INDIA

INTEGRATED DISEASE SURVEILLANCE PROJECT (Credit 3952-IN)

THIRD REVIEW MISSION

AIDE MEMOIRE

April 3 – 28, 2006

1. A World Bank team[1] reviewed the implementation progress of the Integrated Disease Surveillance Project (IDSP) during 3 to 19 April, 2006. During this period the Bank team worked closely with the Government of India (GOI) team led by Mr. Deepak Gupta (Additional Secretary, Health and Family Welfare, Government of India (GOI)) and Dr. Shiv Lal (Director for the IDSP and National Institute for Communicable Diseases); and included Mr. B.P. Sharma (Joint Secretary), Dr. D. Bachani (National Project Officer for the IDSP) and project staff from the center and the Phase I and II states. Dr. Sampat Krishnan and Dr. Yvan Hutin from WHO India and Mr. Christopher Barret from USAID also participated during technical consultations and state reviews.

2. The review team and senior officers from the Central Surveillance Unit (CSU) visited states of Andhra Pradesh, Gujarat and West Bengal and undertook detailed state reviews. Regional consultations were held in Hyderabad, Gandhinagar, Kolkata and Delhi to review implementation progress in Phase I and II states. The Bank team also assessed potential areas for Bank's support to India's Avian Influenza (AI) containment program and participated in discussions on implementation arrangements for Non Communicable Diseases (NCD) surveys proposed under the project. The Bank team reported its findings at a wrap-up meeting, chaired by the Additional Secretary, Health and Family Welfare, on April 20, 2006. A separate wrap-up meeting, chaired by Mr. Anirudh Tewari, Director, Department of Economic Affairs, was held on April 28 to discuss Bank's support to AI.

3. The review successfully completed objectives of identifying the enabling factors and bottlenecks in implementation of IDSP and agree with GOI on developing an action plan to enhance implementation pace, and defining the Bank's support for India's country program for preparedness, control and containment of AI working closely with WHO, FAO, USAID and other partners. The review findings are presented in two sections. Section A details the findings on IDSP while Section B describes Bank team's assessment on AI.

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Section A: Review of Integrated Disease Surveillance Project

4. Key Project Data

Project Data	Project Performance Ratings		
Board Approval: July 8, 2004	*Summary Ratings:*	*Last*	*Now*
Effectiveness Date: October 28, 2004	Achievement of PDO	MS	MS
Original Closing Date: March 31, 2010	Implementation Progress	MS	MS
Revised Closing Date (if relevant):	Financial Management:	S	MS
MTR Date (Actual if completed), October 31, 2007			
Original Ln./Cr. Amt: US$ 68 Million			
Revised Ln./Cr. Amt:			
Amount Disbursed: US$ 6.37 Million			

Ratings: **HS**=Highly Satisfactory; **S**=Satisfactory; **MS**= Moderately Satisfactory; MU= Moderately Unsatisfactory; **U**=Unsatisfactory; **HU**=Highly Unsatisfactory; **NA**=Not Applicable; **NR**=Not Rated

Key Issues in Implementation and Agreed Actions to Address these Issues

5. At the central level, the project is still to catch-up with the momentum that has slowed down after a good start. Time taken for consolidating new institutional arrangements and additional demands placed on core National Institute of Communicable Diseases (NICD) team by Avian Influenza pandemic threat and outbreaks of Japanese Encephalitis, Leptospirosis and Chikungunya delayed completion of several actions agreed during September 2005 mission. Completing these actions during the next 3 months would be critical for bringing back the project on track and achieving the development objectives. The Central Surveillance Unit has prepared a time bound action plan clearly indicating persons responsible for each action.

6. At the state level, IDSP implementation has improved in recent months. Outbreak investigations and response activities are taking place with varied degrees of effectiveness. However, the states are yet to internalize them as important outcomes of IDSP. Weekly surveillance reports in new formats are being received by Central Surveillance Unit (CSU) from 116 districts which also include some phase II states. Though the expenditure reported is still very low (Rs. 24 million), state reviews using objective parameters suggest satisfactory progress among six out of the nine Phase I states (Annex 1). Overdue audit reports for FY 2004-05 have been received from all Phase I states. Detailed actions with timelines were agreed to enhance implementation by each state including involvement of private sector. A high level GOI team will be visiting the three states that were lagging behind during next two months to expedite the project implementation. While it is too early to quantify the progress made by the Phase II states, interactions during the regional reviews highlighted the importance of building the capacities of local health authorities for carrying out high quality outbreak investigations and response. The GOI has agreed to prepare a comprehensive proposal for building state capacities in field epidemiology.

7. The project has so far disbursed USD 6.37 million (including Special Account Advance of USD 6.36 million). Thus excluding the SA advance, the actual reimbursement under the project is only about USD 9,000. The mission was informed that the actual expenditure as of March 31, 2006 is Rs. 38.97 million (USD 0.9 million) and reimbursement claims were made for Rs. 13.13 million.

8. Taking the overall progress since September 2005 in to consideration, the review team rates the project implementation "*moderately satisfactory*" and this rating will be reassessed again in July

2006 based on progress made in the agreed action plan. The performance rating will be downgraded if there is no satisfactory progress.

9. **Key Performance Indicators:**

Indicator	Baseline	Progress to date	End–of-Project Target Value
1. Number and % of districts providing monthly surveillance reports on time	93 districts included under National Surveillance program for Communicable Diseases	About 30% (116) out of the 390 districts covered in Phase I and II are sending surveillance reports to CSU. All districts in 3 Phase I states (Kerala, Uttaranchal and Tamil Nadu) sending weekly reports to SSU.	>50% of districts
2. Number and % of districts in which private providers are contributing to disease information	None	15 out 49 districts from 3 Phase I states (Karnataka, Mizoram and Uttaranchal) reporting data from Private Sector	At least 50% of the reporting districts
3. Number and % of laboratories providing adequate quality information	To be established	Data not available	
4. Number and % of responses to diseases specific triggers assessed to be adequate	Not existing	States reports documenting responses to disease specific outbreaks for FY 2005-06 due by June 30, 2006	>75%

Agreed Key Actions (Detailed Actions with dates given in Annex II):

10. The Ministry of Health and Family Welfare (MOHFW) will ensure that

- The action plan prepared by the CSU to complete pending actions agreed in September 2005[2] and enhance support to states is implemented as per the agreed schedule.
- The Project Director and Joint Secretary will visit the three Phase I states lagging behind in implementation before May 31, 2006 and will jointly review the implementation of the action plan every fortnight.

