Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
China	EAST ASIA AND PACIFIC	P176989	
Project Name	China Plastic Waste Reduction Project 2		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Environment, Natural Resources & the Blue Economy	Investment Project Financing	11/28/2022	3/28/2023
Borrower(s)	Implementing Agency(ies)		
People's Republic of China	Provincial level Development and Reform Commission Foreign Capital Financed Project Management Offic		

Proposed Development Objective

To inform plastic waste management at the national level, improve plastic waste management at the sub-national level, and reduce plastics pollution from municipal solid waste in selected under-served areas.

Financing (in USD Million)	Amount
Total Project Cost	350.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The project is the second one in a program of World Bank lending to reduce plastic waste leakage in China, with an expansion of engagement to the under-served rural areas compared with the urban focus of phase one. The project will help strengthen national and subnational MSW institution towards better integrated rural-urban MSW management and service provision, through policy, technical, and knowledge assistance. The project will also invest in

the improvements to prefecture- and county-level MSW management systems (collection, transfer, sorting, recycling, treatment) in some under-served rural areas, to enhance waste service delivery, plastic pollution control, and waste recycling and recovery. Given the long-term demand and significant disparities in the China's vast rural areas, the success of the project will heavily rely on the inter-jurisdictional and cross-departmental coordination by the provincial government, and the policy/technical dialogue between the national and subnational authorities to create an enabling and corrective environment for reform, experiment, and innovation.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Nearly half of the MSW in China is estimated to originate in rural areas. Rural waste management remains underdeveloped in terms of service coverage, infrastructure and systems, and performance. Following a call for proposals issued by NDRC and MOF, Shaanxi was selected by the government of China to benefit under this project. The final selection is subject to approval by the State Council expected by mid 2022. The focus within Shaanxi will be under-served rural areas.

At the stage of PCN, the specific locations where the physical investments will take place are not yet identified. Based on the information available, the environmental and social (E&S) due diligence provides a broad overview of the environmental and socio-economic situations in the Province of Shaanxi.

Shaanxi Province is renowned for its brilliant ancient history and numerous cultural heritages. It is in the middle of China, and on the middle of Yellow River. It has a land area of 205,600 km2. The topography slopes from south and north to the middle, and the landforms are distinctly composed of the Loess Plateau in the north, plains in the middle, and mountains in the south. Its southern part is located within the catchment area of the Yangtze River, and its northern part within the catchment area of the Yellow River. It covers three climatic zones: temperate monsoon climate in the north, warm temperate monsoon climate in the middle, and subtropical monsoon climate in the south. Generally, the climate is featured with distinct seasons with dry and warm spring, wet and hot summer, cool and moist autumn, and dry and cold winter. The annual temperature is 9OC-16OC, and the annual precipitation varies largely from south to north, ranging from 340 mm in the north to 1,240 mm in the south. Shaanxi Province has 10 cities, 69 counites and 7 county-level cities. The total population of the province is 39.52 million.

The overall economic development for the proposed project area in Shaanxi Province is less developed than the east coastal provinces and cities. The vast majority of the population in Shaanxi are Han Chinese, comprising over 99% of the total population. During the preparation, the ESMF and site-specific SIAs will include a stand-alone section to describe the relevant social, economic, demographic, cultural, and ethnic profiles of the project areas to inform the risks and impacts screening and assessment. When needed, an ethnic minority development framework (EMDF) will be prepared as part of the ESMF. The baseline studies will also look into the existing solid waste services of relevant counties/districts and types of workers and their labor and working conditions.

D. 2. Borrower’s Institutional Capacity

At national level, the project will engage National Development and Reform Commission (NDRC) that is the key national counterpart in Project 1. NDRC has expressed readiness to reach out to other line ministries and coordinate their needs and knowledge exchanges under this project (Component 1B). Consultations with NDRC and other line

ministries will continue during preparation. This working mechanism will serve as the policy dialogue mechanism for the China Plastic Waste Reduction program as a whole on both project interventions in urban/rural SWM and towards transition towards circular economy.

At subnational and local levels – in Shaanxi, a Provincial Steering Committee (PSC) led by a Vice Governor and comprising representatives from the provincial Development and Reform Commission (PDRC), Department of Finance (PF), Housing and Urban and Rural Development (PHURD), and Agricultural and Rural Affairs (PARA), etc. will be established to oversee and coordinate project preparation and implementation. Shaanxi provincial PMO (PPMO) is housed in PDRC which has handled multiple Bank lending operations.

Shaanxi Province has acquired extensive experience with the World Bank's safeguards policies through the implementation of World Bank projects, such as Shaanxi Sustainable Towns Development Project. Shaanxi has strong technical capacity including EIA, SA, design, rich experiences in the construction and operation of the proposed investment, and has a series of technical guidance or specification on the solid waste infrastructure such as landfill, incineration, clean up or remediation of legacy sites etc. In general, Shaanxi has the technical capacity to implement the project to meet the objectives of the Environmental and Social Stanards (ESSs), including good international industry practice (GIIP). The Pronvicial PMO will have dedicated environmental and social staff. Although the World Bank Environmental and Social Framework (ESF) is new, Shaanxi has experience and skills from safeguards that will be useful for implementing ESF requirements. The capacity of Shaanxi and local PIUs will be strengthened through the Component 1 (Activity 1C for stakeholder coordination and engagement) and Component 3 which is designed to support the technical and institutional development and capacity building. Once the entities are identified, the E&S capacity will be further assessed in the ESMF, and the demands for institutional capacity building for E&S risk management will be identified.

