

RESPONSES TO
AVIAN AND HUMAN INFLUENZA THREATS:

PROGRESS, ANALYSIS AND
RECOMMENDATIONS

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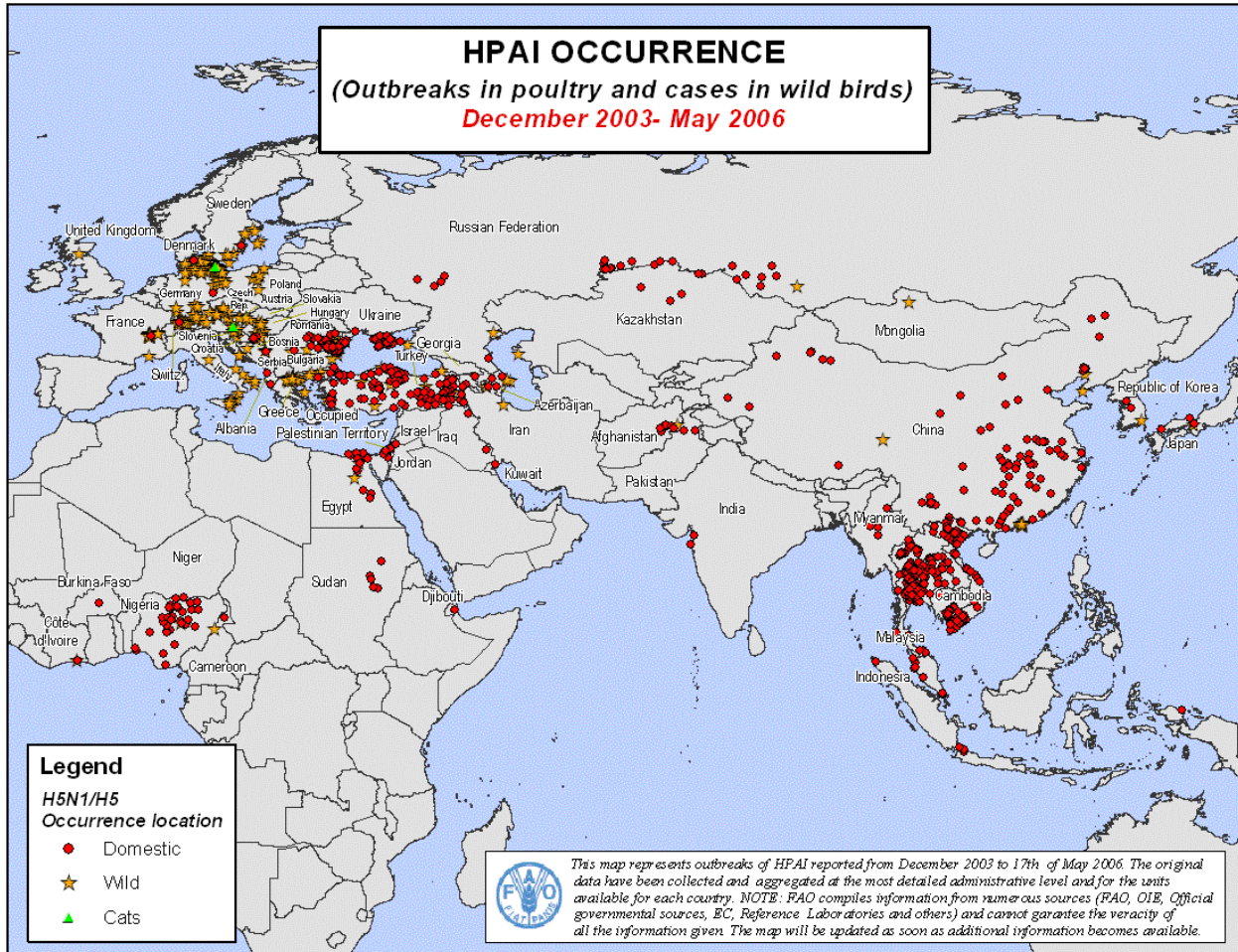
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H5N1 OUTBREAKS IN POULTRY AND CASES IN WILD BIRDS: DECEMBER 2003 – 17 MAY 2006



Map compiled by FAO.

Abbreviations

AI	Avian Influenza
AHI	Avian and Human Influenza
AHITF	Avian and Human Influenza Task Force
ALive	African Livestock Partnership
AU-IBAR	African Union – Inter-African Bureau for Animal Resources
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement
EAP	East Asia Pacific
EC	European Commission
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GDP/c at PPP	Gross Domestic Product per capita at Purchasing Power Parity
HPAI	Highly Pathogenic Avian Influenza
IASC	Inter Agency Standing Committee
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association (of the World Bank)
IMF	International Monetary Fund
IPAPI	International Partnership on Avian and Pandemic Influenza
MDTF	Multi-Donor Trust Fund
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOFA	Ministry of Foreign Affairs
MOH	Ministry of Health
NGO	Non-Governmental Organisation
OCHA	United Nations Office of the Coordinator for Humanitarian Affairs
OFFLU	OIE/FAO Network of Expertise on Avian Influenza
OIE	World Organisation for Animal Health
PPE	Personal Protective Equipment
RC	United Nations Resident Coordinator
TACIS	Technical Aid to the Commonwealth of Independent States
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children’s Fund
UNSIC	United Nations System Influenza Coordinator
USAID	United States Agency for International Development
USCDC	United States Centres for Disease Control
WFP	World Food Programme
WHO	World Health Organisation
WCS	Wildlife Conservation Society

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EXECUTIVE SUMMARY

1. Between 2003 and the end of 2005, the highly pathogenic avian influenza (HPAI) virus *H5N1* was reported from 15 countries, mainly in South East and Central Asia. From January to May 2006, the virus spread to more than 45 countries, in some cases confined to wild fowl, but in several – notably in Africa, the Middle East, Europe and the Indian Sub-Continent – it was identified in domestic and commercial poultry populations. Hence the *H5N1* influenza virus continues to spread among countries and remains a serious threat to animal and human health. In some countries the virus is endemic.
2. The international community has stepped up its campaign against current and potential consequences of highly pathogenic avian influenza viruses, particularly the influenza A *H5N1* virus. Most countries have developed national plans to counter threats posed by avian and human pandemic influenza. They have been supported through close international and regional cooperation. Indeed, the world's governments, together with many non-governmental bodies, private entities and international scientific, developmental, humanitarian and security organisations have given high priority to helping human populations counter the threats posed by highly pathogenic influenza viruses.
3. Despite the progress made by many national governments in tackling this threat, and the intensive support provided by regional bodies and the international community, the campaign to reduce levels of *H5N1* virus in the world's animal populations is still at an early stage. Major national and international efforts are still needed to prevent HPAI infection in poultry and to contain infection when it occurs. As long as the virus persists, there is always a possibility it may develop the capability for sustained human-to-human transmission, with the potential to initiate a pandemic. Long-term political commitment, continued vigilance and substantial technical and financial assistance are essential to limit the overall level of virus in animals and develop defence measures against a pandemic. Singular success stories should not lead to complacency and relaxation but serve as examples for possible implementation.
4. To prepare this report, standardised information was obtained from 141 national authorities during May-June 2006. This information revealed that substantial efforts have been made as countries prepare to confront HPAI and a possible human pandemic. This progress has not been dependent on the availability of substantial external financial assistance that was pledged in January 2006, in Beijing, as pledged funds are only just starting to flow. Hence local and national authorities have provided the resources needed to improve the capacity of veterinary services and bio-security, to raise the standard of public health surveillance and response to suspected human cases of HPAI and to prepare for a possible human pandemic. They have been supported by multilateral development banks, bilateral aid organisations, specialised UN System agencies (FAO and WHO), OIE, other UN funds and programmes (such as UNICEF, UNDP, WFP and OCHA), voluntary organisations and the private sector.
5. The majority of countries have now established Avian Influenza Task Forces and have developed integrated avian and human influenza plans (pandemic prevention and preparedness plans). Some are still in draft; others have been endorsed by government.

6. Analyses of available information suggest that national avian and human influenza plans can be successfully implemented, if there is/are:
 - A strong commitment to ensuring their implementation at the highest political level, accompanied by effective leadership of all concerned stakeholders.
 - Clear procedures and systems for managing the rapid implementation of priority actions.
 - Primary attention to improved functioning of veterinary and human health services at all levels, with a transparent approach to the sharing and dissemination of information about suspected disease outbreaks, immediate efforts to establish their cause, and prompt responses (including restriction of movement of animals that are at risk).
 - Incentive and/or compensation schemes combined with effective communication to communities on the importance of immediately reporting disease outbreaks in animals to responsible authorities.
 - Effective mobilisation of civil society and the private sector.
 - National mass communication campaigns that promote healthy behaviour and focus on reducing the extent to which humans might be exposed to HPAI viruses.
7. Capacity building in human and veterinary health services is key to the success of AHI action. This calls for the selection of appropriate strategies (e.g. poultry vaccination), investment in infrastructure (e.g. laboratory services), training of veterinarians and public health workers, functioning compensation schemes and development and testing of preparedness plans.
8. The international community committed itself in Beijing to support the avian influenza and human pandemic preparedness efforts undertaken by all nations, though the focus of its financial assistance was primarily on Asian nations. The rate of release of pledged funds appears to be slow. Some of the countries most at risk are finding difficulty with mobilising urgently needed funds for programme support. UN System agencies, development banks and governments depend on being able to access flexible funds that they can spend where they are most needed.
9. When preparing for influenza pandemics, nations need effective containment and mitigation strategies: their plans should be developed in full cooperation with other nations, ideally working through established international institutions (such as the UN General Assembly) and regional integration bodies (such as ASEAN, the EU and ECOWAS).
10. Poorer countries – especially those less well able to implement priority interventions – need targeted external assistance, urgently. Too few resources are available for UN System agencies and partners to support essential actions, especially in Africa.
11. Public information and communication are critical to supporting behaviour change. People need clear and unambiguous risk and outbreak information. Communications are an essential element of avian influenza campaigns and pandemic preparedness. Financial and programme support for communications is insufficient. Additional messages should be targeted to professionals and field workers, and reach them through government, national and international media, the private sector and NGO partners.

SECTION 1: BACKGROUND

12. Recent widespread transmission of the H5N1 strain of avian influenza among birds has generated unprecedented response in anticipation of a potential global influenza pandemic. First surfacing in Hong Kong in 1997, H5N1 avian influenza remains largely a disease of birds with sporadic infections among humans who have had contact with infected fowl. Between the end of 2003 and 15 June 2006, OIE recorded 4385 outbreaks of H5N1 avian influenza in poultry. A resurgence of human disease in 2003 has not abated and WHO now reports over 228 human cases of H5N1 influenza worldwide, of which 130 have been fatal as of 20 June 2006. Risk factors for infection have yet to be clarified with much still unknown about the behaviour of this novel disease in humans. The current Pandemic Alert Phase is at level 3 in WHO's Global Influenza Preparedness Plan.
13. A shared vision of coordinated global tracking and response has taken form following the Avian and Pandemic Influenza Senior Officials Meeting in Washington, October 2005, the Global Meeting on Avian Influenza and Human Pandemic Influenza in Geneva, November 2005, the International Pledging Conference in Beijing, January 2006, and the Senior Officials Meeting on Avian and Human Pandemic Influenza in Vienna, June 2006.
14. The vision developed at Beijing was of harmonised global tracking and response. Players at all levels recognised the need to commit to a common responsibility for coordinated, rapid and decisive mobilisation of human and financial resources at all levels. Priorities were placed on strategic action to improve animal and human health sectors given inequities in resource distribution and capacity. Working towards optimal avian influenza control, human pandemic prevention, preparedness and response, the vision which emerged would focus attention on the need to strengthen disease surveillance and diagnostic mechanisms, build capacity in human and veterinary health systems, increase public awareness and mitigate potential social and economic impacts.
15. The conference in Beijing was an important venue to seek financial donor support for effective national and international action against influenza threats. It was jointly sponsored by the Government of China, the European Commission, and the World Bank and brought together delegates from 100 countries. The leading technical agencies, FAO, OIE and WHO, together with the UN System Influenza Coordinator, updated the conference attendees on latest developments. Other major UN System organisations were also represented. The World Bank presented an estimate of aggregate financing gaps against short-term needs at the global, regional, and country levels and a proposed financing framework—incorporating direct bilateral support, support through UN agencies, and a potential multi-donor trust fund, administered by the Bank. Delegates pledged almost \$1.9 billion in support of country, regional, and global programmes.
16. Comparison of core principles enunciated at the meeting in Washington, October 2005, the actions recommended in Geneva, November 2005, and the Beijing Declaration, January 2006 shows that there has been strong and sustained commitment by the international community to addressing avian and pandemic influenza [see Table 1]. The statements follow a logical sequence from identification of priority actions and costs, to action implementation and funding requirements. The present report reaffirms the importance of these commitments and provides a baseline measure of progress to date for comparison in future evaluation of movement towards the objectives.

17. Of the \$1.9 billion pledged in Beijing, about \$1.4 billion was destined for countries. There was consensus that the funding would be made available to support integrated programmes. In the conference declaration, delegates proposed a series of principles: a balance of animal and human health interventions with vigorous prevention and control of the disease at its animal source, drawing on the strategies developed and promulgated by FAO, OIE and WHO, and involving actors across disciplines, including agriculture, veterinary science, human health, economics, finance, planning, and communications. While the threat of AHI is global, there was clear recognition that coordinated responses must be led at the country level—with global norms reflected in country strategies modified to account for influenza-related threats and national implementation capacity. The World Bank and UN System technical teams encouraged national authorities to integrate their influenza programmes and the international community to provide coordinated and sustained donor support.
18. Funds made available to support integrated country programmes are a combination of direct bilateral support together with finance for country level technical assistance and other services that are provided through inter-governmental bodies. The latter include WHO, FAO, other parts of the UN System and OIE, the World Bank, other development banks and multi-donor financing facilities (including a multi-donor facility specifically created for avian influenza). Some of these resources were already provided in 2005, especially to countries in South East Asia. Much of the funding pledged in Beijing for activity in countries was not directed to any specific country, allowing some flexibility to allocate resources according to greatest need (at that stage, the H5N1 virus had only begun to spread beyond Asia). Since January 2006, further funds have been allocated, priority needs identified, country-level joint appraisals initiated (to verify needs) and requisite relationships established between donors and national authorities.
19. The UN and World Bank have supported national preparedness planning and resource mobilisation efforts, with funds raised for country action through initiatives undertaken at national and regional levels. Many World Bank, UN and donor-led technical missions have occurred and more have been planned. The UN and Bank staff in each country were asked, in February 2006, jointly to assist government authorities by facilitating meetings of the local donor support group to review the plan for an integrated AHI programme. The key next step for most has been a joint appraisal of the country's integrated AHI programme, ensuring consensus on country needs in order to organise donor support. It was envisaged that UN teams would join Bank teams and other donors in a single appraisal process, with shared terms of reference and full knowledge of concerned national authorities and international partners.
20. UN Resident Coordinators were asked to maintain close working relationships with government colleagues, among UN System agencies and with donor representatives, private sector partners and non-governmental groups. They were also requested to support and encourage similar coordination within national governments and so maximise the effectiveness of external assistance, and minimise overlaps. It was anticipated that country-level teams would work as integral parts of the local donor support mechanism.

SECTION 2: REPORTING ON PROGRESS

21. The World Bank and the UN Influenza Coordinator are working together to monitor and report on the response to avian influenza and progress with pandemic preparedness within individual countries worldwide. They anticipate reporting at six monthly intervals.
22. It is intended that each report will include an overview of the state of responses to avian and pandemic influenza threats, description of responses at country, regional and global levels and analyses of the progress in efforts to tackle avian influenza. In addition, the reports will identify substantive gaps in response efforts and remedial actions to address them. Recommendations for addressing shortfalls may include shifts in national policies, alterations in the level and intensity of international support and assessment of the ability of existing coordination mechanisms to promote harmonised action, support strategic shifts in emphasis and lead to increased synergy.
23. If sufficient data are made available in a standardised form, analyses of progress will explore the extent to which the:
 - (a) Beijing principles and commitments have been applied in the development of each national programme;
 - (b) financing framework established in Beijing enables countries to access funds in a timely manner; and
 - (c) coordination of regional and international support optimises the utility and delivery of international technical and financial assistance.
24. Information contained within this report has been drawn from various sources including meeting summaries, UN country team reports and direct communications with UN country teams and members of individual governments.
25. The comprehensiveness of the analysis is influenced by the quality and coverage of data obtained through a rapid data gathering exercise initiated on 1 May 2006. This exercise consisted of a short series of questions on preparedness sent to 144 UNDP Country Office Resident Coordinators, including Avian Influenza Focal Points, and to representatives of 22 national authorities without UNDP RCs. As a number of UNDP country offices cover several countries, coverage was sought for some 200 national authorities. Responses could be submitted on-line or in hard copy. By 26 June, 141 responses had been received.
26. The results of the exercise are intended to serve as a baseline for tracking future trends. The information given here therefore illustrates trends: it is not conclusive. Updates of the analyses at six monthly intervals are anticipated and will be produced in cooperation with national authorities and agencies within the international system.
27. There is no intention, in this report, to compare countries with each other. No independent validation of the responses was performed to ascertain the reality of preparedness and capacities for emergency response. This report cannot be used to provide a definitive and comprehensive summation of avian influenza response and pandemic preparedness activities to date. The UN System Influenza Coordinator is responsible for the overall content of the report.
28. Divided into four sections, this report covers: institutional arrangements for implementation and coordination; technical content of the response; human and financial resources to deliver priority actions; and information and communications support.

