I. Introduction and Context

Country Context

1. Socio-economic development in China since the 1980s has been remarkable, making the country the second largest economy in the world. However, China’s growth has been capital and resource-intensive and environmentally expensive. For example, over the past decades, large-scale coal mining has been ongoing in different parts of the country, predominantly in northern China, to fuel the fast growing economy. This has led to dire consequences. One of the consequences is the vast area of ground subsidence, which is often accompanied by vegetation and infrastructure damage, pollution, and flooding, causing environmental degradation, land abandonment and loss of livelihoods for many communities.

2. In dealing with the problem of land subsidence caused by mining, the concerned national government authorities began to take various initiatives about half a decade ago. These initiatives
include a nationwide survey of subsidence areas and brownfields, establishment of soil and water pollution monitoring systems, discussions on establishing a remediation fund, development of policies, regulations and technical standards for remediation and redevelopment, based on pilots in selected cities. The intention is to help contain the pollution in subsided and/or contaminated land areas and put them into beneficial uses.

**Sectoral and Institutional Context**

3. In Huainan city (municipality) is located in central north of Anhui province and in the middle reach of Huai River. It has a population of 2.45 million people including 1.27 million living in rural areas, and a GDP of over 78 billion RMB (2012). The city has a long history of coal mining since 1903. Continued coal mining in Huainan has created a number of ground subsidence sites, which prompted the municipal government to take actions towards appropriate remediation of such areas. The main actions taken in recent years include a “Decree on Coal Mining Subsidence Area Rehabilitation and Utilization” issued in 2003, a special agency – Huainan coal mining subsidence comprehensive remediation office established in 2009, and a “Comprehensive Plan for Coal-mining Subsidence Areas in Huainan (2009-2020)” developed in 2009. Over the years, Huainan has also been endeavoring to remediate selected subsidence areas at a small scale and gained some valuable experiences.

4. As part of its dedicated efforts in remediating mining subsidence sites, Huainan municipal government proposed for Bank financing remediation of Jiulonggang-Datong coal mine subsidence site (or JiuDa site). The JiuDa site with a total land area of 11.4 km², is selected for environmental remediation because of the following reasons:
   (a). The site, located between the central urban district (Shanbei district) and the new development district south to local low mountain – Shungengshan (Shannan district), is now in the central area of the expanded city. In the city’s master plan (2010-2020) approved by the State Council, this area is designated as an ecological green area. The prestigious location of the site triggered its priority;
   (b). The Datong and Jiulonggang mines were closed in 1978 and 1982 respectively. According to the recent settlement observation results, the ground at the site has stabilized except for a few localized areas where small-scale mining took place in recent years. This reduces the technical risks of remediation; and
   (c). The JiuDa subsidence area has been deserted for about two decades. It has become a wasteland in a desperate condition, with rolling ground, sink pits (with max. settlement depth of over 15m), heavy soil erosion from very low vegetation coverage (18.5%), damaged buildings and infrastructure, broken streams, scattered mining wastes and a large open dump of domestic wastes. Existence of such a site in the central area is a major waste of a large piece of precious land, and it affects the wellbeing of the local communities and is not compatible with the rest of the city. This adds to the urgency of remediating the JiuDa site.

**Relationship to CAS**

5. The proposed project is in consistence with the Country Partnership Strategy (CPS) for 2013-2016 (Report No. 67566-CN) dated October 11, 2012, and is in line with the Strategic Theme One of the CPS, Supporting Greener Growth. The proposed project could contribute to several outcomes under this theme: demonstrating pollution management and sustainable natural resource management approaches, and enhancing urban environmental services. It is also expected that the project will contribute to China’s efforts to better management and redevelopment of brownfields.

**II. Proposed Development Objective(s)**

Provisional Development Objective(s) (From PCN)
The proposed project objective is to support environmental remediation and utilization of JiuDa subsidence site in Huainan city.

**Key Results (From PCN)**
The key results are that the subsidence site is turned into a green ecological zone with good vegetation coverage, clear water, beautiful landscape, functional basic infrastructure and recreation facilities, and livelihoods development opportunities are created for local communities. The main outcome indicators are likely to include: (a). area restored/reforested (ha); (b) dump site closed under the project (ha); (c). road and water/sewage pipelines rehabilitated/constructed (km); (d) client days of training provided (number) and (e) number of jobs created.

**III. Preliminary Description**

**Concept Description**

8. The proposed project is likely to have the following three components:

Component 1. Environmental Remediation and Water Management (Indicative base cost: 76.5 million USD): This component supports restoration of environmental conditions and landscape of JiuDa subsidence area to create a green ecological zone within the city. It will have three subcomponents: (a) environmental remediation through site cleanup of the coal mining wastes and collapsed structures, repair of the damaged site, re-greening (325 ha) and tree planting (330ha), and re-vegetation of several quarries; (b) rehabilitation of local water streams for rainstorm drainage up to 1/20 frequency, and creation of small wetlands for water environment management and recreation; and (c) closure of the Datong dump site with a total footprint of 11 ha and an estimated 2.75 million m3 domestic solid wastes collected over 25 years (1984-2009), to prevent water, soil and air pollution at the site.

Component 2. Infrastructure improvement and site utilization (Indicative base cost: 73.50 million USD): The component is intended to improve and construct the necessary roads, and associated water supply and sewage infrastructure within the site and going through it, to restore their functionality and connect the area with other parts of the city. The roads include four secondary roads with a total length of about 12.7km connected to existing roads in the city, and associated small scale water supply (17.4km) and sewerage pipes (19.7km) to provide basic infrastructure services, which are not available in the area at present. This component also supports facilities and activities to utilize the remediated site and local resources available for livelihoods development of the local communities These include: a community skills training center of 4,000m2, seedling nurseries (133 ha), economic trees, a flower market, a coal-mining industry museum and recreation business facilities, etc. In addition, the limited resettlement required of infrastructure improvement and environmental remediation will be included under this component.

Component 3. Project management and technical assistance (Indicative cost: 12 million USD): The component funds project management, implementation support and technical assistance activities. Project implementation support and management activities include consulting services for project design, construction supervision, environmental management, monitoring and evaluation, and incremental operating costs. The technical assistance includes capacity building and training activities for project implementation and management, as well as technical and policy studies related to coal mining subsidence management.
IV. Safeguard Policies that might apply

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V. Financing (in USD Million)

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VI. Contact point

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