The PMO/PIU will develop a timebound capacity enhancement plan in the ESMF and site-specific EIA and SIA reports and document key measures and actions in their ESCP before Appraisal. The capacity enhancement plan will also include measures to enhance awareness and capacity of relevant PIUs on the ground for implementing the ESF. The PMO/PIUs shall commit in the ESCP to allocate adequate resources and ensure proper technical expertise to support the application of relevant ESSs in the project. During the preparation, the World Bank team will provide ESF training to relevant PMOs/PIUs.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) — High

Environmental Risk Rating — Substantial

Based on available information, type of investments, institutional capacities and experience with similar work and general implementation challenges, the environmental risk is assessed as Substantial. The proposed project consists of three components. Component 1 and 3 are centered on Technical Assistance, and Component 2 will involve physical works intended to improve municipal solid waste and agricultural plastic waste management in underserviced areas in the province of Shaanxi. The potential physical works will include: (i) upgrading/construction of waste classification, collection, sorting, transfer, recycling facilities; (ii) closure and remediation of old legacy sites

(unsanitary landfills); (iii)Clean-up of accumulated plastic debris along river banks; (iv)support systems for agricultural plastic mulch/nurseries collection, storage, recycling, treatment/alternatives. The physical works are likely to generate a wide range of adverse risks and impacts on human populations and the environment: 1) bad odor and wastewater from transfer stations; 2) risk of fire from plastic waste storage and processing facilities; 3) community health and safety due to increased transportation of wastes; 4) health and safety risk to communities if the unsanitary landfill is not properly closed; 5) strong bad odor and fire and explosion risk from kitchen waste treatment facilities; 6) fire risk from facility deriving fuel from refuse ; 7) disturbance to aquatic species by waterways clean-up and ship berthing area/dock. In addition, construction of berths under the waterway waste clean-up activity may involve dredging works causing disturbance and damage to aquatic species. In construction stage, the environmental impacts are dust, noise, wastewater, solid waste, traffic safety, and occupational health and safety. These environmental impacts are moderate or substantial, and can be mitigated in the context that Shaanxi has strong capacity with good engineering design/technical solutions available. In addition, the capacity of Shaanxi will be further strengthened through Component 3. In addition, the proposed project will not support construction, rehabilitation and expansion of solid waste disposal facilities with significant environmental and social impacts, e.g. incinerators and landfills. Based on field visit and discussions, it can be concluded that the project is unlikely to involve associated facilities of large incinerators and landfills. The physical works will be located in developed areas or areas heavily disturbed by human activities, without likelihood of involving sensitive areas, such as critical habitats. The potential impact on natural habitats will be screened and avoided in the EA process. Component 1 will support designing several rural waste service models, developing policies and regulations. Implementation of these outcomes on ground will have long-term downstream nation-wide impact. However, the project will not support the implementation of these outcomes. The potential environmental risk and impacts associated with this component will be addressed through developing appropriate instruments per the OESRC Advisory Note: Technical Assistance and the ESF. The ESMF will include a screening for instruments for this component to provide guidance on the preparation of EA instruments once the TA activities are detailed. Component 3 is to support TA on project management and capacity building, including consultancy service, training and knowledge exchange, etc. The adverse environmental risks and impacts are deemed negligible.

Social Risk Rating High

The project will bring enormous social benefits by strengthening county and rural municipal solid waste management (MSWM) systems. The project supports solid waste infrastructure that will potentially generate a wide range of social risks and impacts. The TA-related component would have regional-wide downstream social implications, stemming from future implementation of plans/models for which the TA will contribute to with technical recommendations. Significant social risks and impacts are related to ESS1, ESS2, ESS4, ESS5, and ESS10. Component 2 will involve land acquisition and resettlement for constructing relevant MSWM facilities, which would likely involve the physical and/or economic displacement. Land acquisition for a typical waste treatment facility would affect hundreds of people if the local land resources are relatively scarce. The project would engage all four types of workers as defined by ESS2. Significant labor risks would relate to OHS issues for workers working on the MSWM system because of budget constraints and low awareness. The labor law is often not strictly enforced in the rural areas and informal sectors. The project may have potential livelihoods impacts on waste handlers/pickers at rural waste dump sites, requiring an inclusive project design to ensure the adverse impacts do not fall proportionately on them. The initial review does not identify particular concerns related to child labor, forced labor, or project-related SEA/SH risks. A magnitude of solid waste infrastructure and associated facilities (especially large solid waste transfer stations, incinerators) located close to the human settlements may give rise to social conflicts, harm, and health risks associated with the perceptions of community endangerment and non-receipt of benefits. Potential not-in-my-

backyard (NIMBY) objections would create challenges in locating the sites for MSWM infrastructure and acquiring the land. ESS7 is likely relevant to potential TA studies at the province level rather than to the physical investments in the possible participating counties in Shaanxi. Tackling the systematic rural solid (plastic) waste issues requires a fundamental overhaul of cross-coordination among many line departments and proactive stakeholder engagement to manage underlying social conflicts and exclusion risks. Shaanxi will conduct social assessments to assess relevant social risks and inform the project designs to address relevant risks. The team will further review the social risks and impacts of investment activities and TA studies during preparation when more detailed information on the project designs is available. Shaanxi PMO has implemented World Bank projects with tracked positive performance. But Shaanxi is the first time to implement the World Bank Environmental and Social Framework. The rural MSWM system involves a lot of line departments for managing environmental and social risks, which calls for a clear mechanism for coordination and proactive stakeholder engagement and a strong commitment to adopting relevant Environmental and Social Standards and bridging the capacity gaps. The project social risk is deemed High at the concept stage, primarily related to a wide range of significant adverse social risks and impacts and the complex nature of establishing a sustainable rural MSWM system and addressing agricultural film (mulch) waste. The team will further review the social risks during project preparation.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

Initial E&S due diligence was conducted based on the PCN, the E&S documents of similar projects, and the field visit in Shaanxi.