The Phase I and II states will:

- Position remaining staff at state and district levels by May 31, 2006;
- Complete the decentralized training of medical and paramedical staff by September 2006 (Phase I) and December 2006 (Phase II);

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[2] Agreed actions in September 2005 review include: (a) Enhancing technical support to states by positioning regional coordinators and time-bound state visits by CSU staff for trouble shooting; (b) Awarding contracts and initiation of data collection for NCD risk factor surveys; (c) Completing evaluation of training given to state and district surveillance teams using a panel of independent experts; and (d) Implementing the external quality assurance and baseline laboratory surveys.

- Start weekly data reporting from public and private sectors from June 2006 and cover entire state by December 2006; and
- Prepare annual state report documenting disease specific outbreaks and responses and share these reports with the CSU by June 30, 2006.

Implementation Progress:

Component I. Establishment and Operation of Central Surveillance Unit (CSU)

11. Two reasons are mainly attributable for the slowing down of project implementation at the central level. First, a move by GOI to consolidate all disease surveillance activities under the National Institute of Communicable Diseases (NICD) which required changes in institutional arrangements agreed for the project. Second, the additional demands placed on NICD team supporting IDSP by outbreaks of communicable diseases including Avian Influenza (AI) among bird populations in three states.

12. While shifting of project implementation responsibility to the NICD will have a salutary impact on integrating and sustaining disease surveillance activities in India on a longer run, the immediate benefit accrued by the project is the additional technical resources made available by the NICD from its pool of experts with rich experience in organizing public health laboratory networks, disease surveillance and outbreak investigation. However, for operational efficiency and accountability it is important to define the roles and responsibilities of senior staff at CSU. NICD being designated as the nodal agency for the human health component of AI provides an excellent opportunity for the IDSP to join the ongoing effort to prevent influenza pandemic and document lessons for improving on the ground responses to disease outbreaks.

13. The three implementation bottlenecks identified at the central level are: (a) insufficient delineation of responsibility among core CSU staff to effectively coordinate and be accountable for specific program components; (b) prolonged clearance process delaying timely implementation of agreed actions; (c) inadequacy of current IDSP arrangements for trouble shooting and technical support to states, especially when new outbreaks such as Chikungunya are reported.

14. Finally, integration of surveillance activities under different national health programs still remains a challenge and requires ongoing dialogue between different program managers supported by firm leadership under the National Rural Health Mission. The NICD should facilitate such a dialogue and pilot innovations such as enhancing the role of polio surveillance officers in integrated disease surveillance among states which did not report new polio cases during the past three years.

Agreed Actions:

- *The Project Director will issue orders clearly delineating the roles and responsibilities of core staff at CSU including those seconded from NICD.*
- *The CSU will prepare a detailed time-bound action plan for completing pending actions clearly indicating persons responsible including sustained technical support to states.*
- *The Additional Secretary, Project Director and Joint Secretary will jointly review the implementation of the action plan every fortnight.*
- *The Project Director will organize a consultation with National Polio Surveillance Project to develop pilots for enhancing participation of polio surveillance officers in IDSP.*

Component II. State and District Surveillance Units

15. The mission is pleased to note that many Phase II states have made progress in implementing the project. Thirteen Phase II states have signed memoranda of understanding with GOI and first installment of funds has been released. However, several actions agreed by Phase I states are still pending. Outbreak investigations and response activities were taking place in all states, though the quality of the investigations and responses varied. It would be important to promote active participation of district/state surveillance officers in outbreak investigations and responses. Detailed actions agreed by the states during the regional reviews are listed in Annexes IV A-D.

16. The important implementation bottlenecks noted at state level include: (a) inadequate oversight by the designated state nodal officer as most such senior officers tend to have multiple responsibilities; (b) confusion about the status of IDSP society in the interim period till an integrated health and family welfare society is created; (c) limited use of state officers trained in field epidemiology at NICD and National Institute of Epidemiology (NIE) and medical college faculty for the IDSP; (d) delayed recruitment of project staff due to lack of uniformity in salaries for similar categories of contractual staff under different centrally sponsored programs and modal code of conduct due to on going elections in some states; (e) lack of familiarity among newly recruited finance consultants and accountants about book keeping and financial reporting agreed for the project resulting in delayed submission of financial monitoring reports and claims.

Agreed Actions:

- *The Project Director and Joint Secretary will visit three phase I states that were lagging behind before May 31, 2006 to expedite project implementation.*
- *The Project Director will ensure that (a) CSU staff supported by the regional coordinators will undertake regular state visits to follow-up on the agreed implementation schedule; and (b) the project financial consultant will undertake intensive state visits and organize regional sensitization workshops for state financial consultants and accountants.*
- *All states will initiate actions to improve oversight for IDSP at state level[3] including participation of medical college faculty.*
- *The MOHFW will send a clear communication to states on harmonized compensation for consultants recruited under various centrally sponsored schemes in NRHM and flexibility available to states to reassign posts sanctioned under the project based on state-specific needs.*

Component III. Improving Laboratory Support

17. Discussions with states suggested that many Primary/Community health centre (Level 1) laboratories have already been renovated under Revised National Tuberculosis (TB) Control and Enhanced Malaria Control projects. It is therefore important to rationalize the resources provided under the project for laboratory renovation to address critical needs of District Public Health (Level 2) laboratories. Under the project the district labs are to undertake: i) Internal quality assurance; ii) Training of laboratory technicians; iii) Specialized investigations during epidemic outbreaks; and iv) Communication and networking with L1 and private sector laboratories. There was considerable discussion about the pros and cons of co-locating the public health laboratory with the clinical laboratory in district hospital. There are clearly efficiency gains with integration. However, there is risk that the public health work may take a second place to the clinical work. Also, the institutional arrangements are different across the states. For example, some states (Karnataka, Maharashtra, etc.)

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[3] The options include, deputing a full time officer trained in field epidemiology to state surveillance unit or reassigning one of the sanctioned consultant positions at state level to appoint a trained professional to support state nodal officer in project implementation.

have dedicated public health laboratories while others have such institutions at divisional or state levels. The need for a dedicated laboratory coordinator for managing public health laboratory networks at state and district levels was evident from the discussion.

18. The main bottleneck for strengthening laboratory services are: (a) need for a full time staff/consultant supporting the Laboratory Coordinator at CSU whose team already has a heavy workload and which is bound to further increase with additional laboratory strengthening under Influenza surveillance; (b) lack of clarity about the purpose of the public health laboratory network and in particular the roles and responsibilities of the district and state PH labs, especially in terms of systems/mechanisms for oversight of L1/L2 labs; (c) fragmentation of the laboratory services at district level, particularly the integration of the currently vertical malaria and TB labs within an integrated public health laboratory network which will require some firm leadership from the top and a dedicated laboratory coordinator at state and district levels.

