or training budget
G.2 Collect data disaggregated by sex, ethnicity, and geographic region	CPMOs, farmer cooperatives, and village committees	<b>Target:</b> Disaggregated data by sex, ethnicity, and geographic region collected during project implementation <b>Baseline:</b> 0	2019–2024	CPMOs, consultants, PPMOs	Project management budget
G.3 Recruit social consultants for supporting the PPMOs and the CPMOs in GAP, SDAP, EMDP and LURT framework implementation	PPMOs and CPMOs	<b>Target:</b> Qualified social consultants hired <b>Baseline:</b> 0	2019–2024	NPMO/PPMOs	Project capacity building budget
G.4 Recruit external monitoring agency and/or expert to monitor the GAP, SDAP, EMDP, and LURT framework	NPMO and PPMOs	<b>Target:</b> Semiannual social monitoring report prepared <b>Baseline:</b> N/A	2019–2024	NPMO/PPMOs	Project consulting services budget
G.5 Establish effective grievance redress mechanisms and inform stakeholders	County and/or district television stations, farmers, local government, farmer cooperatives, and village committees	<b>Target:</b> All local villages and/or farmers know about the grievance redress mechanism <b>Baseline:</b> 0	2019–2024	CPMOs, local governments, village committees, farmer cooperatives	PPMOs and the CPMO budgets

ACWF = All China Women's Federation, CPMO = County Project Management Office, EMDP = ethnic minority development plan, FC = farmer cooperative, GAP = gender action plan, LURT = land use rights transfer, NPMO = National Project Management Office, PPMO = Provincial Project Management Office, SDAP = social development action plan.

<sup>a</sup> Incorporates the consultation and participation plan.

<sup>b</sup> Targets were estimated by the design institutes based on the feasibility study report and will be updated on the detail design.

Source: Asian Development Bank estimates.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

### A. Project Design and Monitoring Framework

Impact the Project is Aligned with Environmental protection, rehabilitation, and management of the Yangtze River improved (Yangtze River Economic Belt Development Plan, 2016–2030) <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Sustainability and modernity of agricultural production systems in participating project watersheds increased	By mid of 2025 within the project counties: a. 115,000 ha of farmland with improved practices (2018 baseline: 0 ha) <sup>b</sup> b. Use of chemical pesticide reduced by 17% (2018 baseline: 383.9 tons/year) c. Use of chemical fertilizer reduced by 15% (2018 baseline: 41,499 tons/year)	a–c. Provincial and local governments' annual statistics report a. Farmer surveys a–c. Project progress reports	A reduction in prices for agricultural chemicals below the projected amount discourages the farmers from adopting sustainable farming technology and practices.
<b>Outputs</b> 1. Modern farming systems constructed	By mid of 2024 within the project counties: 1a. At least 3,535 small-scale water collection and storage facilities constructed or rehabilitated (2018 baseline: 0) 1b. Water-saving irrigation technology facilities established on 2,700 ha (2018 baseline: 0 ha) 1c. Irrigation and drainage infrastructure constructed to service at least 32,900 ha of farmland (2018 baseline: 0 ha) 1d. At least 1,610 km of new and improved farm access and tractor roads built (2018 baseline: 0 km) 1e. Climate-resilient crop and land management practices established on 13,711 ha (2018 baseline: 0 ha) 1g. 30% of jobs in construction and operation of modern farming systems reserved for women; and 40% of jobs in works related to farmer cooperatives reserved for women (2018 baselines: 0%, 0%)	1a–1g. Project progress and completion reports, and loan review missions	The commitment of administration agencies to cooperate and coordinate efforts to link environmental protection and agriculture development weakens because priorities change.  Increased domestic demand for skilled staff beyond projections leads to large turnover.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
2. Waste and environmental management systems strengthened	<p>2a. At least 600 m<sup>3</sup> farming waste collection facilities commissioned (2018 baseline: 0 m<sup>3</sup>)</p> <p>2b. At least 21,400 m<sup>3</sup> for animal and 20,308 m<sup>3</sup> for household waste treatment facilities commissioned</p> <p>2c. At least 31 sets of watershed pollution monitoring equipment commissioned (2018 baseline: 0)</p> <p>2d. At least 25,193 sets of integrated pest management materials and equipment commissioned (2018 baseline: 0)</p> <p>2e. At least 11,000 ha of land reforested for ecological protection (2018 baseline: 0 ha)</p> <p>2f. At least 20,400 ha of economic trees planted, and 2,750 ha replanted (2018 baselines: 0 ha, 0 ha)</p> <p>2g. At least 950 km of riverbank, lakeside, dyke, and farm roadside protection and upgrades completed (2018 baseline: 0 km)</p>	2a–2g. Project progress and completion reports, and loan review missions	
3. Institutional, technical, and management capacity and coordination strengthened	<p>3a. At least 1,450 pm of training on technical and management issues conducted for local authorities, of which at least 30% are women (2018 baselines: 0 pm, 0%)</p> <p>3b. At least 2,465 pm of training on improved farming and technologies provided to members of farmer cooperatives, of which at least 40% are women (2018 baselines: 0 pm, 0%)</p> <p>3c. At least 3,237 pm of training on improved farming skills and technologies conducted for</p>	<p>3a–3d. Project progress and completion reports, and loan review missions</p> <p>3a–3c. Post training survey of participants</p>	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	farmers, of which at least 40% are women (2018 baselines: 0 pm, 0%) 3d. At least 10 research projects related to modern farming, pollution control or environmental protection submitted to the NPMO (2018 baseline: 0)		
<b>Key Activities with Milestones</b> <b>1. Modern farming systems constructed</b> 1.1 Prepare preliminary and detailed designs (Q1 2019–Q2 2023). 1.2 Procure civil works and goods (Q1 2019–Q4 2023). 1.3 Implement civil works for farmland improvement and development (Q2 2019–Q2 2024). 1.4 Install water collection, storage, and irrigation equipment (Q2 2019–Q2 2024). <b>2. Waste and environmental management systems strengthened</b> 2.1 Prepare preliminary and detailed designs (Q1 2019–Q2 2023). 2.2 Procure civil works and equipment (Q1 2019–Q4 2023). 2.3 Implement civil works for livestock and farm waste management (Q2 2019–Q2 2024). 2.4 Implement watershed protection through reforestation and afforestation (Q2 2019–Q2 2024). <b>3. Institutional, technical, and management capacity and coordination strengthened</b> 3.1 Assess capacity demands and prepare a detailed training program (Q2 2019–Q4 2023). 3.2 Provide support for policy review, development, and implementation (Q2 2019–Q2 2024). 3.3 Train relevant provincial and local government officials (Q2 2019–Q2 2024). 3.4 Train farmers on new technology, pollution prevention, and environmental protection (Q2 2019–Q2 2024). 3.5 Implement technical assistance and research projects (Q2 2019–Q2 2024). <b>Project Management Activities</b> Recruit project implementation consultants (Q1 2019) Conduct training sessions on project management (Q2 2019–Q2 2024) Establish the PPMS, submit semiannual project progress reports and project completion report to ADB (Q2 2019–Q4 2024) Implement the EMDP, EMP, GAP, LURT framework, and SDAP; submit semiannual social safeguard and annual environmental safeguard monitoring reports to ADB (Q2 2019–Q3 2024)			
<b>Inputs</b> ADB (loan): \$300.0 million Central government: \$ 18.6 million Provincial and county governments: \$155.0 million Beneficiaries: \$ 33.1 million			
<b>Assumptions for Partner Financing</b> Not applicable			

