Severe acute respiratory syndrome (SARS) was the first severe and transmissible disease that emerged in the 21st century. The first cases of SARS appeared in the southern region of the People’s Republic of China in November 2002. The flu-like disease according to the World Health Organization (WHO) had a global case fatality rate of 9.6% (over 50% for patients over the age of 65). SARS had no effective vaccine or cure, forcing health authorities to resort to control measures such as case isolation and quarantine. Considerable number of patients required intensive care adding strain on hospital and public health system. SARS was recognized as a global threat by March 2003 by WHO as the disease was spreading fast aided by the rapidly increasing social and economic interconnectivity and improved transport links in the region. Media reports fuelled panic and some countries imposed travel restrictions, which rapidly affected travel, tourism and trade, particularly in the region, with an eventual economic cost estimated at between $30-$140 billion (source: WHO http://www.who.int/global_health_histories/seminars/presentation38a.pdf).

On 23 May 2003, the ADB President requested an emergency action plan to address the SARS outbreak affecting developing member countries (DMCs) in the region. Through a rapid multisector and interdisciplinary effort, ADB’s SARS crisis response team developed an action plan, which the ADB President approved on 7 May 2003. The plan included two emergency technical assistance projects1 to support DMCs in a flexible manner. As cases of SARS waned towards the end of 2003, a new infectious disease, H5N1 avian influenza (bird flu), started spreading in the region. As the interventions needed to prevent and treat both diseases were broadly similar, the scope of the regional technical assistance (TA) was broadened in January 2004 to include activities related to the prevention and control of avian influenza and other emerging communicable diseases.

**Expected Impact, Outcome and Outputs:**
The expected impact of the TA was to prevent or reduce the spread of SARS by improving DMCs’ capacity for communicable disease control. While the initial focus was on SARS, it expanded rapidly to avian flu and other emerging diseases. The TA had three specific expected outputs: (i) emergency assistance for SARS-affected and SARS at-risk countries, which included rapid assessments of the health system, enhanced disease surveillance, training, development of border screening procedures and information campaigns; (ii) health and economic assessments of the potential effects of SARS with dissemination of findings to improve understanding of the disease and help prepare for appropriate responses; and (iii) analysis of required investment response, including small scale project preparatory technical assistance projects for short and medium term responses to the SARS outbreak and other emerging communicable diseases.

Given the uncertain and evolving nature of the SARS epidemic in 2003, the design of the TA was necessarily flexible to meet the emerging needs of DMCs. The TA would support expert services, required related facilities and other activities in line with the recommendations of WHO and in collaboration of regional agencies such as the Association of South East Asian Nations.

**Delivery of Inputs and Conduct of Activities**
On 23 May 2003, the Board approved a $2.0 million TA for emergency assistance to DMCs. The TA, expected to be implemented from May to December 2003, specifically highlighted the need for flexibility, and noted that implementation arrangements would be reviewed monthly and adjustments would be made as appropriate. Additional cofinancing of $3.0 million in September 2003 (from JSF) and $0.5 million in June 2004 (from ICDF), bringing the total TA amount to $5.5 million, allowed a broadening of the scope and range of the TA to include activities related to avian influenza and other emerging infectious diseases. As the avian flu continued spreading, the TA implementation period was extended thrice to allow completion of ongoing activities and accommodate proposals (the last ones from the Philippines and Afghanistan), with a final completion date of 30 June 2008.

On 29 January 2004, a minor change in scope was approved to allow funds to be used for equipment, training surveillance, monitoring and other public health system capacity needs in relation to avian influenza outbreaks and other emerging infectious diseases.

ADB was the executing agency. The then Agriculture, Natural Resources, and Social Sector Division (RSAN) of the Regional and Sustainable Development Department (RSDD) coordinated and supervised TA implementation in close collaboration with concerned divisions in the regional departments. The SARS crisis response team, comprising representatives of RSDD and regional departments, served as the TA team. Proposals were solicited from DMCs affected or threatened by SARS and ADB

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allocated up to $200,000 per country to support programs at the country level. TA implementation arrangements were flexible and allowed adjustments in terms of reference, duration and schedules of expert inputs to better respond to the actual needs as the threat evolved. Participating DMCs made in-kind contributions in the form of office space, local travel, remuneration of counterpart and supporting staff, office facilities and utilities, and workshop support.

The ICDF portion of the TA was intended to strengthen human capacities in public health services and funds were used for short term training programs and conferences that focus on surveillance, infectious disease control, emerging disease management and related issues.