The project has three components. Component 1 is TA to support designing or planning several rural waste service models, developing policies and regulations. Component 3 is on project management and capacity building. Component 2 (2A and 2B) will involve physical works.

Activity 2A will improve the MSWM and agricultural plastic waste in underserviced areas. It will support two models, with the first model involving physical investment, and the second one supporting strategic planning and inswtitutional arrangements. Activity 2B will support the design and construction of agricultural plastic collection and handling system. Activity 2A would range from small collection points/chambers at villages, and transfer stations in towns, treatment facilities in counties, and closure of non-sanitary landfills, remediation of rural dumps, waste clean-up in waterways and rural open areas. In addition, clean-up of waterways waste may involve construction of small berths.

Activity 2B will support the design and construction of agricultural plastic collection and handling system with physical works in collection points/stations, storage sites and transportation of used agricultural plastics.

The project will not support construction, rehabilitation or expansion of disposal facilities with significant E&S impacts, e.g. landfills and large incinerators. The project will exclude the works that trigger OP 7.50 International Waterways, critical/natural habitats, legally protected PCRs, the use/production of hazardous materials/wastes, etc.

The project is unlikely to involve large incinerators and landfills as associated facilities, as the counties are developing such facilities largely to meet the demand from urban areas.

The project will generate E&S benefit in terms of reducing plastic wastes into the environment, saving of energy and raw materials. At the PCN stage, the locations and scale of physical works are not clear.

These physical works are likely to generate adverse risks and impacts on human populations and the environment, which are largely related to the operation of the facilities: 1) health and safety risk to communities if improper siting of transfer stations; 2) risk of fire from plastic waste storage and processing facilities; 3) community health and safety due to increased transportation of wastes; 4) health and safety risk to communities if the unsanitary landfill is not properly closed; 5) strong bad odor and fire and explosion risk from kitchen waste treatment facilities; 6) disturbance to aquatic species by waterways clean-up and berth construction; 7) dredged sediments, if have hazardous materials, will cause risk on health and safety of communities; 8) challenge in land use change as a result of landfill closure; 9) risk of flooding on the site if it is close to rivers. However, these environmental impacts can be avoided or mitigated in the context that the two provinces have strong capacity and rich experience in EIA, design, construction, operation and supervision of such facilities, and the good engineering design/technical solutions are available. In addition, the project is not expected to use large quantity of water and energy and will not lead to high water demand. The clean-up of legacy sites is not likely to pose significant risk to human health and the environment. The direct gross GHG emission will be estimated using the methodology agreed by the Bank. The facilities would be located in developed areas and unlikely to involve critical habitats. This project will neither introduce alien species nor purchase and use natural products.

For Component 1, TA outputs will have downstream E&S impacts, which should be considered while developing the models, policies, regulations, guidelines and standards, to ensure consistency with the relevant ESSs and the OESRC Advisory Note No TA and the ESF. However, the project does not directly implement TA outputs. Component 3 would have negligible risks.

The physical investments would have a wide range of social risks and impacts. The downstream social impacts by TA studies would be broader. Substantial social risks and impacts anticipated for the project are: (a) land acquisition and resettlement; (b) labor and working conditions (particularly OHS issues); (c) community exposure to safety and health risks (both real and perceived); (d) exclusion risks to vulnerable groups (e.g., village cleaners, waste pickers, small private waste collectors); (e) potential social conflicts that would be comingled with land acquisition and the community's objection to the siting of MSWM facilities. The project faces challenges for smooth cross-coordination among many government agencies and relatively low capability for stakeholder engagement. The proposed project counties in Shaanxi are unlikely to involve ethnic minority dominated communities. However, ESS7 is deemed relevant largely due to the downstream implication of province level TA studies. Child labor and forced labor, and SEA/SH risks are deemed to be low risks based on a preliminary screening. The project calls for a meaningful SA to enhance designs and include more stakeholders and vulnerable groups to ensure the sustainable operation of MSWM systems.

The project adopts a combination of a framework and a site-specific risk mitigation approach. The activities for the first 18 months will be identified during preparation. Before Appraisal, Shaanxi PMO will prepare an ESMF and a SEF and an ESCP for the overall project. For the activities that can be confirmed for the first 18 months, Shaanxi PMO shall

prepare consolidated site-specific E&S documents, including EIA incorporating ESMP, SIA, LMP, RP, EMDP, SEP, E&S audit, etc. Other subprojects to be implemented after 18 months will be prepared during project implementation following the ESMF, SEF and ESCP.

The ESMF will include an E&S baseline study, screening of potential E&S risks and impacts, and procedures for subproject exclusion, categorization, E&S document preparation, stakeholder engagement, review and approval, monitoring and reporting. The ESMF will follow the ESF, regulatory requirements, relevant GIIP and EHSGs of the World Bank Group. The ESMF will include a set of E&S tools, including an exclusion checklist; an E&S screening checklist including for TAs, procedural requirements and guidance for a CIA, and associated facilities; the TORs for EIA, ESMP, RP, and SIA, an EMDF, the template for LMP; a RF; and a set of ECOPs. For the site-specific works, the EIA with ESMP should be prepared in line with the ESMF.

For TAs, the borrower should consider relevant E&S aspects in the TORs to ensure TA outputs are consistent with relevant ESSs, GIIP, and BAT. E&S experts will be hired to support the TA preparation, particularly in strategic EA/Planning EA to support strategic planning for model 2 under Activity 2A. Drafting policies and regulations will consider broader E&S risks and stakeholder feedback and make mitigation measures. The project lawyer and/or LEGEN should be consulted when advising government in developing regulatory instruments.

