ASIAN DEVELOPMENT BANK

TAR:PRC 37228

PROPOSED

TECHNICAL ASSISTANCE

TO THE

PEOPLE'S REPUBLIC OF CHINA

FOR

COMBATING SEVERE ACUTE RESPIRATORY SYNDROME IN THE WESTERN REGION

May 2003

CURRENCY EQUIVALENTS

(as of 5 May 2003)

Currency Unit	–	Yuan (CNY)
CNY1.00	=	$0.121
$1.00	=	CNY8.277

The exchange rate of the yuan is determined under a floating exchange rate system. In this report a rate of $1.00 = CNY8.277 is used.

ABBREVIATIONS

ADB	–	Asian Development Bank
IEC	–	information, education, and communication
MOF	–	Ministry of Finance
MOH	–	Ministry of Health
NGO	–	nongovernment organization
PIU	–	project implementation unit
PRC	–	People's Republic of China
SARS	–	Severe Acute Respiratory Syndrome
SDRC	–	State Development and Reform Commission
TA	–	technical assistance
TOR	–	terms of reference
WHO	–	World Health Organization

NOTES

(i) The fiscal year (FY) of the Government coincides with the calendar year.
(ii) In this report, "$" refers to US dollars.

This report was prepared by Christopher A. Spohr, (Project Economist and team leader), with technical inputs from Karima Saleh (Health Economist) and Takako Yasukawa (Health Specialist) of the Social Sectors Division, East and Central Asia Department and from Edgar Cua (Principal Programs Officer, David Sobel (Senior Programs Officer), and Min Tang (Principal Economist) of the ADB Resident Mission in the PRC.

I. INTRODUCTION

1. The emerging severe acute respiratory syndrome (SARS) epidemic, thought to have emanated from Guangdong Province of the People's Republic of China (PRC) in late 2002, accelerated and spread to other areas of the PRC and then beyond, due to SARS' high infectivity and the lack of knowledge about its epidemiology. Other factors included high population density in initially affected areas, the mobility of large portions of PRC's population, and notably the inadequacy of surveillance and response mechanisms in the face of a dramatic new threat to public health. According to Ministry of Health (MOH) statistics, by 13 May 2003, 25 provinces and province-level autonomous regions (henceforth provinces) had confirmed cases of SARS, with 262 deaths reported nationwide. Of the cumulative total of 5,086 PRC cases (comprising two-thirds of the global total), nearly one fifth were reported among health staff.

2. Working with the World Health Organization (WHO) since February 2003, the PRC has acknowledged the need for greater transparency and responsiveness. The Government has adopted more focused action to address the SARS crisis—mobilizing domestic resources and seeking international assistance—and has pledged to rebuild surveillance mechanisms and the preventive health system in the medium term.[1] The Government is also taking steps to address the threat of a spiraling epidemic in the poorer Western Region, which is least equipped to respond to SARS, particularly in rural areas and among the poor and other vulnerable groups.[2] On 23 April 2003, the Government submitted a request to the Asian Development Bank (ADB) for emergency technical assistance (TA) to combat SARS in at-risk Western Region provinces.[3] Communications between ADB, MOH, and the Ministry of Finance (MOF), including a tripartite videoconference, confirmed agreement on the overall objectives, general content, and principles guiding the TA, including the need for (i) urgent processing;[4] (ii) flexibility in design and implementation; (iii) close collaboration with WHO and other organizations, including nongoverment organizations (NGOs), mobilizing to fight SARS; and (iv) alignment with emerging frameworks for coordinated efforts between the Government and funding agencies. Appendix 1 gives a project framework for the TA for combating SARS in the Western Region.

II. ISSUES

3. Overall progress in national health indicators masks the need for concerted Government efforts in the public health sector; supportive reforms and engagement of external funding agencies are also critical. Increased investment and emphasis on equity in allocation are needed to rebuild the public health system, particularly to augment (i) the rural health system, (ii) surveillance and preventive services, and (iii) provision of access to quality primary health care among the poor. Underinvestment—especially in primary health care and prevention and control of communicable diseases[5]—and a shift in responsibilities for funding basic social services to provincial and subprovincial levels have had marked effects in the poorer Western Region. A simultaneous shift of the cost burdens of health care to households has increasingly strained access to preventive and other basic health services among the rural poor and migrant

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[1] This is reflected in MOH and interministry directives and public announcements. Two funds (totaling nearly $600 million equivalent) being mobilized by the Ministry of Finance and the State Council focus on ensuring free SARS treatment for rural residents and the urban poor, and bolstering disease control agencies in interior provinces.

[2] International experience from past epidemics indicates that remote and insular communities may be at heightened risk due to relative immunological isolation.

[3] Listing in *ADB Business Opportunities* has been waived due to the emergency nature of the assistance provided.