Table 1. Core principles identified at meetings in Washington, October 2005, actions recommended at Geneva, November 2005 and the Beijing Declaration, January 2006

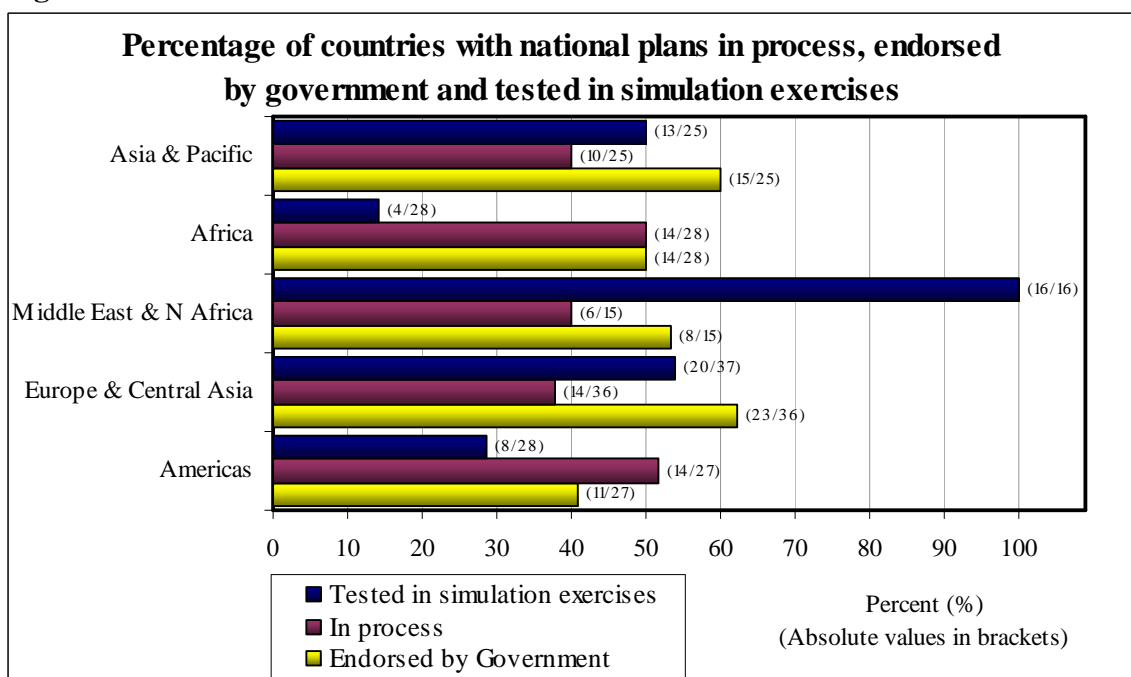
	Avian and Pandemic Influenza Senior Officials Meeting, Washington, October 2005
Core Principles	<ul style="list-style-type: none"> • International cooperation to protect the lives and health of our people. • Timely and sustained high-level global political leadership to combat avian and pandemic influenza. • Transparency in reporting of influenza cases in humans and in animals caused by strains that have pandemic potential, to increase understanding, preparedness, and especially to ensure rapid and timely response to potential outbreaks. • Immediate sharing of epidemiological data and samples with the WHO and the international community to detect and characterise the nature and evolution of any outbreaks as quickly as possible by utilising, where appropriate, existing networks and mechanisms. • Rapid reaction to address the first signs of accelerated transmission of H5N1 and other highly pathogenic influenza strains so that appropriate international and national resources can be brought to bear. • Prevent and contain an incipient epidemic through capacity building and in-country collaboration with international partners. • Work in a manner complementary to and supportive of key multilateral organisations (WHO, FAO, OIE). • Timely coordination of bilateral and multilateral resource allocations, dedication of domestic resources (human and financial), improvements in public awareness, and development of economic and trade contingency plans. • Increased coordination and harmonisation of preparedness, prevention, response, and containment activities among nations, complementing domestic and regional preparedness initiatives and encouraging where appropriate the development of strategic regional initiatives. • Actions based on the best available science.
	Global Meeting on Avian and Human Pandemic Influenza, Geneva, November 2005
Recommended Actions	<ul style="list-style-type: none"> • Support the development of integrated national plans for avian influenza control and human pandemic influenza preparedness and response. • Assist countries in aggressive control of avian influenza in birds, and deepen the understanding of the role of wild birds in virus transmission. • Nominate “rapid response” teams of experts to support epidemiological field investigations. • Strengthen country and regional capacity in surveillance, laboratory diagnosis, and alert and response systems. • Expand the network of influenza laboratories, with regional collaborative systems for access to reference laboratories. • Establish and integrate multi-country networks for the control or prevention of animal trans-boundary diseases, and regional support units as established in the Global Framework for the Progressive Control of Trans-boundary Animal Diseases. • Expand the global anti-viral stockpile, and prepare standard operating practices for its rapid deployment to achieve early containment. • Assess the needs and strengthen veterinary infrastructure in line with OIE standards. • Map out a global strategy and work plan for coordinating anti-viral and influenza vaccine research and development, and for increasing production capacity and equitable access. • Put forward proposals to the WHO Executive Board at its 117th meeting for immediate voluntary compliance with the relevant articles of the International Health regulations 2005. • Finalise detailed costing of country plans and the regional and global requirements to support them, in preparation for the January pledging meeting to be hosted by the Government of China. • Finalise a coordination framework building on existing mechanisms at the country level, and at the global level, building on international best practices.

International Pledging Conference, Beijing, January 2006	
Commitments	<p>We, the participants in the conference</p> <ul style="list-style-type: none"> • Commit ourselves to ensuring effective development and implementation of integrated national action plans within the framework of WHO/FAO/OIE global strategies, guided by political leadership at the highest level, to mobilising resources in our countries and to drawing upon government, civil society and the private sector to effect a coordinated response. In the context of our respective national plans, we agree to take vigorous prevention, mitigation, emergency preparedness, and rapid response measures in the short term together with actions over the longer term to prevent and control the spread of HPAI in the poultry and related industries and prevent human exposure to infected birds. • Note with particular satisfaction the World Health Assembly's adoption of the International Health Regulations in May 2005; emphasise that the implementation of the Regulations must reflect the real threats to international public health in the 21st century, including a possible influenza-related pandemic; and call for the earliest possible voluntary compliance with applicable articles in advance of the June 2007 entry into force of the new Regulations. • Subscribe to a long-term strategic partnership between the international community and countries currently affected or at risk in which adequate and prompt financial and technical support is mobilised to complement the efforts by countries and regions, particularly developing countries. Areas of emphasis will include both immediate and longer-term measures. In the short term, priority will be given to helping countries contain, control and eliminate the virus in affected poultry and prepare for a possible pandemic. Priorities will be given to improving surveillance and detection capabilities, increasing public awareness and fostering community resilience, promoting vaccine research and development, developing stockpiles of human anti-viral, assisting with response and containment measures in the event of an outbreak and mitigating social, psychological and economic impacts on the population. In the longer term, priority will be given to developing capacity and infrastructure in animal and public health sectors, as well as undertaking complementary reforms in related sectors at all times that there is a need. The international community should conduct analysis and provide detailed guidance on a range of important issues – such as the appropriate structure for compensation systems, stockpile, monitoring and evaluation – that respond to individual country circumstances. • Commit to sharing information and relevant biological materials related to HPAI and other novel influenza strains in our countries in a rapid and timely fashion, and to ensuring the development, dissemination and application of good practices of HPAI surveillance, control, and pandemic influenza preparedness practices in compliance with existing OIE standards on veterinary services and the newly adopted WHO International Health Regulations. • Commit to increasing cooperation on global research and development of safe and effective animal and human vaccines and anti-viral medicines for humans, and to promoting affordable access for all who need them. • Commit to evaluating the results and impact of our national pandemic influenza preparedness and action plans periodically, reviewing and updating them as necessary and up-dating the global HPAI control strategy and human pandemic preparedness plans by taking advantage of the expertise and the existing technical networks established by UN, WHO, FAO, OIE and other relevant organisations and groups.

SECTION 3: INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION AND COORDINATION

29. The continuous establishment by countries of institutional arrangements and coordination has led to major progress with planning. In Geneva it was reported that, by November 2005, 120 countries had pandemic preparedness plans, rising sharply from 50, six months beforehand. Analyses of progress during the last six months suggest that 97 percent of countries have AHI task forces. These have met frequently over the past six months and in some cases as often as weekly. In 98 percent of these countries, the task forces are supported by a central coordinating body with cross-government responsibility for AHI response and preparedness. Ninety-eight percent of these countries have integrated plans in draft (44 percent) or already endorsed by government (54 percent) [see Figure 1, Table 2]. All countries with federal governance have faced challenges in linking their central plan to plans being developed for regional and state governments.

Figure 1



Source: Global Data Gathering Exercise, May-June 2006. Note: Denominators represent the number of countries for which there is a response to the question in the Global Data Gathering Exercise. The questionnaire made no distinction for simulations undertaken by veterinary or human health sectors.

30. The Beijing Declaration calls for NGOs, civil society and the private sector to be engaged in the planning process alongside governments. About two thirds of national authorities are reported to have some engagement with the non-governmental sector. Of these, around one third of national authorities involve civil society in AHI planning, while between a third and half have engaged with national NGOs and with the private sector during implementation.
31. There is recognition that integrated plans need to be living documents subject to review and revision as the epidemiological picture develops. If the results of this exercise can be generalised, then almost all countries now have a plan in either draft or final form.

China: Example of consistent high-level political engagement and direction and effective institutional arrangements

China has taken a lead role in international efforts on AI, which was evident in hosting the Beijing Pledging Conference in January, 2006. The country has demonstrated political commitment to address avian influenza and the related pandemic threat. National leaders have called for strategic measures to confront and control the outbreaks of avian influenza and the incidence of human cases. Given recent experience with SARS, China has taken important steps to strengthen surveillance, prevention and control HPAI in animals and humans with collaborative efforts of several government ministries, including the MOH, MOA, MOFA, and MOF. The country has also made significant investments in scientific research and has positively contributed to the development of vaccine and diagnostic materials. The UN country team, led by the UN Resident Coordinator with strong engagement from representatives and staff of FAO, WHO and other UN Systems agencies, has joined with the World Bank country team to engage closely with national authorities throughout this process.

Lao PDR: Example of consistent high-level political engagement and direction, and well coordinated external support.

The Lao PDR Avian Influenza Control and Pandemic Preparedness Plan was developed in close collaboration with UN System agencies and the World Bank, and finalised in January 2006. A National Committee on the Communicable Diseases and Control has been established by Prime Ministerial decree, to supervise implementation. The government also established a Partners Group, to serve as a forum for exchange among government and international partners. The National AHI Coordination Office (NAHICO) has been established: this will ensure the effective implementation of AHI activities. The UN and the World Bank participate fully in these bodies, working through an inter-agency cross-sectoral influenza working group, chaired by the UN Resident Coordinator, and involving WHO, FAO, UNICEF, UNDP, WFP, ADB and the World Bank.

32. While the number of country plans has increased, their quality is a matter for expert assessment and appraisal. Generally, successful national plans have several characteristics in common: they reflect the reality of on-going processes, have clear triggers to signal crisis mode, have sound technical strategies with priority actions and entail purposeful direction from the highest political level together with - and including - community engagement. Evolving from crisis to long-term rehabilitation, these are integrated plans which identify and efficiently address implementation capacity gaps. On-going challenges for external assistance to the implementation of national plans include effective coordination, financing of short-term priorities, such as compensation and culling, and managing of national plan appraisals. In addition to appraisals, agencies have provided assistance such as FAO pioneering rehabilitation and restructuring processes in poultry husbandry and promoting good farming practices. The UN System and World Bank agencies have been undertaking a substantial programme of both unilateral and joint technical support and appraisal missions for this purpose. For example, the recent data gathering exercise indicates that FAO and WHO have undertaken unilateral missions respectively to 59 and 72 countries, and joint inter-agency missions respectively to 47 and 49 countries, often on several occasions. In addition, bilateral donor agencies have undertaken assessment or appraisal missions to about a third of countries: the harmonisation of appraisal missions and prevention of unnecessary duplication has been seen, by many national authorities, as an outstanding challenge.

Table 2. Selected indicators of country level institutional preparedness by region

	Asia & Pacific	Africa	Middle East & N Africa	Europe & Central Asia	Americas
Total number of countries responding to data gathering exercise, 2006	26	33	16	38	28
Number of countries with a national AHI taskforce	25	30	15	36	27
n=	25	30	16	38	28
Average number of AHI meetings in the last 6 months	10	11	14	14	7
n=	20	26	11	25	18
Number of countries with a central coordinating body	22	30	15	37	26
n=	25	30	16	38	28

Source: Global Data Gathering Exercise, May-June 2006. Note: n= number of countries for which there is a response to the question in the Global Data Gathering Exercise.

33. Recent econometric modelling, based mainly on demographic data from countries of the Asia Pacific region as well as some European states, suggests that a global influenza pandemic will have potentially large and disparate macro-economic consequences¹⁹. Developing countries are likely to suffer most heavily. These assessments are sensitive to underlying assumptions and hence are not definitive predictions. However, the modelling analysis indicates that, depending on severity and duration, a pandemic may cause global GDP to fall at least transiently by between 0.8 percent and 12.6 percent.
34. A pandemic will cause illness and death. It will also affect labour availability, cause supply cost increases and shocks to demand, and will influence risk premiums. Further unpredictable economic consequences are likely to follow restrictions on international travel and strengthened border controls. It remains unclear how damaging such consequences would be, although there is no doubt that the lives and livelihoods of the most vulnerable will be significantly negatively affected.
35. Depending on how the international community responds to an influenza pandemic, the spread of infection is likely to challenge current dependence on rapid transport links, telecommunications networks, and just-in-time supply chain systems. Countries are likely to be more vulnerable to the impact of a pandemic on financial markets and institutions where they are economically (fiscally) weak, have highly valued financial assets, and are dependent on exports. In addition, the financial institutions themselves may be affected by the impact of related price and market volatility on their balance sheets.
36. The limited availability of medical counter-measures to pandemic influenza places a premium on effective business continuity planning by all organisations. The accessible evidence does not allow generalisation about levels of awareness of this need. Organisations need to plan in advance their response to absenteeism of staff from critical functions. A recent survey of 1150 business managers in one European country reported that 43 percent had no plans despite expecting serious disruption.³⁵

37. Key institutions – the major banks, actors in the financial markets, and providers of payment systems - also face operational risks. If employee absenteeism reaches levels which damage the underlying infrastructure, then the consequences would be felt in failures of payment, clearing and settlement; in vulnerability or overload of telecommunications networks; in increased demand for cash and electronic banking services; and in weak performance of loans.
38. The International Monetary Fund (IMF) has been developing a framework for the optimal response to these challenges to fiscal and financial sector policies. While the consequences of a pandemic are likely to resolve with time unless it is severe, national authorities and financial institutions need to plan their response in advance. A flexible, coordinated response both within countries and internationally is desirable to ensure confidence and to minimise harm. Such a response would cover:
- estimating the budgetary cost of inter-pandemic and pandemic alert phases (costs of efforts during these phases);
 - government business continuity plans;
 - financing implications (prioritisation of spending to accommodate pandemic plan policies);
 - constructing alternative financing scenarios (consideration of declining tax revenue or disrupted securities markets);
 - fiscal federalism (special arrangements needed for local governments);
 - the policy stance (discretionary change in fiscal policy);
 - implications for countries with fiscal rules (potential to be relaxed in a pandemic);
 - compensation funds for certain businesses most adversely affected by an influenza pandemic (requirements for any additional provision); and
 - potential consequences for IMF programmes (implications for relaxing targets or excluding influenza-related expenditure).
39. The timing and severity of the next influenza pandemic cannot be predicted. In pre-pandemic conditions there is much to be learned from simulation activities at national, regional and international levels. The proportion of national pandemic preparedness plans that has been subject to testing through simulation exercises is relatively low. About 48 percent of the countries from which information was obtained have held national exercises since January 2005 [see Figure 1]. Recent published analysis of European pandemic influenza plans produced between January 2002 and November 2005 indicates that only three of 21 countries had tested plans nationally in simulation exercises and only two of these had tested plans at the local or regional level.^{21,22}
40. Experts in risk management and business continuity encourage all organisations to subject their business continuity plans to rigorous and frequent testing, not least to examine the assumptions on which they are based and the procedures envisaged for handling threats. Data obtained for this report suggest that though some private entities and voluntary organisations are planning for continuity, they are not subjecting their plans for pandemic readiness to rigorous examination on a regular basis. A May 2006 survey of private sector managers in one European country found that only 37 percent of managers in organisations with business continuity plans rehearsed these once or more per year.³⁵

International Level Coordination

41. At the international level, efforts have been made to ensure one coordinated and effective response, to national, regional and global AI challenges - without creating new bureaucratic arrangements.
42. The UN System and the World Bank have worked together in a harmonised manner to support effective implementation of this integrated two-track strategy within countries. Of course, along the way, lessons have been learned and efforts are made to strengthen this collaboration. The UN System and the World Bank also monitor the global influenza situation, its threats, patterns of response, and gaps in this response.
43. The support provided by UN System agencies for national, regional and global responses to influenza threats is carefully synergized, with clear agreement as to lead responsibilities. The UN System Influenza Coordinator and staff aid this process, working under the umbrella of a steering committee, chaired by the Deputy Secretary General and meeting monthly. WHO and FAO are the lead UN System technical agencies; the World Bank leads on institutional issues, programme appraisal and the management and tracking of financial resources. UNICEF has a central role in supporting the implementation of awareness and sensitisation campaigns. In many countries, the Resident Coordinators, backed by the UN Development Group and with substantive assistance from UNDP, work in close cooperation with the World Bank and play a critical role in supporting coordinated national action (especially when national capacity is limited), in inter-agency coordination at national level, and UN System contingency planning. OCHA, WFP and humanitarian organisations have a central role in support for non-health aspects of pandemic preparedness planning and UN System contingency planning, as well as vulnerability assessments and common services. They work, where appropriate, through national analogues of the global inter-agency standing committee of non-governmental organisations, the Red Cross and Red Crescent movement, with standards as set out by OIE, the International Organisation for Migration, and humanitarian elements of the UN System.
44. There are concerns about the ease with which resources are mobilised in support of country programmes, and the relatively slow pace through which agreement on financing arrangements is negotiated, and made active. Despite efforts to accelerate the rate that national priorities are appraised by the World Bank, UN and donors, receipt of needed funds for critical actions remains delayed. Much depends on the quality of interaction between the national government, the donors, the UN and World Bank at country level. There is no entitlement to AHI funding. While preparation of a comprehensive programme is not a prerequisite for financing, most donors find it difficult to commit funds without an understanding about at least the essential elements of a country's integrated programme. There are a few countries with especially weak institutional capacity, where additional measures may be needed to provide early and efficient international assistance, in particular for surveillance, development of a control strategy and start-up activities. Thirty countries have pledged financial support to the effort to combat AHI and many aid agencies are working diligently and effectively to bring direct assistance to countries. Analysis of pledges from the Beijing conference reveals that the top seven financing commitments were made by: Asian Development Bank, Australia, the European Commission, Japan, Norway, USA, and World Bank.

45. The World Bank is seeking ways to increase the speed with which funds are made available by working with governments to reallocate undisbursed balances in existing IDA credits. The World Bank has also moved quickly to finalise the legal instruments necessary to establish the Avian and Human Influenza Facility (AHIF), a multi-donor grant-giving arrangement that was announced in Beijing: this has involved intensive negotiations with countries and inter-country bodies that indicated a wish to contribute resources to this mechanism. The pledges to AHIF, at the time of writing, amount to about \$74 million.

Viet Nam: Example of management systems that engage all stakeholders, encourage synergy, analyse progress review results and shift emphasis when necessary

Viet Nam has a strong national programme implemented by four government ministries, under the leadership of Ministry of Agriculture and Rural Development. There is an exemplary Government-UN relationship, with four UN agencies actively involved - including FAO, WHO, UNICEF, and UNDP. Through this joint programme a platform for well coordinated donor assistance has been established. It harmonises national efforts and complements multilateral assistance provided by the World Bank and Asian Development Bank, as well as direct bilateral financing and technical assistance (13 bilateral agencies have contributed to the programme to date). Phase I of this programme focused on 6-months emergency support and commenced in October 2005. Phase II, builds on the progress made during the six-month period and focuses on longer-term capacity building with a view to supporting key components of the overall national programme (the Green Book) for 2006-2008. Initial areas for support in Phase II include national pandemic plan, early warning and response system, laboratory support, information and education communication, poultry vaccination, integrated activities between animal and human health sectors, livelihoods, priority research activities, and administration reform. The progress Viet Nam has made during Phase I has been impressive and can be viewed as a good practice case.