ADB = Asian Development Bank, EMDP = ethnic minority development plan, EMP = environmental management plan, GAP = gender action plan, ha = hectare, km = kilometer, LURT = land use rights transfer, m<sup>3</sup> = cubic meter, pm = person-months, PMO = project management office, PPMS = project performance management system, Q = quarter, SDAP = social development action plan.

<sup>a</sup> Government of the People's Republic of China. 2016. *Outline of the Yangtze River Economic Belt Development Plan, 2016–2030*. Beijing.

<sup>b</sup> Improved practices include efficient water use for irrigation, farmland protection (land leveling and terracing), soil conditioning, conservation tillage, use of balanced fertilizer rates, and integrated pest management.

Source: Asian Development Bank.



## B. Monitoring

97. **Project performance monitoring.** To monitor the progress of the project in achieving the planned outcome and outputs, the NPMO will coordinate with the PPMOs and the CPMOs for the establishment and maintenance of the project performance management system (PPMS)—equivalent to the management information system (MIS)—which will permit adequate flexibility to adopt remedial action regarding project design, schedules, activities, and development impacts.<sup>41</sup> In addition, risk management for the project shall be incorporated in the PPMS. The monitoring will cover all indicators listed in the DMF as well as the indicators reflecting the development results contributed by the project. The PPMS will cover the following aspects of the project implementation: (i) project physical and financial progress; (ii) progress and results of capacity development; (iii) implementation of the EMP; (iv) implementation of the EMDP, GAP, LURT framework, and SDAP; and (v) compliance with loan covenants (policy, financial, economic, sector, and others).

98. The NPMO (formerly SOCAD) agreed and confirmed that they will (i) establish the PPMS before the loan effectiveness; (ii) recruit the loan implementation consultants (LICs) before the loan effectiveness, including but not only limited to, one Social Specialist for 10 person-months, one LURT Specialist for 10 person-months, and one Environment Specialist for 10 person-months, to facilitate the project start-up and provide consulting service as described in Appendix 1; (iii) confirm that targets are achievable; and (iv) develop recording, monitoring, and reporting arrangements.

99. At the beginning of project implementation, the NPMO will finalize the comprehensive PPMS procedures to systematically generate data in the above areas in consultation with the implementing agencies. The NPMO will refine the PPMS framework, confirm achievable targets and the monitoring and recording arrangements, and establish relevant systems and procedures not later than 6 months after project implementation begins. The NPMO, the PPMOs, and the CPMOs will assign staff or consultants to collect baseline and progress data at the requisite time intervals, including semiannual progress report on the implementation of the EMDP, EMP, GAP, LURT framework, and SDAP. The NPMO will be responsible for analyzing and consolidating reported data through its MIS, and reporting outcomes to ADB through semiannual progress reports.

100. A project progress report, monitoring the project inputs and activities, should be submitted to ADB semiannually starting from project inception. These semiannual progress reports and project monitoring and evaluation reports will provide information necessary to update ADB's PPMS.

101. Promptly after physical completion of the project, but in any event not later than 6 months thereafter or such later date as ADB may agree for this purpose, the NPMO will prepare and submit to ADB a project completion report, in such form and in such detail as ADB shall reasonably request, on the implementation and evaluation of the project, including project description, evaluation of design and implementation, evaluation of performance, and overall assessment and recommendations.

102. **Compliance monitoring.** During project implementation, ADB and the NPMO will closely monitor the compliance of all the covenants under the project; and will take necessary remedy

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<sup>41</sup> ADB's project performance reporting system is available at:  
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

actions for any noncompliance. The compliance status will be reported in the semiannual progress report by the NPMO and will be reviewed during project review missions.

103. **Environmental safeguard monitoring.** An environmental monitoring program has been prepared describing the scope of monitoring, environmental media, monitoring parameters, the time and frequency of monitoring, and implementing and supervising agencies. During construction, the PPMOs and the CPMOs will conduct internal environmental monitoring and inspections to ensure that environmental mitigation measures are properly implemented. Inspections will mainly cover construction activities, but these will also review the affected environment. During operation, the implementing agencies will be responsible for internal monitoring and reporting to the NPMO. Environmental monitoring and inspection will be conducted by local environmental monitoring stations under the local environmental protection bureaus. They will be responsible to undertake regular and random environmental monitoring and inspection activities before, during, and after construction as well as in the event of emergencies.

104. Environmental monitoring results, including environmental benefits monitoring, will be used to evaluate (i) the extent and severity of environmental impacts compared with the predicted impacts, (ii) performance of the environmental protection measures or compliance with related rules and regulations, (iii) impact trends, and (iv) the overall effectiveness of the EMP. The effectiveness of the mitigation measures and monitoring plans will be evaluated through a feedback reporting system.

105. **Resettlement.** The project will not involve any involuntary land acquisition and resettlement impacts.

106. Internal and external monitoring of the EMDP, GAP, LURT framework, and SDAP implementation will be conducted; and the methodologies or targets are specified in the relevant action plan, and some indicators are also included in the DMF. The NPMO, the PPMOs, and the CPMOs will appoint staff for implementation and internal monitoring of the EMDP, GAP, LURT framework, and SDAP. A national Social Specialist with 10 person-months input and a national LURT Specialist with 10 person-months input are included under the project implementation consultants. The consultants will assist the PPMOs and the CPMOs in setting up effective monitoring systems by working with the social officers to ensure implementation of the EMDP, GAP, LURT framework, and SDAP. In addition, an external social monitoring agency will be engaged by each PPMO for the EMDP, GAP, LURT framework, and SDAP monitoring and evaluation; and the monitoring results will be submitted to the NPMO semiannually for consolidation, and then submit the consolidated semiannual monitoring report to ADB.