[4] The TA is consistent with recommendations of the ADB SARS Response Task Force, which endorsed emergency support to the PRC. Mitigating SARS' socioeconomic impacts also promotes ADB priorities for PRC and the region.

[5] The dismantling of commune-based rural health care at the onset of economic reforms in the late 1970s led to a collapse of previously extensive disease surveillance, mass immunization, and health education mechanisms.

workers, who are not covered by urban social insurance mechanisms.[6] Fee imposition has notably suppressed demand for preventive services (e.g., immunizations), while a bias toward curative treatment (reflecting both public investment and implicit incentives facing providers) led to declines in fiscal and human resources devoted to disease surveillance.

4. Marked weaknesses in the public health system in the Western Region, on top of overall lower levels of development, underscore the need for rapid action to prevent a full-blown SARS epidemic. This is recognized by the Government,[7] which has already established the Leading Group on SARS (chaired by the Vice-Premier, concurrently the Minister of Health), and the international community. Several bilateral and multilateral agencies are responding to requests for assistance, with the United Nations Development Programme (backed by WHO technical expertise) now acting as focal point.[8] At the same time, a consensus is emerging on the need to coordinate immediate efforts aimed at containing SARS and to ensure that these feed in to (i) strengthening more general epidemic surveillance and emergency response capacities in the near term, as a national and global public good; and (ii) more systematic, sustained action to address underlying factors, such as gaps in the public health system and governance issues.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Purpose and Outputs

5. The TA's goal is to effectively contain SARS in the Western Region, preventing cross-border transmission and developing capacity for rapid epidemic detection and response. Toward this goal, the TA seeks to help contain the outbreak of SARS in the target provinces by strengthening local capacities for SARS prevention, surveillance, management, and mitigation, with a particular emphasis on quick action to protect front-line medical workers, the poor, and other at-risk groups. This will be accomplished within a framework of close collaboration with other domestic and international partners. Lessons collected will be shared widely, to contribute to dialogue on measures to address public health system challenges, and present new models.

6. The TA will build capacities of provincial and local governments and health units to plan and implement comprehensive programs to combat SARS, and will provide urgently needed equipment and supplies, focusing on identification and prevention efforts. In addition to training for front-line health staff (vital to containing SARS), information, education, and communication (IEC) campaigns will raise public awareness of SARS and key prevention measures. Support will be linked to efforts combining relevant ministries, NGOs, community groups, the private sector, and international organizations, and will be provided through services and related facilities required to implement the TA and achieve capacity building objectives. The equipment and supplies to be funded are (i) part of an integrated package for capacity strengthening; (ii) required for implementing the expertise transferred via consulting services and training for (a) epidemic surveillance systems and analysis; (b) screening, protection, and quarantining; and (c) IEC; and (iii) protection for health staff involved in SARS diagnosis and treatment.

7. The Government has identified Ningxia, Qinghai, Xinjiang, and Yunnan[9] provinces for direct assistance under the TA, based on population characteristics including poverty and

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[6] The Second National Health Services Survey of 1998 revealed substantial declines in population coverage under social insurance schemes, while ADB research notes a that "health services in the PRC have a strong and increasing urban bias." (ADB. 2002. *The 2020 Project: Policy Support in the People's Republic of China*. Manila)

[7] The draft National SARS Control Strategy highlights the Western Region, the rural poor, and migrant workers.

[8] A forum on 2 May 2003 confirmed the need for timely and flexible action by ADB, and designated the World Bank as the focal point for medium-long term action. Appendix 2 outlines external agency responses as of 15 May 2003.

[9] These provinces have a total population of roughly 72 million people.

inclusion of minority groups, local health resources, patterns in current and expected SARS prevalence, and coverage under other international assistance. Xinjiang and Yunnan are doubly critical as economic and transport corridors linking the PRC to Central Asia and Mekong regions. Visibly effective SARS control programs are critical to keeping borders open and secure from SARS transmission.

8. The TA is guided by the principles of timeliness and effectiveness in response. Flexibility is incorporated in the design and implementation arrangements in light of substantial uncertainties in the way the SARS epidemic will unfold in the Western Region. The TA will provide 4 broad outputs: (i) sound provincial plans to address SARS; (ii) strengthened epidemiological surveillance systems; (iii) augmented emergency response capabilities; and (iv) increased public awareness of SARS and self-protection measures through effective, multi-mode information and health education delivery mechanisms.