Agreed Actions:

- *The CSU will clarify to states about flexibility available for districts/states to re-allocate funds made available under IDSP to renovate laboratories participating in the project.*
- *The CSU will position a consultant to support the IDSP laboratory coordinator at NICD.*
- *The Project Director will constitute an expert team to visit representative states during next 3 months to review the current public health laboratory set-up at state and district levels and prepare detailed guidelines and standard Operating Procedures for public health laboratories under IDSP including the Terms of Reference for District Laboratory Coordinator.*
- *Using the central guidelines, the states will undertake a systematic assessment of L2 laboratories for including public health component.*
- *The External Quality Assurance Program will start from June 2006.*

Component IV. Training for Disease Surveillance and Action

19. During the past few months the CSU has carried out regional sensitization training programs for the district surveillance teams implementing the National Surveillance Program for Communicable diseases. The review team is, however, disappointed to note continued delays in finalizing plans and implementation arrangements for the decentralized training of medical officers, lab technicians and paramedical workers by Phase I states. The cascade training envisaged under the project depends on the quality of training received by the trainers (state and district surveillance teams) and time lag between different rounds of training.

20. The important bottlenecks observed in training were (a) Delay in finalizing plans for decentralized training by Phase I states leading to 6-12 months gap between trainers and medical officers training; (b) Long time taken by some states in translation and printing of modules; (c) Long delay in completing agreed independent assessment of quality of trainers training; and (d) Limited technical capacity available at state and district levels to carry out good quality epidemic investigation and provide appropriate response in time.

Agreed Actions:

- *The states will invite trainers from respective national training institutions during the initial rounds of training as observers.*
- *The states will implement the training plans as per the schedules agreed during the review.*

- *The CSU in consultation will evolve a comprehensive capacity building plan through a three tiered training for enhancing local responses for epidemic outbreaks in consultation with states*[4].

Surveys for Non Communicable Diseases (NCD)

21. The implementation of NCD risk factor surveys -- which are important for India to evolve strategies and actions to reduce emerging burden of this group of diseases -- continues to get delayed. The major bottlenecks were: (a) Delayed clearance for creation of an NCD surveillance cell within the CSU and National Technical Advisory Group; (b) Enhanced complexity of surveys which required support from expert agencies at national and regional levels to provide technical guidance, standardization of methods especially biochemical tests, obtain ethical clearances, train investigators and assure quality during data collection which was not envisaged at the time of project preparation; (c) Non availability of a full time officer at CSU to expeditiously follow-up on implementation arrangements. The last bottleneck has been partly addressed recently with the posting of a senior NICD officer on part time basis.

22. It appears that some more work still needs to be done on standardizing bio-chemical tests in field situations. It is likely that resolving these issues will take at least 3 months and probably longer. Given that this survey is already long delayed in getting into the field the best course of action is to begin the survey in Phase 1 states without biochemical testing. If issues are sorted out over the next 6-12 months, the biochemical testing can then be included in Phase 2 state surveys. Also, standardizing tools for physical measurements (blood pressure, anthropometry) including field manuals, ethical issues (e.g. process for referral), and developing quality assurance protocols needs to be undertaken to minimize inter-observer variation.

Agreed Actions:

- *By April 28, 2006 the MOHFW will constitute the national technical advisory group for NCD risk factor surveys. The group by May 15, 2006 will decide whether to include Bio-chemical tests in Phase I states.*
- *The Project Director will ensure that the identified focal point for NCD Surveys will have adequate time to provide oversight for implementing the NCD surveys. In case if this is not possible, a technical expert will be hired as a consultant to provide day to day support to the part-time focal point.*
- *The NCD focal point in consultation with the identified survey agencies will prepare a detailed action plan for starting the surveys in Phase I states from July 2006.*

Procurement

23. *Goods*: The Project became effective in October 2004 and actual procurement of goods and equipments for the Phase I States and partly for the Phase II States commenced in year 2005-06. Messrs. Hospital Services Consultancy Corporation has been engaged as procurement support agency. The details of bids invited and contracts awarded for goods and equipments during 2005-06 are provided in the *Annexure III*. The total value of goods under procurement is INR 202.60 million, equivalent to approximately US $ 4.5 million. Out of this, so far only one contract of Rs. 2.8 million has been awarded and evaluation report for supply of computer hardware (Rs. 163 million) has just been received by the Bank. Thus, the progress in procurement of goods falls substantially short of the projections made in the Procurement Plan for 2005-06. The CSU has drawn up a revised

[4] The plan will include sponsoring 2-3 officers from the state for 2 year field epidemiology training as well as short term training for district officers in epidemiology and managing IDSP; and workshops for medical college teams for better documentation of and dissemination of reported epidemic outbreaks.

Procurement Plan for the year 2006-07 to make up for the shortfall which includes the residual requirements of Phase II States and the complete requirements of Phase III States for goods and equipments. The procurement planned for the year 2006-07 combined with the procurement made during the year 2005-06 will cover the entire requirement of goods and equipment projected in the PIP.

24. *Services*: In the first year of the project four services are to be contracted at the central level. These are for (a) Development of software (Quality and Cost Based Selection (QCBS)); (b) Survey of risk factors for non-communicable diseases (QCBS); (c) Development and dissemination of IEC messages (QCBS); (d) Baseline survey of laboratories (QCBS); and (e) Leasing of wide Area Networking (least cost selection subject to qualification criteria).

- *Software Development*: The technical evaluation report for the software development consultancy is under Bank review.
- *NCD Surveys*: The scope of NCD surveys has considerably changed with the recent GOI decision to use them as benchmark surveys to evolve and monitor national programs for prevention and control of NCDs. Considering the technical capacities required and ethical requirements, the CSU is proposing to contract agencies with proven experience in carrying out public health on a single source basis for carrying out the NCD risk factor surveys. A central nodal agency and 5 regional agencies will provide oversight, ensure standardization of tools and monitor quality. The Bank has approved the terms of reference (TORs) for nodal, regional and state level agencies and requested the CSU to provide adequate justification for contracting these agencies on a single source basis.
- *Leasing of Wide Area Networking*: The CSU came up with a revised proposal to hire the services of ISRO for provision of satellite based networking solution. The Bank has requested the CSU to provide: (a) the justification for single source contracting and the enhanced scope of networking through inclusion of additional activities not envisaged originally in the PIP; and (b) comparison of the costs now projected with the PIP estimate. This information is still awaited.
- *Development and dissemination of IEC messages*: This consultancy is currently at the Expression of Interest (EOI) stage
- *Baseline Survey of Laboratories*: According to the information provided by CSU, the proposals received are under evaluation and the contract is expected to be awarded by April 30, 2006.