46. The UN System strategic approach, developed in January 2006, is the guiding framework for (a) the work of different UN System agencies and (b) their financial requirements to respond to country needs. Only a small proportion of the funds requested was pledged at the International Pledging Conference in Beijing, in January 2006; and the realisation of these pledges has been slow. As a result of the expansion of the avian influenza epizootic during the early months of 2006, and the lack of funds available to the UN System, this strategic document is being expanded into the UN System AHI action plan (due to be released in July 2006). It describes, with precision, the actions to be undertaken by UN System agencies in countries with differing degrees of implementation capacity. A range of mechanisms is under consideration for routing funds to agencies and to partner NGOs for essential actions at global, regional and country levels.
47. The UN System and the World Bank are establishing regional capacities to support coordination of action at country level – starting with the convergent support provided by different regional offices through Bangkok in support of AHI-related programming, the preparation of inter-agency plans, and pandemic preparedness within the UN System. FAO, working closely with OIE, continues to be the central UN System contributor to coordinated action for animal health and WHO to coordinated responses to human health threats. The UN and World Bank are developing a combined systems-wide contact list of AHI focal points to aid coordination at country and regional levels.

48. The UN System, as a part of its commitment to help countries prepare for and respond to the threat of avian influenza and a potential pandemic, has recognised that it must perform its own contingency planning and actively commit to preparedness, particularly for the continuity of its most critical programmes for keeping the peace, combating vulnerability and promoting survival of disadvantaged populations. The UN has been asked by many governments to be ready to support priority national actions in the event of a pandemic. In March 2006, the UN Secretary General requested all agencies, funds and programmes within the UN System to plan for continuity of essential operations in the event of a pandemic. This preparedness planning, and the development of common services that will operate under pandemic conditions, is being implemented through an inter-agency effort characterised by a review of essential functions under different scenarios, simulation exercises, and (as appropriate) synergy of operational procedures with national authorities, civil society, business and NGO partners as they establish their pandemic readiness. This effort by the UN reflects the on-going integration of UN System operation at country level, and the better preparedness of country teams to respond to a range of challenges (including avian and pandemic influenza). The World Bank Group and the IMF have undertaken similar planning in parallel with the UN System's effort.

SECTION 4: TECHNICAL CONTENT OF THE RESPONSE

49. The FAO, OIE and WHO have established the technical interventions to be prioritised when governments are responding to threats of avian and pandemic influenza. Interventions include functioning animal disease surveillance, detection and response systems; introduction of bio-security measures to control exposure to infection; actions that reduce animals' susceptibility to infection, including measures to promote biodiversity and conservation; and the production of scientific evidence to better guide the response. Other essential interventions include arrangements for compensating and ensuring livelihood sustainability of persons whose poultry are culled, strategies for containing and mitigating a pandemic, the development of new products, and establishment of anti-viral and personal protective equipment (PPE) stocks.
50. These interventions have to be implemented through the joint efforts of agriculture and human health sectors, with support from other parts of national and local government, and alliances with key bodies outside government. They are implemented within a context of widely varying country capacity and quality of life [see Table 3, Figure 2]. The capacity of national and local institutions to implement these interventions, particularly in poorer countries, may be very restricted indeed.

Table 3. Selected development and health indicators (mean average per country) by region for 2001.

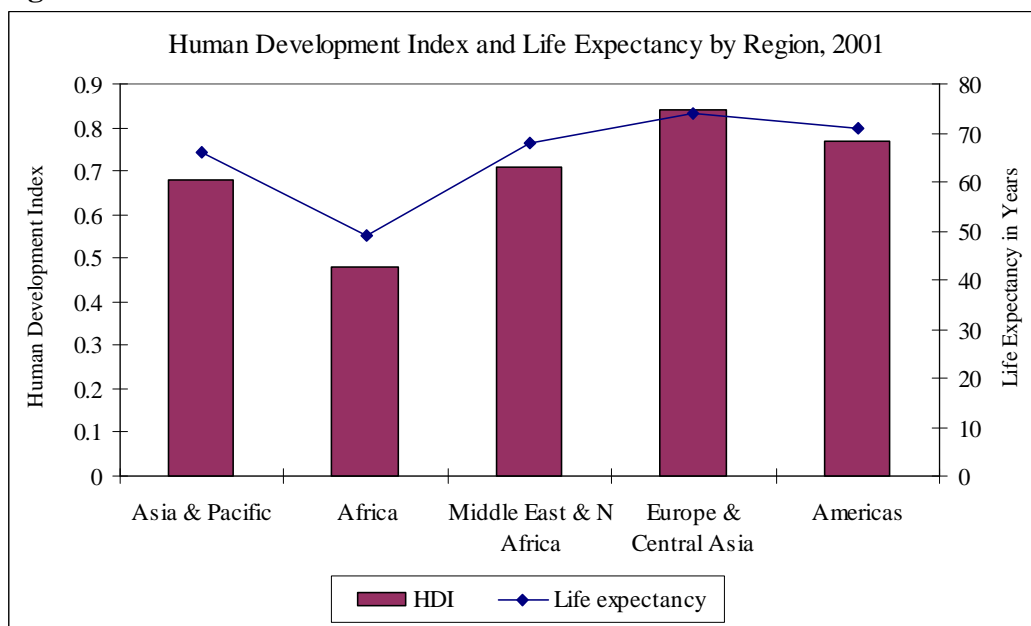
	Asia & Pacific	Africa	Middle East and N Africa	Europe and Central Asia	Americas
Life expectancy at birth (y)	66	49	68	74	71
GDP/c at PPP (US\$)	6,587	2,967	8,942	15,121	8,070
Physicians per 100,000	81	26	143	313	150
Number of countries	35	46	22	51	50

Source: UNDP Human Development Report, 2003.

51. Countries request external assistance with implementing these interventions. This assistance cuts across a range of sectors, and supports countries with very different implementation capacities. The UN System has made a point of offering coordinated support to different countries around the world. This is reflected in agreement among different UN agencies, funds, programmes and partners (including the development banks) to work in synergy at country level. It is also reflected in their attempts, at country level, to ensure a shared analysis of the problems being tackled and institutional challenges faced, agreement on strategies to be adopted and tools to be used, and recognition of critical factors for a successful response.
52. Avian and human influenza pose global level threats running across country boundaries. Effective concerted action runs from individuals to village communities, sub-national institutions to national, regional and global levels. The UN System and the World Bank consider that the action and response at the national level is the key to the overall approach and that the first immediate objective to prevent a human pandemic is to control the disease in birds. To be effective, national action must be duly complemented and reinforced by regional and international initiatives. It should be possible, over time, for national authorities to establish the risks they face, to judge their preparedness and response capability, and then to assess their needs for additional investments to ensure that these needs are being met. This, in turn, will reveal the urgency for additional international support. It is anticipated that analyses undertaken for subsequent reports in this series should help make such assessments possible.

53. Information is provided to countries through other mechanisms. WHO has a mandate – made more explicit, now, within the 2006 revision of the International Health Regulations – to monitor the global level pandemic risk situation and support country preparedness for and response to the human influenza threat. The OIE has a mandate to monitor the performance of veterinary services in relation to a range of animal health threats. FAO is mandated to assist countries with monitoring the spread of avian influenzas, controlling outbreaks of highly pathogenic disease at source, and preventing its spread through bio-security, vaccination and other measures.

Figure 2



Source: UNDP Human Development Report, 2003. The summary Human Development Index combines life expectancy at birth, adult literacy rate and combined primary, secondary, and tertiary gross enrolment ratio, and GDP per capita (PPP).

54. All three organisations work with national authorities to establish optimal technical interventions that are appropriate within national responses under different circumstances. Working with the World Bank and other UN System agencies they assess, and help to overcome the institutional challenges and constraints faced with implementation. The level of risk associated with H5N1, in any country, depends primarily on disease burdens and viral loads, and changes in the virus' capacity to infect.³ It will be influenced by progress with:

- *systems* (for disease surveillance, detection and control);
- *measures* (to control routes of introduction, e.g. at borders; to reduce reservoirs of infection; to alter people's or poultry's susceptibility to infection; to address social and economic vulnerability of livelihoods); and
- *changes in behaviour* (to reduce contacts with potential sources of infection in back yards, where domestic poultry meets wildfowl, or when humans encounter poultry).

55. Trend analyses by FAO suggest that the rapid north-westward expansion of H5N1 in Mongolia, Kazakhstan and Russia, which began in the summer of 2005, continued progressively through the autumn, extending to both Black and Baltic Sea basins. From there, the virus moved across the eastern Mediterranean basin during winter 2005 (mainly due to the movement of virus by wild migratory birds). In early 2006, the virus continued to spread across the Caucasus, Central and Eastern Europe, into the Middle East, Egypt,

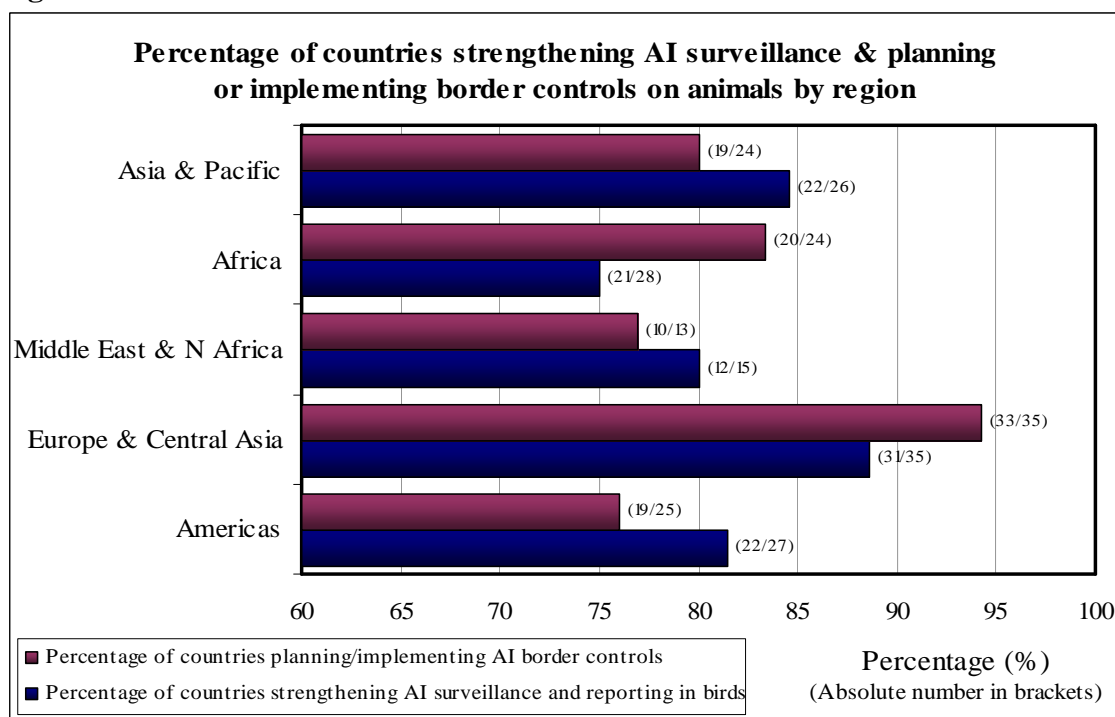
Sudan and Sub-Saharan Africa. Human infections were observed in Turkey, Iraq, Egypt, Azerbaijan and, recently, also in Djibouti. Avian infections peaked in February-March and began to decline in April 2006. Following broad seasonal trends from late 2003, the incidence of infection in both poultry and humans has somewhat declined. Nevertheless, there is fear of a new epizootic wave developing in late summer in Russia and extending mainly in westerly and south-westerly directions. The expansion of H5N1 virus during 2006 not only occurred in Europe, the Middle East and Africa but a growing number of countries in Asia either reported H5N1 for the first time (Afghanistan, India, Myanmar, Pakistan), became re-infected, or remained H5N1 affected (Cambodia, China, Indonesia, Laos, Malaysia and Viet Nam).

Regional Level Analysis of Technical Response

Animal Health and Bio-security

56. The FAO/OIE strategy for the control of avian influenza gives priority to safeguarding animal health by increasing bio-security to the international standard and ensuring veterinary service capacity which responds adequately to the needs.^{5,9,10} It is critical that veterinary services prioritise detection and stamping out of new avian infections through prompt movement restrictions and culling, correct and sustained levels of poultry vaccination (where indicated) and other measures to reduce transmission of influenza viruses among animals. Enhanced virus detection, identification and monitoring must meet OIE standards, as in the OIE Terrestrial Animal Health Code, for countries properly to assess and communicate their risk status. Additionally, for countries considering vaccination of poultry to protect against H5N1, vaccine quality and potency are important factors in predicting the effectiveness of a campaign.
57. Within each region, the majority of countries have sought to strengthen veterinary services, given OIE standards focused primarily on animal disease surveillance, reporting of suspected outbreaks to national authorities, confirmation of diagnosis (through laboratory tests) and international reporting when disease is detected [see Figure 3]. Intervals between outbreak onset and reporting to national and international authorities are a potentially sensitive indicator of surveillance system capacity and efficiency. The scarce available data, using more conservative figures where ranges were given, suggest considerable variability and that more work is needed on this indicator [see Table 4].
58. Border controls on trade and movement related to HPAI in animals are planned or being implemented in 83 percent of national authorities from which information was obtained [see Figure 3]. Limited information is available on border control breaches making it impossible to estimate the level of cross-border activity which affects the incidence and transmission of AI outbreaks in fowl.

Figure 3



Source: Global Data Gathering Exercise, May-June 2006. Note: Denominators represent the number of countries for which there is a response to the question in the Global Data Gathering Exercise.

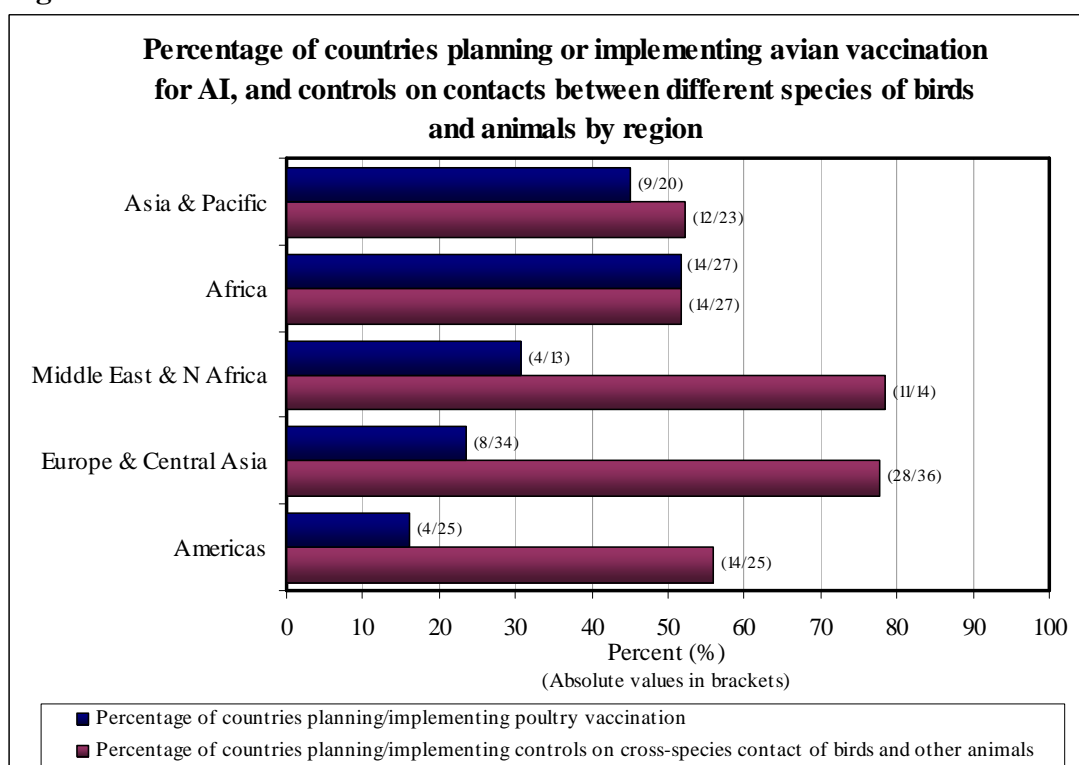
Table 4. Average time (days) from onset of outbreaks in animals to reporting to national and international authorities

	Asia & Pacific	Africa	Middle East & N Africa	Europe & Central Asia	Americas
Average days from outbreak onset to reporting to national authorities	5	3	11	2	3
n=	14	9	8	21	7
Average days from outbreak onset to reporting to international agencies	7	4	1	5	4
n=	14	4	4	10	4

Source: Data derived from Global Data Gathering Exercise, May-June 2006. Note: n= number of countries for which there is a response to the question in the Global Data Gathering Exercise.

59. Bio-security improvement initiatives, with the objective of managing contact between different species of birds and other animals as advocated by FAO, are widely planned and already implemented in some countries [see Figure 4]. These initiatives are targeted primarily to commercial enterprises (FAO primary poultry production sectors 1, 2 & 3) rather than to backyard flocks (primary poultry production sector 4). Interventions include legislative action, general advice provided to keepers, awareness raising campaigns and attempts to reduce contact between domestic poultry and wild birds.

Figure 4



Source: Global Data Gathering Exercise, May-June 2006. Note: Denominators represent the number of countries for which there is a response to the question in the Global Data Gathering Exercise.

60. Poultry vaccination is planned or being implemented in a small number of countries (32 percent), usually selectively rather than comprehensively [see Figure 4]. In some cases, it is restricted to rare species collections in zoos. FAO and OIE are reviewing their guidance on the value of poultry vaccination in AI control, especially in settings where birds are at particularly high risk, H5N1 is endemic within poultry populations and socio-economic contexts deter and limit the success of culling measures.
61. Concerns addressed by OIE and FAO include prevention of H5N1 infection without masking its presence while retaining the ability to distinguish vaccinated from infected birds. Most currently used vaccines permit this distinction and reduce the burden of disease in birds, albeit with low level persistence of the virus. Monitoring of sentinel birds is another useful strategy for evaluation.
62. The tools, methods and strategies to prevent and control HPAI have been described in various FAO-OIE documents.^{7,10} When applied properly, these strategies are efficient, as can be seen in most countries in Asia where the situation has improved relative to 2004. Avian influenza emergency response programmes need to be able to amalgamate technical, socio-economic, institutional and policy issues, agricultural development and public health considerations. Risk mitigation efforts, including movement restrictions, stamping out, preventative culling, enhanced bio-security, and vaccination all aim primarily to halt the spread of disease and then to decrease its impact and avoid endemicity when HPAI is already widespread. In cases of recent introduction of the virus, the objective of the programme is to eradicate the disease.