B. Methodology and Key Activities

9. **Assessment and Planning.** In light of the difficulty of diagnosing SARS and the resource constraints plaguing local health systems in the Western Region, current statistics may underreport the seriousness of the SARS epidemic in these provinces. Moreover, SARS transmission dynamics are not well understood, particularly for cases now emerging in rural areas. Dialogue with WHO and other relevant organizations, augmented by focused field evaluations if needed, will be important to assess current conditions and likely rural transmission dynamics. The TA will assist target provincial governments to assess (i) the overall readiness of provincial and subprovincial health systems to respond to SARS, identifying key shortfalls; (ii) resource availability, including human resources, equipment (e.g., for diagnosis, transport, and waste management), and basic supplies; and (iii) provincial capacity to implement a comprehensive plan, ranging from surveillance to IEC. These will support establishment of sound plans for combating SARS in each province that (i) build on strategy elements already in place; (ii) are formulated in alignment with both local context and frameworks developed by the Leading Group on SARS, WHO, and other relevant bodies; and (iii) support periodic monitoring to facilitate adjustments in response to changes in the SARS situation, and to capture lessons that may be used to strengthen epidemic response in other provinces.

10. **Epidemiological Surveillance.** The TA will work with provincial health bureaus and disease control agencies, with technical support from MOH, WHO, and other national and international agencies, to enhance epidemiological surveillance systems in the target provinces. Based on assessed capacities and constraints (e.g., in system coverage and data quality, equipment, training, and operational budgets), the TA will help (i) develop a system improvement framework for affecting needed changes, (ii) identify and procure urgently needed equipment; (iii) develop and provide targeted training, focusing on disease control staff at provincial, prefecture, and county levels, as well as on-site and sentinel staff responsible for epidemiological reporting. While addressing the immediate threat of SARS, the framework will provide the basis for a comprehensive surveillance system to address future threats.

11. **Emergency Response Systems.** In parallel with the development of provincial plans for addressing SARS, the TA will assist in compiling effective, comprehensive emergency response plans covering (i) coordination in key areas requiring intragovernment reaction (e.g., borders as a key control point for epidemics); (ii) mechanisms for immediate detection and alert, and coordination between emergency response staff, local clinics, and hospitals; (iii) emergency medical care and triage, including medical transport and quarantine procedures; (iv) hospital-based medical care and patient management (isolation, disinfection, diagnosis, treatment, and

reporting), (v) exposure management, including protection for health personnel at all levels; (vi) infection control precautions for households, the workplace, and hospitals; (vii) safety in specimen collection, handling, and final processing; and (viii) overall system management, coordination, and supervision capacity.

12. The TA will draw on local human resources, WHO, other international organizations, local and international NGOs, local medical universities, and training institutions to develop and provide training courses to meet requirements of the emergency response system, particularly for front-line health staff. Capacity building will prioritize managers and staff at hospitals and other institutions designated for SARS treatment and response. Early training efforts will also cover other key groups, including local government officials responsible for plan implementation. Modes of classroom and on-the-job training will be chosen to flexibly meet needs, with tailored materials and mechanisms (e.g., to disseminate key safe practices to workers charged with disinfection of public places). Based on needs assessment and dialogue with other national and international agencies, the TA will also provide needed equipment and personnel protection supplies.[10] Impact analysis will also help to ensure new methods are put into practice.

13. **Information, Education, and Communication.** The TA will assist target provinces in formulating and implementing IEC strategies to effectively disseminate key information such as (i) SARS symptoms, characteristics, and risk factors; (ii) SARS prevention for individuals, households, and institutions (e.g., schools and workplaces); (iii) existing control mechanisms and available health services; (iv) public rights to cost-free treatment;[11] (v) social responsibility; and (vi) advice for people who may have been exposed (including by family members). These will be linked to national-level initiatives, but will also build on local efforts, in order to address province-specific needs. Multiple delivery modes for IEC will include local newspapers and other printed material, television, and radio, and will seek to mobilize existing social institutions (e.g., village committees, schools, etc.). Action plans will include targeted efforts for reaching high-risk groups and the hard-to-reach (e.g., ethnic minorities). The TA will assist in materials development, training, social mobilization, provision of key equipment, and IEC implementation.

C. Cost and Financing

14. The total cost of the TA is estimated at $3.0 million equivalent. ADB will contribute $2.0 million, financed on a grant basis by ADB's TA funding program, and the Government will contribute roughly $1.0 million equivalent (Appendix 3). As part of an integrated support package, ADB will finance an estimated $600,000 in urgently required equipment and supplies.

D. Implementation Arrangements

15. The Executing Agency will be the Foreign Loan Office of MOH. Joint MOH-MOF guidance will ensure consistency and complementarity between the TA and other domestic and foreign-assisted initiatives. A central project implementation unit (PIU) will compile a profile of SARS burdens and readiness in the four western provinces, and will propose to ADB (i) an emergency package of urgently needed equipment and materials, based on recommendations from WHO[12] and the State Development and Reform Commission; and (ii) allocation of resources and materials across provinces. Provincial PIUs will report to the central PIU and be set up within health bureaus of the selected provinces to (i) oversee day-to-day implementation;

[10] This may include protective clothing and related supplies and diagnosis and treatment equipment for designated hospitals, such as portable mobile x-ray machines (for safe deployment in SARS wards) and respirators.
[11] These rights are laid down in a MOF-MOH joint declaration, issued on 30 April 2003.
[12] WHO has drafted a list of emergency responses for SARS in the PRC.