Agreed Actions:

- *The MOHFW has agreed to analyze the time taken for various procurement actions for bid to pinpoint factors contributing to the delay and include steps to minimize such delays in the action plan to enhance project implementation.*
- *CSU to provide justification for proposed single source selection of agencies for wide area networking and undertaking NCD risk factor surveys.*

Financial Management

25. The financial management is rated moderately satisfactory. Large advances have been given to the Phase I and Phase II states as grant in aid, but the expenditure is negligible resulting in funds lying idle. The recruitment process of State and District accounts in 15 out of the 23 Phase I and II States is yet to be started or is in process. There has been a delay in submission of audit reports for the year 2004-05 and 5 States have been placed under suspension of Statement of Expenditure based disbursements in February 2006. Since then acceptable audit reports have been received from all the States. The Financial Monitoring Report for the period ended March 31, 2006 is due by May 15, 2006.

Agreed Actions:

- *States to complete the recruitment of financial staff at the earliest*
- *CSU to organize training programs on financial management at a regional level for the State accountants, who in turn must train the district accountants.*
- *Phase I and II states to appoint auditors for the year 2005-06 to ensure submission of audited statements to CSU by June 30, 2006 and the Bank from CSU latest by September 30, 2006.*

Environmental Plan

26. There has been no progress in actions agreed during September 2005. The contract for baseline survey of Laboratory Services, which was to include bio-safety and waste management practices is yet to be awarded. The mission was informed that the Request for Proposals (RFP) does not define the necessary technical skills and qualifications required for assessing this component. While it is too late to make changes in the RFP and the consultant recruitment criteria, the CSU ensured the mission that this issue would be addressed while awarding the contract.

27. The earlier mission had requested the draft Bio-safety manual be sent to the Bank for review before finalization and this action is still pending. The mission again reiterates the importance of incorporating bio-safety practices into the training manual and modules for Laboratory Technicians and Operations Manual for District Surveillance teams. Given that no activities have been undertaken under this component, it has been agreed that a separate review and field mission will be undertaken at a later date.

Agreed Actions:

- *CSU will ensure that the scope of the baseline surveys would include bio-safety and waste management practices.*
- *Draft Bio-safety manual will be shared with the Bank before finalization and relevant sections of this manual will be incorporated in the training manuals for laboratory technicians as well as district/state surveillance teams.*

Community Participation in Disease Surveillance

28. Involving communities and creating space for their active participation in disease surveillance is an important priority identified during project preparation. Some of the key activities identified for community-based surveillance include notifying nearest health facility of a disease or health condition; supporting health workers during case or outbreak investigations; and using feedback from health workers to take local action including health education and coordination of community participation. In order to understand better and develop the framework for this community-based surveillance, it was agreed that pilots will be initiated in states that provide new opportunities. The state of Andhra Pradesh will be working with the network of Self Help Groups in 3 districts to report occurrence of selected important diseases. Similar pilots will be encouraged in other states to enhance community monitoring of diseases of public health importance. Based on the lessons from these pilots, scaling up of community-based surveillance will be undertaken by the project.

Agreed Actions:

- *To pilot community based surveillance strategies in different states.*

Section B: Avian Flu Prevention, Containment and Control Plan

Background

29. The first outbreak of avian influenza virus A (February 2006) was reported in poultry in Nawapur district in Maharashtra with detection of H5N1 in the neighboring district of Uchal in Gujarat state. Since the first reported case of AI in poultry, the disease has been confirmed in different locations in Maharashtra, Gujarat and Madhya Pradesh. No confirmed human cases have been reported so far. Action was prompt and undertaken with cooperation of the centre, state governments and the affected districts in accordance with the contingency plans. India is in phase II of Pandemic alert.

30. Following a request from Department of Economic Affairs, Ministry of Finance received on January 19, 2006 to support India's Country Program for Preparedness, Control and Containment of Avian Influenza, the Bank has been working with GOI and other relevant stakeholders to define its contribution to maximize value-addition, while ensuring that specified efforts complement possible support to India's Country Program from other sources. It was agreed and confirmed through a communication from the Bank to DEA, dated March 7, 2006, that the on-going Integrated Disease Surveillance Project (IDSP) would be the primary vehicle for delivering such support. This is in view of: (i) the strong linkage between the nature of the Project and the orientation of India's Country Program for Preparedness, Control and Containment of Avian Influenza; and (ii) the role of Ministry of Health as both the executing agency of IDSP and as nodal agency for India's Avian Influenza (AI) preparedness and control efforts. Given that it is difficult to quantify with precision required resources for the implementation of India's Country Program Preparedness, Control and Containment of Avian Influenza, and considering the uncertainties concerning available financing from other sources in support of this Program, use of IDSP as the primary vehicle for AI support provides flexibility in the sense that after exact expenditures mobilized for this purpose are known, additional financing in the same amount could be made available to IDSP in support of achieving the project's original objectives.

Process

31. India's Country Program for Preparedness, Control and Containment of Avian Influenza as well as the Action Plan for State Animal Husbandry Departments in Respect of Bird Flu and the Contingency Plan for Management of Human Cases of Avian Influenza have been used as a starting point to discuss Bank support. The Bank team has held numerous meetings with officials from the Ministry of Health, Department of Animal Husbandry Dairying, and Fisheries (DADF) as well as experts from WHO, FAO and other donor agencies, including USAID, EU and DFID. In the context of the IDSP implementation review mission, the team also had an opportunity to meet with state officials from Gujarat, Maharashtra and Madhya Pradesh and learn first hand from their experiences in controlling and containing the recent outbreaks in these states.

India's Country Program and Contingency Plans

32. India's Country Program and Contingency Plans have been evolved in close collaboration with both WHO and FAO. The implementation of the contingency plans following outbreaks in Nawapur, Uchchal, Jalgaon and Ichhapur has been in line with plan. Respective State Departments with assistance from the central government have shown and are showing tremendous efforts and extraordinary commitment to bring reported outbreaks under control. Likewise, it is evident that execution of the contingency plans has been effective to control and contain HPAI outbreaks in the local context.

