

TAR: PRC 37616

Technical Assistance to the
People's Republic of China for
Poverty Reduction in Coal Mine
Areas in Shanxi Province
(Financed by the Poverty
Reduction Cooperation Fund)

February 2005

CURRENCY EQUIVALENTS

(as of 17 January 2005)

Currency Unit	–	yuan (CNY)
CNY1.00	=	\$0.1208
\$1.00	=	CNY8.2772

The exchange rate of the yuan is determined in relation to a weighted basket of currencies of the trading partners of the People's Republic of China. In this report, a rate of \$1.00 = CNY8.30 is used.

ABBREVIATIONS

ADB	–	Asian Development Bank
JMDRC	–	Jincheng Municipal Development and Reform Commission
KSOCM	–	key state-owned coal mine
PRC	–	People's Republic of China
SDRC	–	Shanxi Development and Reform Commission
SOCM	–	state-owned coal mine
TA	–	technical assistance
TVCM	–	town and village coal mine

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Energy
Subsector	–	Energy sector development
Theme	–	Inclusive social development
Subtheme	–	Other vulnerable groups

NOTE

In this report, "\$" refers to US dollars.

This report was prepared by E. H. Hassing (team leader).

I. INTRODUCTION

1. During the 2004 Country Programming Mission, the Government of the People's Republic of China (PRC) confirmed its request for technical assistance (TA) from the Asian Development Bank (ADB) to assist the government of Shanxi province to address poverty reduction in coal mine areas in Shanxi province, to be financed by the Poverty Reduction Cooperation Fund.¹ In September 2004, a fact-finding mission was fielded to assess results of available studies and determine the scope of the TA. Members of the fact-finding mission held discussions with representatives from the PRC Government and Shanxi provincial government. An understanding was reached on the TA goals, purpose, scope, cost estimates, financing and implementation arrangements, and the consultants' terms of reference. The TA is included in the country pipeline for 2004. The TA framework is given in Appendix 1.

II. ISSUES

2. In 2003 the production of coal in the PRC was about 1.7 billion tons, which in 2004 was expected to increase to about 1.9 billion tons. In general, coal mining is undertaken in three types of mines, including (i) key state-owned coal mines (KSOCMs), (ii) local state-owned coal mines (SOCMs), and (iii) town and village coal mines (TVCMs). It is estimated that in 2003, KSOCMs, which include the large, mechanized coal mines, accounted for about 48% of total coal production in the PRC while SOCMs produced about 17%. At the same time, TVCMs and illegal small coal mines produced about 35%.² Small coal mines, defined as mines that produce not more than 300,000 tons of coal a year, make up about half of the SOCMs, most of the TVCMs, and all illegal coal mines, and employ about 2 million miners.

3. For further development of its coal resources, the Government is giving priority to the construction of large, mechanized mines³ and the modernization and production improvement of existing large and medium coal mines. With regard to small coal mines, the Government is pursuing the closure of those mines that have failed to adopt required safety practices, operate without a license, or are considered illegal. It is estimated that since 1998, more than 16,000 TVCMs and tens of thousands of small, illegal coal mines have been closed. However, since the abolition of the Ministry of Coal Industry in 1996 the responsibility for supervising the operations of coal mines, including the implementation of laws, regulations, and policies for small coal mines, has been delegated to the provinces and local governments, which often do not have adequate resources. Consequently, local government supervision of the operation of small mines and their compliance with government laws and regulations is inadequate, which has resulted in unsafe, unhealthy, and hazardous working conditions in the mines; environmental damage, such as land subsidence; improper disposal of mine waste; inadequate restoration work; inefficient mining and production of poor quality coal; and loss of recoverable coal reserves. Likewise, inspection and closure of small coal mines due to their noncompliance with government policies and regulations have been uneven and often ineffective.

4. Closure of TVCMs has also led to increased unemployment of mostly poorly educated manual workers with little or no formal mine training. Reemployment of such miners in SOCMs or KSOCMs is likewise difficult given the inability of many to successfully complete training programs in the special skills required for miners to be employed in SOCMs and KSOCMs. Further, because of their higher productivity, new, modern coal mines require relatively fewer miners than the closed TVCMs while miners at TVCMs usually include migrant workers from other provinces for whom the concerned provincial government has no legal obligation to provide an alternative livelihood. As a result, closure of TVCMs will directly affect the livelihood of the poor who do not have much opportunity of finding alternative livelihoods except in new,

¹ The TA first appeared in the *ADB Business Opportunities* (Internet edition) on 7 February 2004.