## **C. Evaluation**

107. In addition to regular monitoring, project progress and performance will be monitored at least once a year jointly by ADB and the NPMO during the ADB review missions. The review will assess implementation performance and achievement of project outcome and outputs, assess financial progress, identify issues and constraints affecting implementation, and work out a time-bound action plan for their resolution. ADB and the NPMO will undertake a midterm review in the mid-year of the project implementation period to (i) conduct a detailed evaluation of the project scope, implementation arrangements, progress of the overall project and each component, and status of achieving the performance targets; and (ii) recommend appropriate measures, including changes in the project scope and/or implementation arrangements, reallocation of loan proceeds, changes in the ADB financing ratios, and extension of the loan closing date. Promptly after physical completion of the project, but in any event not later than 6 months thereafter or such later

date as ADB may agree for this purpose, the NPMO will prepare and submit to ADB a project completion report, in such form and in such detail as ADB shall reasonably request, on the implementation and evaluation of the project.<sup>42</sup>

## D. Reporting

108. The NPMO will provide ADB with (i) semiannual progress reports in a format that acceptable to ADB, including (a) progress achieved by output as measured through the indicator's performance targets; (b) key implementation issues and solutions; (c) updated procurement plan; and (d) updated implementation plan for the next reporting period; (ii) audited annual report; (iii) consolidated financial statements; and (iv) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency's audited financial statement, together with the associated auditor's report, should be adequately reviewed.

109. The NPMO has agreed on the following reporting commitments:

Report	Timing	Reference
Semiannual project progress reports	Semiannual, within 3 months after the end of each reporting period	Project agreement, schedule
Audited financial statements	Not later than 6 months after the closure of fiscal year	Project agreement, schedule
Social monitoring report comprising: <ul style="list-style-type: none"> <li>➤ LURT contract monitoring and evaluation reports</li> <li>➤ EMDP implementation progress and results</li> <li>➤ GAP and SDAP implementation progress and results</li> </ul>	Semiannually, within 3 months after the end of half year (March, September)	Project agreement, schedule
Environmental safeguard Construction phase <ul style="list-style-type: none"> <li>➤ Environmental safeguard monitoring reports</li> </ul> Operational phase <ul style="list-style-type: none"> <li>➤ Environmental safeguard monitoring reports</li> </ul>	Annually, within 3 months after the end of each year (March)  Annually, within 3 months after the end of each year (March)	Project agreement, schedule
Project completion report	Not later than 6 months after the physical completion of the project	Project agreement, schedule

LURT = land use rights transfer, EMDP = ethnic minority development plan, GAP = gender action plan, SDAP = social development action plan.

## E. Stakeholder Communication Strategy

110. Project information will be disclosed through ADB's and government's websites, meetings, interviews, focus group discussions, and community consultation meetings, in accordance with requirements of ADB's information disclosure policy. Main stakeholders are the different agencies of the NPMO, the PPMOs, the CPMOs, beneficiaries, and participants in the project

<sup>42</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

implementation. Stakeholder communication is also part of the EMDP, GAP, LURT framework, and SDAP; and will be monitored accordingly.

111. **Environment.** Meaningful consultation, participation, and information disclosure were conducted for environmental impact assessment during project preparation, including information disclosure, questionnaire surveys, informal visits to villages and households in the project areas, and stakeholder meetings attended by representatives of the affected public and other concerned stakeholders. Dialogue will be maintained with communities in the project areas throughout project implementation. Future consultations will be undertaken by the PPMOs and the CPMOs, particularly environment officers of the PPMOs and the CPMOs, via questionnaire surveys, household visits, workshops, and public hearings during construction.

112. Consultations with communities were conducted during preparation; and will be continued during the implementation of the EMDP, GAP, LURT framework, and SDAP—not only to inform people about project components or activities; but also to enable people to ask questions, make suggestions, state preferences, and/or express concerns. Special attention will be paid to the participation of women, ethnic minorities, and other vulnerable groups, such as the poor. The EMDP for the project has been disclosed on the ADB website. Social monitoring reports will be disclosed publicly.

113. **Public disclosure.** ADB, the NPMO, the PPMOs, and the CPMOs will disclose relevant project information to the public and interested parties. This includes particularly the information regarding the overall project and environment and social safeguards. The information disclosure measures for different stakeholders are described in Table 15.

**Table 15: Public Disclosure Measures**

Information	Means of Communication	Responsibility	Audience	Frequency
Report and recommendation of the President with links to relevant documents	ADB website	ADB	Public	Once
Project information during design and construction	Stakeholder consultations and public notice boards	PPMOs and CPMOs	Project beneficiaries and affected people	Regular intervals during design and construction phase
Social monitoring reports	ADB, the NPMO, the PPMOs and CPMOs' websites, and/or public notice boards	NPMO, PPMOs and CPMOs	Affected people and other interested stakeholders	Semiannually
Information on the EMDP, GAP, LURT framework, and SDAP activities	Stakeholder consultation, ADB, the NPMO, the PPMOs and CPMOs' websites, and/or public notice boards	NPMO, PPMOs and CPMOs	Affected people and other interested stakeholders	Regularly
Project information documents	ADB website	ADB	Public	Semiannually
Project completion report	ADB website	ADB	Public	Once

ADB = Asian Development Bank, CPMO = County Project Management Office, EMDP = ethnic minority development plan, GAP = gender action plan, NPMO = National Project Management Office, PPMO = Provincial Project Management Office.

Source: Asian Development Bank.

114. Detailed consultation, participation, and information disclosure related to social and environmental safeguards are included in the EMDP and the EMP.

## **X. ANTICORRUPTION POLICY**

115. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>43</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in the ADB-financed activity and may not be awarded any contracts under the project.<sup>44</sup>

116. To support these efforts, relevant provisions are included in the loan and project agreements and the bidding documents for the project.

## **XI. ACCOUNTABILITY MECHANISM**

117. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by the ADB-assisted projects can voice and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>45</sup>

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

118. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the project administration manual, including revision to contract awards and disbursement schedules.