Emerging Issues

33. Since the outbreaks at Nawapur, Uchchal, Jalgaon and Ichhapur have been reported at intervals shorter than twice H5N1's incubation period of 10 days, these outbreaks are technically considered as a single outbreak. This raises the question why the outbreak has not yet been brought under control two months after the first outbreak was reported on February. This raises a number of issues including:

- The origin and spread of the virus are not yet known, which implies that surveillance efforts are in essence chasing a black box, thereby putting a heavy load on laboratory diagnostic work. Consequently, there is an urgent need to conduct an epidemiological survey, including sending of selected samples to regional network laboratories and to OIE/FAO reference laboratory for validation of test results.
- Up until now outbreaks have been picked-up following suspicious deaths of relatively large number of birds, thereby suggesting that a more refined surveillance system would be required to pick up signals of possible outbreaks at a much earlier stage. Proposals to more systematically involve communities, deploy sero-surveillance of migratory birds with the use of sentinels along water bodies, and establish an animal disease surveillance information system need to be pursued with utmost urgency.
- The capacity of High Security Animal Diagnostic Laboratory, Bhopal is turning out to be a critical constraint resulting in relatively long lead times before test results become available and outbreaks can be formally confirmed. This leads to a concern that the length of the lead time would allow the virus to move beyond the 10 km radius for culling purposes, which will have an adverse impact on the effectiveness of control and containment efforts on the ground. In order to deal with this situation, there is an immediate need to involve more laboratories at regional and state levels to undertake preliminary tests/or to empower field teams with test kits for basic screening purposes. Recent experience clearly demonstrates that the proposed laboratory upgrading efforts are a centerpiece of India's Country Program for Preparedness, Control and Containment, but besides upgrading at the regional level might also require improvements in existing Bio-safety Level 2 (BSL2) laboratories.
- Recent outbreaks have clearly put the spotlight on the rather poor bio-security conditions that prevail on poultry farms across the board. Surveillance and control efforts in the absence of adequate compliance with minimum bio-security measures would be ineffective. There will be need for a carrot-and-stick approach that would encourage self-regulatory mechanisms among private sector to improve on-farm bio-security.
- There is a need to have a closer look at institutional arrangements. In this context, it appears that effective control of H5N1 cannot be the sole responsibility of the government alone and that systematic involvement of the private industry and partnership with the community through local self government with responsibility for all stakeholders will be crucial. The envisaged update of the contingency plans could be seen as an opportunity to define in more detail the division of responsibilities and contributions among the government, private sector and communities in HPAI preparedness, control and containment. Likewise, coordination at the state level between the Public Health Departments and Animal Husbandry (AH) Department is quite intense in case of an outbreak, but appears to level off when the immediate threat is brought under control. In this respect, there is a need to ensure more systematic coordination at the state and district levels between the two departments, possibly through including the AH department in surveillance committees and defining joint responsibilities for improving on-farm bio-security.
- One of the strategies is to minimize the opportunities for human infections. This is proposed to be done through adoption of social distancing measures, risk identification and management and risk communication. This is an important strategy which would require partnerships with private sector, communities and other important stakeholders. The different segments have to develop an ownership for success in the program. An appropriate strategy

would require consultations with stakeholders and their involvement right from planning stage. The strategy should be elaborated in the plan of action with specific budget and identified gaps.

- Surveillance has to be very strong and effective to contain or delay the spread of the epidemic at source. The model for seasonal influenza surveillance should consider sentinel surveillance, and involvement of hospitals in surveillance since they are likely to get a large load of cases and have the capacity for collection of samples and transporting them. Some of the hospitals can perform serological screening. Current efforts in surveillance are very labor intensive. Various options need to be considered so that the workforce deployed is not overstretched and at the same time the quality is not compromised. This component is a necessary input into the proposed information technology proposal.
- The performance indicators to monitor the laboratory surveillance are very good. On similar lines performance indicators are needed for assessing the implementation of other key strategies, e.g. early detection of the outbreaks, bio security and environmental safety, social distancing, morbidity, and social disruption. A strategic framework for monitoring and evaluation (M&E) and development of capacity for M&E should be an integral part of the preparedness plan.

Bank Support to India's Country Program

34. A further analysis of the emerging issues as specified in the previous section, suggests that the critical factors determining the effectiveness of India's AI preparedness and responsiveness appear to particularly lie in the upstream segments of the defined Country Program, including: (i) more refined and precise surveillance; (ii) faster laboratory testing response times; (iii) improved on-farm bio-security; (iv) better understanding of underlying causes and spread of the virus; and (v) more effective partnerships with relevant stakeholders. A better handle on these factors will enable India to increasingly deal with the virus at its source, thereby reducing: (i) risk of human infections; (ii) economic losses in the poultry sector; and (iii) program implementation costs due to reduced need for culling with associated compensation payments.

35. The GOI proposal to respond to the threat posed by AI fits well with the overall objectives of IDSP. The plan aims to minimize the threat posed to humans by HPAI as a part of preparation for the prevention, control and response to influenza pandemic. Through the strengthening of laboratory services, use of information technology, revamping of surveillance and human resource development, it is proposed to address the problem of transmission of AI to humans. The proposal to include seasonal influenza surveillance will contribute to influenza pandemic preparedness and response. The strengthening of laboratory networks will also be very useful in investigating other viral syndromes and unusual outbreaks. Furthermore, supporting India's AI preparedness plan will provide an unique opportunity to strengthen cross-sector coordination for addressing zoonotic diseases, which are posing, new and increasing challenges during the 21st century.

36. It is in line with these considerations, as well as the orientation of IDSP, that proposed Bank support would particularly focus on specified surveillance and diagnostic activities under the Country Program. Total support for animal health related activities would amount to about Rs.115 crore or about US$ 25 million equivalent (Annex VA) and for human health related activities would require Rs.88 crore or about US$ 20 million equivalent (Annex VB). The Ministry of Health has confirmed that the costs of human health component can be met within the financial outlay available for the IDSP.

Implementation Arrangements

Human Health Component

37. The existing implementation arrangements for IDSP will continue for the human health component. However, the existing Financial Management (FM) arrangements would not be applicable as the funds for the Avian Flu Component would flow to central level labs and central autonomous institutions and not to States. These will have implications on the financial reporting and audit arrangements. It was agreed that the PIP will be modified to reflect this difference and the consequent impact of the FM arrangements.

Animal Husbandry Component

38. *Bird Flu Cell.* It is understood that implementation of proposed animal health related activities under the Country Program would be coordinated by a dedicated Bird Flu Cell in DADF under the overall guidance of the Joint Secretary of Animal Husbandry, Dairying and Fisheries and with appropriate linkages to established Committees/Task Forces/Expert Groups under the Country Program both at the national and state level. The Bird Flu Cell would be composed of technical experts as well as financial management and procurement officers, with qualifications acceptable to the Bank, in order to effectively deal with the entire range of operational aspects associated with Program implementation. The Bird Flu Cell would integrate appropriate M&E expertise in order to allow for effective specification of outcomes on the ground, both in quantitative and qualitative terms on the basis of agreed outcome and intermediate outcome indicators. In addition there could be a need for short term support (accounts personnel) to the regional laboratories for acting as implementing units for all the State level activities such as training and civil works. In order to establish the Bird Flu Cell within a short period of time, DADF has indicated that it would hire contractual staff at prevailing market rates.