² There are only a few private coal mines in the PRC.

³ At present the construction of 25 coal mines with a total capacity of more than 60 million tons is being accelerated and about 140 additional large coal mines are to be built in the next few years.

illegal coal mining. Closure of TVCMs may therefore actually encourage illegal coal mining, in particular when demand for coal is increasing. In addition to an increase in the number of unemployed persons, local governments at the county level will also experience a reduction in their fiscal income following the closure of TVCMs. They will therefore be reluctant to close TVCMs unless they are replaced with alternative economic activity such as the development of an SOCM or a KSOCM.

5. Local governments with intensive small coal mining activities are invariably reliant on tax income from the mines to finance local services and economic development—in particular, after the 1994 tax reform when the national Government's contribution to a local government's budget was reduced from 70% to 48%. Experience shows that local governments are more inclined to close small or illegal coal mines if the economic and social impacts of such closure can to some extent be mitigated by the opening up of new, large coal mines that would provide local governments with a replacement source of revenue and implementation of job creation programs to reduce social deprivation among redundant miners who do not have the skills, aptitude, and knowledge to work in modern, mechanized coal mines.

6. In the absence of any planning for the economic and social mitigation of the closure of small coal mines, various parties and stakeholders are affected and will experience negative impacts from the closure of small coal mines, including (i) local governments, which will experience a decline in revenue thus reducing their ability to invest in new infrastructure; (ii) mine owners, including local government owners, who will receive inadequate or no compensation for lost assets and are only entitled to some compensation if the concerned coal mine is considered wholly legal; (iii) the redundant miners, who will have few opportunities to find an alternative livelihood; and (iv) local farmers, who will lose compensation for the use of the land by the small coal mines and will be unable to arrange for reclamation or rehabilitation of the polluted land and water. In principle, the provincial Land and Resources Bureau is responsible for mine restoration, but usually lacks the resources for managing residual liabilities, surface gas hazards, surface stability, and post-closure monitoring.

7. Shanxi province has a population of about 32 million and accounts for about 30% of the PRC's coal production. The province has coal reserves of more than 740 billion tons of which about 150 billion tons are located at a depth of less than 1,000 meters from the surface. At present, about 20 billion tons of proven coal reserves are available for development of new mines. In 2003, the province had 84 KSOcMs, 448 SOcMs, and about 4,000 small coal mines, including TVcMs and illegal coal mines, which employed about 290,000 persons. The air quality in Shanxi province is among the worst of any region in the PRC and the province has three of the PRC's 10 most polluted cities. The environmental problems are closely related to the utilization and production of coal. Pollution from coal mining, adverse hygiene, poor nutrition, and lack of education have contributed to an anomalous incidence of birth defect problems. The burning of dirty coal from small mines produces widespread low level pollution affecting the health of local communities. Closure of small coal mines would reduce this, provided that cleaner coal or alternative energy is made available in its place at similar cost.

8. Originally, the development plan of Shanxi province envisaged annual coal production of 300–350 million tons by 2005 and 380–400 million tons by 2010. However, present coal production in the province already exceeds these targets and considerable investments in new coal mines are required to replace the KSOcMs that were closed due to depletion of their coal reserves⁴ and the small coal mines that were closed due to their noncompliance with government policies and regulations, and to meet the increased demand for coal. At the same time, Shanxi provincial government has decreed that all new and to be modernized coal mines should have an annual production capacity of more than 300,000 tons. It has also drafted

⁴ It estimated that due to depletion of coal reserves, 27 KSOcMs will be closed during the 10th Five-Year Plan (2000–2005).

procedures for closing small coal mines, including TVCMs, with an annual coal production of less than 90,000 tons and plans to close all such mines, totaling about 1,750, during 2005. Over recent years, Shanxi provincial government has closed about 448 small coal mines, which has resulted in about 47,000 redundant miners.