63. However, these tools also carry significant negative side effects. It is necessary to identify and address these before an outbreak in order properly to balance the various types of impact. Industrial producers, medium scale commercial chains and village or backyard production are all affected differently. Compliance with control measures and their degree of impact also vary according to scale of poultry production. The International Finance Corporation (IFC) is seeking to improve private sector performance in these critical areas by organising a series of workshops bringing together representatives of the domestic and international private sectors, governments, and international experts; the first of these workshops were in Cairo and Istanbul.

Sustaining Livelihoods & Implementing Compensation

64. The context within which poultry are culled as a part of HPAI control measures varies greatly from country to country with no comprehensive or standardised evidence for the design and implementation of fair compensation programmes. The World Bank has initiated the analysis needed to develop evidence-based guidance on best practice. FAO currently recommends that within each country there be a standard compensation rate within each of a few bird species categories, which meets criteria of affordability, acceptability, accurate pricing, simple payment method and capability for validation.²⁰ Compensation strategy for each country needs to be agreed among local stakeholders and tailored to local conditions. Existing FAO draft guidelines for compensation strategy design, which continue to evolve, comprise a checklist advising policy-makers on the factors to consider when they:
- determine the reason for compensation;
 - decide who will be compensated;
 - agree on the price for compensation;
 - decide whether the costs of control measures will be refunded;
 - administer and enforce compensation;
 - formulate funding strategy;
 - formulate medium/long term strategies when or if the disease becomes endemic; and
 - need to publicise the compensation strategy as part of the awareness campaign or strategy for HPAI control.
65. In developing best practice, there is a need to bring together experience of these recommended actions. Related issues to consider could include:
- Feasible types of compensation in kind during or after disease outbreaks.
 - Collaborative epidemiological surveillance of animals, workers and keepers.
 - Communications designed specifically to engage with public perception of risks and of responsibilities, and to elicit behaviour change.
 - How to link monetary compensation rates to pre-outbreak and to current market prices.
 - How compensation should best address incentives for reporting disease, incentives for building bio-security and support for livelihoods.
 - The primary stakeholders including the vulnerable.
 - The extent to which compensation should extend beyond primary producers to others dependent on poultry supply chains.
 - Responsibility for bearing the risks of disease, the potential role of insurance and credit schemes, and the potential contributions of public, private and international actors.
 - Strategy for managing a scheme, including development of “support strategies” in the medium and long term if the disease becomes endemic.
 - Communicating compensation strategy.

66. Development of best practices also needs must reflect peoples' experiences of systematic culling and the compensation schemes implemented to date. FAO work in Asia and in Turkey indicates that culling and compensation are socially sensitive issues: risks of social disruption need planning and regular review in advance of H5N1 infection so that any crisis (e.g. early pandemic) does not – itself - drive decision-making.^{6,8,12,20,24} Recent World Bank studies of compensation policy point to the importance of longer term support systems linked to the broader development and intensification of livestock production.²⁵ Compensation scheme structure, administration, enforcement and funding strategies need to be designed and refined using this experience.
67. In general, countries have faced real problems with practical and fair compensation solutions for culled birds in backyards and in small commercial operations. This highlights the urgent need for further work on the socio-economic impact of livestock diseases to help establish the compensation schemes which are most likely to contribute to livelihood security.
68. The key to long term control of avian influenza in poultry is the rehabilitation of the poultry sub-sector. The way in which the sub-sector is developed calls for strategies that manage risks, at both the national and regional levels. The emergence of novel pathogens worldwide, and the broader movement of pathogens from animals to humans, appears to coincide with an unprecedented upsurge in the world animal protein production (mainly poultry and pigs), as well as increased international trade, human and animal traffic, climate change, altered land use patterns and changes in ecosystems. These are all risk factors for the emergence of novel pathogens and related pandemic threats.
69. The ways which national and international institutions respond to these challenges will determine the medium to long term viability of agricultural production systems. The response must take full account of the needs of food insecure communities; it must help secure the incomes of smallholder livestock producers and the livelihoods of rural communities in general. The economic and poverty impacts of avian influenza need to be monitored and addressed, with the aim to limit negative impacts on the achievement of the Millennium Development Goals, seeking fair and equitable compensation for those whose livelihoods are endangered by avian influenza and related control measures. Pursuit of these objectives exposes several cross-cutting policy challenges whose resolution is difficult given the lack of a sufficient evidence base.
70. Successful implementation of these interventions depends on many political and institutional issues at country level. Firstly, there is a need for strong political commitment and proper enforcement of the prevention and control programmes, efficient central chain of command and appropriate investment. Despite differences in local circumstances, common success factors for emergency campaigns include costly and logistically demanding disease campaigns and strong public veterinary services supported by pertinent Government services, working in coordination and with well-defined roles and responsibilities. The most essential factor of all is the correct technical approach, a major challenge by itself.
71. More effective international support will gradually increase the number of countries free from H5N1 infection. Nevertheless, H5N1 virus may persist in certain regions requiring further studies. A critical issue is the possible role of wild birds as permanent reservoirs of H5N1. The role of wildlife in transmission of AI is under debate. Recent studies suggest that domesticated waterfowl in certain types of agro-ecological systems have played an

important role in H5N1 virus epidemiology.^{1,4,23,26} While many wild birds have also been infected, there are substantial gaps in the science base on how HPAI viruses behave in different wild bird species. FAO and UNEP, in close conjunction with the international NGOs, Wetlands International, CIRAD and WCS, have encouraged countries to participate in trans-national surveillance of influenza viruses carried by wild birds. Results have been presented at a FAO convened meeting on the role of wild birds in H5N1 transmission in May 2006. The evolution of the virus in Asia, and its affinity to aquatic poultry in lowlands and river basins with rice agriculture, also await clarification.

72. It is clear that the main source of virus propagation remains in poultry production. This is also the area where virus spread can most effectively be halted and human infection eliminated. The need for focused action to prevent spread seems particularly important in Africa. The situation remains fluid and human factors continue as elsewhere to contribute to virus spread. Recent experience in Sub-Saharan Africa indicates that H5N1 control is difficult but not impossible. With increased control efforts, more countries should be able to eliminate virus infection.
73. It is impossible to predict the likelihood of the H5N1 virus evolving into a human pandemic strain. Many different sub-types of influenza type A viruses persist in their natural reservoir of migratory waterfowl, with a geographical range spanning across the Holarctic region with continual incursions into other host species such as humans, pigs, horses, poultry and sea mammals. Hence, Influenza type A viruses provide the world with a model challenge to address as scientists and policy-makers struggle to address risks of other novel and potentially pandemic diseases. The best way to avoid regional and international trans-boundary animal disease crises is to prevent them through improved surveillance, diagnostic and early response capabilities at the country level, with regional and global support.

Human Health

Surveillance and Infectious Disease Control in Humans

74. Programmes to enhance surveillance and case reporting are being widely planned [see Table 5]. Despite improvements in passive case detection, very few countries at present have adequately developed active surveillance and detection systems.
75. Most countries for which there is current information intend to purchase human pandemic vaccines when they become available [see Figure 5]. Several countries intend to produce vaccine as well: this seems optimistic given the challenges of vaccine manufacture and distribution especially as an exactly matching candidate vaccine will not be available until the pandemic virus becomes evident.^{2,18,27}

Figure 5



Source: Global Data Gathering Exercise, May-June 2006. Note: Denominators represent the number of countries for which there is a response to the question in the Global Data Gathering Exercise.

76. The short incubation period and early peak infectivity of influenza mean that methods for containing human outbreaks of potential pandemic influenza depend critically on a rapid response. Recent mathematical models suggest ways of preventing a pandemic by containing outbreaks at source which now face issues of implementation.^{14,17}
77. WHO has developed a draft protocol for rapid response and containment which proposes an initial phase of standard measures (detection, contact tracing, and targeted anti-viral prophylaxis for contacts) to reduce spread, and a possible second phase of exceptional measures.³² The initial phase is intended to increase the chances that later exceptional methods will succeed. The latter could include isolation of populations, rapid mass anti-viral prophylaxis and perhaps social distancing.

78. Effective and well tested management systems, based on agreed operating procedures, are critical for implementation of a containment strategy. Uncertainties centre on the operational feasibility of rapid deployment for successful mass anti-viral prophylaxis, particularly in high density urban areas and where transport infrastructure is restricted or populations are particularly mobile.
79. In the wider context of AI infections in people, most countries plan to trace case contacts though fewer have issued clinical guidance for health care workers [see Table 5]. Globally, there is great variation among countries' capacity to investigate clusters of human disease. Despite assistance from international agencies with emergency deployments of investigative epidemiologists and virologists, temporal and spatial limitations are such that local resources and expertise are the first line of defence and action for crisis management and containment.

Table 5. Overview of activities and capacity in human infectious disease surveillance and control

	Asia & Pacific	Africa	Middle East & N Africa	Europe & Central Asia	Americas
Number of countries with programmes to strengthen human AI case surveillance and reporting	22	14	11	35	14
n=	26	29	15	37	27
Number of national authorities currently planning or implementing contact tracing for control of HPAI in people	21	19	13	32	22
n=	24	19	13	32	22
Number of national authorities who have issued clinical guidance for HPAI case management	13	18	13	31	18
n=	25	31	14	36	27
Average days reporting time from case onset to national authorities	5	2	1	1	4
n=	10	6	3	8	6
Average days reporting time from case onset to international agencies	7	3	1	1	3
n=	8	4	2	6	5

Source: Data derived from Global Data Gathering Exercise, May-June 2006. Note: n= number of countries for which there is a response to the question in the Global Data Gathering Exercise.

80. Since January 2006, the WHO secretariat has been working with Governments of its Member States to agree to standard procedures that are essential if the pandemic containment protocol is to be implemented successfully.³² The dialogue has covered procedures for public communications and for securing voluntary informed consent to anti-viral use. Real-time reporting of disease incidence and containment efforts will be critical for efficient surveillance and detection; the reports should also cover adverse events such as anti-viral resistance. Such information is essential at the early stages of containment.
81. There is little firm evidence on variability in the timing and comprehensiveness of case reporting after onset. Potentially important benefits could come from minimising the time taken for reports to reach national authorities and international agencies; and this is likely to require considerable further work. An attempt was made to obtain data on the speed with which suspected human cases are reported to health authorities. The limited information obtained suggests that intervals from case onset to reporting to national authorities and to international agencies vary widely between the immediate (same day) to longer than a

week, with overall averages respectively around 2 and 4 days [see Table 5]. The upper limit confidence intervals for anticipated reporting times (around 9-12 days) seem excessive given the need for rapid action if containment is being attempted. However, in some instances here the reporting time estimates represent hypothetical rather than actual periods. A clearer picture of intended and actual reporting times, as well as reporting procedures, will help identify needs for improvement in design, capacity and efficiency of health surveillance systems.

82. WHO and Member States are examining the potential impact of policies for social distancing in the event of a pandemic. These could include closure of schools and work places, control of mass gatherings and public transport, community-based movement restrictions, and controls on cross-border movement.^{33,34} Careful study of community-level realities should aid the design of each country's mitigation strategies so as to minimise the consequences of societal disruption. This work should be undertaken prior to pandemic onset.
83. The procedures for implementing the WHO draft protocol for rapid response and containment include identifying the roles and responsibilities of national authorities, WHO and pharmaceutical suppliers. In addition, advice and guidelines have been generated for humanitarian agencies that are active among refugee and internally displaced populations.
84. The WHO draft protocol envisages using PPE in delivery of health care and in strategy deployment in a variety of different situations. WHO is developing guidelines for use by health care workers, and by those who handle food and water, with a particular focus on the needs of humanitarian agencies.³⁰ For the current H5N1 virus, there are substantial risks associated with culling animals without PPE. Based on the little evidence available regarding modes of transmission and infection, there is a small but potential risk of human infection from water contaminated with H5N1 avian influenza virus.³¹ Most national authorities are planning on the use of PPE by health care workers [see Figure 6, Table 6]. Some have requested urgent assistance in the form of PPE and other equipment to facilitate culling. In six countries (in Africa, Europe and Central Asia), the only available PPE kits have been supplied by multilateral or bilateral agencies. USAID has a substantial stockpile of PPE kits and has supplied them to a number of countries for use by veterinary officers, cullers, health staff and other front line personnel. The overall level of demand by the public for items such as face masks in any region or country is unclear.

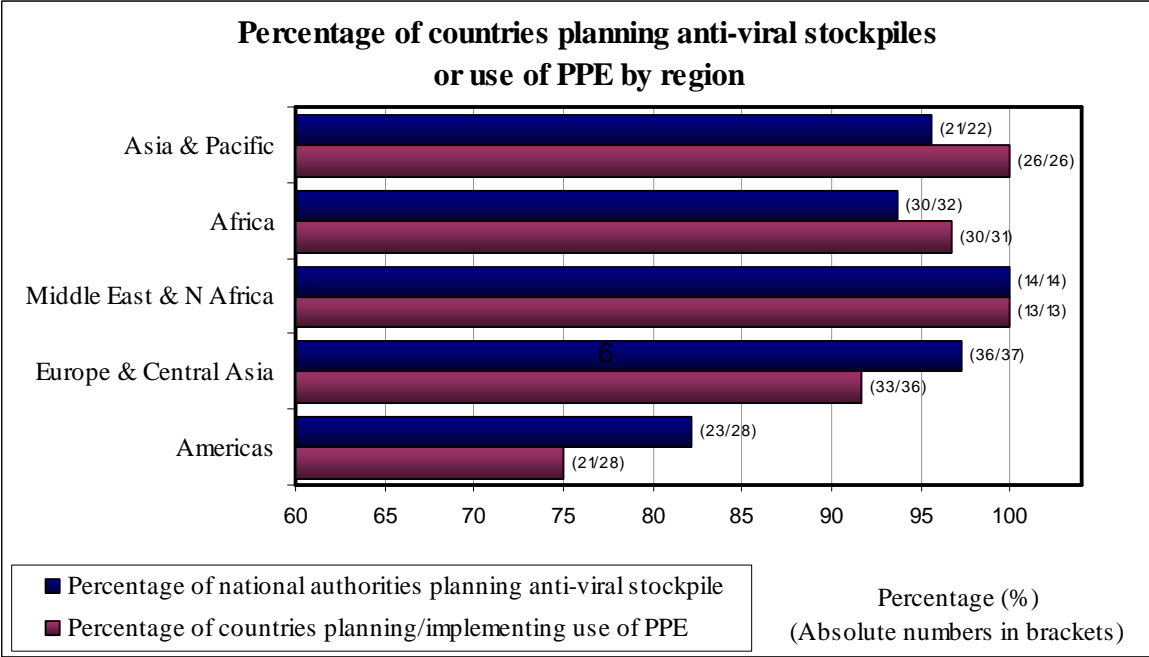
Table 6. Current PPE stockpiles and planned anti-viral coverage in countries by region

	Asia & Pacific	Africa	Middle East & N Africa	Europe & Central Asia	Americas
Average number of PPE kits available in countries with stockpiles	38875	725	37586	3195	500037
n=	12	10	4	11	3
Average percentage of population covered by planned anti-viral treatment courses	4.8	5.3	7.5	8.7	1.5
Range of percentage population cover	<0.01-38.7	<0.01-15.9	0.01-29.4	0.01-25	<0.01-3.7
n=	11	9	4	11	5

Source: Global Data Gathering Exercise, May-June 2006. Population data for 2001 were taken from UNDP Human Development Report, 2003. Note: n= number of countries for which there is a response to the question in the Global Data Gathering Exercise.

85. WHO currently recommends that widespread public use of masks would depend on the exposure risk, with routine use in public places being permitted but not required. Of 21 European country plans issued between January 2002 and November 2005, 11 recommend use of masks; 7 note the inadequate evidence base; and 13 plan to issue masks to health care workers.^{21,22} There are no published estimates of the quantities needed.
86. As Figure 6 illustrates, most national authorities have plans to stockpile anti-viral medicines, although from evidence currently available it is not always clear what proportion of the population is to be covered for treatment. Planned stockpile size varies from 1 percent to 53 percent of the population across European countries, with purchase orders placed by 13 of these.^{21,22} The available data suggest that average population coverage for the five regions ranges from 1.5 percent – 8.7 percent (total n=40 countries) [see Table 6]. The desirable stockpile size for pandemic mitigation is subject to continuous review given that some models imply that successful mitigation calls for high population coverage with provision to targeted households.^{13,15}

Figure 6



Source: Global Data Gathering Exercise, May-June 2006. Note: Denominators represent the number of countries for which there is a response to the question in the Global Data Gathering Exercise.

SECTION 5: HUMAN & FINANCIAL RESOURCES TO DELIVER PRIORITY ACTIONS

Human Capacity in Animal and Human Health

87. The geographical expansion of H5N1 in wild and domestic birds across three continents, the persisting flare-up of human infections, and the evolving response, require a sustained global tracking effort. FAO, OIE and WHO are setting up the joint Global Early Warning System to serve as a real-time monitoring system. FAO and OIE are establishing a Crisis Management Centre for rapid response to avian influenza emergencies in poultry. The main aim of this Centre is to assist in promptly mobilising expertise and resources to any country requesting emergency support for avian influenza control. Experts, particularly from previously affected countries, have been able to assist newly infected countries in risk assessment and management as well as in providing support for national and regional level laboratory diagnostics and epidemiological surveillance. A major component of support is the creation of regional technical support networks.
88. Adequate laboratory capacity and expertise is essential to disease prevention and control. An attempt was made to assess availability of laboratory capacity and veterinary expertise. Given the limitations of data, results and conclusions expressed here need to be verified through subsequent studies. Veterinary expertise and laboratory capacity to detect and diagnose AI in animals is present in about 64 percent of countries for which data are available [see Table 7]. Numbers of trained vets derived from existing official sources vary considerably across all countries in each of the five regions, and correlate well with national total annual meat production from all sources; but disparities between regions remain even after allowing for the quantity of meat produced [see Figure 7, Table 8]. The number of veterinarians specifically trained in AI detection is also unclear from the available information. Further, few countries appear to have any village veterinary workers; those which do, generally have already been affected by AI.
89. Substantial government investment in capacity building, supplemented with international technical assistance, is needed. In addition, international assistance is required on best practices for increasing implementation capacity across sectors. International action is also needed on sharing of information, viral samples and sequences, on support for behavioural change, on technical support for animal health, and on poultry vaccine development. The establishment of OFFLU, the OIE and FAO network of influenza expertise, has been an important step in this process. The strengthening of official Veterinary Services is indispensable in order to carry out appropriate surveillance, early detection and warning, reporting and immediate response to outbreak awareness. Disparities in world livestock production [see Figure 7 and Table 8] as well as differences in agricultural policies and variable application of international trade agreements, all affect capacities for response to outbreaks that cross national boundaries. There is a need for systematic clarification of ways in which socio-economic factors, patterns of disease and public health systems interact in different geographical settings. Fortunately, a number of countries, in different regions, have achieved notable results from their efforts to address avian influenza.