Areas where "Use of Borrower Framework" is being considered:

Although China has a comprehensive E&S Framework, its use for the project is not recommended due to the limited experience of the implementing agencies in implementing and applying ESF and its associated environmental and social standards. Also, a comprehensive assessment of the borrower framework has not been completed.

ESS10 Stakeholder Engagement and Information Disclosure

This project will have a wide range of stakeholders, including all parties and individuals participating in or having an interest in the county and rural municipal solid waste management (MSWM), from solid waste generation, collection, transportation to treatment and disposal. Improving plastic waste management at the county and rural levels requires effective coordination with line departments and engagement with project-affected parties and other stakeholders to succeed. The involvement of many government agencies at different levels (province, prefecture, county, and township) in the county and rural areas or MSWM naturally requires effective cross-department coordination by the local government. Proactive and meaningful stakeholder engagement is believed to be effective in resolving complex social issues (e.g., NIMBY objection) and obtaining the public's support for MSWM. It is increasingly important to inclusively engage various stakeholders (from farmers, community cleaners to existing market outlets and private recyclers, etc.) to enable the sustainability of rural MSWM systems.

At this concept stage, it is identified that project-affected parties would include people affected by land acquisition and resettlement, local communities located within the area of influence of MSWM infrastructure, solid waste handlers/ pickers (formal and informal), workers working on the MSWM systems and facilities, workers of existing market outlets, private recycling practitioners, farmers, and vulnerable groups. The vulnerable groups, in this project case, would refer to community cleaners, waste pickers, the poor households, migrant workers, among others, who may be more vulnerable to or may have different concerns about the project E&S risks and impacts, and require

different or separate forms of engagement. Other interested parties would include the general public, the Shaanxi PMO and county level PMO/PIUs, construction contractors, primary suppliers of subprojects, NGOs, etc.

Relevant government authorities include a set of line departments in charge of MSWM in the county and rural areas and authorities responsible for supervising and monitoring the subproject's E&S management. MSWM in the county and rural areas is under the purview of the Urban Management Bureau, which is responsible for the planning, construction, and operation and maintenance of waste facilities, service delivery, and data and information. The Commerce Bureau organizes and regulates the market-based resources recycling from urban wastes streams. The Market and Supply Cooperative handles resource recycling in rural areas. The Agricultural and Rural Affairs Bureau organizes the treatment of agricultural waste, including agri-mulch film and plastic packaging. The responsible E&S authorities would include, but not limited to, the Ecological and Environmental Bureau, Fire-fighting Brigade, Emergency Management Bureau (for work safety), health Commission (for OHS management), Labor Bureau (for general labor and working conditions), Bureau of Natural Resources, and Ethnic Minority and Religious Bureau (for confirming the presence of ethnic minorities in subproject areas).

Stakeholders should be further identified and analyzed by project activities (including TA studies) during preparation, with particular attention to project-affected parties, other interested parties that can expose substantive influence on the project, and core vulnerable groups. An adequate level of detail will be included in the stakeholder analysis to determine the scope and way of engagement that is appropriate for the project. Given only the investments for the first 18 months can be identified during the preparation, each province will develop a SEF and a consolidated SEP (for the specified investments) before Appraisal. The SEF will identify the specific stakeholder groups, strategically assess the impacts to and influence by various stakeholders and map the differentiated guiding approaches and strategies for engaging with them. The SEF will include a framework outlining general principles and a collaborative strategy to identify stakeholders and plan for an engagement process per ESS10. Both the SEFs and SEPs will include the arrangements for project GRMs for the communities and workers. The SEF shall also figure out proportionate approaches and proper entry points to govern the stakeholder engagement for TA studies and activities.

During project preparation, the PMOs, with the support of E&S consultants, shall carry out extensive engagement with relevant stakeholders (including vulnerable groups) to understand their concerns and seek advice to improve project designs. The PMOs shall also proactively engage with key influential authorities to understand critical procedural requirements and time implications to proceed with relevant E&S permits, which will further inform the formulation of a pragmatic project implementation schedule. According to the engagement, the PMOs also formulated a permitting roadmap, which will effectively guide the permit clearance process. Key milestones for obtaining regulatory clearance and approvals shall be documented in the ESMF, ESCP and site-specific EIA or SIA reports. The Bank team would proactively engage with the PMO/PIUs to confirm the appropriateness of relevant stakeholder engagement strategies and inclusive considerations for vulnerable groups. The PMOs shall convene joint meetings among design institutes and E&S consultants to ensure stakeholder's feedback are properly reflected in the project designs, E&S risks assessment and mitigation, and arrangement for information discourse, public consultation, and grievance redress. The project designs, the ESMF, ESCP, SEFs, and site-specific E&S documents shall set out differentiated measures so that adverse impacts do not fall disproportionately on vulnerable groups, and vulnerable groups are not disadvantaged in sharing the project benefits.

During the implementation, the stakeholder engagement framework should guide the development of subproject specific SEPs during subproject preparation. The borrower will strengthen the PMO/PIU's capacity for managing public consultation and information disclosure through implementing a capacity building program. The PMOs shall designate specific focal points to be responsible for the implementation and monitoring of stakeholder engagement activities, grievance redress, and compliance with ESS10. The PMOs/PIUs shall provide adequate resources to ensure the GRMs are functioning.