39. The broad activities under the Animal Husbandry component would include civil works and equipment purchase for up-gradation of the regional laboratories, development of GIS, training for various departmental staff and District/Block/Gram Panchayat functionaries at the State level. The arrangements for implementing the various activities and the funds flow, financial reporting and audit arrangements were discussed and agreed:

a) **Civil Works** could be required at the 6 regional labs and at the proposed new lab. The procurement process would be initiated by the respective regional labs and based on the progress of works and submission of bills by the regional labs, payment would be made directly released to the contractors by the Project Management Unit (PMU). Alternatively funds may be advanced in installments to the nodal officer for making payments to the contractor and settling the advances to the PMU/PAO in the dept.

b) **Procurement of equipments/computers/software for GIS**: This activity would be centralized and will be carried out by the PMU in order to achieve efficiencies in consolidated procurement. The procured equipments would be delivered to the regional labs.

c) **Training**: Funds for training will be advanced (based on approved training plan/schedule) to the respective nodal officer at the regional labs who would render accounts to the PMU/PAO. It was confirmed that this is the current practice being adopted and that the regional labs would be able to manage this activity across the states in the region.

40. The advantage of the above arrangement are that the funds would flow to the implementing agencies quickly, avoid delays in budget and funds flow constraints at the State treasury level and ensure quick rendering of accounts and financial reports.

41. *Audit Arrangements.* As activities will be carried out either by the PMU or by way of advances to the regional labs (who in turn will render accounts, including bills to the PMU/PAO) the accounting function could be centralized in the PMU (including monitoring of advances) and the audit of the same could be carried out by the Comptroller and Auditor General (CAG). The terms of reference for audit consented to by the CAG for the IDSP could be extended to the Animal Husbandry Component also.

42. *Disbursement Arrangements.* The financial reporting (reporting format and frequency etc) and disbursement modalities mechanisms need to be finalized, but is likely to follow the traditional re-imbursement method based on submission of Statements of Expenditure (SOE). Under this method the PMU will draw funds through the budget, incur and report expenditure and SOEs through the office of Controller Aid Accounts and Audit, based on which re-imbursement would be made by the Bank.

Other Sources of Financing

43. USAID has expressed on several occasions to the Bank team that it would be interested in supporting selected elements of animal health related aspects of India Country Program. In this context, support for the establishment and operation of the Bird Flu Cell in DADF has been specifically mentioned.

Next Steps

44. It was agreed that the Bank support for India's Avian preparedness plan will be done through incorporating an AI prevention, containment and control component under the IDSP with a single disbursement category and adding Department of Animal Husbandry as an implementing agency in addition to Ministry of Health & Family Welfare. There will be 4 broad sets of activities which include: (1) Coordination, policy support and Monitoring & Evaluation; (2) Animal Health including improved surveillance, laboratory strengthening and capacity building; (3) Human Health including sentinel surveillance for seasonal influenza, laboratory strengthening, networking and capacity building through distance training; (4) Risk Communication to general population, industry and high risk groups.

Actions to be completed by Ministry of Health and Family Welfare (MOHFW)

- Ensure inclusion of representative from Animal Husbandry department on IDSP committees at state and district levels.
- Update the section on influenza surveillance with technical support from WHO/CDC if required.
- Finalize detailed list and technical specifications of laboratory equipment and consumables.
- Develop Terms of Reference for district coordinator for laboratory services.
- List performance indicators for early detection of the outbreaks (time lag between suspicion and confirmation), bio-security environmental safety (% of laboratories confirming to SOPs), social distancing (% population aware of self protection) and morbidity (reporting of suspect and confirmed cases).
- Finalize M&E arrangements that ensure regular data reporting, validation and action.
- Finalize procurement plans for human health component and share with the Bank.
- Update the PIP reflecting the discussions with the mission avoiding duplication with the GOI approved program and reflecting FM arrangements for the central laboratories and autonomous institutions.

Actions to be completed by Department of Animal Husbandry (DAH)

- Establish Bird Flu cell with full contingent of staff using agreed Terms of Reference.
- Finalize performance indicators, M&E arrangements that ensure regular data reporting, validation and action.
- Finalize procurement plans for animal health component and share with the Bank.
- Finalize detailed list and technical specifications of laboratory equipment and consumables.
- Consider launching an epidemiological survey, including sending of selected samples to regional network laboratories and to OIE/FAO reference laboratory for validation of test results.
- Consider defining a carrot-and-stick approach that would encourage self-regulatory mechanisms among private sector operators to improve on-farm bio-security.

Actions to be completed by the Bank

- Finalize legal amendments for the legal documents
- Obtain internal clearances
- Share the amendments with GOI

Annex I

Integrated Disease Surveillance Project
(Credit 3952-IN)

IDSP Implementation Status in Phase I

	State	Project Staff in Position		Training Status			Procurement		ReportingUnits Identified		Weekly Reporting of Diseases		Expen-diture	Total Score
		State All: 2 Partial: 1 None: 0	District All: 2 Partial: 1 None: 0	State/ Dist. Surveil-lance teams Compl-eted: 2 75%-90%: 1 <75%: 0	Training of medical officers Training started:2 Plans Finalized: 1 To be prepared: 0	Training of paramedic-cal staff Training started:2 Plans Finalized: 1 To be prepared: 0	Comput ers Supp-lied: 1 Not supp-lied: 0	Other consum-ables Being procure-ed: 1 Not procure-ed: 0	Public sector	Private sector	Public Sector Started in all dists: 2 Few dists: 1 None: 0	Private Sector Started in all dists: 2 Few dists: 1 None: 0	5-10%:2 < 5%: 1 Nil: 0	
1	Andhra Pradesh	1	1	1	0	0	1	0	1	0	0	0	2	7
2	Himachal Pradesh	2	2	2	1	1	1	0	1	0	1	0	2	13
3	Karnataka	2	2	1	1	1	1	0	1	1	1	1	2	14
4	Kerala	2	2	2	1	1	1	0	1	0	2	0	2	14
5	Madhya Pradesh	2	1	2	1	0	0	0	1	0	0	0	1	8
6	Maharashtra	1	0	2	2	1	1	0	1	0	1	0	1	10
7	Mizoram	2	2	2	1	1	1	1	1		1	1	2	15
8	Tamil Nadu	0	0	2	1	1	1	0	1	0	2	0	1	9
9	Uttaranchal	2	2	2	0	0	1	1	1	1	2	1	2	15
	ATTAINABLE SCORE	2	2	2	2	2	1	1	1	1	2	2	2	20

Annex II

Integrated Disease Surveillance Project (IDPSP) - Credit 3952-IN)