(ii) ensure coordination with provincial-level bureaus, offices, and other relevant organizations affected by or addressing SARS locally; and (iii) facilitate sharing of information and lessons learned within and among the provinces.

16. Given key uncertainties in the evolution of SARS in the Western Region and in national and external resource mobilization, implementation must be flexible, with timely inputs tailored to periodically assessed needs. Expertise, equipment, and supplies will be provided within the framework of Government and external responses, balancing (i) efficiency; (ii) responsiveness to province-specific needs; (iii) strategic consistency (e.g., between provincial and national action plans); and (iv) interpartner information sharing, capacity for quick concerted action, and optimal use of very limited human resources deployable to SARS responses in the PRC.

17. TA implementation arrangements will provide flexibility to allow adjustment in the terms of reference (TOR) of consultants, duration, and schedule of expert inputs. In dialogue with MOH, ADB will recruit one domestic consultant as TA coordinator for all target provinces, with auxiliary international and/or domestic consultants selected to meet identified needs and in-province capacities.[13] Consultants will be engaged as individuals, in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. In dialogue with MOH, ADB may consider direct selection of qualified domestic and/or international organizations, local institutions, and/or short-term resource persons, where justified by efficacy, efficiency, and/or urgency in completing activities such as training and development and dissemination of targeted IEC materials.

18. Flexible procurement arrangements are needed to allow timely response to urgent and evolving needs. Unless otherwise agreed by ADB, the central PIU will conduct all procurement in accordance with ADB's *Guidelines for Procurement*. To expedite delivery, direct purchase may be used to procure the agreed emergency package. The TA coordinator will assist the central PIU in compiling subsequent proposals for equipment and consumable supplies integral to the TA's comprehensive support program. Procurement between $100,000 and $500,000 will use international shopping with an abbreviated bidding period; procurement valued below $100,000 will employ direct purchase. Indicative procurement categories are shown in Appendix 4. To ensure timely provision of goods and services, an advance payment facility will be established for each province (under distinct bank accounts), in accordance with ADB's *Guidelines for Disbursement of Technical Assistance Grants,* and subject to terms laid out in the letter establishing the facility.

19. The TA will be implemented from May 2003 to May 2004. In light of the unpredictable evolution of the SARS epidemic, frequent reviews (including a midterm review) will carefully assess implementation arrangements and approaches, with appropriate adjustments instituted.

IV. THE PRESIDENT'S RECOMMENDATION

20. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of $2,000,000 on a grant basis to the Government of the People's Republic of China for Combating Severe Acute Respiratory Syndrome in the Western Region.

[13] Indicative TOR for expert inputs appear in Appendix 4. Specific qualifications, TOR, and criteria for assessing auxiliary consultant services (estimated to total $250,000 equivalent) will be determined in concert with WHO.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
Goal severe acute respiratory syndrome (SARS) effectively contained in Western Region and cross-border transmission prevented, feeding into maintained capacity for rapid epidemic detection and response.	In-region infection rates sharply down from peak levels, and no cross-border transmission.	Ministry of Health (MOH) statistics by-province. World Health Organization (WHO) statistics and dialogue.	
Purpose SARS outbreaks in target provinces preempted, contained, and reversed, with strengthened local capacities to prevent, diagnose, manage, and mitigate the SARS epidemic • front-line medical workers, the poor, and other at-risk groups protected by focus on quick action • comprehensive capacities built within a framework of close collaboration with partners, and • lessons collected and shared widely.	Technical assistance (TA) contributes to common Government-funding agency framework, and shows progress on targets to be jointly agreed. In-region infection rates leveled off or down from peak levels (after initial rise, partly reflecting better reporting). Health staff protected (currently 20% of recorded SARS cases in the People's Republic of China). Effective interagency coordination observed. Lessons disseminated via various modes.	MOH statistics by province (currently include share of health staff cases), and improved information collection and sharing. WHO statistics and information-sharing and dialogue among funding agencies. Consultant field visits and reports.	Assumes a critical early launch of TA activities; timely, flexible implementation; and maintained collaboration with funders, MOH, and other agencies. Risk of external mitigating factors, virus mutation, etc.
Outputs: 1. Sound provincial plans to address SARS. 2. Strengthened epidemiological surveillance systems. 3. Augmented emergency response capabilities. 4. Increased public awareness of SARS and self-protection measures.	Workable plans drafted and implemented. Circulation of up-to-date data, reflected in publicly observed actions. Observed coordinated action spanning agencies. Targeted information, education, and communication (IEC) campaigns, first focusing on key groups at risk.	Information compilation by central project implementation unit (PIU). Consultant field visits and reports	Assumes building blocks in health and related sectors; transparency. Risk loss of government buy-in over time or breakdown in inter-agency collaboration and coordination with national-level directions.