Before Appraisal, the PMOs shall disclose the ESMF, SEF, and ESCP for the overall project, and site-site specific E&S documents for investments for the first 18 months, including EIA, SIA, RP, LMP, SEP, social audit report, among others as applicable. The final E&S documents will be disclosed on the Bank's website after the Bank clears it.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

ESS2 is deemed relevant because Component 1 and 3 would involve direct workers and contracted workers and Component 2 would involve all four types of workers defined by ESS2. Direct workers are identified as staff of PMOs/PIUs, and the workers directly employed or engaged by the borrower to work specifically in connection with the operation of county and rural municipal solid waste management (MSWM) systems and facilities and the management of TA studies. Where government civil servants are working in connection with the project, whether full-time or part-time, they will remain subject to terms and conditions of their existing public sector employment agreement, unless there has been an effective legal transfer of their employment to the project. Contracted workers refer to people employed or engaged by contractors for constructing, maintaining, and operating the MSWM systems and facilities. TA studies are normally carried out by contracted workers from consulting firms, research institutes, etc. Primary supply workers are people employed or engaged by those suppliers (e.g., public waste collection system) who, on an ongoing basis, directly provide goods and materials essential for the core functions of county and rural MSWM systems and facilities invested by the World Bank. Component 2 comprises investments in rural MSWM system improvement, and measures to improve the collection, recycling, and safe disposal of agricultural plastic waste. The project creates opportunities to include the community workers working on existing rural MSWM systems to strengthen its sustainability and improve the labor and working conditions for community cleaners through adopting ESS2 requirements. Constructing a typical transfer station in the rural area would involve dozens of workers, but the operation would require only a few workers. Usually, a country would have dozens but less than 100 drivers to transfer the rural wastes and each will provide one or two community workers to support. The number and types of workers that may be employed or engaged will be identified on a case-by-case basis when specific subprojects are known during the preparation and implementation.

The regulatory review in the ESMF for China Plastic Waste Reduction Project (P174267) concludes that China has comprehensive regulations on labor and working conditions, which are generally in alignment with the scope and elements of ESS2. China's labor authorities at all levels are increasing supervision to ensure strict labor law enforcement, require sound and fair treatment of all types of workers, and prevent child labor and forced labor. China Labor Law defines 16 years old as the minimum working age and sets out clear provisions to prevent harms and

hazards to juvenile workers (16-18 years old). The risks of child labor and forced labor in the formal MSWM facilities are deemed minor, according to preliminary desktop review and cross-check against ILO's Decent Work Country Program. In China, MSWM facilities are usually fenced to prevent access by waste-pickers for safety considerations. But in rural areas, most of the dumpsites would be open, and there might be waste pickers. The ESMF and site-specific social assessment shall identify meaningful ways to provide equal and inclusive opportunities to vulnerable groups. The project will create many new job positions and is unlikely to result in worker layoff.

Some project activities may cause risk on occupational health and safety: 1) operation of mechanical and electric equipment in the processing facilities may cause mechanical and electric damage to workers; 2) operation of waterway waste clean-up may cause drowning of workers; 3) storage of oil in facility deriving oil from refuse and kitchen waste treatment facility may cause fire at working place; 4) biogas storage on site of kitchen waste treatment facility may cause explosion and fire. The occupational health and safety management measures should be developed in line with Section D of the ESS 2 and taking into account relevant GIIPs and subject to the consultation with relevant experts and government agencies, such as the Health Commissions and Labor Bureaus. Risks on occupational health and safety will be further assessed during preparation of the ESMF, and site-specific EIA and SIA.

The proposed TA studies under Component 1 could have potential downstream risks and impacts on labor and working conditions. For example, the downstream investment projects and civil works associated with a waste shed regional model could have potential downstream risks and impacts on labor and working conditions. The ESMF will carry out a preliminary screening of downstream labor-related risks by TA studies. The ESMF shall figure out the proper ways (through ToRs, TA work plans) to apply ESS2 requirements to workers involved in TA studies and set out appropriate tools (e.g., E&S assessment chapter, strategic environmental and social assessment, cumulative impact assessment) to integrate measures and principles, consistent with ESS2, into the design of policy advice and recommendations as part of TA outputs.

The screening checklist should cover the potential E&S issues in ESS2, including impacts on workers' layoff, severe occupational health and safety risks, forced labor and child labor, juvenile workers (above minimum age and under 18), etc. Child labor (below 16 years old) and forced labor should not be employed or engaged in connection with the project. To comply with both ESS2 and China's labor law, juvenile workers should not be employed or engaged in connection with the project in a manner that is likely to be hazardous, or interfere with the child's health or physical, mental, spiritual, moral or social development. The ESMF should also develop a template for labor management procedure (LMP), which could be fine-tuned to a subproject or site specific LMP during implementation.

Before subproject appraisal, all subprojects should establish and maintain (through the project lifecycle) a site specific LMP proportionate to the E&S risks and impacts and consistent with the requirements of ESS2. The site specific LMPs should streamline procedural arrangement for incident/accident reporting, investigation and emergency preparedness, and include training programs to improve the workers' awareness. The subprojects will require that the selected contractors should be obliged to performed OHS risk assessment for the defined scope of work, and develop/implement/maintain OHS management plans consistent with the local legislation and ESF. Especially for major infrastructure activities, the LMPs will enhance the arrangement of contractor work camp management (including GBV remedy measures). Before subproject appraisal, it should put in place separate functioning grievance mechanisms for project workers.

OHS issues related to the operation of facilities will be tackled through various facilities operation plans and protocols, emergency plans, etc.

ESS3 Resource Efficiency and Pollution Prevention and Management

ESS3 is considered relevant. Principle of circular economy and cleaner production will be adopted in the project design to promote resource efficiency and pollution management. Although some project activities will use energy, water and raw materials, e.g., waste transfer stations and recyclables processing facilities, etc., the project is not expected to use large quantity of water and energy. In addition, given that Shaanxi Province is not in arid region, it is expected that the project will not lead to high water demand.