9. If Shanxi provincial government fully implements its policy to close all small coal mines with an annual production capacity of less than 90,000 tons during 2005, it would result in the redundancy of an additional 184,000 miners and reduce annual coal production by about 72 million tons. In particular, there would be six counties in Shanxi province with more than 100 closures of small coal mines and 13 counties with 50–100 closures of small coal mines. In particular, the area around Jincheng,⁵ where some 235 small coal mines would be closed, would experience a relatively large redundancy of coal miners. Shanxi provincial government has not yet developed any specific poverty reduction or training programs for redundant miners. Sometimes the local Poverty Reduction Bureau provides training in basic education, basic agriculture, or animal husbandry to some laid-off miners as part of the assistance provided to all the poor in a particular area, or the provincial branch of the National Coal Administration Bureau provides technical training to some others for their reemployment in larger coal mines. However, available budgets are insufficient and most laid-off miners will not receive any assistance and will be unable to find any alternative income unless they accept work in other small, illegal coal mines. The development of a comprehensive assistance program for areas with a relatively high incidence of closure of small coal mines is therefore required to develop an environmentally sustainable and safe coal mining industry, reduce unemployment, and raise the living standards of poor, rural communities. ADB assistance for development of such a program will also complement other ADB-financed projects⁶ and advisory TAs⁷ provided for reducing the environmental impact of energy use in the province.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

10. The purpose of the TA is to assist Shanxi provincial government with the development of a model socioeconomic and environmental mitigation program that will focus on retraining redundant miners, developing job creation schemes for redundant miners, and reducing environmental impacts for poor communities following the closure of large numbers of small coal mines in accordance with national and provincial policy. A study will be undertaken in the area around Jincheng to identify and evaluate the specific options available to reduce the number of redundant and unemployed miners and determine a corresponding strategy for the creation of alternative economic activities and their reemployment. Options to provide training for reemployment in the larger mechanized coal mines, or in other sectors of the economy in the region, will be identified. The implications for wider application of the model training and job creation program in poor coal mining areas throughout the PRC will be assessed.

B. Methodology and Key Activities

11. The TA will be carried out in four phases. During phase I, the consultants will undertake initial data gathering and preliminary analysis, and prepare outline policy recommendations.

⁵ Including the counties of Changzhi, Gaoping, and Zhesou.

⁶ Including the Shanxi Environment Improvement Project (ADB. 1999. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grant to the People's Republic of China for Shanxi Environment Improvement Project*. Manila) and the Coal Mine Methane Development (ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the People's Republic of China for the Coal Mine Methane Development*. Manila).

⁷ Including ADB. 1998. *Technical Assistance Cluster to the People's Republic of China for the Promotion of Clean Coal Technology*. Manila; ADB. 1999. *Technical Assistance to the People's Republic of China for the Shanxi Air Quality Improvement*. Manila; and ADB. 2004. *Technical Assistance to the People's Republic of China for the Waste Coal Utilization Study*. Manila.

Under phase II, the consultants will identify options for training and reemployment programs based on international experience. Under phase III, the consultants will develop specific assistance programs for the area around Jincheng, including a plan for monitoring the social, economic, and environmental impacts of the closure of small coal mines. Under phase IV, the consultants will implement the developed programs and plans in a particular location around Jincheng,⁸ assess the requirements for adoption of similar programs and plans in other parts of the PRC, disseminate the results of the TA, and prepare an action plan for adoption of similar mechanisms and programs in other parts of the PRC. The consultants will organize two workshops. The first, a consultation workshop, will be held with the main stakeholders, including government organizations and policy makers involved in poverty reduction and rural development in the area around Jincheng and in Shanxi province; representatives of local coal mines; the State Administration of Work Safety; funding agencies; and Shanxi provincial government to discuss the TA findings and recommendations. The second workshop will be held to present, disseminate, and discuss the final report at a national workshop with the participation of Shanxi provincial government, representatives from the PRC coal sector, national poverty reduction agencies, funding agencies, and nongovernment organizations. The outline terms of reference for consultant are given in Appendix 2.