Agreed Actions for IDSP during the Next Six Months

Agency Responsible	Action	By When
MOHFW	1. The Project Director and Joint Secretary will visit the three Phase I states lagging behind in implementation and will jointly review the implementation of the action plan every fortnight. 2. Send a clear communication to states on harmonized compensation for consultants recruited under various centrally sponsored schemes in NRHM and flexibility available to states to reassign posts sanctioned under the project based on state-specific needs. 3. Constitute the national technical advisory group for NCD risk factor surveys 4. Quarterly review meeting of State Surveillance Officers to review progress	May 31, 2006 May 31, 2006 Apr. 28, 2006 July 31, 2006
Central Surveillance Unit	Implement the *time-bound action plan to complete pending actions* agreed in September 2005 including enhanced support to states clearly indicating persons responsible for each action • Orders delineating roles and responsibilities of core CSU staff issued • Regional Coordinators appointed • NCD surveys started in Phase I states • Independent evaluation of trainers training completed • External Quality Assurance of laboratories started • Baseline surveys for laboratories completed including information on bio-safety and waste management practices • Bio-safety manual shared with the Bank and finalized • Disease Surveillance in Urban areas Concept note and preparations for national consultation completed Proposals for integrated disease surveillance in 4 metro cities finalized	 Apr. 28, 2006 June 1, 2006 July 1, 2005 July 31, 2006 July 1, 2006 Nov. 30, 2006 June 30, 2006 August 31,2006 Nov. 30, 2006
	Improving Laboratory Support: ▪ Clarification sent to states about flexibility available for districts/states to re-allocate funds for renovations/repairs for laboratories participating in the project. ▪ Position a consultant to support the laboratory coordinator ▪ Constitute an expert team to visit representative states and prepare detailed guidelines and standard Operating Procedures for district and state public health laboratories under IDSP and the Terms of Reference for State and District Laboratory Coordinators	 May 31, 2006 July 1, 2006 June 30, 2006
	Training for Disease Surveillance and Action: ▪ Evolve a comprehensive capacity building plan through a three tiered training for enhancing local responses for epidemic outbreaks in consultation with states	June 30, 2006
	Surveys for Non-communicable Diseases • Designate a focal point for NCD Surveys in CSU • Provide justification for single source selecting nodal, regional and state level agencies including estimated costs • Prepare detailed action plan for starting the surveys in Phase I states from July 2006	 May 15, 2006 May 15, 2006 May 15, 2006

	Financial Management: ▪ Complete training on financial management at a regional level for the State accountants ▪ Share the FMR for the period ended March 31, 2006 ▪ Share audit report for FY 2005-06	July 31, 2006 May 31, 2006 September 30, 2006
	Procurement: ▪ Provide justification for single source contracting and the enhanced scope of networking through inclusion of additional activities not envisaged originally in the PIP and comparison of the costs now projected with the PIP estimate	May 15, 2006
State Surveillance Units	Position remaining staff at state and district levels	May 31,2006
	Complete the decentralized training of medical and paramedical staff Phase I states Phase II states	Dec. 31, 2006 March 31, 2007
	Start weekly data reporting from public and private sectors Weekly data reporting from all districts in place	June 30, 2006 Dec. 31, 2006
	Prepare annual state report documenting disease specific outbreaks and responses and share these reports with the CSU	June 30, 2006
	Using the central guidelines, the states will undertake a systematic assessment of district and state laboratories for including public health component	Dec. 31, 2006
	Pilot community based surveillance strategies	Dec. 31, 2006

Annex III

Integrated Disease Surveillance Project (Cr. 3952-IN)

Status of Procurement of Goods at the Central Level during 2005-06

Sl. No	Item & Quantity	Type of Procurement	Opening of Bids	Current Status	Costs (Rs.million)
1	Supply of 250 Binocular Microscopes	ICB	26-Apr-05	Contract awarded. Supply under process.	2.80
2	Supply of 108 each Autoclaves, Hot Air Oven and Bio Safety Hoods	ICB	27-Apr-05	Bid evaluation under process.	12.00
3	Supply of 10 Elisa Reader and Washer	NCB	30-Aug-05	Bid evaluation under process.	3.50
4	Supply of 10 Minus 70 degree centigrade Deep Freezers 108 minus 20 degree centigrade Deep Freezers	NCB	30-Aug-05	Bid evaluation under process.	9.50
5	Supply and installation of 1901 computers with operating system, 1904 Printers and 1901 UPS	ICB	16-Feb-06	Proposals approved by IPC.	163.00
6	One PC, UPS & printer for each district & SSU proposed on DGS&D rates and approved by WB for starting Pilot Surveillance till main package is ready	NS		Procured by the States	
7	Supply of 215 Photocopiers, 221 fax machines and 2 large copiers	NCB	1-Sep-05	Proposals approved by IPC *(except Fax)*	10.00
8	Supply of 11 LCD projectors	NCB	8-Sep-05	No responsive bidder for OHP. LCD Projector being proposed for NS	1.80
9	Supply of 286 Typhoid rapid diagnostic kits, 1433 kits for faecal contamination and 678 HIV Elisa diagnostic Kits	NCB			
	Total Cost				**202.60**

Annex IV A

Matrix of Agreed Actions - Southern Region Review, Hyderabad, April 6, 2006

	Andhra Pradesh	Karnataka	Kerala	Orissa	Pondicherry	Tamil Nadu
Sensitization workshops for medical colleges and IMA district branches	May 30, 2006	April 30, 2006	April 30, 2006	June 30, 2006	June 30, 2006	Will be subject to high level from GOI
Identification of all reporting units (public and private) and persons responsible	April 30, 2006	May 15, 2006	May 15, 2006	April 30, 2006	June 30, 2006	Will be subject to high level from GOI
Translation and printing of health worker's manual, guidelines, formats and registers	April 30, 2006	May 30, 2006	May 30, 2006	June 30, 2006	June 30, 2006	Will be subject to high level from GOI
Training plans, identification of sites and completion of decentralized training	June 30, 2006	July 30, 2006	June 30, 2006	September 30, 2006	June 30, 2006	Will be subject to high level from GOI
Assessment and plan for make district public health laboratories functional	June 31, 2006	May 30, 2006	May 15, 2006	October 2006	June 30, 2006	Will be subject to high level from GOI
Reporting centers start sending the data and data collated, analyzed and used by districts and states	July 1, 2006	August 1, 2006	July 1, 2006	September 2006 (in new formats)	June 30, 2006	Will be subject to high level from GOI
Prepare State Annual Report for 2005-06 which documents disease outbreaks and actions taken using the format suggested by CSU.	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	Will be subject to high level from GOI