<b>Date</b>	<b>Project Administration Manual Changes</b>
14 November 2017	Discussion on the draft project administration manual during the loan fact-finding mission
27 September 2018	Discussion during the loan negotiations

<sup>43</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>44</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

<sup>45</sup> Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

## **APPENDIX 1: INDICATIVE TERMS OF REFERENCE FOR LOAN IMPLEMENTATION CONSULTANTS**

### **A. SOCIAL AND GENDER SPECIALIST**

**(National, 10 person-months, intermittent)**

#### **I. BACKGROUND**

1. The Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project (the project) will be implemented in 47 counties within 5 provinces and 1 municipality at province level. Project implementation will be overseen and coordinated by the NPMO, within Ministry of Agriculture and Rural Affairs and implemented by PPMOs and CPMOs. The Social and Gender Specialist will assist the project to implement and internally monitor the project's social components, including the Ethnic Minority Development Plan (EMDP), Social Development Action Plan (SDAP) and the Gender Action Plan (GAP). These terms of reference describe the requirements and tasks for this specialist.

#### **II. SCOPE AND DURATION OF WORK**

2. The Social and Gender Specialist will assist in implementation and internal monitoring of the project's social dimensions and safeguards to ensure that the project is implemented in compliance with ADB requirements. The specialist will assist the NPMO, PPMOs, and CPMOs to implement, monitor and report on EMDP, GAP, SDAP, and other relevant social measures. The specialist will work with and report to the NPMO. The position is intermittent over the entire project duration (five years).

#### **III. QUALIFICATIONS**

3. The specialist will have: (i) a graduate degree or higher in social science or related field; (ii) at least 10 years of experience in social development and safeguards; (iii) familiarity with ADB projects and ADB's social development and safeguards policies; and (iv) proficiency in spoken and written English, including an ability to prepare reports meeting ADB requirements.

#### **IV. DETAILED TASKS**

4. The social specialist will be responsible for the following tasks:
- (i) Maintain up-to-date information and database on implementation of EMDP, GAP, and SDAP through document review, fieldwork and meetings;
  - (ii) Provide guidance to PMOs to develop detailed internal-monitoring arrangements for EMDP, GAP, and SDAP;
  - (iii) Formulate and deliver training to focal staff of the NPMO, PPMOs, and CPMOs to internally monitor implementation of the project's SDAP, GAP, and EMDP;
  - (iv) Provide guidance to NPMO, PPMOs, and CPMOs maintain overall coordination for implementation of the EMDP, SDAP, GAP, and relevant social measures;
  - (v) Provide guidance to NPMO, PPMOs, and CPMOs to implement the grievance redress mechanism (GRM) and to resolve any problems or grievances that are related to social dimensions or safeguards during the project implementation;
  - (vi) Undertake periodic internal monitoring and prepare internal monitoring reports on

- social aspects, including implementation of EMDP, SDAP, and GAP (with a good quality of reports meeting ADB standards);
- (vii) Assist the NPMO in compiling and submitting internal monitoring reports to ADB and address any comments from ADB;
- (viii) Ensure through internal monitoring that the grievance redress mechanism is functioning well, and issues identified during the monitoring are resolved on a timely manner; and
- (ix) Undertake internal monitoring of other relevant social issues, as needed, and guide the NPMO, PPMOs, and CPMOs to resolve relevant issues.

## **V. REPORTING REQUIREMENTS**

5. Internal social monitoring reports to be submitted to ADB, using the template agreed with ADB.

## **VI. LOGISTICAL SUPPORT PROVIDED BY SOCAD**

6. The NPMO will provide the following to the Social Specialist:
  - (i) Hard and soft copies of the project reports, available survey data, loan and project agreements, maps, and other supporting materials as necessary to ensure the specialist can implement the tasks'
  - (ii) Vehicle transport, office materials, and other logistical support as necessary for the specialist to visit the project sites and local communities;
  - (iii) Arranging meetings and distributing relevant materials; and
  - (iv) Overall coordination, including review of the draft internal monitoring reports and final submission of the monitoring reports to ADB.

## **B. LAND USE RIGHT TRANSFER SPECIALIST**

**(National, 10 person-months, intermittent)**

### **I. BACKGROUND**

7. The Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project (the project) will be implemented in 47 Counties within 5 provinces and 1 city at province level. Project implementation will be overseen and coordinated by the NPMO and implemented PPMOs and CPMOs. The Land Use Right Transfer (LURT) specialist will assist the project in implementation and internal monitoring of LURT/Donation Framework and relevant agreements on land use under the project. These terms of reference describe the requirements and tasks for this specialist.

### **II. SCOPE AND DURATION OF WORK**

8. The LURT specialist will assist in implementation and internal monitoring of the project's LURT/Donation Framework and relevant agreements on land use to ensure that the project is implemented in compliance with ADB requirements. The specialist will assist the NPMO to internally monitor and report on the implementation of LURT/donation agreements and related measures. The specialist will work with and report to the NPMO. The position is intermittent over the entire project duration (five years).

### III. QUALIFICATIONS

9. The specialist will have: (i) a graduate degree or higher in social science or related field; (ii) at least 10 years of experience in social and resettlement safeguards, particularly on LURT and land use; (iii) familiarity with ADB projects and ADB's social safeguard policies; and (iv) proficiency in spoken and written English, including an ability to prepare reports meeting ADB requirements.

### IV. DETAILED TASKS

10. The LURT specialist will be responsible for the following tasks.

(common tasks for LURT and land donation agreements)

- (i) Maintain up-to-date information and database on implementation of LURT/donation agreements;
- (ii) Provide guidance to the NPMO, PPMOs, and CPMOs to develop monitoring arrangements for LURT/donation agreements;
- (iii) Formulate and deliver training to focal staff of the NPMO, PPMOs, and CPMOs to implement and monitor the project's LURT/donation agreements;
- (iv) Provide guidance to the NPMO, PPMOs, and CPMOs maintain overall coordination for implementation of the LURT/donation agreements;
- (v) Provide guidance to the NPMO, PPMOs, and CPMOs to implement the grievance redress mechanism (GRM) and to resolve any grievances related to LURT/donation agreements;
- (vi) Assist in undertaking periodic monitoring and preparing internal monitoring reports on implementation of LURT/donation agreements (with a good quality of reports meeting ADB standards);
- (vii) Assist the NPMO in compiling monitoring reports and address any comments from ADB; and
- (viii) Assist in monitoring of other relevant social issues, as needed, and guide the NPMO, PPMOs, and CPMOs to resolve relevant issues.