12. Key activities will include (i) a detailed analysis of the role of small-scale coal mining in the economic and social structure in the Jincheng area and the impact of small coal mine closures on poverty incidence and environment in the same area; (ii) evaluation of the local government's efforts for reemployment of the miners and creating new economic activities; (iii) identification of the most likely scenario for closure of additional small-scale coal mines over the next 5 years; (iv) identification of policy options for the local and national governments to support and promote the reemployment of the redundant miners, creation of new economic activities, including consolidation and transformation of small coal mines into larger coal mines where appropriate, and mitigation of the environmental impact of such mine closures; (v) formulation of an appropriate reemployment and economic development strategy; (vi) assistance to the local government in its current efforts to provide training to redundant miners for reemployment in the larger mines or finding alternative livelihoods; (vii) development of model short and long-term support mechanisms and training programs to assist redundant miners to find alternative employment and local governments to create alternative economic activities; and (viii) dissemination of the results of the TA and develop an action plan for adoption of similar mechanisms and programs in other parts of the PRC.

13. The major risks that need to be considered for the successful implementation of the TA include inadequate counterpart support, lack of adequate and in-time provision of data, delay in submission of required studies, delay in consultant selection, and poor consultant performance. In addition, Shanxi provincial government's continuous commitment to implement its policy to close of small coal mines and provide adequate support for creation of alternative economic activities and the reemployment of redundant miners is necessary for the success of the TA. Close coordination of activities of the consultants, executing and implementing agencies, and ADB will also be required.

C. Cost and Financing

14. The TA is estimated to cost \$700,000 equivalent with a foreign exchange cost of \$335,000 and a local currency cost of \$365,000 equivalent (Appendix 3). ADB will provide \$500,000 equivalent to finance \$335,000 of the foreign exchange cost and \$165,000 equivalent of the local currency cost. The TA will be financed on a grant basis by the Poverty Reduction Cooperation Fund and will be administered by ADB. Shanxi provincial government will

⁸ Possible areas include the counties of Qingsui, Yangcheng, and Zezhou and the municipality of Gaoping, which includes about 73,000 poor miners and household members with an average annual income of less than CNY960 per person.

contribute \$200,000 equivalent representing about 29% of the TA cost, to finance the remaining local currency cost.

D. Implementation Arrangements

15. SDRC will be the Executing Agency,⁹ which will appoint the Jincheng Municipal Development and Reform Commission (JMDRC) as TA implementing agency. ADB will select and engage the services of international and domestic consultants according to its *Guidelines on the Use of Consultants*. The consultants will have expertise in institutional, economic, financial, environmental, and social analyses; poverty impact assessment; poverty reduction; and training in rural coal mining areas. An estimated total of 31 person-months of consulting services will be required, including 9 person-months of international consulting services and 22 person-months of domestic consulting services.¹⁰ The services of consultants will be provided through the selection of a consulting firm, comprising international and domestic consultants, following the submission of simplified technical proposals and the use of the quality-and-cost-based selection method. The TA is expected to commence in May 2005 and be completed by December 2005.

16. JMDRC will establish a counterpart team comprising representatives of the Shanxi Jincheng Coal Mining Bureau and the Shanxi Jincheng Poverty Reduction Office. The counterpart team will work in close cooperation with the Jincheng Labor Bureau, the county government of the demonstration area, and township governments and village committees from areas that are most affected by the closure of the small coal mines; it will also closely interact with the consultants. SDRC will also establish a steering committee comprising senior officials of Shanxi provincial government; the Shanxi Environmental Protection Bureau; and representatives from other government organizations and agencies involved in formulating and implementing policies concerning the closure of small coal mines, such as the Ministry of Land and Resources, the State Administration of Work Safety, and the National Coal Association. The steering committee will also act as the main conduit for conveying and interpreting the Government's views on policy issues, generally oversee the implementation of the TA, and interact with ADB during TA review missions. The counterpart team members will interact with members of the steering committee to seek clarifications on issues and matters that fall outside the purview of Shanxi provincial government. Shanxi provincial government, in conjunction with JMDRC, will provide interpreters, local transportation, and office space in Jincheng equipped with suitable facilities. Computers and other office equipment to be financed under the TA will be procured by the international consultants in accordance with ADB's *Guidelines for Procurement*.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$500,000 to the Government of the People's Republic of China to be financed on a grant basis by the Poverty Reduction Cooperation Fund for Poverty Reduction in Coal Mine Areas in Shanxi Province, and hereby reports this action to the Board.

⁹ SDRC is the most important agency of the Shanxi provincial government in promoting development and reforms in Shanxi province.

¹⁰ In addition, the consultants will provide two international specialist trainers in development of livelihood projects for 2 person-weeks each to assist with the preparation of training programs and initiate the same under phases III and IV of the TA .