90. In public health sectors too, there are substantial gaps in human resources capacity in diagnostics and case management [see Table 7]. However, it is not easy to obtain useful insights from comparisons of capacity in the animal and human health sectors within individual countries. In some cases, many health workers have been trained in AHI diagnosis. Exact figures are not available; but with rare exceptions and some extreme outliers, in any individual country, fewer than 300 health care workers would seem to have been trained in AI case management.

Table 7. Selected human resources and technical capacity indicators for animal and human infectious disease control by region

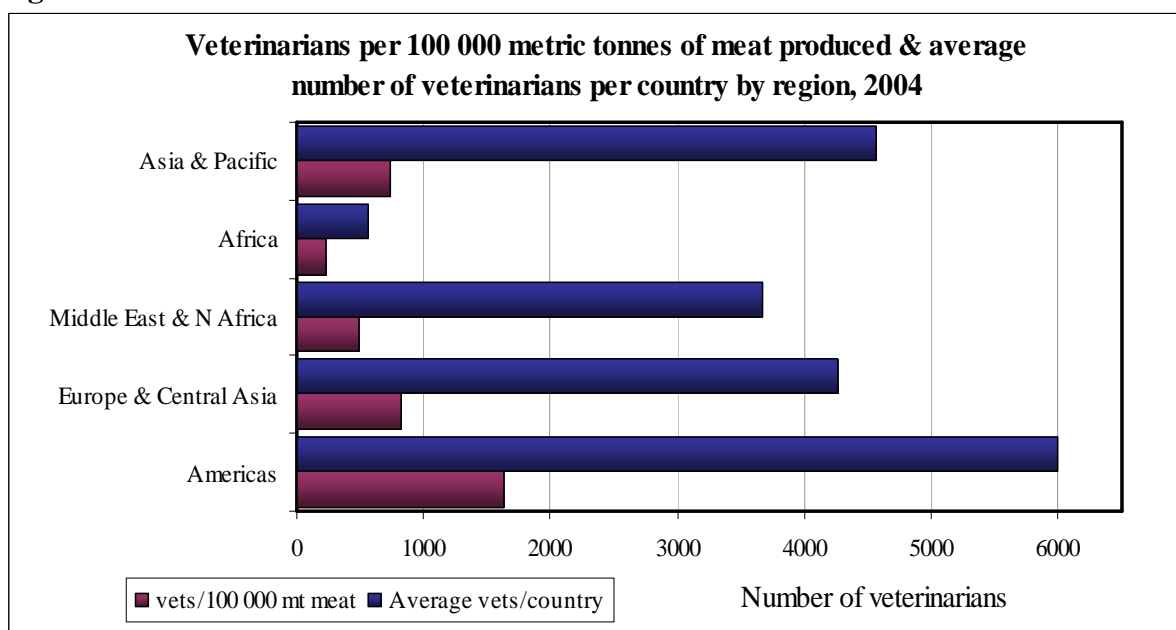
	Asia & Pacific	Africa	Middle East and N Africa	Europe & Central Asia	Americas
Total number of AI veterinary detection laboratories per region and number of countries reporting 1 or more labs	27	24	7	22	65
n=	9	5	3	10	10
Average number of village vet workers trained in AI detection per country reporting these	7341	23	60000	957	33
n=	6	4	1	3	3
Number of countries with AI veterinary expertise and laboratory detection capacity	9	6	7	28	20
n=	16	22	11	34	27
Number of countries with the diagnostic capacity to detect and confirm AHI infection in people	14	9	11	31	16
n=	24	28	14	37	28
Average number of health care workers trained in AI case management per country reporting	65	46	47	13292	50
n=	2	5	3	7	1

Source: Global Data Gathering Exercise, May-June 2006. Note: n= number of countries for which there is a response to the question in the Global Data Gathering Exercise.

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92. In public health sectors too, there are substantial gaps in human resources capacity in diagnostics and case management [see Table 7]. However, it is not easy to obtain useful insights from comparisons of capacity in the animal and human health sectors within individual countries. In some cases, many health workers have been trained in AHI diagnosis. Exact figures are not available; but with rare exceptions and some extreme outliers, in any individual country, fewer than 300 health care workers would seem to have been trained in AI case management.

Figure 7



Source: FAOSTAT data, 2004, accessed May 2006, OIE Handistatus II database, 2004, accessed May 2006.

Table 8. Selected veterinary and meat production variables by region

	Asia & Pacific	Africa	Middle East & N Africa	Europe & Central Asia	Americas
Total meat production in 2004 (metric tonnes)	105,444,158 n=44	8,715,845 n=48	7,274,355 n=19	56,440,285 n=51	81,563,165 n=46
Veterinarians per 100 000 metric tonnes of meat per country	751 n=22	225 n=34	484 n=16	822 n=41	1,661 n=29

Source: FAOSTAT data, 2004, and OIE Handistatus II database, 2004, both accessed in May 2006. Note: n= number of countries for which the data were reported in the source.

Funding Flows

93. Donor pledges in Beijing were made in the context of a flexible, multi-donor framework designed to take account of contributions channelled in ways that fit best with donors' own systems. Donors pledged support (in cash, grants, loans or in-kind) for the following purposes and recipients:
- Developing countries, for integrated country programmes.
 - Regional organisations, for a range of technical assistance, stockpiling, and coordination activities.
 - International technical agencies at the global level.
 - The AHI Facility, a multi-donor trust fund facility based at the World Bank, for provision of grants to country, regional, or global recipients.
94. In preparation for the Vienna Senior Officials Meeting on June 7, 2006, the World Bank polled participating bilateral and multilateral donors on their progress on commitments and disbursements against their pledges under the AHI financing framework. The results of this polling are reported in the detailed tables on the pledges, commitments and disbursements in Annex IV. The World Bank will continue to work with donors to refine the clarity and detail of their pledge, commitment, and disbursement data. Donors must take care to ensure that their reported funding focuses on the main elements of the agreed global strategy and represents only external funds available for developing countries.
95. Table 9 summarises donor support for AHI activities during the period of calendar year 2005 through to April 30, 2006. Donors reported commitments of \$1,150 million, of which \$331 million has been disbursed (of which 82 percent was in cash and 18 percent was in kind). Commitments amount to 58 percent of the total pledged, while 15 percent of the pledged amount has been disbursed.
96. Among the highlights, the five largest donors (those pledging over \$100 million) have reported significant progress.
- The European Commission has become the largest donor to the new AHI Facility.
 - Japan has fully committed its Beijing pledge of \$158 million to a range of countries and organisations at the regional and global levels. Through the Policy and Human Resources Development (PHRD) trust fund, Japan is providing co-financing of Bank-financed operations under the Global Program for Avian Influenza.
 - The United States has fully committed its pledge of \$334 million announced in Beijing and is active in providing services and grants to a wide range of countries and other recipients.
 - The Asian Development Bank has committed \$80 million, which includes about \$19 million to FAO and WHO and has a significant pipeline of operations underway for national or regional projects in Asia.
 - The World Bank has developed a project pipeline under the Global Program for Avian Influenza (GPAI), endorsed by the Executive Board in January 2006 for funding up to \$500 million. Financing totalling \$112.1 million has been approved for projects in five countries (Azerbaijan, Kyrgyz Republic, Nigeria, Turkey, and Vietnam), and work is underway in others [see Annex V].

Table 9. AHI Financing Framework as of April 30, 2006 (\$ millions)

	Donor	Pledge in Beijing	Committed	Disbursed
1	Australia	55.91	55.92	11.88
2	Austria	1.24	0.00	0.00
3	Belgium	3.11	2.87	0.37
4	China	10.00	2.00	0.00
5	Cyprus	0.03	0.03	0.00
6	Czech Republic	0.20	0.20	0.20
7	Estonia	0.04	0.04	0.01
8	Finland	3.42	3.42	3.42
9	France	31.09	32.82	16.83
10	Germany	28.61	38.69	4.56
11	Greece	0.75	0.38	0.38
12	Hungary	0.04	0.00	0.00
13	Iceland	0.40	0.40	0.00
14	Ireland	1.24	1.24	0.00
15	Italy	6.96	4.50	0.00
16	Japan	155.00	158.95	157.65
17	Korea, Republic of	5.71	4.06	2.90
18	Luxembourg	1.24	0.00	0.00
19	Netherlands	13.68	15.28	4.50
20	Norway	38.99	41.45	41.45
21	Russia	23.70	31.86	0.00
22	Saudi Arabia	1.00	1.00	1.00
23	Singapore	0.60	0.60	0.31
24	Slovenia	0.04	0.04	0.00
25	Spain	2.98	2.49	2.49
26	Sweden	9.37	12.72	0.00
27	Switzerland	4.76	4.74	4.74
28	Thailand	2.50	0.00	0.00
39	United Kingdom	36.36	29.35	3.72
30	United States	334.00	334.07	70.95
31	European Commission	124.36	178.48	0.00
32	Asian Development Bank	468.00	79.57	2.05
33	World Bank	500.50	113.10	1.97
	Total	1,865.33	1,150.27	331.38

Note: Donors' reports of amounts committed and disbursed during calendar 2005 and through to April 30 2006.

Commitment: The result of an agreement between the donor and recipient for the designated purposes; a commitment is a firm decision that prevents the use of allocated amount for other purposes.

Disbursement: Actual budget transfer or release of funds to the recipient for an intended purpose.

97. Table 10 shows the distribution of commitments among the main recipients: \$404 million, or about one third of the committed funds, is in support of country programmes (both directly and through the AHI Facility), \$221 million, or 19 percent of the total, is for international organisations, such as WHO, FAO, OIE and UNICEF, while more than 40 percent is for regional and other organisations (details on these recipients are in Annex IV Table 4b). Bilateral donors are providing \$779 million or more than two-thirds of total commitments.

Table 10. Overview of AHI Commitments as of April 30, 2006

Donors/Financiers:	Recipients:				Other	Total
	Countries	AHI Facility	International Organisations	Regional Organisations		
	(\$ million)					
Bilateral donors	141	17	201	147	272	779
European Commission	36	57	0	0	85	178
Multilateral Development Banks	153	0	20	0	19	193
Total	330	74	221	148	377	1,150
Share	29%	6%	19%	13%	33%	100%

98. Commitments to support country programmes were \$330 million, with the top recipients including Vietnam (\$66 million), Indonesia (\$55 million), Nigeria (\$51 million), Turkey (\$46 million), and Cambodia (\$23 million). Donors have also reported commitments of \$221 million to support international agencies, including \$61 million to WHO, \$57 million to FAO, \$14 million to OIE, and \$49 million to UNICEF (in general these figures are lower than what was requested in Beijing).

99. Continued donor support will be critical in the coming months. While country-level activities were identified as the key priority early on, balance will be critical to ensure a global response that meets the evolving challenge. Donors should continue to consult with the key technical agencies (FAO, OIE, WHO and UNICEF) and with the multilateral financing institutions. There are a number of areas where more donor focus is needed, and additional pledges may also be sought, including for Africa, where both country-level operations and regional initiatives sponsored by OIE, FAO, and WHO as well as African institutions will require significant grant funding. The international community should continue a coordinated effort to mobilise grant support for efforts to tackle AI and the pandemic threat in low income countries. With regard to compensation mechanisms, a number of studies are now underway involving OIE, FAO, the Bank, and others, which could lead to proposals for more structured funding approaches at the international and national levels.

Table 11. Confirmed Pledges to the AHI Facility

Donor	Pledge Currency	Amount	Approximate share
Australia	A \$	5,000,000	4.9%
China	US \$	2,000,000	2.7%
European Commission	Euro	46,000,000	78.2%
Iceland	US \$	200,000	0.3%
Korea	US \$	1,000,000	1.3%
Russia	US \$	3,000,000	4.0%
Slovenia	Euro	30,000	0.1%
UK	Pounds	3,500,000	8.6%
			100.0%

100. The AHI Facility is a trust fund facility being established at the World Bank. The AHI Facility can co-finance operations supported by IBRD/IDA under the GPAI, or in countries where the Bank is not active, provide self-standing grants or co-financing for other agencies' programmes. The AHI Facility can also provide grants to international organisations and to non-governmental organisations. As of June 22, 2006, about US\$74 million equivalent in pledges were confirmed by eight donors (Australia, China, European Commission, Iceland, Korea, Russia, Slovenia, and UK), with the European Commission as the largest donor (Table 11).

101. Proposed grants for finance under the AHI Facility are reviewed initially at country level by the Government, the UN, representatives of AHI donors represented in the country, and relevant technical agencies. Grants are subsequently reviewed by an internal review committee (within the World Bank), and any grants that are not country-specific or are over \$3 million are submitted to the AHI Facility Advisory Board for consultation. The Advisory Board consists of the representatives of the World Bank and of all donors who are committed to providing \$2.5 million or more to the AHI Facility, with UNSIC and OIE as observers. The Advisory Board's inaugural meeting was held in Vienna on June 8, 2006.

UN System Capacity

102. UN System agencies have a unique role to play in contributing to the global good of improving human health security. In the face of the current threat emphasis is on reducing HPAI prevalence in animal populations and thus diminishing the threat of a human pandemic. The UN contribution includes technical and some operational support at country level (especially in countries with restricted implementation capacity), technical assistance at regional level (often through existing regional mechanisms like the ALIVE-supported AU-IBAR livestock improvement system in Africa), and overall monitoring of achievements at global level (in relation to agreed international standards). The UN System as a whole has received less than half the funds requested at the Beijing conference (and the needs now are much greater than they were in January). WHO, FAO, and also UNICEF, UNDP, WFP, UNHCR and OCHA, are short of the funds they need. There is no other institution that is currently able to provide the service offered by the UN System. The UN's lack of funds inhibits them from sponsoring an intensive and energetic campaign to minimise AI risks to humans, from underwriting global efforts to contain highly pathogenic influenza viruses, from establishing an adequate platform for the continuity of governance and economies during a pandemic. As a result they are not in a position to mount predictable and sustained responses that are requested by national authorities and expected by the international community. They are also not able to sustain viable links with partner entities in the public, voluntary or private sectors. In summary, they cannot, at this time, provide the minimal service necessary to reassure the global public that the HPAI-associated risks are getting the full attention they require.

103. The UN System action plan – to be released in July – will set out the resources needed to bridge this gap. The plan is being developed with the full engagement of each UN agency and implementing partners. Resources are required (a) for the UN System, and (b) for technical assistance and implementation support in poorer countries. The plan is to be used as a basis for combined resource mobilisation by all.

SECTION 6: INFORMATION AND COMMUNICATIONS SUPPORT

104. Public information and communication are critical to supporting behaviour change. Strategic communication is needed to provide clear and unambiguous risk and outbreak information to the general public and key groups of people with the highest potential for stemming the spread and impact of the disease. This should include mobilising households and communities to adopt risk reduction behaviours to mitigate the impact of any outbreak or potential pandemic.
105. A joint WHO/FAO/UNICEF workshop on behavioural interventions for avian influenza risk reduction agreed on the following four highest priority behaviours: immediate reporting of unusual sickness and death among poultry, wild birds and other animals to authorities; keeping poultry species separate from each other and from wild birds, new birds as well as living areas; washing hands with running water and soap often (or ash if soap not available), especially after touching birds and before and after food preparation; handling, preparing and consuming poultry safely. UNICEF has a lead role for behaviour change communication to support national efforts, in partnership with FAO, WHO and others, including the World Bank, USAID and CDC.²⁹
106. Behaviour change communication campaigns are being planned and implemented in several countries, many adapting and building upon strategies and materials developed in East Asia, often with the support of bilateral agencies and the UN System. All World Bank-supported GPAI operations under implementation and those being prepared contain communications programmes. The increase in levels of awareness in individual countries has, in large measure, been dependent on the availability of resources for developing and launching communication initiatives. This is particularly the case in countries with many privately owned media channels where public service broadcasts can be purchased as advertising time. Although communications is widely viewed as an essential element of avian influenza campaigns and pandemic preparedness activities, money for communications activities is often a constraint.
107. Resources notwithstanding, several challenges remain across geographic regions. The first is the weak national and regional capacity for strategic planning, implementation, monitoring and evaluation of communication projects. UNICEF, WHO, FAO, CDC and other partners, are in the process of developing a generic communication toolkit and identifying potential resource institutions to undertake the task of strengthening regional and country capacity. Efforts are also underway to experiment with new information technologies, such as the use of mobile phones and hand-held computers, both to communicate messages directly to households and to support surveillance efforts by facilitating direct reporting from the community to provincial or national surveillance teams.
108. Other challenges include the lack of social data and information on the cultural and economic factors that can facilitate or hinder the adoption of recommended behaviour. The issue of loss of income caused by the culling of birds, for instance, is a major impediment in resource-poor communities and often prevents the reporting of sick and dead birds. In addition, the weak capacity of local government structures to respond to increased levels of reporting, can have a negative impact on the credibility of even the most sophisticated communication campaigns. Strengthening local veterinary structures is, therefore, of primary concern to FAO and OIE, and will play a key role in determining the effectiveness of the communication campaigns.

109. Alliances with major international print and electronic media networks are required in order successfully to run massive communication campaigns. It will be a major challenge to sustain media campaigns in the event that the virus situation eases.
110. Media campaigns alone will probably not lead to significant and long lasting behaviour changes. Farmers' behaviour is generally based on economic and social interests. Communication campaigns, relying on extension and veterinary services and engaging NGOs and the private sector as well as Government personnel, would engage farmers in a face-to-face dialogue about the specific threats of the lethal H5N1 virus compared to other poultry diseases, and how they can protect themselves and their flocks against the disease.
111. There is a need to raise awareness in leading international media companies about the risk of a global human influenza pandemic and the necessity to prepare for a situation when information and travel infrastructure could temporarily break down, and the delivery of products such as newspapers could become difficult. In addition, journalists need to reflect on their role and the conditions of reporting in times of pandemic and panic.
112. Speaking with one voice has been an important challenge for the agencies involved in the control campaigns against avian influenza. UNSIC has supported the UN Department of Public Information in harmonising messages on avian influenza issued by the UN System. Agencies have endorsed a communication plan that clearly spells out the division of labour between FAO (animal health), WHO (human health), UNICEF (communication campaigns for behaviour change) and others in commenting on avian influenza topics. This has helped to reduce instances of conflicting messages. This is an area that needs both local and global attention.