Annex IV B

Matrix of Agreed Actions - Western Regional Review, Gandhinagar, April 8, 2006

	Chhattisgarh	Goa	Gujarat	Madhya Pradesh	Maharashtra	Rajasthan
Sensitization workshops for medical colleges and IMA district branches	June 15	April 16, 2006	May 31, 2006	Will be subject to high level from GOI	May 15, 2006	May 31, 2006
Identification of all reporting units (public and private) and persons responsible	June 30, 2006	April 30, 2006	June 30, 2006	Will be subject to high level from GOI	May 31, 2006	May 31, 2006
Translation and printing of health worker's manual, guidelines, formats and registers	May 31, 2006	Completed	May 31, 2006	Will be subject to high level from GOI	April 30, 2006	April 30, 2006
Training plans, identification of sites and completion of decentralized training	November 30, 2006	September 30, 2006	December 31, 2006	Will be subject to high level from GOI	December 31, 2006	September 30, 2006
Assessment and plan for make district public health laboratories functional	Centre and Bank to support July 31, 2006	NA	June 30, 2006	Will be subject to high level from GOI	NA	Microbiologist from Medical college to assess by September 30, 2006
Reporting centers start sending the data and data collated, analyzed and used by districts and states	August 1, 2006	September 1, 2006	Already started. July 1, 2006	Will be subject to high level from GOI	June 1, 2006 after sensitization	September 30, 2006
Prepare State Annual Report for 2005-06 which documents disease outbreaks and actions taken using the format suggested by CSU.	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006

Annex IV C

Matrix of Agreed Actions - Eastern Regional Review, Kolkata, April 11, 2006

	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	West Bengal
Sensitization workshops for Medical Colleges and/or IMA district branches	May 2006	May 2006	May 31, 2006	August 32, 2006		July 31, 2006
Identification of all reporting units (public and private) and persons responsible	May 06	May 2006	Private facilities to be identified by May 31, 2006	Done. Public: 358+ 58+20+11 Private : 15		August 31
Translation and printing of health worker's manual, guidelines, formats and registers	May 06	May 2006	Done	CSU to clarify who will pay		May 30, 2006
Training plans, identification of sites and completion of decentralized training	Dec 06	Dec 06	Done	Medical officers by September 2006. Other staff by December 2006		December 31, 2006
Assessment and plan for make district public health laboratories functional	CSU to explore Medical Colleges to assess	NA	CSU to assess the requirement of regional labs	CSU to assess the requirement of regional labs		SSU to complete the assessment with the help of medical colleges by September 2006
Reporting centers start sending the data and data collated, analyzed and used by districts and states	Limited reporting August 06	December 2006	April 30, 2006	Limited reporting to start from April 30, 2006		Limited reporting from November 06
Prepare State Annual Report for 2005-06 which documents disease outbreaks and actions taken using the format suggested by CSU.	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006

Annex IV D

Matrix of Agreed Actions - Northern Regional Review, Delhi, April 12, 2006

	Chandigarh	Delhi	Haryana	Himachal Pradesh	Uttaranchal
Sensitization workshops for medical colleges and IMA district branches	June 06		30 June, 2006	30 June 2006	May 15, 2006
Identification of all reporting units (public and private) and persons responsible	June 30, 2006 Pilot: Traffic accidents	May 06	31 July 2006	30 June 2006	May 31, 2006 Pilot: Community surveillance
Translation and printing of health worker's manual, guidelines, formats and registers	June 30, 2006	NA	30 June, 2006	Done	May 30, 2006
Training plans, identification of sites and completion of decentralized training	September30, 2006	TBD	30 September, 2006	September 30, 2006	October 31, 2006
Assessment and plan for make district public health laboratories functional	July 31, 2006	TBD	31 July, 2006	July 31 2006	31 July 2006
Reporting centers start sending the data and data collated, analyzed and used by districts and states	June 2006	TBD	August, 2006	September 30, 2006	July, 2006
Prepare State Annual Report for 2005-06 which documents disease outbreaks and actions taken using the format suggested by CSU.	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006	June 30, 2006

Annex V A

Proposed Bank Support to India's Country Program

Animal Health

Sl.No.*	Activity	Unit	Total Quantity	Total Cost	*Total Cost*
				Rs. Crore	*US $ Mln*
AI	**Disease Surveillance**				
AI.1	Capacity Building: WL Technical Personnel	Trainees Wild-Life Dept.	4,000	0.66	*0.15*
A1.2	Capacity Building Veterinary Personnel (Vets & Paravets)	Trainees	70,000	12.80	*2.84*
AI.3	Participatory Disease Intelligence: Training of community	Trainees	120000	6.00	*1.33*
AI.4	Epidemiological survey	Study	1	0.22	*0.05*
AII	**Enhancement & Up-gradation of Laboratory Intelligence**				
AII.1	Upgrading CDDL & RDDL to BSL3 Labs	Numbers	6	36.00	*8.00*
AII.2	New National Laboratory BSL4	Numbers	1	15.00	*3.34*
AII.3	Upgrading BSL 2 labs	Numbers	16	5.17	*1.15*
AIII	Animal Disease Surveillance Information System: Satellite Imagery/GIS/GPS/Data Network	System	1	14.00	*3.11*
AIV	Data management & Networking	System	1	0.290	*0.06*
AV	IEC Development of Material &Dissemination	Package	--	2.04	*0.45*
AVI	**Surveillance: Migratory Birds & Poultry**				
AVI-1	Creation of Basic Facility for sample/specimen collection : Migratory Birds & Cold Chain for transport	Migratory Bird Habitats	200	4.42	*0.98*
AVI-2	Surveillance of Poultry: Random Serum Surveillance: Creation of Basic Facility for sample/specimen collection :	No. Serum Samples / Year	300000	4.93	*1.09*
B	**Supporting an outbreak containment plan**				
B.I	Training of Rapid Response Teams	Trainees	122,808	11.87	*2.64*
BII.3	Strategic reserves of equipment			1.33	*0.29*
C.	Bird Flu Cell in DADF	Experts	11	1.08	*0.30*
	Total Surveillance and Allied Activities			**115.82**	**25.78**

Annex V B

Proposed Bank Support to India's Country Program

Human Health

	Sub Component	Activites	No. of Units	Costs	
				Rs. Million	USD Million
1.	Strengthening of Laboratory Surveillance for Influenza	Upgradation of National Reference Lab	2	110.00	2.50
		Upgradation of 4 Regional Reference Laboratories	4	120.00	2.73
		IT Communication Support		1.75	0.04
		Training		5.00	0.11
		Recurring costs: Includes consumables and salaries for district and state laboratory coordinators	635 laboratory coordinators at state and district levels	327.08	7.43
2.	Development of Application Software			1.00	0.02
3.	Networking and communication		800 Satellite Interactive Terminals	250:00	5.68
4.	Development and implementation of communication strategies			56:00	1.27
5.	Sensitization workshops for stakeholders			5:00	0.03
6.	Operational costs including MIS			5:00	0.03
	Sub Total			880.83	19.84