TECHNICAL ASSISTANCE FRAMEWORK

Item	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Goal</p> <p>Reemployment of miners made redundant by closure of small coal mines in sustainable jobs in the southern part of Shanxi province</p>	<ul style="list-style-type: none"> • Number of redundant mine workers participate in training programs in the southern part of Shanxi province • Reemployment of 20% of redundant mine workers due to small-scale coal mine closure southern part of Shanxi province by the end of 2006 	<ul style="list-style-type: none"> • Country economic and coal mining sector statistics • Policy dialogue with the Government • Implementation monitoring by SPG and ADB 	
<p>Purpose</p> <p>1. Successful development of a socioeconomic and environmental mitigation program to reduce poverty and environmental impacts in poor areas worst affected by closures of small coal mines in southern part of Shanxi province</p> <p>2. Training and job creation programs for redundant mine workers in southern part of Shanxi province</p>	<ul style="list-style-type: none"> • An implementation plan developed by the fourth quarter of 2005, and implemented by 2006 • Practical retraining programs for the southern part of Shanxi province by the fourth quarter of 2005, which are to be used in other coal mining areas throughout Shanxi province by 2006 	<ul style="list-style-type: none"> • Final TA report and TA completion report • Consultation workshop • Review missions • Implementation monitoring by SPG and ADB • Ex-post monitoring through ADB loan review missions 	<p>Risks:</p> <ul style="list-style-type: none"> • Inadequate counterpart support • Lack of adequate data • Poor consultant performance • Poor stakeholder response • Insufficient funding <p>Assumptions:</p> <ul style="list-style-type: none"> • Government's willingness to implement and enforce current policy to close small coal mines • Continuation of coal sector reform • Sufficient financial resources for assistance programs

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Item	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Outputs</p> <ol style="list-style-type: none"> 1. Practical policy recommendations for local government 2. Design of specific assistance programs 3. Action plan for implementing training and job creation schemes 4. Monitoring, supervision, and evaluation system 5. Implications and resource requirements for wider application of the program in Shanxi province and the PRC 	<ul style="list-style-type: none"> • Well-designed poverty reduction and environmental impact mitigation policies and programs • A pragmatic action plan • Sharing knowledge and experience of other countries with experience in closure of small mines in poverty areas • Consultation and participation • Monitoring system in place 	<ul style="list-style-type: none"> • Inception report • Field study report • Draft final report • Final report • Review mission • Implementation and impact monitoring by SPG, JMDRC, and ADB 	<p>Assumptions:</p> <ul style="list-style-type: none"> • Closures of small coal mines are undertaken with sensitivity • Active local government support and participation • Active counterpart participation
<p>Activities</p> <ol style="list-style-type: none"> 1. Phase I: Preliminary analysis and preparation of outline policy recommendations <ol style="list-style-type: none"> 1.1 Key issues and policies identified acceptable to SPG and ADB 1.2 Selected study area acceptable to SPG and ADB 2. Phase II: Identification of options for training and reemployment programs based on international experience <ol style="list-style-type: none"> 2.1 Sharing international experience relevant to SPG 3. Phase III: Develop a specific assistance program for the study area including a plan for monitoring its social and environmental impacts and an action plan for implementing training and job creation schemes <ol style="list-style-type: none"> 3.1 Assistance program and plans accepted by all stakeholders 	<p>Start: May 2005 Complete: June 2005 Responsible: Consultants and SPG</p> <p>Start: June 2005 Complete: July 2005 Responsible: Consultants, SPG, and JMDRC</p> <p>Start: July 2005 Complete: August 2005 Responsible: Consultants</p> <p>Start: August 2005 Complete: September 2005</p>	<ul style="list-style-type: none"> • Meetings with consultants • Review mission reports • Draft final report • Consultation workshop report • Final report • TA implementation plan • Implementation monitoring by SPG, JMDRC, and ADB 	<p>Risks:</p> <ul style="list-style-type: none"> • Lack of local government support or interest • Lack of counterpart support • Lack of adequate data • Late consultant recruitment <p>Assumptions:</p> <ul style="list-style-type: none"> • Good arrangements for workshops • Consultants are selected on time, are suitably qualified, and perform well • Strong TA ownership by