SECTION 7: PRIORITIES FOR INTERNATIONAL ACTION

113. This report has highlighted the progress made nationally and internationally in tackling the threats posed by the highly pathogenic influenza virus, while identifying existing gaps. In order to close these gaps, the following priority actions need to be emphasised.
114. A consistent **information, education and communication** campaign is an integral part of the global strategy to control avian and human influenza. Local and international efforts to convey well-crafted and locally adapted messages to support behaviour change need to be encouraged so that risks to health, livelihoods, livestock and economies can be reduced.
115. In order to mitigate the socio-economic impact of avian influenza, there is a strong need for all nations to develop fair and well-functioning incentive structures and **compensation mechanisms** to sustain the livelihood of all whose poultry are lost as a result of efforts to control avian influenza. These mechanisms can be effective only if communications efforts include information on how they work.
116. To reduce avian and human influenza threats, best **animal health** practices need to be supported. Special emphasis should be given to bio-security and strategic vaccination. Further, there is a need for governments to invest in veterinary laboratory diagnostic capacity and poultry vaccine development, in line with international standards.
117. To enhance surveillance and protection of **human health**, rapid response mechanisms and optimal practice for human pandemic containment need to be established, promoted and tested. Governments need to make substantial investments in human laboratory diagnostic capacity, while making an effort to share information, viral samples and sequences, and ensuring affordable access to safe and effective vaccines and anti-virals.
118. In order to advance our understanding of the risks and threats associated with avian and human influenza, systematic international action for effective use of epidemiology, virology and social science is necessary. The full sharing of data and biological material needs to be accompanied by innovative international efforts to develop **vaccines and diagnostics** involving governments, researchers and manufacturers.
119. To ensure that these priority actions are indeed implemented, the **flexible financing framework** needs to be reinforced. There is a strong need for the international community to offer predictable external assistance, while improving systems for fund distribution so that assistance can be delivered in a timely manner, following standardised implementation procedures. External partners can further help in kind with rapid deployment of veterinary and human epidemiologists, as well as training veterinarians and health workers in surveillance, risk mitigation and response. Recipient countries bear the responsibility for preparing draft plans – even if rudimentary – in order for donors to make informed decisions on funding priorities.

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ANNEXES

Annex 1: National authorities covered by the May-June 2006 information gathering exercise on avian and pandemic influenza preparedness, listed by region as defined by presence of UNDP Country Offices and (otherwise) by geographical location.

Asia & Pacific	Africa	Middle East & North Africa	Europe & Central Asia	Americas
Afghanistan	Angola	Djibouti	Albania	Argentina
Australia	Benin	Iran	Armenia	Bahamas
Bangladesh	Botswana	Jordan	Austria	Barbados
Bhutan	Cameroon	Kingdom of Bahrain	Azerbaijan	Belize
Cambodia	Cape Verde	Kuwait	Belarus	Bolivia
China	Chad	Lebanon	Belgium	Canada
India	Comoros	Morocco	Bosnia and Herzegovina	Chile
Indonesia	Congo Republic	Oman	Bulgaria	Colombia
Japan	Côte d'Ivoire	Palestinian Territories (Occupied)	Croatia	Costa Rica
Korea DPR	Ethiopia	Saudi Arabia	Cyprus	Cuba
Korea Republic	Gabon	Somalia	Czech Republic	Dominican Republic
Lao PDR	Gambia, The	Sudan	Denmark	Ecuador
Malaysia	Ghana	Syria	Estonia	Guatemala
Maldives	Guinea Bissau	Tunisia	Finland	Guyana
Mongolia	Lesotho	United Arab Emirates	Georgia	Haiti
Myanmar	Liberia	Yemen	Germany	Honduras
Nauru	Malawi		Kazakhstan	Jamaica
Nepal	Mauritania		Kosovo	Mexico
New Zealand	Mauritius		Kyrgyz Republic	Nicaragua
Pakistan	Mozambique		Latvia	Panama
Papua New Guinea	Namibia		Liechtenstein	Paraguay
Solomon Islands	Niger		Lithuania	Peru
Sri Lanka	Nigeria		Macedonia	Suriname
Thailand	Rwanda		Moldova	Trinidad and Tobago
Timor Leste	Senegal		Norway	U.S. Mexico Border
Vanuatu	Seychelles		Poland	Uruguay
	Sierra Leone		Romania	Venezuela
	Swaziland		Russian Federation	U.S.A.
	Tanzania		Serbia & Montenegro	
	Togo		Slovak Republic	
	Uganda		Slovenia	
	Zambia		Sweden	
	Zimbabwe		Tajikistan	
			Turkey	
			Turkmenistan	
			Ukraine	
			United Kingdom	
			Uzbekistan	

Note: U.S. Mexico Border data obtained from U.S.A. as a separate entry from U.S.A.

Annex 2: Main avian influenza and pandemic messages

- Avian influenza is still an animal disease that has also affected humans.
- Avian influenza has become a global problem that needs a global response.
- Rare instances of limited human-to-human transmission of H5N1 have occurred. To date, sustained human-to-human transmission has not been documented.
- A pandemic will occur one day, but we do not know when and which virus will trigger it.
- We still have a window of opportunity to defeat the H5N1 virus if we vigorously apply the measures that have been proven successful: contain the virus in animals through culling and the restriction of movements of people and goods; apply targeted vaccination; strengthen early detection and surveillance systems (immediately report any symptoms of disease in animals).
- Compensation is necessary to create incentives for farmers to report disease outbreaks. Compensation proves difficult in countries that do not have the conditions for the efficient, targeted and speedy distribution of funds.
- Strong veterinary and public health services are crucial in the crusade against the disease. Upgrading these services will help to defend humankind against future virus attacks.
- Affected countries should build on lessons learned from others: for example, there are useful insights to be gained from the experience of Viet Nam and Thailand. A strong political will and commitment from the highest level, the provision of resources, the creation of partnerships involving private sector, civil society and community volunteer groups are crucial for building strong avian influenza control campaigns.
- Communicating the risks of avian influenza to people and calling for behaviour changes that reduce their exposure to the virus should be part of every national control campaign.
- Fighting the disease in animals should be accompanied by preparing contingency plans for a potential pandemic. Each country is under threat and has to mobilise resources to put proper contingency plans in place.
- National efforts to contain avian influenza and prepare for the pandemic need to be supported by the international community. Funds pledged in Beijing will not be sufficient to address the problem in all affected countries.

Annex 3: Global Information Gathering Exercise, May-June 2006: Questions for Avian and Human Influenza Focal Points

A. Quick Questions on Institutional Arrangements

1. COUNTRY TO BE COVERED BY RESPONDENT: _____

2. Is there a national AHI task force or equivalent?

Yes No

If yes, what has been the number of meetings over the last six months? _____

3. Is there a central coordinating body (a ministry or agency) with responsibility for AHI response and preparedness across the whole government?

Yes No

If yes please specify: _____

4. Has the government engaged national NGOs, civil society, and the private sector in its planning? If yes, which ones?

None National NGOs
 Civil Society Private Sector
 Others (please specify) _____

5. Which multilateral agencies are presently active in assisting the country on avian and human pandemic influenza?

Agency

FAO IOM
 OCHA OIE
 UNICEF UNDP
 UNEP WFP
 WHO OTHER _____

6. Which bilateral actors are presently active in assisting the country with avian and human pandemic influenza? -

7. How many joint AHI programmes are there between the host government and:
 Number of Joint Programmes

Multi-lateral actors _____

Bi-lateral actors _____

B. Questions on Planning and Preparedness

8. What is the current status of integrated country Avian and Human Influenza plans?

Non-existent In process Endorsed by Government

9. Which multilateral donor agencies have assessed or appraised integrated country plans for avian influenza in animals and for a human influenza pandemic?

	Unilateral missions		Joint missions	
	Number	Assessment of Pandemic Planning for Avian Influenza, Human Influenza or both	Number	Assessment of Pandemic Planning for Avian Influenza, Human Influenza or both
FAO				
OCHA				
UNDP				
WHO				
World Bank				
Other				

10. Please indicate which bilateral donor agencies have assessed or appraised integrated country plans for avian influenza and for human pandemic influenza, and the number of unilateral and joint missions for each.

11. Have integrated country plans been tested in simulation exercises when no AI outbreak has occurred?

Yes No

If yes please specify number of national simulation exercises since January 2005? _____

C. Questions on Surveillance and Infectious Disease Control in Animals

12. Does the country have the expert veterinary capacity to detect and confirm AI infection in animals?

Yes No

Where possible, please indicate the number of both (a) vets _____ and (b) village vet workers trained in AI detection; _____ & (c) laboratory facilities with AI diagnostic capacity _____

13. Are there programmes in place to strengthen capacity for AI surveillance and outbreak reporting in birds (including any farmer compensation schemes for poultry culling)?

Yes No

Comments _____

14. Where AI has occurred, what is the average time between AI outbreak onset and reporting (a) to national authorities, _____ and (b) to international agencies? _____

15. Are specific AI controls on cross-border trade and movement planned or currently being implemented?

Yes No

Number of officially reported breaches of border regulations on animal health for the past year ____

16. Are AI controls on contact between different species of birds and other animals planned or currently being implemented?

Yes No

Number and type of control programmes initiated _____

17. Is selective or comprehensive poultry AI vaccination planned or currently being implemented?

Yes No

Number of poultry vaccinated since January 2005 _____

D. Questions on Surveillance and Infectious Disease Control in Humans

18. Does the country have the diagnostic capacity to detect and confirm AHI infection in humans?

Yes No

Number in public sector, and separately in the private sector, of (a) clinical staff _____ and (b) village health workers trained in AHI detection _____

19. Are there programmes in place to strengthen capacity for AI surveillance and case reporting in humans?

Yes No

Comment _____

20. Where AI has occurred in people, what is the average time between case onset and reporting (a) to national authorities, _____ and (b) to international agencies _____

21. Is the use of personal protective equipment being planned or implemented for the control of AI in people at present?

Yes No

Number of PPE kits available to the national authorities _____

22. Is the tracing of contacts planned or being implemented for control of AI in people at present?

Yes No

Number of contacts traced per case _____

23. Has clinical guidance been issued for training in the management of AI cases in people?

Yes No

Number of health workers trained in AI management _____

24. Does the integrated country plan include a strategy for selective or comprehensive population pandemic influenza vaccination?

Decision to purchase pandemic influenza vaccine Yes No

Decision to produce pandemic influenza vaccine Yes No

25. Does the integrated country plan include a strategy to acquire anti-virals for national use?

Yes No

Intended size of anti-viral stockpile _____

E. Questions about Communications

26. Are there standard procedures for communication among different agencies, the government, & hospitals?

Yes No

Comments _____

27. Are there established mechanisms for the government to share information rapidly with the WHO/FAO/OIE?

Yes No

Comments _____

28. Are there established procedures for communicating health messages to raise awareness and change public behaviour?

Yes No

Percentage of any surveyed population indicating awareness of AHI and of related control measures

F. Constraints

29. What are the main constraints on country AHI preparedness planning and plan implementation?

Many thanks for your time and assistance. Further information and support on issues around avian and pandemic flu can be found at:

[World Health Organisation \(WHO\) pandemic influenza preparedness website](#)

[Food and Agriculture Organisation \(FAO\) animal health and Avian Influenza website](#)

[World Organisation for Animal Health \(OIE\)](#)

[UN System Influenza Coordinator \(UNSIC\) contingency planning page](#)

UN System contingency planning [toolkit](#) (for password please contact headquarters AHI focal points)

[UN Staff Information web-page on avian and human influenza](#)

[Humanitarian Early Warning Service \(HEWS\) website](#)

Annex IV: Tables on pledges, commitments and disbursements

Annex Table 1: Commitments and Disbursements Summary by Donor														
AHI Pledge Results as of April 30, 2006 -- As Reported by Donors														
Donor	Pledge	Countries		Regional		International Organizations		AHI Facility		Other / Unallocated		Total		Total
		Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	
Australia	55.91	16.19	8.52	14.67	2.44	0.91	0.91	3.82	0.00	20.33	0.00	55.92	11.88	
Austria	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Belgium	3.11	0.00	0.00	0.25	0.25	2.62	0.12	0.00	0.00	0.00	0.00	2.87	0.37	
China	10.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	
Cyprus	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.00	
Czech Republic	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	
Estonia	0.04	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	
Finland	3.42	0.00	0.00	0.00	0.00	3.42	3.42	0.00	0.00	0.00	0.00	3.42	3.42	
France	31.09	3.73	1.24	0.00	0.00	17.65	13.10	0.00	0.00	11.44	2.49	32.82	16.83	
Germany	28.61	9.96	0.00	0.00	0.00	0.00	0.21	0.00	0.00	28.73	4.35	38.69	4.56	
Greece	0.75	0.00	0.00	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.00	0.38	0.38	
Hungary	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Iceland	0.40	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.00	0.00	0.40	0.00	
Ireland	1.24	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.62	0.00	1.24	0.00	
Italy	6.96	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	4.50	0.00	
Japan	155.00	0.82	0.82	56.85	56.85	70.41	70.41	0.00	0.00	30.87	29.57	158.95	157.65	
Korea, Republic of	5.71	2.58	2.58	0.00	0.00	0.48	0.32	1.00	0.00	0.00	0.00	4.06	2.90	
Luxembourg	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Netherlands	13.68	3.96	2.55	0.00	0.00	4.24	0.96	0.00	0.00	7.08	0.99	15.28	4.50	
Norway	38.99	0.00	0.00	0.00	0.00	41.45	41.45	0.00	0.00	0.00	0.00	41.45	41.45	
Russia	23.70	4.86	0.00	0.00	0.00	0.00	0.00	3.00	0.00	24.00	0.00	31.86	0.00	
Saudi Arabia	1.00	0.00	0.00	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	1.00	1.00	
Singapore	0.60	0.60	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.31	
Slovenia	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.04	0.00	
Spain	2.98	0.00	0.00	0.00	0.00	2.49	2.49	0.00	0.00	0.00	0.00	2.49	2.49	
Sweden	9.37	0.00	0.00	0.00	0.00	12.72	0.00	0.00	0.00	0.00	0.00	12.72	0.00	
Switzerland	4.76	0.40	0.40	0.00	0.00	4.34	4.34	0.00	0.00	0.00	0.00	4.74	4.74	
Thailand	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
United Kingdom	36.36	0.00	0.00	0.00	0.00	11.68	3.72	6.60	0.00	11.07	0.00	29.35	3.72	
United States	334.00	98.13	22.14	75.05	4.47	22.66	1.00	0.00	0.00	138.22	43.34	334.07	70.95	
European Commission	124.36	35.88	0.00	0.00	0.00	0.00	0.00	57.21	0.00	85.39	0.00	178.48	0.00	
Asian Development Bank	468.00	40.90	0.05	0.34	0.00	18.97	0.00	0.00	0.00	19.36	2.00	79.57	2.05	
World Bank	500.50	112.10	1.97	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	113.10	1.97	
GRAND TOTAL	1,865.83	330.36	40.80	147.66	64.51	221.27	143.33	73.87	0.00	377.11	82.74	1,150.27	331.38	

Total Committed (USD million) : 1,150.27
Total Disbursed (USD million) : 331.38

Annex Table 2: Details by Recipient Country									
AHI Pledge Results as of April 30, 2006 -- As Reported by Donors									
Recipient Country	Donor	Committed			Disbursed			Total Commt.	Total Disb.
		a/ In Kind	b/ Grants	c/ Loans	a/ In Kind	b/ Grants	c/ Loans		
Albania	US	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.00
	Total	0.50	0.00	0.00	0.00	0.00	0.00		
Armenia	Russia	0.54	0.00	0.00	0.00	0.00	0.00	1.44	0.00
	US	0.90	0.00	0.00	0.00	0.00	0.00		
	Total	1.44	0.00	0.00	0.00	0.00	0.00		
Azerbaijan	ADB	0.00	0.00	0.00	0.00	0.00	0.05	6.39	0.05
	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	0.75	0.00	0.00	0.00	0.00	0.00		
	World Bank	0.00	0.00	5.10	0.00	0.00	0.00		
	Total	1.29	0.00	5.10	0.00	0.00	0.05		
Bangladesh	US	0.52	0.00	0.00	0.00	0.00	0.00	0.52	0.00
	Total	0.52	0.00	0.00	0.00	0.00	0.00		
Belize	US	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	Total	0.01	0.00	0.00	0.00	0.00	0.00		
Belarus	Russia	0.54	0.00	0.00	0.00	0.00	0.00	0.54	0.00
	Total	0.54	0.00	0.00	0.00	0.00	0.00		
Bolivia	US	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
	Total	0.10	0.00	0.00	0.00	0.00	0.00		
Bosnia	US	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00
	Total	0.20	0.00	0.00	0.00	0.00	0.00		
Brazil	US	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.00
	Total	0.04	0.00	0.00	0.00	0.00	0.00		
Bulgaria	US	0.80	0.00	0.00	0.00	0.00	0.00	0.80	0.00
	Total	0.80	0.00	0.00	0.00	0.00	0.00		
Burkina Faso	US	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00
	Total	0.20	0.00	0.00	0.00	0.00	0.00		
Burma	Australia	0.00	0.76	0.00	0.00	0.76	0.00	0.76	0.76
	Total	0.00	0.76	0.00	0.00	0.76	0.00		
Cambodia	Australia	0.00	1.49	0.00	0.00	1.49	0.00	22.63	5.66
	France	0.00	1.24	0.00	0.00	0.62	0.00		
	US	6.05	3.86	0.00	2.05	1.50	0.00		
	ADB	0.00	0.00	10.00	0.00	0.00	0.00		
	Total	6.05	6.58	10.00	2.05	3.61	0.00		
Cameroon	US	0.31	0.00	0.00	0.00	0.00	0.00	0.31	0.00
	Total	0.31	0.00	0.00	0.00	0.00	0.00		
Chad	European Commission	0.00	4.98	0.00	0.00	0.00	0.00	4.98	0.00
	Total	0.00	4.98	0.00	0.00	0.00	0.00		
China	Australia	0.00	0.38	0.00	0.00	0.38	0.00	4.72	0.92
	Netherlands	0.00	0.04	0.00	0.00	0.04	0.00		
	US	1.28	3.02	0.00	0.50	0.00	0.00		
	Total	1.28	3.44	0.00	0.50	0.42	0.00		
Colombia	US	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.00
	Total	0.13	0.00	0.00	0.00	0.00	0.00		
East Timor	US	0.38	0.00	0.00	0.00	0.00	0.00	0.38	0.00
	Total	0.38	0.00	0.00	0.00	0.00	0.00		
Egypt	US	0.08	2.55	0.00	0.00	0.00	0.00	2.63	0.00
	Total	0.08	2.55	0.00	0.00	0.00	0.00		
El Salvador	US	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	Total	0.01	0.00	0.00	0.00	0.00	0.00		
Ethiopia	US	1.55	0.00	0.00	0.60	0.00	0.00	1.55	0.60
	Total	1.55	0.00	0.00	0.60	0.00	0.00		
Georgia	US	0.81	0.00	0.00	0.01	0.00	0.00	0.81	0.01
	Total	0.81	0.00	0.00	0.01	0.00	0.00		
Ghana	US	0.15	0.00	0.00	0.00	0.00	0.00	0.15	0.00
	Total	0.15	0.00	0.00	0.00	0.00	0.00		