A consultant team of health experts (the rapid outbreak response team) based at the WHO Western Pacific Regional Office (WPRO) in Manila but working also closely with the WHO Southeast Asia Regional Office (SEARO) in New Delhi and covering both WPRO and SEARO member states provided technical advice and support for DMCs requiring quick support for SARS prevention and control. Consultants participated in country assessment missions led by the World Bank in Cambodia, Lao People’s Democratic Republic, and Viet Nam, and supported country project implementation in the Philippines and in Afghanistan.

Evaluation of Outputs and Achievement of Outcome
The TA allowed ADB to rapidly respond to requests from DMCs for SARS prevention and control programs. The flexibility of the implementation arrangements enabled ADB to quickly provide DMCs with capacity building assistance at the country level for H5N1 avian influenza (which appeared end of 2003 until early 2004) and other emerging infectious diseases. ADB allocated funds to Afghanistan, Bangladesh, Cambodia, Fiji Islands, Indonesia, Kyrgyz Republic, Lao People’s Democratic Republic, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Tajikistan, Viet Nam, with grants of up to $200,000 with mostly the ministry of health (or equivalent) as the implementing agency in the country. WHO helped assess the technical quality and appropriateness of the proposed project requests. The project filled gaps in country response capacity and included training and emergency procurement of hospital equipment and supplies to contain SARS outbreaks in the affected areas. TA resources helped improve disease surveillance; conduct rapid assessments, training of essential personnel and communication campaigns; provide operational support, and finance consultants for specific activities. In addition, ADB supported a regional capacity building proposal for the Pacific Islands countries from the Secretariat of the Pacific Community.

To provide rapid technical support for DMCs, ADB recruited, in consultation with WHO, four individual experts who formed the rapid outbreak response team based at WPRO in Manila. Under RSAN (later Poverty Reduction, Gender, and Social Development Division) supervision, the team coordinated ADB county-level and regional responses to the outbreaks, under WHO technical guidance, ensuring harmonization and coordination of the technical support. Implementation of activities in some cases was delayed due to DMCs’ unfamiliarity with ADB procurement guidelines, and low absorptive capacity in some DMC ministries.

In Afghanistan, the TA supported the prevention and control of avian influenza in provincial hospitals through a consulting firm based in the region. In the Philippines, TA resources were used to strengthen surveillance and response capacity to avian influenza, but also outbreaks of dengue and other emerging diseases at the level of local government units.

Overall Assessment and Rating
The TA was successful: DMCs were able to rapidly access emergency financing, and ADB assistance was provided in collaboration with WHO, ensuring technical quality and harmonization of assistance at the country and regional levels. ADB demonstrated its capacity and flexibility in providing quality emergency assistance to DMCs facing health threats that could have not only significant public health impacts but also social and economic impacts. It initiated a model of collaboration between ADB and the technical agencies that later proved useful for the control and prevention of H5N1 avian influenza and influenza pandemic preparedness. The TA assisted DMCs in building their capacity for controlling SARS, and later on for preventing and control avian influenza and other emerging communicable diseases in the region. It also highlighted the need for a regional approach to public goods such as communicable disease control.

Major Lessons
The TA’s flexible implementation arrangements and focus on the actual needs of DMCs for SARS and communicable disease control (i.e., hospital equipment, training and communication programs), together with the multisector and cross-departmental collaboration in ADB and between ADB and technical agencies such as the WHO, all contributed to the success of the TA. Such factors underlined the effectiveness of ADB in addressing the needs of DMCs in an emergency. Partnerships with technical agencies in the region were key to rapid and effective responses to the emergency, and to longer-term capacity building needs as well.

ABD’s involvement in helping DMCs prevent and control SARS and avian influenza highlighted the importance to provide not only country level assistance but also to coordinate interventions at the regional level, and the benefit for member countries when ADB partners with qualified technical agencies. ADB realized that prevention and control of communicable diseases was a true regional public good. This was reflected in Strategy 2020, approved in 2008, and continues to be an area where ADB can really have a significant impact to improve health in the region.

Recommendations and Follow-Up Actions
Outbreaks of SARS, avian influenza, dengue and other communicable diseases will continue to appear, and the risk of international spread of infectious diseases will continue, with increasing people’s mobility and cross-border trade. As a regional institution and with the experience acquired through SARS and avian influenza, ADB can help strengthen regional health security, in partnerships with technical agencies, regional organizations, governments, civil society and private sector. Strong and effective partnerships with technical agencies, a regional approach to communicable disease control, investment in research, and continued cross-disciplinary and multi-sector collaboration are necessary to maintain surveillance and respond rapidly to health threats, in particular to communicable disease outbreaks in the region. This is not only a medical issue, but also a matter of health systems strengthening, organization, and effective allocation of resources.

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