(LURT agreement- Specific Tasks)

- (i) Monitor to ensure that LURT agreements are implemented according to the agreements that were signed between the parties and that any grievances that might arise are resolved quickly and effectively;
- (ii) For LURT contracts that were not verified during the project preparation, coordinate with the external social monitor to review and verify to ensure that all contracts meet the LURT criteria for the project. Please follow the LURT verification methodology in the LURT Framework;
- (iii) Monitor to ensure that all parties that hold a leasing agreement fully understand the consequences of the leasing agreements that were signed and reaffirm they are willing to abide by the specific terms of the lease;
- (iv) Where leases during TRTA investigations were proved to be only partially compliant, monitor to ensure the leases are rectified before implementation of the subproject involving respective land parcels;
- (v) Assist the project implementing agencies to implement follow-up actions identified in the LURT due diligence report;
- (vi) Provide on-the-job training to implementing agencies in facilitation of socially inclusive consultations for all parties to the leasing agreement and documentation



- of the consultations including the gender disaggregation of issues raised during the consultation processes;
- (vii) Monitor to ensure that when payments are made all contracting farming households are either paid their proportionate share in in-kind according the LURT agreements;
- (viii) Provide training to the implementing agencies to ensure that they have the capacity to monitor and evaluate whether farmers leasing land can retain and preferably improve upon their pre-leasing income as measured by the cash paid or in-kind payments;
- (ix) Provide guidance to the NPMO, PPMOs to implement the GRM related to LURT and ensure this information is included in monitoring reports; and
- (x) In the event that leasing agreements are breeched by either party to the lease, guide the project to resolve the disputes according to the dispute resolution provisions in the LURT or relevant regulations.

(Land Donation Agreements- Specific Tasks)

- (i) Monitor to ensure that agreements are implemented according to the LURT/Donation Framework provisions on land donation;
- (ii) Monitor to ensure that all parties fully understand the consequences of land donation;
- (iii) Monitor reallocation of the replacement land for the relevant farmers as per land donation agreements/arrangements; and
- (iv) Monitor GRM and other relevant provisions that apply to land donation and include information in monitoring reports.

## **V. REPORTING REQUIREMENTS**

11. Internal social monitoring reports to be submitted to ADB, using the template agreed with ADB.

## **VI. LOGISTICAL SUPPORT PROVIDED BY SOCAD**

12. The NPMO will provide the following to the LURT specialist:
  - (i) Hard and soft copies of the project reports, available data, land use agreements, maps, and other supporting materials as necessary to ensure the specialist can implement the tasks;
  - (ii) Vehicle transport, office materials, and other logistical support as necessary for the specialist to visit the project sites and local communities;
  - (iii) Arranging meetings and distributing relevant materials; and
  - (iv) Overall coordination, including review of the draft monitoring reports and final submission of the monitoring reports to ADB.

## **C. EXTERNAL SOCIAL MONITORING SPECIALIST**

**(National, 10 person-months, intermittent)**

### **I. BACKGROUND**

13. The Yangtze River Green Ecological Corridor Comprehensive Agriculture Development Project (the project) will be implemented in 47 Counties within 5 provinces and 1 city at province

level. Project implementation will be overseen and coordinated by the NPMO and implemented by PPMOs and CPMOs. The external social monitoring specialist will monitor implementation of the project's social components, including the Ethnic Minority Development Plan (EMDP), the Social Development Action Plan (SDAP), the Gender Action Plan (GAP), and Land Use Right Transfer/Donation (LURT) Framework/agreements. These terms of reference describe the requirements and tasks for this specialist.

## **II. SCOPE AND DURATION OF WORK**

14. The external social monitoring specialist will independently monitor the project's social safeguards and social dimensions to ensure that the project is implemented in compliance with ADB requirements. The specialist will monitor and report on the implementation of LURT agreements, GAP, SDAP, EMDP and other relevant social measures; and it will monitor these independently without involving in day-to-day implementation of the project. The specialist will work with the NPMO and CPMOs; and will report directly to the NPMO and ADB. The position is intermittent over the entire project duration (5 years).

## **III. QUALIFICATIONS**

15. The specialist will have: (i) a graduate degree or higher in social science or related field; (ii) at least 10 years of experience in social development and safeguards; (iii) familiarity with ADB projects and ADB's social development and safeguard policies; and (iv) proficiency in spoken and written English, including an ability to prepare reports meeting ADB requirements.

## **IV. DETAILED TASKS**

16. The external social monitoring specialist will be responsible for the following common tasks and LURT and land donation-specific tasks. The external monitoring specialist will independently monitor the LURT and social measures of the project, while it will provide external assistance (training, guidance, etc.) to the PMOs maintain proper systems and records to ensure monitoring.

### **(Common Tasks)**

- (i) Provide external assistance (training, etc.) to the PMOs maintain up-to-date information and database on implementation of LURT agreements, EMDP, GAP and SDAP, land donation through document review, fieldwork and meetings;
- (ii) Develop detailed monitoring arrangements for LURT agreements, EMDP, GAP, SDAP and land donation;
- (iii) Formulate and deliver training to focal staff of the NPMO, PPMOs, and CPMOs in monitoring of the project's EMDP, SDAP, GAP, land donation and LURT agreements;
- (iv) Provide external guidance to the NPMO, PPMOs, and CPMOs maintain overall coordination and records of the LURT agreements, EMDP, SDAP, GAP and land donation;
- (v) Provide external guidance to the NPMO, PPMOs, and CPMOs to implement the grievance redress mechanism (GRM) and to resolve any problems or grievances that may arise during the project implementation;
- (vi) Undertake independent periodic monitoring and prepare semi-annual monitoring reports on social aspects, including implementation of LURT contracts, EMDP, SDAP, GAP, land donation (with a good quality of reports meeting ADB standards);
- (vii) Assist the NPMO, PPMOs in submitting semi-annual monitoring reports to ADB

- and address any comments from ADB;
- (viii) Ensure through monitoring that the grievance redress mechanism is functioning well and issues identified during the monitoring are resolved on a timely manner;
- (ix) confirm and document that consultations with concerned entities have been done and abide by the principles of meaningful consultation/good faith negotiation – early, timely, accessible, free of intimidation, and inclusive; and
- (x) Undertake independent monitoring of other relevant social issues, as needed, and guide the NPMO, PPMOs, and CPMOs to resolve the same.