Annex Table 2: Details by Recipient Country									
AHI Pledge Results as of April 30, 2006 -- As Reported by Donors									
Recipient Country	Donor	Committed			Disbursed			Total Commt.	Total Disb.
		a/ In Kind	b/ Grants	c/ Loans	a/ In Kind	b/ Grants	c/ Loans		
Guatemala	US	0.01	2.70	0.00	0.00	0.00	0.00		
	Total	0.01	2.70	0.00	0.00	0.00	0.00	2.71	0.00
Haiti	US	0.10	0.00	0.00	0.00	0.00	0.00		
	Total	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
India	US	0.53	0.00	0.00	0.00	0.00	0.00		
	Total	0.53	0.00	0.00	0.00	0.00	0.00	0.53	0.00
Indonesia	Australia	0.00	10.89	0.00	0.00	3.98	0.00		
	European Commission	0.00	17.41	0.00	0.00	0.00	0.00		
	Germany	0.00	4.98	0.00	0.00	0.00	0.00		
	Korea, Republic of	0.25	0.00	0.00	0.25	0.00	0.00		
	Netherlands	0.00	2.41	0.00	0.00	1.00	0.00		
	Singapore	0.00	0.60	0.00	0.00	0.31	0.00		
	US	14.15	4.22	0.00	3.15	0.00	0.00		
	ADB	0.00	0.00	0.40	0.00	0.00	0.00		
Total	14.40	40.51	0.40	3.40	5.29	0.00	55.31	8.69	
Iraq	US	0.00	0.58	0.00	0.00	0.03	0.00		
	Korea, Republic of	0.86	0.00	0.00	0.86	0.00	0.00		
	Total	0.86	0.58	0.00	0.86	0.03	0.00	1.44	0.89
Kazakhstan	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	0.45	0.00	0.00	0.00	0.00	0.00		
	Total	0.99	0.00	0.00	0.00	0.00	0.00	0.99	0.00
Kenya	US	1.00	4.80	0.00	0.25	0.00	0.00		
	Total	1.00	4.80	0.00	0.25	0.00	0.00	5.80	0.25
Korea, DPR	Australia	0.00	0.38	0.00	0.00	0.38	0.00		
	Korea, Republic of	1.27	0.00	0.00	1.27	0.00	0.00		
	Total	1.27	0.38	0.00	1.27	0.38	0.00	1.65	1.65
Kyrgyzstan	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	0.10	0.00	0.00	0.00	0.00	0.00		
	World Bank	0.00	0.00	4.00	0.00	0.00	0.00		
	Total	0.64	0.00	4.00	0.00	0.00	0.00	4.64	0.00
Lao PDR	France	0.00	2.49	0.00	0.00	0.62	0.00		
	ADB	0.00	0.00	5.00	0.00	0.00	0.00		
	US	4.60	3.11	0.00	2.10	0.30	0.00		
	Total	4.60	5.60	5.00	2.10	0.92	0.00	15.20	3.02
Macedonia, FYR	US	0.20	0.00	0.00	0.00	0.00	0.00		
	Total	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00
Malawi	US	0.15	0.00	0.00	0.00	0.00	0.00		
	Total	0.15	0.00	0.00	0.00	0.00	0.00	0.15	0.00
Malaysia	ADB	0.00	0.00	0.40	0.00	0.00	0.00		
	Total	0.00	0.00	0.40	0.00	0.00	0.00	0.40	0.00
Mali	European Commission	0.00	2.49	0.00	0.00	0.00	0.00		
	US	0.25	0.00	0.00	0.03	0.00	0.00		
	Total	0.25	2.49	0.00	0.03	0.00	0.00	2.74	0.03
Mexico	US	0.19	0.00	0.00	0.00	0.00	0.00		
	Total	0.19	0.00	0.00	0.00	0.00	0.00	0.19	0.00
Moldova	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	0.40	0.00	0.00	0.00	0.00	0.00		
	Total	0.94	0.00	0.00	0.00	0.00	0.00	0.94	0.00
Mongolia	Korea, Republic of	0.00	0.00	0.00	0.00	0.00	0.00		
	US	0.44	0.00	0.00	0.00	0.00	0.00		
	Total	0.44	0.00	0.00	0.00	0.00	0.00	0.44	0.00
Mozambique	US	0.48	0.00	0.00	0.00	0.00	0.00		
	Total	0.48	0.00	0.00	0.00	0.00	0.00	0.48	0.00

Annex Table 2: Details by Recipient Country									
AHI Pledge Results as of April 30, 2006 -- As Reported by Donors									
Recipient Country	Donor	Committed			Disbursed			Total Commt.	Total Disb.
		a/ In Kind	b/ Grants	c/ Loans	a/ In Kind	b/ Grants	c/ Loans		
Nepal	US	0.32	0.00	0.00	0.00	0.00	0.00	0.32	0.00
	Total	0.32	0.00	0.00	0.00	0.00	0.00		
Niger	US	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00
	Total	0.20	0.00	0.00	0.00	0.00	0.00		
Nigeria	Korea, Republic of	0.20	0.00	0.00	0.20	0.00	0.00	51.05	1.02
	Japan	0.00	0.82	0.00	0.00	0.82	0.00		
	US	0.03	0.00	0.00	0.00	0.00	0.00		
	World Bank	0.00	0.00	50.00	0.00	0.00	0.00		
Total	0.23	0.82	50.00	0.20	0.82	0.00			
Pakistan	US	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
	Total	0.10	0.00	0.00	0.00	0.00	0.00		
Panama	US	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
	Total	0.10	0.00	0.00	0.00	0.00	0.00		
Paraguay	US	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00
	Total	0.02	0.00	0.00	0.00	0.00	0.00		
Peru	US	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00
	Total	0.02	0.00	0.00	0.00	0.00	0.00		
Philippines	US	0.68	0.00	0.00	0.15	0.00	0.00	1.08	0.15
	ADB	0.00	0.00	0.40	0.00	0.00	0.00		
	Total	0.68	0.00	0.40	0.15	0.00	0.00		
Romania	European Commission	0.00	0.62	0.00	0.00	0.00	0.00	3.02	0.70
	US	2.40	0.00	0.00	0.70	0.00	0.00		
	Total	2.40	0.62	0.00	0.70	0.00	0.00		
Russia	US	1.09	0.00	0.00	1.00	0.00	0.00	1.09	1.00
	Total	1.09	0.00	0.00	1.00	0.00	0.00		
Rwanda	US	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
	Total	0.10	0.00	0.00	0.00	0.00	0.00		
Senegal	US	0.33	0.00	0.00	0.00	0.00	0.00	0.33	0.00
	Total	0.33	0.00	0.00	0.00	0.00	0.00		
South Africa	US	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00
	Total	0.20	0.00	0.00	0.00	0.00	0.00		
Sri Lanka	US	0.40	0.00	0.00	0.00	0.00	0.00	0.40	0.00
	Total	0.40	0.00	0.00	0.00	0.00	0.00		
Tajikistan	Russia	0.54	0.00	0.00	0.00	0.00	0.00	0.84	0.00
	US	0.30	0.00	0.00	0.00	0.00	0.00		
	Total	0.84	0.00	0.00	0.00	0.00	0.00		
Tanzania	US	0.68	0.00	0.00	0.08	0.00	0.00	0.68	0.08
	Total	0.68	0.00	0.00	0.08	0.00	0.00		
Thailand	Netherlands	0.00	0.10	0.00	0.00	0.10	0.00	10.11	3.00
	US	0.13	9.88	0.00	0.00	2.90	0.00		
	Total	0.13	9.98	0.00	0.00	3.00	0.00		
Trinidad and Tobago	US	0.06	0.00	0.00	0.00	0.00	0.00	0.06	0.00
	Total	0.06	0.00	0.00	0.00	0.00	0.00		
Turkey	European Commission	0.00	10.39	0.00	0.00	0.00	0.00	45.79	0.00
	US	1.00	0.00	0.00	0.00	0.00	0.00		
	World Bank	0.00	0.00	34.40	0.00	0.00	0.00		
	Total	1.00	10.39	34.40	0.00	0.00	0.00		

Annex Table 2: Details by Recipient Country									
AHI Pledge Results as of April 30, 2006 -- As Reported by Donors									
Recipient Country	Donor	Committed			Disbursed			Total Commt.	Total Disb.
		a/ In Kind	b/ Grants	c/ Loans	a/ In Kind	b/ Grants	c/ Loans		
Turkmenistan	US	0.10	0.00	0.00	0.00	0.00	0.00		
	Total	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Uganda	US	0.65	0.00	0.00	0.00	0.00	0.00		
	Total	0.65	0.00	0.00	0.00	0.00	0.00	0.65	0.00
Ukraine	Estonia	0.04	0.00	0.00	0.01	0.00	0.00		
	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	2.30	0.00	0.00	0.34	0.00	0.00		
	Total	2.88	0.00	0.00	0.35	0.00	0.00	2.88	0.35
Uzbekistan	Russia	0.54	0.00	0.00	0.00	0.00	0.00		
	US	0.30	0.00	0.00	0.00	0.00	0.00		
	Total	0.84	0.00	0.00	0.00	0.00	0.00	0.84	0.00
Vietnam	Australia	0.00	2.29	0.00	0.00	1.53	0.00		
	Czech Republic	0.20	0.00	0.00	0.20	0.00	0.00		
	Germany	0.00	4.98	0.00	0.00	0.00	0.00		
	Netherlands	0.00	1.41	0.00	0.00	1.41	0.00		
	Switzerland	0.00	0.40	0.00	0.00	0.40	0.00		
	US	8.65	4.98	0.00	4.45	1.50	0.00		
	World Bank	0.00	0.00	18.60	0.00	0.00	1.97		
	Total	8.85	14.06	43.30	4.65	4.84	1.97	66.21	11.46
West Bank Gaza	US	0.50	0.00	0.00	0.50	0.00	0.00		
	Total	0.50	0.00	0.00	0.50	0.00	0.00	0.50	0.50
Grand Total		66.12	111.24	153.00	18.71	20.07	2.02	330.36	40.80

a/ In Kind may include technical assistance, supplies, equipments, commodities, workshops, training etc.

b/ All bilateral commitments and disbursements are in the form of **Grants** whereas ADB and WB amounts mainly include **Loans and Credits**.

c/ ADB and WB amounts mainly include Loans and Credits.

Total Committed (USD million) : 330.36

Total Disbursed (USD million) : 40.80

Annex Table 3 : Details by Recipient International Organizations

AHI Pledge Results as of April 30, 2006 -- As Reported by Donors

Donor	Pledge	WHO		FAO		OIE		UNICEF		a/ Other		Total	
		Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements
Australia	55.91	0.91	0.91									0.91	0.91
Austria	1.24											0.00	0.00
Belgium	3.11	0.12	0.12	2.50								2.62	0.12
China	10.00											0.00	0.00
Cyprus	0.03	0.03										0.03	0.00
Czech Republic	0.20											0.00	0.00
Estonia	0.04											0.00	0.00
Finland	3.42									3.42	3.42	3.42	3.42
France	31.09	5.82	3.85	8.18	6.56	3.65	2.69					17.65	13.10
Germany	28.61		0.21									0.00	0.21
Greece	0.75	0.19	0.19	0.19	0.19							0.38	0.38
Hungary	0.04											0.00	0.00
Iceland	0.40	0.20										0.20	0.00
Ireland	1.24	0.62										0.62	0.00
Italy	6.96	1.50		3.00								4.50	0.00
Japan	155.00	2.00	2.00	11.16	11.16	8.15	8.15	49.10	49.10			70.41	70.41
Korea, Republic of	5.71	0.48	0.32									0.48	0.32
Luxembourg	1.24											0.00	0.00
Netherlands	13.68	3.49	0.27	0.62	0.62	0.13	0.07					4.24	0.96
Norway	38.99	2.89	2.89	3.72	3.72					34.84	34.84	41.45	41.45
Russia	23.70											0.00	0.00
Saudi Arabia	1.00			0.50	0.50							0.50	0.50
Singapore	0.60											0.00	0.00
Slovenia	0.04											0.00	0.00
Spain	2.98	2.49	2.49									2.49	2.49
Sweden	9.37	2.68		10.04								12.72	0.00
Switzerland	4.76	0.50	0.50	3.84	3.84							4.34	4.34
Thailand	2.50											0.00	0.00
United Kingdom	36.36	4.18	3.68	6.20	0.04					1.30		11.68	3.72
United States	334.00	20.66	1.00	0.80		1.20						22.66	1.00
European Commission	124.36											0.00	0.00
Asian Development Bank	468.00	12.48		6.49								18.97	0.00
World Bank	500.50					1.00						1.00	0.00
GRAND TOTAL	1,865.83	61.24	18.43	57.24	26.63	14.13	10.91	49.10	49.10	39.56	38.26	221.27	143.33

a/ Other includes; UNDP Program (Finland), UN Appeal (Norway), UNSIC (UK)

Total Committed for Int. Org. (USD million) : 221.27

Total Disbursed for Int. Org. (USD million) : 143.33

Annex Table 4a: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006 -- As Reported by Donors

Donor	Pledge	Countries				Regional Organizations				International Organizations						
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)	
			a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans
Australia	55.91	Burma	0.00	0.76	0.00	0.76	Asia Pacific Economic Cooperation (APEC)	0.00	5.35	0.00	0.00	WHO	0.00	0.91	0.00	0.91
		Cambodia	0.00	1.49	0.00	1.49	Regional assistance - Asia (ASEAN included)	0.00	5.50	0.00	2.44					
		China	0.00	0.38	0.00	0.38	Pacific island nations	0.00	3.82	0.00	0.00					
		Korea, DPR	0.00	0.38	0.00	0.38										
		Indonesia	0.00	10.89	0.00	3.98										
		Vietnam	0.00	2.29	0.00	1.53										
		Total	0.00	16.19	0.00	8.52	Total	0.00	14.67	0.00	2.44	Total	0.00	0.91	0.00	0.91
Austria	1.24															
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Belgium	3.11					ADB	0.00	0.25	0.00	0.25	WHO	0.00	0.12	0.00	0.12	
		Total	0.00	0.00	0.00	Total	0.00	0.25	0.00	0.25	Total	0.00	2.50	0.00	0.00	0.12
China	10.00															
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	0.00
Cyprus	0.03										WHO	0.00	0.03	0.00	0.00	
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.03	0.00	0.00	
Czech Republic	0.20	Vietnam	0.20	0.00	0.20	0.00										
		Total	0.20	0.00	0.20	0.00	Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	0.00
Estonia	0.04	Ukraine	0.04	0.00	0.01	0.00										
		Total	0.04	0.00	0.01	0.00	Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	0.00
Finland	3.42										UNDP Proj	0.00	3.42	0.00	3.42	
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	3.42	0.00	3.42	
France	31.09	Lao PDR	0.00	2.49	0.00	0.62					WHO	2.09	3.73	0.12	3.73	
		Cambodia	0.00	1.24	0.00	0.62					FAO	2.09	6.09	0.47	6.09	
		Total	0.00	3.73	0.00	1.24	Total	0.00	0.00	0.00	Total	5.22	12.43	0.71	12.39	
Germany	28.60	Indonesia	0.00	4.98	0.00	0.00					WHO	0.00	0.00	0.00	0.21	
		Vietnam	0.00	4.98	0.00	0.00										
		Total	0.00	9.96	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.21	
Greece	0.75										WHO	0.00	0.19	0.00	0.19	
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	0.19	0.00	0.19	
Hungary	0.04															
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	0.00
Iceland	0.40										WHO	0.00	0.20	0.00	0.00	
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	0.20	0.00	0.00	
Ireland	1.24										WHO	0.00	0.62	0.00	0.00	
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	0.62	0.00	0.00	
Italy	6.96										WHO	0.00	1.50	0.00	0.00	
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	Total	0.00	4.50	0.00	0.00	
Japan	155.00	Nigeria	0.00	0.82	0.00	0.82	(ASEAN) Association of Southeast Asian Nations	0.00	46.80	0.00	46.80	WHO	0.00	2.00	0.00	2.00
							(ADB) Asian Development Bank	0.00	10.00	0.00	10.00	FAO	0.00	11.16	0.00	11.16
							(ECOWAS) Economic Community of West Africa	0.00	0.05	0.00	0.05	OIE	0.00	8.15	0.00	8.15
		Total	0.00	0.82	0.00	0.82	Total	0.00	56.85	0.00	56.85	Total	0.00	49.10	0.00	49.10

Annex Table 4a: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006 -- As Reported by Donors

Donor	Pledge	Countries				Regional Organizations				International Organizations						
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)	
			a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans		
Korea, Republic of	5.71	Korea, DPR	1.27	0.00	1.27	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.48	0.00	0.32
		Iraq	0.86	0.00	0.86	0.00										
		Indonesia	0.25	0.00	0.25	0.00										
		Nigeria	0.20	0.00	0.20	0.00										
		Mongolia	0.00	0.00	0.00	0.00										
Total	2.58	0.00	2.58	0.00												
Luxembourg	1.24	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Netherlands	13.68	China	0.00	0.04	0.00	0.04	Total	0.00	0.00	0.00	0.00	Total	0.00	4.24	0.00	0.96
		Indonesia	0.00	2.41	0.00	1.00										
		Thailand	0.00	0.10	0.00	0.10										
		Vietnam	0.00	1.41	0.00	1.41										
		Total	0.00	3.96	0.00	2.55										
Norway	38.99	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	41.45	0.00	41.45
		FAO	0.00	3.72	0.00	3.72										
		WHO	0.00	2.89	0.00	2.89										
		UN Appeal	0.00	2.50	0.00	2.50										
		UN CERF	0.00	31.00	0.00	31.00										
Russia	23.70	Armenia	0.54	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
		Azerbaijan	0.54	0.00	0.00	0.00										
		Belarus	0.54	0.00	0.00	0.00										
		Kazakhstan	0.54	0.00	0.00	0.00										
		Kyrgyzstan	0.54	0.00	0.00	0.00										
		Moldova	0.54	0.00	0.00	0.00										
		Tajikistan	0.54	0.00	0.00	0.00										
		Ukraine	0.54	0.00	0.00	0.00										
		Uzbekistan	0.54	0.00	0.00	0.00										
Total	4.86	0.00	0.00	0.00												
Saudi Arabia	1.00	ASEAN	0.00	0.25	0.00	0.25	Total	0.00	0.50	0.00	0.50	Total	0.00	0.50	0.00	0.50
		African Union	0.00	0.25	0.00	0.25										
Singapore	0.60	Indonesia	0.00	0.60	0.00	0.31	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Slovenia	0.04	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Spain	2.98	WHO	0.00	2.49	0.00	2.49	Total	0.00	0.00	0.00	0.00	Total	0.00	2.49	0.00	2.49
		Total	0.00	0.00	0.00	0.00										
Sweden	9.37	WHO	0.00	2.68	0.00	2.68	Total	0.00	0.00	0.00	0.00	Total	0.00	12.72	0.00	0.00
		FAO	0.00	10.04	0.00	10.04										
Switzerland	4.76	WHO	0.00	0.50	0.00	0.50	Total	0.00	0.00	0.00	0.00	Total	0.00	4.34	0.00	4.34
		FAO	0.00	3.84	0.00	3.84										
Thailand	2.50	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
United Kingdom	36.36	WHO	2.18	2.00	2.18	1.50	Total	0.00	0.00	0.00	0.00	Total	2.18	9.50	2.18	1.54
		FAO	0.00	6.20	0.00	6.20										
		UNSC	0.00	0.40	0.00	0.40										
		IFRC	0.00	0.90	0.00	0.90										
		Total	0.00	0.00	0.00	0.00										

Annex Table 4a: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006 -- As Reported by Donors