The project will reduce the pollution loads, especially waste plastics, into the environment. At the same time, the project will produce air and water pollution, and solid waste in construction and operation stages: 1) recyclables processing facility will produce wastewater, solid waste, particulate matters (PM) and VOCs (plastic melting); 2) the transfer stations will produce wastewater, odor, PM; 3) dredged sediments may contain hazardous materials; 4) clean-up of rural dumps and waterways may produce wastes requiring proper disposal; 5) kitchen waste treatment facility may produce waste gas and wastewater, and solid waste; 6) facility deriving fuel from refuse may produce PM, solid waste and wastewater; 7) flooding risk for the sites to be closed if the site is adjacent to rivers; and 8) leachate will pollute the groundwater if it is not properly colleted and treated during the closure of the landfills. The dredged sediments should be sampled and tested to determine its nature according to the relevant domestic standards and the EHSGs of the WBG.

The project will involve clean-up of legacy sites, such as the rural open dumps. With field visit on samples of such open dumps, it is preliminarily determined that closure/remediation of the rural open dumps is not likely to pose significant risk to human health and the environment.

The ESMF will establish a screening step for identifying the hazardous level of chemicals to be used or produced against the EHSGs and the checklist of China, so as to avoid the use or production of hazardous materials. The ESMF also will contain a set of ECOP for energy and water use/efficiency in line with EHSGs and GIIP. Energy and water efficiency will be evaluated in the subproject EIA and energy/water efficiency improvement measures will be integrated into the ESMP.

The ESMF will include a set of ECOP for managing the environmental risks and impacts, and the environmental risk and impacts of these activities will be further assessed in the subproject specific EIA. The risk and impact management measures, and emergency preparedness plan, will be developed in line with the EHSGs and the GIIP under the ESMP. The measures for controlling and managing these impacts would be technically complex. However, these environmental impacts can be mitigated in the context that Shaanxi has established strong capacity and rich experience in EIA, design, construction, operation and supervision of such facilities, and the good engineering design/technical solutions are available in China. In addition, the capacity of Shaanxi Province will be further strengthened via Component 3.

During the sub-project EA process, the estimate on direct gross GHG emission (scope 1), including the biogas from landfills to be closed and kitchen waste treatment facilities, for this project will be carried out using the methodology agreed by the Bank. In addition, this project will neither use nor procure pesticides.

ESS4 Community Health and Safety

ESS4 is relevant because the project will bring health and safety issues to communities in the project's area of influence. The construction and operation of MSWM facilities, would introduce workers (direct workers, contracted workers, and community workers) to the project areas and consequently expose health and safety concerns to local communities. Transporting construction material and equipment during construction and solid wastes and products during operation would increase potential traffic volumes on the roads, causing road safety risks to road users and local communities. More significantly, NIMBY (not-in-my-backyard) objection can be a frequent response by the local community to oppose site siting of a large solid waste treatment facility or transfer stations, for instance by stopping project vehicles from passing through the community roads. It will pose consequent challenges for project site selection and land acquisition and require appropriate engagement strategies to obtain the "social license" for MSWM facilities.

The project has not envisaged construction recycling parks. Promoting the circular economy through improved MSW classifications in peri-urban and rural areas would mainly rely on the optimization of existing facilities and systems. The construction and operation of MSWM facilities under the project would not involve many new workers given the size of MSWM facilities would be small and medium, and machinery equipment will be used to replace manual labor. The newly introduced workers for the proposed MSWM facilities and systems would mainly come from local areas. Considering waste pickers may present around the open dumpsites in semi-urban and rural areas to collect plastics and other wastes, potential health impacts on waste pickers will be further analyzed when the project provinces and cities are confirmed.

The risk on health and safety of communities might be associated with: 1) closure of unsanitary landfill, if the landfill is not properly closed, the leachate and bio-gas, or uneven settlement of the ground surface, may cause risk to community health and safety; 2) increased transportation of waste in rural area, may cause risk to safety of communities; and 3) oil products, fuel pellets, bio-gas storage and plastic waste storage, may cause risk of fire or explosion that threaten the safety of communities. However, with good technical design and E&S mitigation measures, the probability of such accidents relevant for the community health and safety would be reduced significantly. In addition, the challenge in change of land use due to closure of landfills/open dumps is envisaged. EA for such activities as the closure of landfills/open dumps will produce recommendations for land use planning to avoid risks to the public health and safety with considerations on potential leachate leakage, bio-gas migration, land uneven settlements.

The proposed project will not affect the provisioning and regulating service that are important to communities in rural setting. The project will avoid the use of hazardous materials. Running the World Bank Sexual Exploitation and Abuse and Sexual Harassment Risk Assessment Tool shows GBV is of low risk in this project.

The exclusion list and screening checklist, to be included in the ESMF, should be set up to cover the potential E&S issues for ESS4, e.g., road safety, community exposure to health issues, labor influx risks (including gender-based violence), etc. The environmental risk and impact on communities will be further assessed in the subproject specific EIA to avoid or minimize or mitigate the impacts on communities. A subproject specific ESMP will consist of the set of mitigation, monitoring, and institutional measures to be taken during project construction and operation.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