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
Activities: **1. Assessment and Planning** a. Rapid assessment of SARS situation, local needs and capacities. b. Expert advice. c. Dialogue with various government and other key stakeholders, creating comprehensive and coordinated plans.	Province overview and selection by late May 2003. Early-phase provincial needs assessment and draft plans by 15 June 2003.	Information compilation by central PIU. Consultant field visits and reports. Draft plans reviewed by the Asian Development Bank (ADB).	Assumes building blocks in health and related sectors; local governments open, and committed to changes and action. Risk loss of buy-in over time or breakdown in interagency collaboration and coordination across subprovincial levels.
2. Epidemiological Surveillance a. Expert advice guides action plan formulation. b. Provide needed equipment and implement system changes. c. Targeted training, with materials developed.	System planning starts in June 2003; first workshop (key provincial staff) by end of July 2003; Cascade training to key staff in prefectures and counties in August 2003, with phase-2 training started; core system online by October 2003.	Training impact assessments. MOH reports, including on information flows. Consultant field visits.	
3. Emergency Response Systems a. Expert advice guides strategy formulation. b. Capacity building, with follow-up assessment. c. Intragovernment coordination mechanisms refined and formalized. d. Needed equipment.	Same timetable.	Training impact assessments. MOH reports, including on links between detection and reaction. Consultant field visits.	
4. IEC a. Expert advice guides development of targeted IEC strategies covering multiple key groups. b. Roll-out of enhanced public information and health education for SARS, with follow-up assessment. c. Refinements as needed.	First wave of IEC with new materials disseminated by June 2003.	Public visibility. Consultant field visits. Feedback from community groups.	

Note: Final design, implementation mechanisms, and targets to be refined based on provincial assessments and dialogue with government and international agencies, in the interest of effective collaboration and complementarity.

RESPONSES OF FUNDING AGENCIES TO SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

(as of 15 May 2003)

Asian Development Bank (ADB)	The proposed technical assistance (TA) responds to a proposal submitted by Ministry of Finance (MOF) and Ministry of Health (MOH). The TA fits within the regional Action Plan to Address the Outbreak of Severe Acute Respiratory Syndrome (SARS) in Asia and the Pacific and an ADB-WHO memorandum of understanding (being prepared). Implementation will seek complementarity and direct collaboration with donors, nongovernment organizations, etc. ADB and the Boao Forum for Asia co-sponsored a special forum on SARS and the regional economy (Beijing, 13-14 May 2003). ADB's resident mission in the PRC will be proactive in coordinating external funding agencies, and will facilitate linkages of the TA to short-term and longer term initiatives, and with World Health Organization (WHO) technical expertise in the People's Republic of China (PRC).
World Bank	Currently discussing an emergency program based in part on elements that are covered under two on-going health projects that deal with infectious diseases. The World Bank has stressed to MOH and MOF that, rather than dealing with funding agencies individually, they should define a broader program, possibly in phases, under which all agencies wanting to assist could select elements, ensuring consistency. The World Bank will serve as focal point of a coordinated response to longer term issues, and is now working with MOH and WHO on a broad program outline. To meet immediate needs, the World Bank plans to reallocate $5million to $15 million from its two ongoing health projects, which have implementing units in place and work in several SARS-affected provinces. The World Bank will also assist Beijing and Guangdong, and hopes to complete reallocation in 1-2 weeks. The World Bank will also restructure several other projects to release more funding ($5 million to 15 million) which may take about 3-4 weeks, and could include other affected provinces. Finally, the World Bank is at a preliminary stage in assessing the need and timing for a new operation or supplemental loan.
United Nations Development Programme (UNDP)	Received requests from Beijing Municipality for technical support to handle communications and for the Leading Group on SARS, which may ask for assistance to evaluate needs in rural areas and particular provinces. Fully supports efforts at a coordinated response, and will serve as focal point for short-term emergency assistance (with WHO); hosted two meetings of an extended United Nations Disaster Management Team to brief the funding community.
World Health Organization (WHO)	Providing broad technical support and advice on SARS to the PRC (and other member states). Building Government's technical capacity to deal with SARS, covering epidemiology, surveillance, contact tracing, hospital infection control, treatment, travel advice, laboratory training, research, assessment of SARS country and provinces, and assessment of the economic cost of SARS (with the International Monetary Fund, World Bank, and the ADB). Will continue to play an important role in the overall coordination of external technical support and an advisory role in overall United Nations Disaster Management Team and funding agency response to SARS (overall needs, technical equipment, communication, etc.). Also providing information to embassies about SARS. Provincial assessment and support teams fielded in Beijing and Guangdong, and in Hebei and Guangxi (with MOH). Additional teams being mobilized for (i) Henan, with UNICEF; (ii) Anhui, likely with Médecins Sans Frontières; and (iii) assisting the PRC's national Center for Disease Control.
Australia and Australian Agency for International Development (AusAID)	Received request from Ministry of Commerce (MOC) on 30 April 2003 for financial support for an unspecified quantity of medical equipment including respirators, respiratory monitors, ambulances, X-ray machines, disposable protection (gowns, gloves, glass, and masks), and pneumatic pumps. This is now being considered in the context of a coordinated response. Provided $774,000 equivalent to the Western Pacific Regional Office of WHO for regional SARS activities (including in the PRC), and will provide $387,000 equivalent in medical equipment to the PRC.
Canada and Canadian International Development Agency (CIDA)	Examining what criteria might be used to respond to a request. Health is not a sector of concentration under CIDA's current country programming framework, but CIDA is willing to support a multi-agency coordinated approach to address medium to long-term issues facing the public health system. Also considering the possibility of assistance to the WHO team.

