Implementation of the CIDA APSED project in Indonesia and Timor-Leste

Report of a Workshop
Bali, Indonesia, 24-25 August, 2009
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1. Background

The Asia-Pacific Region is home to more than 50% of the world’s population. Good public health systems in this Region will therefore safeguard not only the health of the Region’s population but also ensure global health security. Apart from avian influenza, other viruses such as Nipah virus, chikungunya, dengue and rabies continue to pose challenges for prevention and control. The current pandemic (H1N1) 2009 is also testing systems and highlighting gaps.

Since 2005, the Asia Pacific Strategy for Emerging Diseases (APSED) has been used as a regional strategic framework for the core capacity building required under the International Health Regulations (IHR (2005)). The Region as a whole is better prepared now and is making progress towards achieving the strategy’s stated objectives.

The goal of the APSED workplan is for all countries and areas of the Asia Pacific Region to have the minimum capacity for epidemic alert and response by 2010 in the five programme areas of work. These five programme areas are: surveillance and response, laboratory strengthening, infection control, zoonoses and risk communication.

The Canadian International Development Agency (CIDA) agreed to fund the implementation of APSED in Indonesia and Timor-Leste in the South-East Asia Region.

To monitor progress in implementation, the WHO Representative to Indonesia convened a meeting as per the project work-plan activities. The meeting objectives were as follows:

- To review progress with implementation of the CIDA APSED workplan activities
- To discuss challenges faced in implementation
- To discuss areas for collaboration between Indonesia and Timor-Leste
- To agree on next steps for the remainder of the project.
2. Emerging infectious diseases in South-East Asia

This presentation highlighted that outbreaks of epidemic-prone diseases such as dengue, Japanese encephalitis, cholera and leptospirosis continue to occur across the Region. It was noted that outbreaks of newer, emerging diseases like avian influenza and the current pandemic (H1N1) 2009 continue to pose threats to public health in this Region which is home to ~25% of the world’s population. Indeed, rabies has re-emerged in Bali province, Indonesia while Bangladesh and India are known high-burden countries for rabies.

To adequately address these issues there is a need for strengthening surveillance systems both for animal and human diseases; conducting research to gain an increased understanding of the natural history of emerging infections; capacity development to detect and control outbreaks; strengthening public health capacities at borders and engaging in intra-/inter-regional collaboration.

3. The CIDA project

A background was provided about the donor agreement whereby the Canadian International Development Agency (CIDA) agreed to fund the implementation of APSED in selected countries of South-East Asia and Western Pacific Regions.

APSED was described as a framework for developing and strengthening national capacities in five programme areas (surveillance and response; laboratory strengthening; zoonoses; infection control and risk communication); strengthening collaboration among neighbouring countries, regions, and globally; resource mobilization and knowledge transfer.

The speaker outlined the five APSED objectives which activities done as part of this project should fulfil:

- Reduce the risk of emerging diseases
- Strengthen early detection of outbreaks
- Strengthen early response of emerging disease
Strengthen preparedness for emerging diseases
Develop sustainable technical collaboration within Asia-Pacific Region

The complementarity between IHR (2005) and APSED was illustrated. IHR (2005), as a framework for preventing and responding to the international spread of disease while avoiding unnecessary interference with international traffic and trade, set out minimum core capacity requirements that each Member State should have in place by 2012. Similarly, the APSED workplan sets out minimum core capacities that countries in the Asia-Pacific Region should strive to attain by 2010.

In the South-East Asia Region, CIDA agreed to provide funds to Indonesia and Timor-Leste and to the WHO Regional Office for South-East Asia. The grant agreement was for USD 2.3 million over a four-year period (2007–2010). The project areas included surveillance and response; laboratory strengthening; health promotion and risk communication and a gender component.

The SEARO funding was distributed across the work areas and years as in Tables 1 and 2.

**Table 1. Funds awarded by project area**

<table>
<thead>
<tr>
<th>Funding areas</th>
<th>SEARO funds including Indonesia and Timor-Leste (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance and Response</td>
<td>350 000</td>
</tr>
<tr>
<td>Laboratory strengthening with supplies</td>
<td>570 000</td>
</tr>
<tr>
<td>Health promotion and risk communication</td>
<td>220 000</td>
</tr>
<tr>
<td>Gender-related issues</td>
<td>120 000</td>
</tr>
<tr>
<td>Human resources</td>
<td>875 000</td>
</tr>
<tr>
<td>M&amp;E activities</td>
<td>200 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2 335 000</strong></td>
</tr>
</tbody>
</table>
Table 2. Funds awarded by year, unit and country

<table>
<thead>
<tr>
<th></th>
<th>Total (USD)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>1 645 000</td>
<td>329 500</td>
<td>569 500</td>
<td>405 000</td>
<td>341 000</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>325 000</td>
<td>64 500</td>
<td>81 500</td>
<td>111 000</td>
<td>68 000</td>
</tr>
<tr>
<td>Disease Surveillance and Epidemiology</td>
<td>285 000</td>
<td>155 000</td>
<td>85 000</td>
<td>20 000</td>
<td>25 000</td>
</tr>
<tr>
<td>Blood Safety and Laboratory Technology</td>
<td>70 000</td>
<td>-</td>
<td>35 000</td>
<td>30 000</td>
<td>5 000</td>
</tr>
<tr>
<td>Health Promotion and Education</td>
<td>10 000</td>
<td>-</td>
<td>5 000</td>
<td>5 000</td>
<td>-</td>
</tr>
<tr>
<td>Gender and Women's Health</td>
<td>(120 000)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2 335 000</td>
<td>549 000</td>
<td>776 000</td>
<td>571 000</td>
<td>439 000</td>
</tr>
</tbody>
</table>

The group was informed that WHO’s role in this project is to facilitate implementation and monitor progress achieved. WHO is required to provide regular progress reports to CIDA on activities undertaken, progress achieved and any problems and constraints faced.