(LURT- Specific Tasks)

- (i) Monitor to ensure that agreements are implemented according to the agreements that were signed between the parties and that any grievances that might arise are resolved quickly and effectively;
- (ii) For LURT contracts that were not verified during TRTA, review and verify to ensure that all contracts meet the LURT criteria for the project. Please follow the LURT verification methodology in the LURT/Donation Framework;
- (iii) Monitor to ensure that all parties that hold a leasing agreement fully understand the consequences of the leasing agreements that were signed and reaffirm they are willing to abide by the specific terms of the lease;
- (iv) Where leases during TRTA investigations were proved to be only partially compliant, monitor to ensure the leases are rectified before implementation the subproject involving the respective land parcels;
- (v) Provide external periodic training to implementing agencies to facilitate socially inclusive consultations for all parties to the leasing agreement and documentation of the consultations including the gender disaggregation of issues raised during the consultation processes;
- (vi) Monitor to ensure that when annual or periodic payments in in-kind are made all farming households that are parties to the lease are either paid their proportionate share in in-kind according the LURT agreements;
- (vii) Provide external periodic training to the implementing agencies in monitoring and evaluating whether farmers leasing land to the CPMOs can retain and preferably improve upon their pre-leasing income as measured by the cash paid or in-kind payments;
- (viii) Provide external periodic guidance to the NPMO, PPMOs to facilitate implementing the GRM, and ensure this information is included in semi-annual monitoring reports; and
- (ix) In the event that leasing agreements are breached by either party to the lease, externally guide the project to resolve the disputes according to the dispute resolution provisions in the LURT or relevant regulations.

(Land Donation- Specific Tasks)

- (i) Monitor to ensure that agreements are implemented according to the land donation framework;
- (ii) Monitor to ensure that all parties fully understand the consequences of land donation; and
- (iii) Monitor reallocation of the replacement land for the relevant farmers as per land donation agreements/arrangements.

## V. REPORTING REQUIREMENTS

17. Semiannual social monitoring reports to NPMO and ADB, using the template agreed with

ADB.

## **VI. LOGISTICAL SUPPORT PROVIDED BY SOCAD**

18. The NPMO will provide the following to the external social monitoring specialist:
- (i) Hard and soft copies of the feasibility study reports, available survey data, loan and project agreements, maps, land use agreements and other supporting materials as necessary to ensure the specialist can implement the tasks;
  - (ii) Vehicle transport, office materials, and other logistical support as necessary for the specialist to visit the project construction sites and local communities;
  - (iii) Arranging meetings and distributing relevant materials; and
  - (iv) Overall coordination, including review of the draft semi-annual monitoring reports and final submission of the monitoring reports to ADB.

## **D. ENVIRONMENT SPECIALIST**

**(National, 10 person-months, intermittent)**

### **I. QUALIFICATIONS**

19. The specialist will have (i) a university degree or higher in environmental management or related field; (ii) at least 8 years of experience in environmental management, monitoring, and/or impact assessment; (iii) familiarity with ADB project management requirements and national environmental management procedures; (iv) ability to communicate and work effectively with local communities, contractors, and government agencies; (v) ability to analyze data and prepare technical reports; (vi) willingness and has good health to regularly visit the subproject sites; and (vii) proficiency in spoken and written English.

### **II. DETAILED TASKS**

20. The specialist will be responsible for the following tasks.
- (i) Assist NPMO and PPMOs in establishing an environmental management system, which will include various arrangements and activities such as staffing, inspection, monitoring, grievance redress mechanism (GRM), reporting, and corrective actions or measures;
  - (ii) Assess the status of environmental readiness of each project component prior to the project implementation based on the readiness indicators defined in the environmental management plan (EMP);
  - (iii) Assist NPMO and PPMOs in updating the EMP, as necessary, including updating mitigation measures and environmental monitoring programs, based on the detailed engineering design, for submission to the executing agency and ADB for approval;
  - (iv) Assist the PPMOs in contracting environment monitoring agencies and coordinate with the agencies to ensure that all the environmental monitoring activities meet both domestic and ADB requirements;
  - (v) Conduct regular EMP compliance assessments, undertake site visits as required, identify any environmental-related implementation issues, propose necessary corrective measures, and include such corrective measures in a corrective action plan;
  - (vi) Assist in setting up a GRM, provide trainings to staff of NPMO, PPMOs, and

CPMOs on environmental laws, regulations and policies, ADB's Safeguard Policy Statement (2009), EMP implementation, and GRM in accordance with the training plan defined in the EMP;

- (vii) Prepare consolidated annual environmental monitoring and progress reports to ADB and provide input on environmental aspects to progress reports, midterm reports, PCR, and other required documents;
- (viii) Prior to the midterm review mission, provide support to NPMO and PPMOs in organizing public meetings in the project cities and/or counties to present and discuss the EMP implementation progress, collect public opinions and concerns, and develop necessary corrective measures; and
- (ix) Prior to the project completion, organize surveys on public opinions in the project cities and/or counties to evaluate the community satisfaction with the project implementation, project output, and EMP implementation, and then document the results in the PCR.

### **III. REPORTING REQUIREMENTS**

- 21. Internal environmental safeguards monitoring reports to be submitted to the NPMO and ADB, using the template agreed with ADB.

### **IV. LOGISTICAL SUPPORT PROVIDED BY SOCAD**

- 22. The NPMO will provide the following to the Environment Specialist:
  - (i) Hard and soft copies of the project reports, available data, maps, and other supporting materials as necessary to ensure the specialist can implement the tasks;
  - (ii) Vehicle transport, office materials, and other logistical support as necessary for the specialist to visit the project sites and local communities;
  - (iii) Arranging meetings and distributing relevant materials; and
  - (iv) Overall coordination, including review of the draft monitoring reports and final submission of the monitoring reports to ADB.

## **APPENDIX 2: SUBPROJECT SELECTION CRITERIA AND GUIDING PRINCIPLES**

### **A. Introduction**

1. The selection criteria explain the rationale for project province, county and activity selection for the project. The guiding principles provide guidance as to the type of activities that the project will promote under the project. The main focus on selection criteria relates to: (i) meeting essential requirements for government supporting policies in the Yangtze River Economic Belt region of the People's Republic of China (PRC); (ii) continuing to focus on, and involve, key agriculture related nonpoint source pollution, soil erosion-prone counties, and poverty alleviation counties; and (iii) including integrated demonstration of sustainable farmland development, modern agriculture development, environmental benefits, and poverty alleviation and social development.

2. The key technical issue to be addressed by the project is agriculture non-point source pollution. Agriculture non-point source pollution can be from (a) excess fertilizers, herbicides and insecticides from agricultural lands; (b) sediment from improperly managed construction sites, crop and forest lands and eroding stream banks; (c) salt from irrigation practices; (d) bacteria and nutrients from livestock and aquaculture production systems; (e) improper waste management for crop/straw residue. Agriculture non-point source pollution is a leading cause of water quality problems which has a negative impact on drinking water supplies, recreation, fisheries and wildlife.