RESPONSES OF FUNDING AGENCIES TO SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

(as of 15 May 2003)

European Union	Willing to consider requests for assistance through its humanitarian program.
Germany	The German Government will make available up to €10 million in grant funds. The first batch of goods is under preparation and expected to arrive in the week of 9 May 2003. Transport (Frankfurt-Beijing) for this delivery is provided free of charge by Lufthansa. The PRC request comprises (i) 140 mobile X-ray machines; (ii) 480 respirators; (iii) 10 blood-gas analyzers; (iv) 120,000 isolation clothes, including 30,000 for repeated use; and (v) 20 air sterilizers. Assessing how much of this can be financed by the grant.
India	Donating funds and/or medical supplies; details not available
Italy	Italian Cooperation has received a general request from MOC for financial support to buy medical equipment, ambulances, masks, gloves, gowns etc. It is reviewing the possibility of a project that includes acquisition of some goods and materials, TA and health education. It is thinking of integrating the TA into its Human Resources development program that is currently being carried out with MOH and with health offices of 12 western provinces. A bilateral grant initially of about €1 million may be allocated in this first phase.
Japan	The Japanese Government has received a request for grant aid from the Ministry of Science and Technology and MOH. The Japanese Government provided medical instruments through JICA on 28 April 2003, valued at approximately $1.8 million equivalent and covering: (i) personal protective equipment for medical use including coveralls, goggles, and masks; (ii) basic laboratory equipment such as portable biohazard box and portable centrifuge; (iii) blood sampling instruments; (iv) specimen storage and shipping materials including infectious substance shipper and bio-freeze; (v) medications such as Ribavirin IV, Tamiful, and Rivavirin capsules; and (iv) miscellaneous items like first aid kits, and digital auxiliary thermometers. Japan will soon dispatch doctors and officials to the Japan-China Friendship Hospital in Beijing, and will donate medical supplies worth ¥1.9 billion.
Republic of Korea	Donating funds and/or medical supplies; details not available
Sweden	Sweden is currently looking into the possibility of augmenting the WHO office in the PRC with additional disease control expertise from Sweden. Has not received any request from the PRC Government on assistance to address the SARS issue, but would be interested in such requests and coordination from the external funding community.
Switzerland	Considering possible contribution, and awaiting PRC clarification of needs by region/province.
UK Department for International Development (DFID)	In principle, DFID will participate in a coordinated response to SARS in support of PRC authorities. Any money to be provided will be a parallel contribution of grant funds. A contribution of $5 million is probable. The key priority now is to get a clearer idea of what the PRC wants and how it might be delivered. Requires WHO involvement.
US and United States Agency for International Development (USAID)	USAID has provided $500,000, to be used by the Red Cross Society of China to purchase protective gear and medical products (gowns, masks goggles, thermometers, etc.). The US embassy in Beijing will monitor procurement. The contribution builds on scientific and epidemiological support from US researchers working in the PRC and elsewhere since early March.

Source: ADB Resident Mission in the PRC and Social Sectors Division, East and Central Region Department.

COST ESTIMATES AND FINANCING PLAN

($'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing[a]			
1. Consultants (including international and domestic travel)	200.0	100.0	300.0
2. Equipment[b]	450.0	150.0	600.0
3. Capacity Building and Workshops (includes materials development and supplies)	150.0	350.0	500.0
4. Surveys, Assessment, and Monitoring	0.0	150.0	150.0
5. Miscellaneous Administration and Support Costs	0.0	50.0	50.0
6. Contingencies	150.0	250.0	400.0
Subtotal (A)	**950.0**	**1,050.0**	**2,000.0**
B. Government Financing			
1. Office Accommodation, Training and Other Venues, and Local Transport	0.0	60.0	60.0
2. Remuneration and Per Diem of Counterpart Staff	0.0	40.0	40.0
3. IEC operating budget for dissemination	0.0	50.0	50.0
3. SARS fund mobilization in target provinces[c]	0.0	850.0	850.0
Subtotal (B)	**0.0**	**1,000.0**	**1,000.0**
Total	**950.0**	**2,050.0**	**3,000.0**