Donor	Pledge	Recipient	Countries				Regional Organizations				International Organizations				
			Committed (USD million)		Disbursed (USD million)		Committed (USD million)		Disbursed (USD million)		Committed (USD million)		Disbursed (USD million)		
			a/	b/	a/	b/	a/	b/	a/	b/	a/	b/	a/	b/	
			In Kind	Grants/Loans	In Kind	Grants/Loans	In Kind	Grants/Loans	In Kind	Grants/Loans	In Kind	Grants/Loans	In Kind	Grants/Loans	
United States	334.00	Albania	0.50	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	20.66	0.00	1.00
		Armenia	0.90	0.00	0.00	0.00	0.00	2.94	0.00	0.00	0.00	0.20	0.60	0.00	0.00
		Azerbaijan	0.75	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1.20	0.00	0.00
		Bangladesh	0.52	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Belize	0.01	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bolivia	0.10	0.00	0.00	0.00	0.00	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bosnia	0.20	0.00	0.00	0.00	0.00	0.00	3.91	0.00	0.00	0.00	0.00	0.00	0.00
		Brazil	0.04	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bulgaria	0.80	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
		Burkina Faso	0.20	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00
		Cambodia	6.05	3.86	2.05	1.50	0.00	6.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Cameroon	0.31	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00
		China	1.28	3.02	0.50	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Colombia	0.13	0.00	0.00	0.00	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		East Timor	0.38	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Egypt	0.08	2.55	0.00	0.00	0.00	5.15	0.00	0.70	0.00	0.00	0.00	0.00	0.00
		El Salvador	0.01	0.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Ethiopia	1.55	0.00	0.60	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Georgia	0.81	0.00	0.01	0.00	0.00	0.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00
		Ghana	0.15	0.00	0.00	0.00	0.00	0.88	0.00	0.05	0.00	0.00	0.00	0.00	0.00
		Guatemala	0.01	2.70	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Haiti	0.10	0.00	0.00	0.00	0.00								
		India	0.53	0.00	0.00	0.00	0.00								
		Indonesia	14.15	4.22	3.15	0.00	0.00								
		Iraq	0.00	0.58	0.00	0.03	0.00								
		Kazakhstan	0.45	0.00	0.00	0.00	0.00								
		Kenya	1.00	4.80	0.25	0.00	0.00								
		Kyrgyzstan	0.10	0.00	0.00	0.00	0.00								
		Lao PDR	4.60	3.11	2.10	0.30	0.00								
		Macedonia	0.20	0.00	0.00	0.00	0.00								
		Malawi	0.15	0.00	0.00	0.00	0.00								
		Mali	0.25	0.00	0.03	0.00	0.00								
		Mexico	0.19	0.00	0.00	0.00	0.00								
		Moldova	0.40	0.00	0.00	0.00	0.00								
		Mongolia	0.44	0.00	0.00	0.00	0.00								
		Mozambique	0.48	0.00	0.00	0.00	0.00								
		Nepal	0.32	0.00	0.00	0.00	0.00								
		Niger	0.20	0.00	0.00	0.00	0.00								
		Nigeria	0.03	0.00	0.00	0.00	0.00								
		Pakistan	0.10	0.00	0.00	0.00	0.00								
		Panama	0.10	0.00	0.00	0.00	0.00								
		Paraguay	0.02	0.00	0.00	0.00	0.00								
		Peru	0.02	0.00	0.00	0.00	0.00								
		Philippines	0.68	0.00	0.15	0.00	0.00								
		Romania	2.40	0.00	0.70	0.00	0.00								
		Russia	1.09	0.00	1.00	0.00	0.00								
		Rwanda	0.10	0.00	0.00	0.00	0.00								
		S. Africa	0.20	0.00	0.00	0.00	0.00								
		Senegal	0.33	0.00	0.00	0.00	0.00								
		Sri Lanka	0.40	0.00	0.00	0.00	0.00								
Tajikistan	0.30	0.00	0.00	0.00	0.00										
Tanzania	0.68	0.00	0.08	0.00	0.00										
Thailand	0.13	9.88	0.00	2.90	0.00										
Trinidad and Tobago	0.06	0.00	0.00	0.00	0.00										
Turkey	1.00	0.00	0.00	0.00	0.00										
Turkmenistan	0.10	0.00	0.00	0.00	0.00										
Uganda	0.65	0.00	0.00	0.00	0.00										
Ukraine	2.30	0.00	0.34	0.00	0.00										
Uzbekistan	0.30	0.00	0.00	0.00	0.00										
Vietnam	8.65	4.98	4.45	1.50	0.00										
West Bank/G	0.50	0.00	0.50	0.00	0.00										
Total		58.44	39.70	15.91	6.23	Total	25.80	49.26	3.77	0.70	Total	0.20	22.46	0.00	1.00

Annex Table 4a: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006 -- As Reported by Donors

Donor	Pledge	Countries				Regional Organizations				International Organizations								
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)			
			a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans		
European Commission	124.36	Chad	0.00	4.98	0.00	0.00												
		Indonesia	0.00	17.41	0.00	0.00												
		Mali	0.00	2.49	0.00	0.00												
		Romania	0.00	0.62	0.00	0.00												
		Turkey	0.00	10.39	0.00	0.00												
		Total	0.00	35.88	0.00	0.00	Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	0.00	0.00
Asian Development Bank	468.00	Azerbaijan	0.00	0.00	0.00	0.05	ASEAN	0.00	0.34	0.00	0.00	WHO	0.00	12.48	0.00	0.00		
		Cambodia	0.00	10.00	0.00	0.00						FAO	0.00	6.49	0.00	0.00		
		Indonesia	0.00	0.40	0.00	0.00												
		Lao PDR	0.00	5.00	0.00	0.00												
		Malaysia	0.00	0.40	0.00	0.00												
		Philippines	0.00	0.40	0.00	0.00												
		Vietnam	0.00	24.70	0.00	0.00												
Total	0.00	40.90	0.00	0.05	Total	0.00	0.34	0.00	0.00	Total	0.00	18.97	0.00	0.00	0.00	0.00		
World Bank	500.50	Azerbaijan	0.00	5.10	0.00	0.00						OIE	0.00	1.00	0.00	0.00		
		Kyrgyzstan	0.00	4.00	0.00	0.00												
		Nigeria	0.00	50.00	0.00	0.00												
		Turkey	0.00	34.40	0.00	0.00												
		Vietnam	0.00	18.60	0.00	1.97												
Total	0.00	112.10	0.00	1.97	Total	0.00	0.00	0.00	0.00	Total	0.00	1.00	0.00	0.00	0.00	0.00		
Total	1,865.83	66.12	264.24	18.70	22.09		25.80	121.87	3.77	60.74		7.60	213.67	2.89	140.44			

a/ In Kind may include technical assistance, supplies, equipments, commodities, workshops, training etc.

b/ All bilateral commitments and disbursements are in the form of **Grants** whereas ADB and WB amounts mainly include **Loans and Credits**.

Total Committed Annex 4a +4b (USD million) : 1,150.27

Total Disbursed Annex 4a + 4b (USD million) : 331.38

Annex Table 4b: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006

Donor	Pledge	AHI Facility					Other / Unallocated				
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)	
			a/ In Kind	b/ Grants/ Loans	a/ In Kind	b/ Grants/ Loans		a/ In Kind	b/ Grants/ Loans	a/ In Kind	b/ Grants/ Loans
Australia	55.91	World Bank	0.00	3.82	0.00	0.00	Final allocations not yet determined	0.00	20.33	0.00	0.00
		Total	0.00	3.82	0.00	0.00	Total	0.00	20.33	0.00	0.00
Austria	1.24										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Belgium	3.11										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
China	10.00	World Bank	0.00	2.00	0.00	0.00					
		Total	0.00	2.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Cyprus	0.03										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Czech Republic	0.20										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Estonia	0.04										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Finland	3.42										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
France	31.09						Institute Pasteur Network in Asia	0.00	11.44	0.00	2.49
		Total	0.00	0.00	0.00	0.00	Total	0.00	11.44	0.00	2.49
Germany	28.60						Financing of Vaccine development	0.00	24.87	0.00	4.35
							Financing of research project for Influenza outbreak	0.00	0.29	0.00	0.00
							Basic Influenza research	0.00	3.57	0.00	0.00
		Total	0.00	0.00	0.00	0.00	Total	0.00	28.73	0.00	4.35
Greece	0.75										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Hungary	0.04										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Iceland	0.40	World Bank	0.00	0.20	0.00	0.00					
		Total	0.00	0.20	0.00	0.00	Total	0.00	0.00	0.00	0.00

Annex Table 4b: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006

Donor	Pledge	AHI Facility					Other / Unallocated				
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)	
			a/ In Kind	b/ Grants/ Loans	a/ In Kind	b/ Grants/ Loans		a/ In Kind	b/ Grants/ Loans	a/ In Kind	b/ Grants/ Loans
Ireland	1.24					Countries to be decided	0.00	0.62	0.00	0.00	
		Total	0.00	0.00	0.00	Total	0.00	0.62	0.00	0.00	
Italy	6.96										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Japan	155.00					World Bank (through PHRD)	0.00	10.00	0.00	8.70	
						Joint research with institutes, paid in yen (2.3 billion a year)	0.00	20.87	0.00	20.87	
		Total	0.00	0.00	0.00	Total	0.00	30.87	0.00	29.57	
Korea, Republic of	5.71	World Bank	0.00	1.00	0.00						
		Total	0.00	1.00	0.00	Total	0.00	0.00	0.00	0.00	
Luxembourg	1.24										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Netherlands	13.68					Dutch participation in International Firebrigade (4 years)	0.00	1.49	0.00	0.00	
						Others: National Research The Netherlands	0.00	5.22	0.00	0.87	
						Others: Technical missions	0.00	0.37	0.00	0.12	
		Total	0.00	0.00	0.00	Total	0.00	7.08	0.00	0.99	
Norway	38.99										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Russia	23.70	World Bank	0.00	3.00	0.00	Establishment of the WHO collaboration centre in Russian Federation	0.00	24.00	0.00	0.00	
		Total	0.00	3.00	0.00	Total	0.00	24.00	0.00	0.00	
Saudi Arabia	1.00										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Singapore	0.60										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Slovenia	0.04	World Bank	0.00	0.04	0.00						
		Total	0.00	0.04	0.00	Total	0.00	0.00	0.00	0.00	
Spain	2.98										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	
Sweden	9.37										
		Total	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00	

Annex Table 4b: Detailed Breakdown by Donors

AHI Pledge Results as of April 30, 2006

Donor	Pledge	AHI Facility				Other / Unallocated					
		Recipient	Committed (USD million)		Disbursed (USD million)		Recipient	Committed (USD million)		Disbursed (USD million)	
			a/ In Kind	b/ Grants/ Loans	a/ In Kind	b/ Grants/Loans		a/ In Kind	b/ Grants/Loans	a/ In Kind	b/ Grants/Loans
Switzerland	4.76										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Thailand	2.50										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
United Kingdom	36.36		0.00	6.60	0.00	0.00	Investment in AI World Reference Laboratory, VLA Weybridge	4.82	0.00	0.00	0.00
							National Institute of Biological Standards and Control (on vaccine develop	0.80	0.00	0.00	0.00
							Research into flu by Medical Research Council; some of this goes to coll	5.45	0.00	0.00	0.00
		Total	0.00	6.60	0.00	0.00	Total	11.07	0.00	0.00	0.00
United States	334.00						CDC Centers for Excellence: Human-Animal Interface	0.00	3.00	0.00	0.00
							Emergency commodity stockpiles for rapid response to animal or human	66.33	0.00	33.78	0.00
							Global emergency response	12.20	0.00	0.20	0.00
							Global Worldwide, not country specific	1.97	20.75	1.09	0.00
							Institutes Pasteur Network	0.00	5.58	0.00	3.73
							International coordination	5.59	11.31	0.00	4.55
							Outreach and information dissemination	6.50	0.00	0.00	0.00
							Wild bird surveillance	5.00	0.00	0.00	0.00
		Total	0.00	0.00	0.00	0.00	Total	97.59	40.63	35.07	8.28
European Commission	124.36	World Bank	0.00	57.21	0.00	0.00	Africa (via ALIVE Platform)	0.00	47.46	0.00	0.00
							Asia	0.00	4.75	0.00	0.00
							Central Asia	0.00	1.58	0.00	0.00
							European Union (for research projects)	0.00	31.59	0.00	0.00
		Total	0.00	57.21	0.00	0.00	Total	0.00	85.39	0.00	0.00
Asian Development Bank	468.00						Others: Regional project 1 (Cambodia, Lao PDR, Vietnam)	0.00	0.00	0.00	2.00
							Others: Emergency Fund for Developing Countries	0.00	19.31	0.00	0.00
							Others: Multi-donors country team - assessment mission (consulting serv	0.05	0.00	0.00	0.00
		Total	0.00	0.00	0.00	0.00	Total	0.05	19.31	0.00	2.00
World Bank	500.50										
		Total	0.00	0.00	0.00	0.00	Total	0.00	0.00	0.00	0.00
Total	1,865.83		0.00	73.87	0.00	0.00		108.71	268.40	35.07	47.68

a/ In Kind may include technical assistance, supplies, equipments, commodities, workshops, training etc.

b/ All bilateral commitments and disbursements are in the form of **Grants** whereas ADB and WB amounts mainly include **Loans and Credits**.

Total Committed Annex 4a + 4b (USD million) : 1,150.27

Total Disbursed Annex 4a + 4b (USD million) : 331.38

Annex V: Project Pipeline under the World Bank's Global Program for Avian Influenza (GPAI)

1. The World Bank is ready to support clients in their efforts to deal with avian influenza in animals and to prepare for a possible human flu pandemic through a global funding programme, formally known as the Global Program for Avian Influenza (GPAI). To help countries prepare GPAI projects for financing, Bank task teams are also providing a range of analytic and advisory assistance.
2. ***Financing for Integrated Country Programmes.*** The global programme allows for the use of up to \$500 million in IBRD loans or IDA credits or grants for new projects, or restructuring of existing projects with or without additional financing; in the latter case, undisbursed IDA and IBRD funds are reallocated to avian flu activities. The Bank's Board of Executive Directors endorsed the programme in January 2006 as an adaptable loan programme, which can be applied across countries as needed. It draws on an integrated approach developed in conjunction with FAO, OIE, and WHO. Countries can access funding to strengthen their veterinary and health services to deal with avian flu outbreaks among animals; minimise the threat posed to people; and prepare for, and respond to, any potential human flu pandemic. The Bank processes these operations using its emergency procedures, allowing quick preparation and approval. The programme document and the project list are available at www.worldbank.org/avianflu (click on "Projects").
3. ***Approvals and Pipeline.*** More than 25 countries are expected to receive financing under this programme by the end of 2006. Total commitments as of April 30, 2006, were \$112.1 million, comprising financing for Azerbaijan (\$5.1 million from restructuring of ongoing projects financed by IDA credits), Kyrgyz Republic (\$4 million IDA grant), Nigeria (\$50 million IDA credit), Turkey (\$34.4 million IBRD loan), and Vietnam (\$5 million IDA credit and \$13.6 million from restructuring of an ongoing project financed by an IDA credit). These approved operations and those that are under preparation are listed in Annex V Table 1. Information on the scope and scale of projects in the pipeline, and the amount of financing that may be provided by the World Bank, are subject to change during later stages of project preparation, appraisal, and negotiations.
4. ***Co-financing of GPAI Operations.*** A number of donors have already committed to co-financing. For example, the Turkey project is co-financed by grants from the European Commission and USAID, and the Kyrgyz and Vietnam projects are co-financed by grants from Japan. Projects in the pipeline are expected to require substantial co-financing as well. Subject to availability of funds, the AHI Facility would co-finance many of the already approved and pipeline operations and thus help reduce the strain on IDA resources for the poorest countries, and soften the terms of the overall assistance package of countries borrowing from IBRD.

Annex V Table 1. World Bank Operations – Avian and Human Influenza

	Country of project	Amount (\$ million)	Financing	Date of approval	Co-financing
Approved in 2005 – April 30, 2006	Azerbaijan	5.1	IDA (R)	28-Mar-06	Yes
	Kyrgyz Republic	4.0	IDA	9-Feb-06	Yes
	Nigeria	50.0	IDA	29-Mar-06	Yes
	Turkey	34.4	IBRD	24-Apr-06	Yes
	Vietnam	18.6	IDA, IDA (R)	3-Aug-04	Yes
Recent approvals	Armenia	6.3	IDA	2-Jun-06	Yes
	Georgia	7.0	IDA	31-May-06	Yes
	Moldova	8.0	IDA	9-Jun-06	Yes
Pipeline– approvals expected in next 3-5 months	Afghanistan	8.5	IDA, IDA (R)	August	
	Albania	5.0	IDA	27-Jun-06	
	Argentina	2.0	IBRD (R)	July tent.	
	Bangladesh	16.5	IDA, IDA (R)	Sept.	
	Bosnia & Herzegovina	5.0	IDA	June	
	Burkina Faso	0.6	IDA PPF	Oct./Nov. tent.	
	Cambodia	6.0	IDA	June	
	Cameroon	2.0	IDA (R)	TBD	
	Cape Verde	TBD	IDA	TBD	
	Chad	3.0-4.0	IDA (R)	June/July	
	Côte d'Ivoire	TBD	LICUS TF tent.	Oct./Nov. tent.	
	Djibouti	TBD	IDA	TBD	
	Egypt	4.0	IDA (R)	TBD	
	Ethiopia	43.0	IDA, IDA (R)	July	
	India	25.0	IDA (R)	June	
	Indonesia	TBD	IDA, IDA (R) tent.	TBD	
	Iraq	5.0	Special Fin.	TBD	
	Kenya	TBD	IDA	TBD	
	Kyrgyz Republic	1.0	IDA(R)	June	
	Lao PDR	4.0	IDA	29-Jun-06	
	Malawi	TBD	TBD	TBD	
	Mali	0.4	IDA (R)	TBD	
	Mongolia	6.0	IDA	Oct./Nov. tent.	
	Niger	1.0	TBD	Oct./Nov. tent.	
	Pakistan	7.0	IDA	Sept.	
	Romania	35.0	IBRD	TBD	
	Tajikistan	5.0	IDA	29-Jun-06	
	Togo	6.0	IDA	July	
	Uganda	TBD	IDA	TBD	
	Ukraine	36.0	IBRD or IBRD (R)	TBD	
Uruguay	0.3	IBRD (R)	July tent.		
Uzbekistan	3.5	TBD	TBD		
Vietnam	10.0	IDA (R)	Sept. tent.		
West Bank & Gaza	10.0	Special Fin.	June		
Yemen	2.7	IDA	TBD		
Zambia	TBD	TBD	TBD		

~ 300 - 350

Note. Pipeline (projected) commitments are tentative; specific amounts and timing are subject to change. 'R' indicates restructuring of existing projects, with or without additional financing from IBRD and IDA, and/or reallocation of IDA funding to new operations through cancellation of undisbursed balances in existing projects. PPF denotes project preparation facility.