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Item	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>4. Phase IV: Implement the program in the study area and assess the implications of wider application throughout Shanxi province and the PRC</p> <p>4.1 Effective guidelines and implementation plan</p> <p>4.2 Effective monitoring system and training</p> <p>5. Consultation workshop</p> <p>6. Dissemination workshop</p>	<p>Responsible: Consultants, SPG, and JMDRC</p> <p>Start: September 2005 Complete: October 2005 Responsible: Consultants</p> <p>Start: September 2005 Complete: October 2005 Responsible: Consultants October 2005</p> <p>October 2005</p> <p>December 2005</p>		<p>the SPG and JMDRC</p>
<p>Inputs</p> <p>International and domestic consulting services</p> <p>Training</p> <p>Consultations and dissemination of findings</p> <p>Counterpart staff participation</p> <p>Computer and office facilities</p>	<ul style="list-style-type: none"> • 9 person-months of international consulting services and 22 person-months of domestic consulting services • Consultation and dissemination workshops, and training for \$95,000 • ADB financing of \$500,000 • SPG contribution of \$200,000 equivalent 	<ul style="list-style-type: none"> • Review mission reports • Consultation workshop report • Final report • Implementation monitoring by SPG, JMDRC, and ADB 	<p>Assumptions:</p> <ul style="list-style-type: none"> • International consultants visits and workshops are arranged efficiently • Accuracy of cost estimates • Good counterpart support and office facilities

ADB = Asian Development Bank, JMDRC = Jincheng Municipal Development And Reform Commission, SPG = Shanxi provincial government, SOCM = state-owned coal mine, TA = technical assistance.

OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

1. The technical assistance (TA) will be carried out by a consulting firm or a consortium with experience in institutional, economic, financial, environmental, and social analyses; impact assessment; poverty reduction; and training in rural coal mining areas. The team of international consultants will consist of (i) a small-scale (artisanal) coal mining and environmental specialist, (ii) an economist, (iii) a social impact analyst, (iv) a training specialist, and (v) an institutional specialist. The study will require about 9 person-months of international and 22 person-months of domestic consulting services. To ensure effective assistance to the international consultants, the team of domestic consultants will have the same specialist composition. The consultants will work in close collaboration with Shanxi provincial government and ensure effective know-how transfer. The international consultants will be recruited in accordance with *Guidelines on the Use of Consultants* of the Asian Development Bank (ADB).

2. On commencement of the TA, the consultants will undertake a detailed background study to gain a thorough understanding of the issues related to environmental, social, and economic impacts of small mine closure, coal sector restructuring, retraining needs, problems, and opportunities in the People's Republic of China (PRC). The consultants will review relevant reports and studies undertaken by individuals and institutes in the PRC and also by international aid agencies including ADB, World Bank, Department for International Development (DFID), and others. After reviewing the basic information, the consultants will confirm the suitability of the proposed area around Jincheng for developing the demonstration program. The consultants will have discussions with members of the steering committee and counterpart team to obtain a good understanding of the Government's policy and reform directions and establish a sound basis for the TA work. The consultants should evaluate the international experience in related areas and their relevance in the PRC context and tailor their recommendations to reflect the situation in the PRC to ensure they are relevant and can be effectively implemented. The presentation of recommendations should focus on how to introduce effective training and job creation programs into poor coal mining areas and extend the concept widely throughout the PRC. The consultants will carry out the following tasks:

A. Terms of Reference

3. The terms of reference of the consulting services in this phase will include, but will not be limited to, the following.

1. Phase I: Initial Data Gathering, Preliminary Data Analysis, and Preparation of Outline Policy Recommendations

4. Phase I will involve the collection of initial data, their preliminary analysis, and the preparation of outline policy recommendations to assist redundant coal miners and local communities affected by the closure of small coal mines.

- (i) Determine the current unemployment and economic trends in coal mining areas in Shanxi province and develop a suitable methodology for forecasting employment needs in poor rural and urban communities where extensive closures of small-scale coal mines are planned.
- (ii) Identify the key political, social, economic, and environmental impacts of the closure of small coal mines, review existing mitigation and other relevant policies, and formulate appropriate policy recommendations to address the gaps. Discuss any existing policy conflicts with local government officials and seek their views on the practicality of the recommendations, likely costs of implementation, and

possible sources of financial assistance. Identify barriers to implementation of the proposed policy.