IEC = information, education, and communication; SARS = severe acute respiratory syndrome

[a] Financed by the ADB TA funding program.
[b] Emergency package and other equipment and supplies integrally linked to comprehensive TA support (Appendix 4).
[c] Includes provision for diagnosis and treatment for the poor, operating budget for broadcast-based campaigns, etc.
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS AND INDICATIVE PROCUREMENT PACKAGING

A. Terms of Reference

1. The central Government has already begun to mobilize resources to respond to the severe acute respiratory syndrome (SARS), including establishing the Leading Group on SARS, amassing funding (including some targeted toward the poor and interior regions), and dialogue with multiple national and international agencies toward developing an overarching framework. Within the Western Region, individual provinces are, to varying degrees, mobilizing responses, and in some cases, elements of action plans are in place. However, there has not been widespread coordination of provincial efforts with national authorities, across neighboring provinces, or across agencies within provinces.

2. In coordination with relevant Government and international agencies (to ensure consistency with and contribution to national-level strategies), the technical assistance (TA) will provide expert advice, working with provincial authorities in health and other key sectors to establish or augment comprehensive and concrete provincial plans (including estimated costs and clear delineation of responsibilities for implementation and budgeting, coordination mechanisms, etc.). Rapid assessment of needs and capacities at the start of the TA (followed by periodic review and targeted investigation throughout period covered) will be critical to (i) inform provincial action plans; (ii) guide formulation and implementation of surveillance, emergency response, and information, communication, and education (IEC) campaigns components under the TA; and (iii) ensure feed-in to medium-term efforts to strengthen general capacities in these areas within local health and related sectors.

3. **TA Coordinator** (domestic consultant; 12 person-months, including an estimated 120 days in-field during multiple visits to the Western Region). Reporting to the central project implementation unit and working closely with the project implementation units (PIUs) in the selected provinces, the coordinator will facilitate implementation of the TA in target provinces, ensuring full communication and dovetailing of efforts across all administrative levels, and with other active national and international agencies. Other specific tasks include the following:

(i) Liaise with relevant focal points for other domestic and internationally funded SARS initiatives.

(ii) In close dialogue with the Asian Development Bank (ADB) and consultation with the World Health Organization (WHO), assist the central PIU in assessing needed equipment and supplies that are integrally linked to the TA's comprehensive program (complementing capacity building, personnel protection, and IEC efforts). This will include identification of (a) provincial capacity to determine local needs; (b) sources, costs, and means of procurement; (c) distribution to and within target provinces, and related logistics; and (d) training and other needed investments needed to ensure apt usage. Follow up to ensure timely delivery, deployment, and appropriate use.

(iii) Assist PIUs in each target province to formulate a comprehensive and concrete action plan, including cost estimates, implementation and coordination across agencies and administrative levels, and budget planning. Consider existing local models (e.g., community-based approaches employed in Beijing) and lessons learned, as relevant to Western Region contexts.

(iv) Provide guidance and assistance to all PIUs related to plan achievement, and facilitate communication and information sharing.

(v) Provide concise updates every two weeks, and quarterly reports to ADB. Updates should report progress and identify challenges and propose resolutions.

4. The coordinator will also identify to the central PIU and to ADB specific expertise inputs needed, as well as appropriate mechanisms for carrying out key activities under the TA. These recommendations will be formulated in close consultation with WHO[1] (particularly with regard to specific qualifications and terms of reference and other international and domestic organizations as appropriate. Similarly, ADB will seek external validation of consultant inputs via dialogue with WHO and other partners, for quality control and consistency with broader initiatives.

5. The coordinator will be the team leader and take overall responsibility for any auxiliary consultants or individual resource persons mobilized, and will monitor and liaise with domestic and/or international organizations and local institutions selected to carry out activities. An indicative outline of expert inputs follows, grouped by broad outputs.

6. Assessment and planning will include the following:

(i) collection of existing data, additional surveys, research, and analytical work needed to compile needed information encompassing key areas such as (a) capacities for rapid and effective collection and analysis of epidemic data; (b) current activity and latent capacity for information dissemination within the health system and to the general public;[2] and (c) public behavior, attitudes, and awareness, as well as various dimensions of community readiness—with a particular emphasis on rural areas with less access to information—and possibilities to mobilize local organizations for SARS awareness, prevention, etc.
(ii) identification of additional information needed to design the remaining TA outputs; and
(iii) follow-up monitoring and assessment of plan implementation (including deployment of equipment and linkages to training), efficacy, and proposal of needed refinements.