3. The selection criteria have been separated into two components, firstly the selection criteria which would be used to select participating counties and subprojects, and second the guiding principles, which would need to be followed to ensure sound subproject design and implementation. Selection criteria and guiding principles are outlined below.

### **B. Selection Criteria**

#### **1. Project County Selection Criteria**

4. Project counties should meet the following poverty and technical criteria:
- (i) Poverty criteria: priority should be given to key national, provincial-level poverty alleviation counties and/or less developed counties eligible for the central government's support;
  - (ii) Priority should be given to key agriculture related non-point source pollution prone counties with demonstrable problems; and/or
  - (iii) Priority should be given to key soil erosion-prone counties with demonstrable erosion problems; and/or
  - (iv) Counties in modern agriculture demonstration zones complying with ADB's project design which follows the principles of (a) sustainable development of agricultural land for economic purposes; (b) emphasis on environment, soil and water resource protection; and (c) ensuring there is opportunity for farmer households including the poor and vulnerable groups to participate in equitable benefit sharing from the project which promotes cooperation between farmer households, cooperatives and project enterprises.

#### **2. Subproject Selection Criteria**

5. Subproject selection criteria comprise those related to site, activities, community's acceptance, and enterprises' requirements, particularly the following:

- (i) Subprojects should avoid involuntary land acquisition and resettlement impacts. Subproject activities (civil works) should occur within available lands of existing infrastructure or on lands of beneficiary farmers or villages. Use of collective or farmers' lands should be based on collective's or farmers' consent and it should not cause adverse impacts to any third party (e.g. benefiting some farmers/villages while harming others). Land needed for temporary use during construction (e.g. contractors' camp, quarries, etc.) should be made available through leases or voluntary agreements.
- (ii) Subprojects should avoid adverse impacts to ethnic minority and other vulnerable groups and should ensure their participation and equitable benefits to them.
- (iii) Subprojects should avoid all ecologically sensitive areas, including protected areas (all types of national and provincial reserves, reservoirs, etc.), wetlands protected areas, water resources protection areas, documented sites for rare or threatened flora and fauna (including nationally protected species), and rare, threatened, or restricted-range habitats. It is assumed that these areas are identified and clearly described by the local (county) government. In the event that such sites are only detected in the TRTA stage, the NPMO and ADB would also review the need to remove the proposed site from the project.
- (iv) Land with a slope of  $>25^{\circ}$  should not be chosen for crop production. For these slopes, although the soil and water conservation law indicated that planting perennials in combination with adequate erosion control measures is allowed, only sites that have been used before should be considered for rehabilitation. Design of these sloping sites should be such that risk of failure (e.g. collapse of terrace walls) is minimal. Otherwise, the area will be kept as is, or improved as natural forest area with minimum disturbance.
- (v) Activities proposed for support by the project should focus on farmland preparation and its related infrastructure, and related green and sustainable production activities.
- (vi) Activities may include support to related facilities (a) processing facilities if these are relevant to project supported value chains, and (b) provide equipment and training materials for training and/or testing centers. Activities that will not be supported by the project include investment for civil works for training and/or testing centers.
- (vii) Road construction activities should be classified by use, size and road surface. Selection of road construction activities to be supported by the project will be assessed on the need for, fit with the project objectives as well as economic and financial viability.
- (viii) Subprojects must be selected and planned for implementation in a participatory manner with local villages and stakeholders; and they must be favorable to villagers in sharing potential benefits: particularly, they must support close cooperation among enterprises and/or cooperatives and villagers, with an emphasis on land areas under various cooperative management arrangements between enterprises and village cooperatives. Agreements on land use agreements (land use rights transfer [LURT] or cooperative arrangements) should meet PRC regulations as well as ADB requirements on voluntary agreements (i.e. voluntariness, fairness, equity, legality, no adverse impacts to farmers/people, third-party validation, etc.).
- (ix) For any sub-projects with "associated facilities" (as defined by ADB's SPS), those facilities will already have all relevant domestic environmental and/or social

approvals. Associated facilities are facilities that are not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project, e.g. processing facilities.

- (x) All subprojects should meet the financial and economic viability assessment requirements (i.e., positive net present value or internal rate of return higher than the cost of capital).

### **C. Technical Guiding Principles—Subprojects**

6. Technical guiding principles relate to those practices that are required to ensure that the subprojects meet the requirements for reduced non-point source pollution, reduced soil erosion and promoting sustainable farming systems, particularly:

- (i) All activities for the modification of land use, including preparation for either cropland or forest plantation, should comply with strict regulations in order that exposure to erosive forces is kept to a minimum. Land clearing must be conducted according to technical specifications of soil and water conservation for slope land. Building terraces and soil tillage have to be carried out along contours and keeping vegetation between contour terraces to prevent soil erosion.
- (ii) In the choice of new crops or new farming systems, the protection of the soil must be ensured. For any new system or crop, the time and degree of exposure to erosive forces must be taken into consideration. This is critical for crops that develop slowly or form little canopy (such as onions) or farming/cultivation systems where soil has to be tilled intensively for seedbed preparation.
- (iii) Recommendations of fertilizer application (rates) based on local soil and crop conditions MUST be followed to avoid non-point source pollution.
- (iv) Subprojects involving transfer of contracted land must not include either land-lease arrangements against current laws and regulations concerning land or land-lease arrangements signed by village officials without knowledge and consent of village members. For transfer of un-contracted land, village representatives meeting records and signatures are required.
- (v) Participating enterprises and farmer cooperatives must be committed to adopting international best-practices for soil and water management and conservation within their project designs.

7. Table A2.1 shows the selection of project counties in compliance with selection criteria.



Table A2.1: Project County Selection

No.	Selection criteria		Enjoy government support policy for YREB in the PRC	Poverty alleviation		Agricultural Sustainable Demonstration		
	Project province / municipality	Project county		Key poverty alleviation county		Key water and soil conservation county		Modern agricultural demonstration area at national level
				At national level	At provincial level	At national level	At provincial level	
1	Yunnan	Xuanwei	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
		Huize	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
		Zhaoyang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Qiaojia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Yongshan	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
		Yanjin	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
		Weixin	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
		Yiliang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2	Sichuan	Anzhou	<input type="checkbox"/>					<input type="checkbox"/>
		Yanting	<input type="checkbox"/>			<input type="checkbox"/>		
		Wangcang	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
		Zhaohua	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
		Jiange	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
		Nanbu	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	
		Yingshan	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
3	Chongqing	Wanzhou	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Fuling	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
		Jiangjin	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>
		Kaizhou	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Wulong	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Zhong	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
		Wushan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		Wuxi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4	Guizhou	Bijiang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
		Jiangkou	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Dejiang	<input type="checkbox"/>		<input type="checkbox"/>			
		Sinan	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	
		Yinjiang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
		Songtao	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
		Yanhe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
		Yuping	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
5	Hubei	Zhijiang	<input type="checkbox"/>					
		Dangyang	<input type="checkbox"/>					<input type="checkbox"/>
		Yidu	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
		Chibi	<input type="checkbox"/>					
		Songzi	<input type="checkbox"/>					
		Gongan	<input type="checkbox"/>					
		Shishou	<input type="checkbox"/>					
		Honghu	<input type="checkbox"/>					