- (iii) Review existing retraining and job creation programs in the PRC aimed at low-income, rural areas and assess their likely effectiveness and applicability to poor coal mining areas in Shanxi province.
- (iv) Finalize the selection of a demonstration study area—likely to be a county administration near to Jincheng. Analyze the existing poverty reduction and unemployment policies applicable at county level including the program coverage, effectiveness, numbers of people involved, costs, sources of funding, and methods of monitoring and auditing impacts.
- (v) Obtain data to enable the socioeconomic fabric of the demonstration county area to be characterized and analyzed in respect of the expected impacts of closures of small coal mines. Assess the capacity of the local authorities to manage the closures and their impacts, and highlight any shortcomings and resource constraints.
- (vi) Visit selected surface sites of small coal mines, both working and closed, and examine the environmental, social, and economic conditions. Interview mine workers and determine their aspirations, interests, and concerns. Assess the range of educational and vocational backgrounds and skills. Record observations on the environmental impacts of the mines including surface stability, buildings, waste disposal, water quality, coal storage and transport, and on air quality resulting from local use of the coal.
- (vii) Analyze private sector business activity, identify growth areas within the county, and assess the scope for stimulating further employment by seeding new business and providing start-up support and training for redundant miners. Indicate suitable support delivery and monitoring mechanisms.
- (viii) Conduct stakeholder consultations and activities to obtain data from low-income households, including small-scale miners and other vulnerable sectors of the community in the study area to determine the issues and concerns of the poor regarding alternative employment, temporary social support needs, and educational and training requirements.
- (ix) Determine the general numbers of itinerant workers employed in local, small coal mines, their living standards, contributions to the local economy, and implications to them and their families of job losses.
- (x) Report on the findings to Shanxi provincial government and ADB and obtain confirmation that the demonstration site area is acceptable to all parties and that there is general agreement on what constitutes the key issues. Discuss the outline policy recommendations with all stakeholders, invite feedback from concerned government agencies, and amend appropriately.

2. Phase II: Identification of Options for Training and Reemployment Programs Based on International Experience

5. Phase II will build on the factual information obtained in phase I and will focus on the selected demonstration area around Jincheng.

- (i) Review and analyze international best practice examples of mine closure policy, environmental protection, and social mitigation programs including recent internationally assisted work in Romania, Bulgaria, and other Eastern European countries supported by the World Bank and European Union. In addition, examine research undertaken to develop a response to the social and environmental problems associated with artisanal mining in poor areas within Africa and other developing countries.
- (ii) Identify policy and mitigation response options of possible relevance to the study area. Use this analysis in conjunction with results from phase I as a basis for developing recommendations on a policy framework for implementation at provincial and local levels in the PRC and involve government officials in this process.

3. Phase III: Development of Specific Assistance Programs for the Area around Jincheng including a Plan for Monitoring its Social, Economic, and Environmental Impacts

6. During phase III, the consultants will design a specific assistance program to carry out education and training and devise a monitoring and evaluation system to audit and confirm its effectiveness. The tasks will include:

- (i) Determine capacity-building requirements among local government departments responsible for the administration of poverty reduction and social mitigation programs.
- (ii) Assess the potential job creation and employment opportunities in the area around Jincheng, highlighting possible barriers.
- (iii) Classify the potential recipients in terms of their abilities, willingness to participate, and their education and training needs.
- (iv) Determine human and financial resource requirements for training including numbers and qualification of staff and support workers, buildings and accommodation, teaching materials, catering, overheads, and temporary social support during training and pending placement.
- (v) Establish links to job creation schemes, new business incubation programs, and any other relevant social mitigation programs. In particular, close liaison should be established with large, responsible coal mining companies that have expressed interest in investing in consolidation and transformation of small coal mines into large, industrial-scale coal mines.
- (vi) Prepare and undertake an awareness campaign to share the proposals with all stakeholders and the general public and invite feedback and participation.
- (vii) Consult with the provincial Environmental Protection Bureau, Coal Mining Administration Bureau, and Workers Safety Bureau with regard to training standards, qualifications, and recognition of courses related to the requirements of current legislation and the needs of large coal mines.

- (viii) Identify required training facilities, trainers, and funding; prepare training programs and curricula; and develop selection criteria for the trainees.