7. **Epidemiological surveillance will include the following:**
(i) additional focused assessment of needs and capacities (e.g., analysis of rural transmission dynamics);
(ii) assistance to the government in (a) formulating a framework (including system coverage, data collection and analysis, equipment and training needs, operational budget planning, etc) extendable beyond SARS; and (b) identifying and mobilizing key hospitals/health centers/laboratories, and inventorying equipment and supplies;
(iii) networking of diagnostic facilities in the Western Region;
(iv) identification of priority equipment and supplies, based on WHO and State Development and Reform Commission (SDRC) guidelines;
(v) development of focused training curricula and material;
(vi) provision of training, and follow-up impact assessment; and
(vii) monitoring of adequacy and efficacy of quarantine efforts, and planning for additional mobilization as needed.

[1] WHO is a key partner for regional efforts to combat SARS, and ADB is pursuing a joint memorandum of understanding to outline collaboration in the region.
[2] This should include viability of reaching health workers at provincial-village levels using various means (e.g., covering staff at county and higher levels under emergency response training, versus community health personnel via general IEC).

8. **Emergency response systems will include the following:**

(i) additional focused assessment of needs and capacities in this subsector (e.g., identifying risk factors facing hospital staff and other front-line personnel);
(ii) formulation of a provincial implementation plan, with early prioritization of urgently needed capacities and key and high-risk groups, followed by more peripheral groups;
(iii) development of focused training curricula and materials for key groups of (a) local government, and (b) personnel, including safety and efficacy in key operations (e.g., early detection, border control, community infection control, transport and quarantine, clinical management, laboratory systems, and human and environmental safety in disposal of health supplies);
(iv) complementary information dissemination mechanisms to reach at-risk health staff—as with structured trainings, presenting operational guidelines (with clear prescriptive instructions) for staff self-protection from infection, as well as staff supervision, and systematic hospital- and clinic-level monitoring;
(v) identification of priority equipment and supplies, based on WHO and SDRC guidelines;
(vi) training and follow-up impact assessment; and
(vii) planning for sustainable skills transfer to local education and training centers after the TA.

9. **Information, education, and communication will include the following:**

(i) assessment of public behavior, attitudes, and awareness;
(ii) prioritization of various groups (may include community-level health-related workers) and content (e.g., awareness, self-protection, access to treatment, and social responsibility, including steps for symptomatic cases), and identification of appropriate, targeted media and communication modes and other social mobilization strategies;
(iii) formulation of a provincial IEC master plan aligned with national strategies, including costed delivery approaches and concrete plans to mobilize required financial and human resources;
(iv) identification of priority equipment and supplies, based on WHO and SDRC guidelines;
(v) workshops and capacity building;
(vi) development of IEC materials for provincial and community-based campaigns; and
(vii) campaigns and dissemination of material, impact assessment, and refinement—monitoring should also cover budgeting from Government contribution, and propose means of ensuring post-project sustainability of EC tools for broader health issues.

10. In addition, the consultant team will, in dialogue with WHO and other international and domestic actors, periodically assess the (i) appropriateness of TA interventions taken, including process-oriented elements; (ii) linkages to evolving national strategies; (iii) the role of local and national governance; (iv) emerging policy recommendations; and (v) prospects for strategic investments and other forward-looking action needed to enhance the performance of the health system on a sustainable basis, drawing key lessons from the SARS case on the importance of

adequate surveillance and other facets of preventive health as public goods. This may include workshops and other structured activities at key junctures (e.g., midterm review).

B. Indicative Procurement Packaging

1. Procurement is shown in Table A4.

Table A4: Outline of Procurement

Description	Number of contracts	Amount Base Cost ($)	Procurement Mode
A. Emergency Equipment Package[a]	1-3	300,000	DP
B. Other			
1. Epidemiological Surveillance Systems[b]	4-8	100,000	DP
2. Emergency Response Capabilities[c]	4-8	100,000	DP
3. Information and Education Campaign[d]	4-8	100,000	DP/IS
Total	**13-27**	**600,000**	

Key : DP = direct purchase; IS = international shopping

All procurement will be (i) based on World Health Organization and State Development and Reform Commission recommendations; (ii) integrally linked to the technical assistance's comprehensive program, complementing capacity building, personnel protection and information, education, and communication efforts; and (iii) subject to Asian Development Bank's approval. Base costs exclude price and physical contingencies.

[a] Immediately needed surveillance-related and other equipment (e.g., screening apparatuses, diagnostic equipment, mobile X-ray units for use within SARS-designated wards, disinfection equipment, etc.) and consumable supplies to protect front-line staff and prevent transmission in high-risk areas (e.g., masks, gloves, gowns, goggles, disinfectants, etc.).

[b] Additional equipment needed for provincial surveillance systems, based on assessed needs.

[c] Based on needs assessment, additional diagnostic and treatment equipment and supplies; may include vital check equipment, respirators, mobile X-ray units, blood chemical analyzers, protective supplies for front-line staff, etc.

[d] Based on needs assessment, may include laptop and/or desktop computers, printers, hardware and software for multimedia design and display, printers and copy machines, etc.

Source: Asian Development Bank estimates.