No.	Selection criteria		Enjoy government support policy for YREB in the PRC	Poverty alleviation		Agricultural Sustainable Demonstration		
	Project province / municipality	Project county		Key poverty alleviation county		Key water and soil conservation county		Modern agricultural demonstration area at national level
				At national level	At provincial level	At national level	At provincial level	
6	Hunan	Taoyuan	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
		Li	<input type="checkbox"/>				<input type="checkbox"/>	
		Nan	<input type="checkbox"/>				<input type="checkbox"/>	
		Pingjiang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Dongkou	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Shuangfeng	<input type="checkbox"/>		<input type="checkbox"/>			
		Hengnan	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>
		Lengshuitan	<input type="checkbox"/>					<input type="checkbox"/>
Total	6	47						

Note: Hubei province project counties of Dangyang, Chibi, Shishou and Honghu include key poverty alleviation villages.

### APPENDIX 3: SUBPROJECT DETAILED ACTIVITIES

**Table A3.1: Subproject Crops and Land Area (Unit: *mu*)**

	Crops	Yunnan	Sichuan	Chongqing	Guizhou	Hubei	Hunan
Food and grain crops	Wheat	22,850	37,340	-	-	5,500	32,784
	Maize	76,740	39,655	-	143,132	842	124,132
	Rice	74,300	27,328	-	53,678	68,540	586,626
	Soybean	7,405	-	-	-	-	42,849
	Barley	25,240	-	-	-	73	-
	Potato	54,495	15,522	-	24,292	-	2,600
	Rice-aquatic industry	-	-	-	-	3,920	-
Cash crops	Rape	18,900	23,266	-	56,750	11,500	570,498
	Peanut	10,150	15,635	-	1,165	-	794
	Cotton	-	-	-	-	4,600	68,783
	Vegetables	32,600	28,312	-	3,848	38,507	110,938
	Melons	14,500	914	-	-	2,565	7,956
	Chinese herbs	-	3,043	-	-	-	-
Tree crops: Rehabilitation/new establishment	Orange	4,500	-	-	-	16,000	8,870
	Pear	400	800	4,000	-	-	-
	Citrus	-	4,500	65,500	-	1,750	8,567
	Kiwi fruit	1,550	1,950	-	-	-	-
	Peach	6,574	300	-	3,909	-	-
	Apricot	500	-	-	-	-	-
	Apple	2,500	-	-	-	-	-
	Blueberry	100	-	-	-	2,300	-
	Nectarine	400	-	-	-	-	-
	Plum	-	3,620	19,500	5,166	-	-
	Jujube	-	1,640	8,000	580	-	-
	Pomelo	-	2,635	-	5,303	-	-
	Grape	-	500	-	-	200	-
	Tea	-	1,040	4,500	-	-	5,890
	Mandarin	700	-	-	-	-	-
	Scented wood	-	-	-	-	-	328
	Yellow peach	-	-	-	-	-	480
	Cherry	2,700	-	-	-	-	-
	Pepper	2,400	905	-	-	-	-
	Bamboo	49,500	-	-	-	-	-
	Persimmons	1,000	-	3,000	-	-	-
	Walnut	40,900	4,659	13,000	-	-	-
	Tea oil camellia	-	-	-	1,436	-	29,847
	Waxberry	-	-	-	-	3,500	-
	Cherry blossom	300	-	-	-	-	-
	Chinese toon	-	128	-	-	-	-
	Edible roses	200	-	-	-	-	-
<b>Total</b>		<b>451,404</b>	<b>213,691</b>	<b>117,500</b>	<b>299,260</b>	<b>159,797</b>	<b>1,601,941</b>

Table A3.2: Subproject Infrastructure

Province/ Municipality	Irrigation and drainage ditches					Water storage			Water-saving irrigation			Rural Roads		Pollutant emission reduction					Ecological Belt			
	Channels	Intercepting drains	Silt traps	Bridge, culvert and gate	Dredging of ditches	Pump stations	Small water storage works ( $< 50,000 \text{ m}^3$ )	Erosion control weirs	Sprinkler irrigation	Drip irrigation	Low pressure pipeline	Tractor roads	Farm access roads	Small constructed wetlands	Pollutant collection tank	Sewage collection pipe network	Safe livestock and poultry manure disposal	Sewage treatment station	Terrace - switching from slope to terrace	Establishment/ Rehabilitation of water and soil conservation forest plantation	Establishment/Rehabilitation of economic trees	Riverbank revetment
Yunnan	✓	✓	✓	✓		✓	✓	✓			✓		✓		✓				✓	✓	✓	
Sichuan	✓	✓	✓		✓	✓	✓			✓		✓	✓						✓	✓	✓	✓
Chongqing		✓	✓	✓		✓	✓		✓		✓	✓	✓						✓	✓	✓	
Guizhou	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓
Hubei	✓		✓	✓	✓		✓		✓	✓		✓	✓	✓		✓			✓	✓	✓	✓
Hunan	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		✓		✓	✓	✓

**Table A3.3: Sustainable Farming Activities**

Province/ Municipality	Soil improvement, water and soil erosion control	Conservation tillage	Use of straw: leave on field and incorporate	Application of animal manure and straw	Use new straw processing machinery	Eco demonstration base		Integrated pest control (IPM)	Scientific base for formulation and application of pesticides and fertilizers			Waste
						Ecological planting base	Ecological breeding base (rice-aquaculture industry)		Soil and crop testing for balanced fertilization	Extension on use of organic fertilizer	Extension on use of bio pesticides	Mulching film collection for recycling
Yunnan	✓		✓		✓	✓		✓		✓	✓	
Sichuan	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
Chongqing	✓					✓		✓	✓	✓	✓	
Guizhou	✓							✓	✓		✓	
Hubei	✓	✓	✓			✓	✓	✓	✓		✓	
Hunan	✓			✓			✓	✓	✓		✓	