ESS5 is considered relevant. Component 2 will invest in physical improvements where gaps exist for county and rural MSWM systems. Typical MSWM infrastructure would include transfer stations, waste sorting lines, kitchen waste treatment facilities, construction waste recycling facilities, ship berthing area/dock, among others. To improve the collection and handling of agricultural waste plastics, the project will invest in supporting public infrastructure used by farmers to deliver such plastics to market outlets and private recycles (e.g., agricultural film collection sites). Land acquisition and resettlement will mainly occur at sites of new construction of MSWM infrastructure. The project focuses on the county and below county levels, and the footprint size of relevant facilities, in general, would not be large. It would range from several hundred square meters (for transfer stations, agricultural film collection sites) to a few hectares (for kitchen waste treatment facilities, construction waste recycling facilities). In some cases, land acquisition or restriction on land use would be enlarged to cover the impacts in safety butter zones. The location choice of MSWM facilities (such as incinerators and kitchen waste treatment facilities) usually faces residents' challenges due to not-in-my-backyard (NIMBY) objection, which brings extra complexity to land acquisition and resettlement implementation. The project investment will also support the closure of non-sanitary landfills, remediation of rural dumpsites, waste clean-up in waterways and rural open areas at existing sites. A social audit should be carried out to assess the compliance status of existing land and past resettlement and identify any complaints and outstanding issues to be remedied. Resettlement risks and impacts will be further assessed case-by-case when subproject activities are known.

Component 1 would have downstream resettlement implications, potentially associated with the recommended actions and strategies proposed by TA studies outputs. For example, a waste shed regional model would propose to refine the distribution and development of a set of MSWM infrastructure to bring economic viability for operation in a shared modality. The Bank team will revisit the downstream resettlement risks during preparation when more information on the specific scope of TA studies to be supported by the project is available. The borrower will preliminarily screen the downstream resettlement risks by TA proposals to inform the preparation of the ESMF.

The project adopts a combination of a framework and a site-specific risk mitigation approach. Before Appraisal, Shaanxi shall prepare a consolidated resettlement plan (if applicable) for the investments identified during preparation for the first 18 months. For the subsequent batches of investments, the ESMF will assess the magnitude of resettlement in a quantifiable way according to the extent of information available in the project proposals. As part of the ESMF, the subproject screening checklist should consist of elements to identify the application of a social audit for past resettlement or the resettlement planning for new land acquisition. A resettlement framework (RF) will be prepared before Project Appraisal. The RF will also include provisions on the social audit of existing land and past resettlement occurring prior to specific subprojects for both World Bank-financed activities and the associated facilities. The social audit should review prior resettlement within a timeframe of approximately three years of

specific subprojects but will consider the context of specific subprojects and the significance of the prior resettlement case by case. The province ESMF will also set out governing principles and procedures and consultation strategies to consider downstream land acquisition and resettlement aspects as a genuine part of the TA studies.

During project implementation, Shaanxi will prepare Resettlement Plans (RPs) in a way consistent with ESS5 and RF for site-specific activities with land acquisition, restrictions on land use or involuntary resettlement. The project entities and the relevant government shall implement the land acquisition and resettlement per the Bank cleared RPs and the ESCP with internal and external monitoring and evaluation. Following the ESMF, the TA ToRs shall include appropriate E&S provisions to screen and assess downstream resettlement risks in a way defined under ESS1. The TA outputs shall consist of proper recommendations for addressing downstream social risks consistent with ESS5.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This ESS is considered relevant for pre-cautionary reason. At current stage, the specific locations of project activities are not identified. Given that the project is designed to collect and treat/dispose of the plastic waste from residential areas, the facilities would be located in developed areas and unlikely to involve critical habitats.

The project will clean up wastes in waterways which may involve construction of berths on waterways. Dredging is often required for berth construction, eliminating benthic species in project area and causing suspension of SS and soil erosion into rivers that may destroy spawning grounds and gill of finfish. Operation of the berths and collecting floating wastes may also disturb the aquatic species. Although the specific location and scale of the berths are not identified, this activity may involve modified habitats or natural habitats given its type of activity. In addition, the clean-up of waterways will not involve dredging of sediments except for the berth construction.

Further assessment of impact on habitats will be carried out during the preparation of the site-specific EA. An exclusion criterion will be developed and included in the ESMF to avoid impacts on natural habitats and critical habitats. In addition, this project will neither introduce alien species nor purchase and use natural products.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Shaanxi is a traditionally Han Chinese-dominated province, and ethnic people comprised 0.56% of the province population in 2020. Shaanxi has few ethnic minority autonomous sub-divisions (e.g., cities, counties, or townships). According to Shaanxi's proposal, none of the participating counties is an ethnic minority autonomous jurisdiction. ESS7 is unlikely relevant to the physical investments but relevant to the TA studies (which would apply beyond the project area where there are ethnic minorities-dominated areas).

Ethnic minorities, if relevant, would be exposed to the typical types of social risks and impacts as identified in ESS1. Free, Prior and Informed Consent (FPIC) is required for activities that would (a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (b) cause relocation of ethnic minorities from land and natural resources subjection to traditional ownership or under customary use or occupation; or (c) have significant impacts on ethnic minorities' cultural heritage that is material to the identity

and/or cultural, ceremonial, or spiritual aspects of affected ethnic minorities' lives. Usually, ethnic minorities are vulnerable if they lose their land and resources. The project needs to embrace inclusive designs to avoid the potential to undermine the cultural identifies, practices, and institutional arrangement of ethnic minorities and provide equal services for ethnic minorities. Based on the social assessment and stakeholder engagement undertaken during project preparation, the Bank team will further assess the vulnerabilities of relevant ethnic minority groups, identify the potential of disproportionate risks and impacts to ethnic minorities, which can be induced either by the physical investment (Component 2) or downstream implications of TA studies (Component 1). Component 3 (project management, and monitoring and evaluation) would be unlikely to cause relevant social risks and impacts on ethnic minorities.