4. Phase IV: Implementation of the Developed Mechanisms and Programs in the Area around Jincheng and Application throughout the PRC

7. During phase IV the consultants will initiate the developed training program(s); establish a monitoring and audit system; and assess the practicality, limitations, benefits, costs, and socioeconomic implications of wider application throughout the PRC. The consultants' tasks will include:

- (i) Discuss with Shanxi provincial government the implementation of the proposed poverty reduction and training programs and provide training to the personnel of provincial, municipal, and county authorities with responsibilities for poverty reduction and training of redundant miners in the area around Jincheng.
- (ii) Assist Shanxi provincial government with the selection of appropriate management and training staff and the identification and establishment of suitable training facilities, and provide training for the trainers.
- (iii) Develop a monitoring and audit scheme for both the training elements and the impacts of the program on the local communities. Determine an appropriate set of mid- and long-term monitoring indicators in the areas of economic growth, institutional reforms, poverty and social aspects, and environmental improvement.
- (iv) Review progress in training of administrative staff in implementing policy and teaching staff in delivering training programs in accordance with planned schedules and the requirements of potential employees.
- (v) Assess the expected national number of redundant miners due to the envisaged closure of small coal mines; estimate the social, economic and environmental impacts and mitigation costs of such closures; and assess the financial and human resource requirements, local government capacity-building needs, and required removal of barriers and further policy and reform to promote the closure of small coal mines with minimal social, economic, and environmental impacts. Indicate a practical time scale for wider application of the developed training programs and mitigation measures and suggest an action plan to accelerate implementation.
- (vi) Organize and carry out a consultation workshop with stakeholders to present the final draft report and recommendations of the TA and a final workshop to present and disseminate the final report that will incorporate the feedback and comments received with regard to the draft final report at the consultation workshop.

B. Reports

8. The consultants will submit the following reports:

- (i) An inception report. The report will be submitted within 1 month after TA commencement, summarizing the initial findings, and suggesting changes needed (if any) in the TA's approach, methodology, and time schedule.

- (ii) Draft final report. The report will be submitted at the end of phase III and one month will be provided for Shanxi provincial government and ADB to review the report. The report will be discussed at a consultation workshop with the participation of main stakeholders, including government organizations and policy makers involved in poverty reduction and rural development in the area around Jincheng and in Shanxi province; representatives of local mines; the State Administration of Work Safety; funding agencies; and Shanxi provincial government.
- (iii) Final report. One month after the completion of phase IV, the consultants will submit the final report, taking into account the comments of Shanxi provincial government and ADB on the draft final report, and the discussions held during the consultation workshop. The consultants will finalize the final report and translate it into Chinese. The consultants will organize a final workshop with the participation of Shanxi provincial government, representatives from the PRC coal sector, national poverty reduction agencies, funding agencies, and nongovernment organizations to disseminate the TA findings and recommendations.

COST ESTIMATES AND FINANCING PLAN
(\$)

Item	Foreign Exchange	Local Currency	Total Cost
A. Poverty Reduction Cooperation Fund Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	177,000	0	177,000
ii. Domestic Consultants	0	102,000	102,000
b. International and Local Travel	30,000	10,000	40,000
c. Reports and Communications	10,000	10,000	20,000
2. Equipment ^b	20,000	0	20,000
3. Workshops and Meetings	35,000 ^c	10,000 ^d	45,000
4. Training Materials	12,000	8,000	20,000
5. Miscellaneous Administration and Support Costs	2,000	3,000	5,000
6. Representative for Contract Negotiations	5,000	0	5,000
7. Contingencies	44,000	22,000	66,000
Subtotal (A)	335,000	165,000	500,000
B. Government Financing			
1. Office Accommodation and Transport	0	70,000	70,000
2. Remuneration and Per Diem of Counterpart Staff	0	62,000	62,000
3. Training, Seminars, and Conferences	0	30,000	30,000
4. Others	0	38,000	38,000
Subtotal (B)	0	200,000	200,000
Total	335,000	365,000	700,000

^a Administered by the Asian Development Bank.

^b Including three Pentium computers, two photocopiers, a laser printer, a projector, and a fax machine.

^c To finance two international specialist trainers in development of livelihood development projects for a duration of about 2 person-weeks each to assist with the preparation training programs and initiate the same under phases III and IV of the TA .

^d To finance background and initial training materials to be presented at the workshops and used during the first training programs.

Source: Asian Development Bank estimates.