During the preparation, the Bank team and the borrower will embrace a proactive approach to screen the relevance of ESS7 when the project provinces, cities and counties are determined. The borrower, with the support of E&S consultants, will assess the risks and potential impacts to ethnic minorities of project activities (including TA studies) while preparing the E&S documents. The ESMF will summarize the demographic profiles of ethnic minorities in the project counties. The ESMF will determines the relevance of ESS7 and consist of related elements on ethnic minorities in the E&S screening checklist. The ESMF will also establish procedural guidance and tools (e.g., TOR template) to ensure that the TA studies will genuinely conder assessing the downstream social risks and impacts to ethnic minorities (if relevant) and advise on appropriate mitigation measures in the TA outputs, consistent with ESS7.

The stakeholder engagement framework (SEF) and sub-project stakeholder engagement plans (SEPs) should include culturally appropriate ways and strategies to assure meaningful consultation with the ethnic minorities throughout the project lifecycle, to contribute to the project design and facilitate the E&S risks assessment and mitigation. The SEF will define entry points and set out appropriate approaches to engage with ethnic minorities to inform the TA studies and outputs in a proportionate way.

ESS8 Cultural Heritage

Given the environmental context that there are numerous cultural heritages, identified or not identified, in Shaanxi, and the nature and type of the project, this ESS is relevant. Construction of solid (plastic) waste infrastructure would potentially affect some movable or immovable objects, sites, or structures that may have cultural, religious, historical significance recognized and valued in urban and rural settings. The project interventions will not be likely to be in or in the vicinity of legally protected tangible cultural heritages, and it will not use cultural heritages for commercial purposes, and the material impact on cultural heritages will be avoided.

The Bank team will further review the cultural significance of potential project areas when more information is available during the preparation. The ESMF will identify the chances of the project's impacts on tangible and intangible cultural heritage and analyze the needs to protect cultural heritages in a proportionate way. The project's exclusion criteria should include provisions to screen out any material impact on cultural heritage that China's Cultural Heritage Protection Law and the Implementation Regulation prohibit. The E&S screening checklist of the ESMF should consist of elements of tangible and intangible cultural heritage. The ESMF will also set out the steps to be taken by the borrower, and other stakeholders in case of potential chance-find associated with civil works.

All subprojects will be screened for impacts on cultural heritage during the EA and SA process when specific locations are known. If this is the case, site-specific EIA and SIA will assess any potential risks the proposed subproject might have on cultural heritages, and tailor a site-specific cultural heritage management plan or measures. In any case, the subproject ESMP will include a chance-find procedure.

ESS9 Financial Intermediaries

This project will not involve financial intermediation, and the ESS9 is therefore not relevant.

B.3 Other Relevant Project Risks

No specific other E&S risks were identified.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways	No
OP 7.60 Projects in Disputed Areas	No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

This project may involve private sector, but the ESF of the World Bank will be used.

B. Proposed Measures, Actions and Timing (Borrower's commitments)

Actions to be completed prior to Bank Board Approval:

Shaanxi to develop and agree with the World Bank on an ESCP before the Appraisal;
Shaanxi to develop an ESMF before the appraisal respectively for the activities it will implement (including an exclusion list, the E&S screening checklist, the TORs for EIA, SIA and ESMP, an RF, template for LMP, procedural requirements and guidelines for a CIA, template TORs and work plan for TA studies, appropriate E&S tools for TA studies, etc.) consistent with relevant ESSs;
Shaanxi to develop a SEF before the appraisal for the activities it will implement;
Shaanxi to develop consolidated site-specific E&S documents for the activities to be implemented for the first 18 months, probably including EIA with the incorporation of ESMP, SIA, RP, LMP, SEP (including GRMs), consistent with relevant ESSs and the ESMF and SEF;
Shaanxi with the support of E&S consultants to carry out meaningful consultations with relevant stakeholders;
Shaanxi to develop timebound institutional capacity enhancement plan (as part of the ESMF and site-specific E&S documents);

Shaanxi and the World Bank to disclose E&S documents, including ESMF, SEF, ESCP and the site-specific E&S documents as applicable (for the investments to be implemented for the first 18 months) as early as possible before Appraisal.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

Shaanxi to implement the ESMF;
The borrower subprojects to update and implement the ESCP, SEPs and GRM;
The borrower makes and keeps commitment to implementing the institutional capacity enhancement plan;
Shaanxi to develop appropriate E&S documents for subprojects identified during implementation consistent with the ESMF, SEF, ESCP and relevant ESSs;
Shaanxi to develop, implement and maintain the LMPs for relevant subproject identified during implementation consistent with ESS2 and China's labor laws;
Shaanxi to establish a subproject level GRMs and workers' GRMs for relevant subprojects identified during implementation;
Shaanxi to consider the E&S provisions in the TORs for the TAs and Component 1 according to the ESMF, ESCP, SEF, and relevant ESSs;
Shaanxi to engage E&S experts to carry out appropriate E&S analysis following the ESMF and ESCP as part of the TA studies.
Shaanxi to report to the World Bank and agree on measures and actions if a subproject risk profiles increase significantly at any stage during the lifecycle of the project;
Shaanxi to provide adequate resources to manage the E&S risks and impacts and carry out meaningful engagement with stakeholders;
Shaanxi to submit semi-annual Environmental and Social Monitoring Reports.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS 31-Aug-2022

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower:	People's Republic of China

Implementing Agency(ies)

Implementing Agency:	Provincial level Development and Reform Commission Foreign Capital Financed Project Management Offic

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VI. APPROVAL

Task Team Leader(s):	Katelijn Van den Berg, Guangming Yan, Kremena M. Ionkova
Practice Manager (ENR/Social)	Susan S. Shen Recommended on 24-May-2022 at 20:34:54 GMT-04:00
Safeguards Advisor ESSA	Nina Chee (SAESSA) Cleared on 26-May-2022 at 12:48:55 GMT-04:00