4. Progress with CIDA APSED implementation

This presentation provided a brief overview of the progress made in implementation. It was noted that since the start of the project in 2007 activities have been undertaken in line with APSED objectives. Although implementation was slow in 2007, momentum has since increased. Many activities were undertaken and some were presented according to the APSED objective to which they related. Under Objective 1 (reducing the risk of emerging diseases) health promotion and risk communication activities, laboratory strengthening and purchase of rabies vaccine were achieved. Under Objective 2 (strengthening the early detection of disease), funds were used to support Timor-Leste staff to attend FETP; in addition the Strategic Health Operations Centre (SHOC) was strengthened in the Regional Office. Under Objective 3 (Strengthening early response), equipment and supplies were funded for various communicable diseases. Under Objective 4 (strengthening preparedness), health education activities, laboratory strengthening and stockpiling were funded. Under Objective 5 (develop sustainable technical collaboration within the Asia Pacific Region) various networks for laboratory and epidemiology and meetings such as the annual APSED review meetings were supported.
It was noted that a major factor contributing to the less than expected implementation rate in Indonesia is the availability of funds from several donor sources. Nonetheless, given the flexibility of this grant agreement, the workplan has been modified to support additional activities in accordance with the APSED objectives. At the regional level, in 2009, several funds were used to support regional capacity building in preparedness and response for the current pandemic. Antivirals were purchased along with personal protective equipment (PPE). A more detailed account of the progress is provided below by country and work area.

**Indonesia**

CIDA funds were used for laboratory strengthening and in the control of rabies which re-emerged in Bali province in late 2008. An assessment of four laboratories in Indonesia recommended the procurement of equipment, and further training and participation of laboratories in quality assurance schemes.

Funds were utilized on surveillance activities (retrospective case finding, dog bite surveillance, active case finding), training for local health care workers in animal bite management, advocacy meetings and vaccine and immunoglobin courses. Managing the rabies incident highlighted a number of lessons for future implementation such as the need for an integrated intersectoral response and an early warning system.

In summary although implementation was low in general, funds were utilized in line with APSED objectives in Indonesia.

**Timor-Leste**

Timor-Leste has been implementing the CIDA workplan steadily. The majority of funds were spent on building capacity in surveillance and response. Legislation for disease surveillance has been finalized. Two surveillance unit staff were funded for the two year FETP course at Gadjah Mada University in Indonesia as part of efforts to create a critical mass of trained epidemiologists in Member Countries and thus, the Region. A training session on epidemic preparedness and outbreak investigation was undertaken and participation of national officials at international workshops was supported. A sentinel surveillance system for Japanese Encephalitis was established in six hospitals.
In terms of laboratory strengthening, diagnostic kits, reagents and equipment (a dry ice machine, a freezer and a microbiological safety cabinet) were procured. Funds were used to support laboratory training, specimen collection, shipment and biosafety.

Activities under Avian Influenza Pandemic Preparedness and Response were funded and work was also undertaken to enhance infection control measures in health care settings.

In summary in Timor-Leste, funds were utilized in line with APSED objectives with a high implementation rate.

**Surveillance and response**

In the area of communicable disease surveillance and response at the regional level, funds were used to support staff positions and to strengthen the Strategic Health Operations Centre (SHOC) for more effective communication including for rumour verification among the Regional Office, Member States and WHO headquarters.

In the early stages of the current pandemic the two regional stockpiles of antivirals and equipment and supplies were replenished; participation at a regional H1N1 technical consultation and participation at the 4th APSED meeting was also supported.

A risk communications workshop was held in April 2009 to increase regional capacity in outbreak communication in keeping with IHR (2005) requirements through scenarios and role play. This meeting highlighted a need for similar exercises at the country level and for training of country office focal persons in media skills.

**Laboratory**

The purpose of the laboratory programme area in APSED is to ensure effective, efficient, accessible, timely, reliable and quality laboratory services. The four APSED workplan components include:

- Capacity strengthening of national reference laboratories and local laboratories in surveillance, early warning and response;
- Biosafety - reduce laboratory-acquired infections;
Quality assurance – reliable and accurate diagnoses; and
Laboratory networking at national and regional levels.

Indonesia has a national influenza centre (NIC) with capacity to isolate viruses, undertake PCR testing and participate in external quality assurance schemes. There is also a national network of laboratories. In contrast Timor-Leste has limited laboratory capacity with Timor-Leste sending specimens abroad for testing. Activities in line with workplan implementation include laboratory assessments and provision of equipment and supplies to both countries. Other workplan activities include training and further development of quality assurance schemes in Indonesia.

Health promotion and risk communication

Work is ongoing in this area and a major outcome of this project is the sustained collaboration between the communicable disease and health promotion units. This collaboration led to research on the socio-cultural behavioural aspects of avian influenza research in Indonesia. The Phase 1 study was conducted in 2007. Financial and technical support was provided to Indonesia to organize a national multi-stakeholders’ consultation on community-based behaviour change interventions in 2008 at which the Food and Agriculture Organization (FAO) and WHO HQ participated.

Guidelines for implementing behaviour change interventions (BCI) in the context of avian influenza were produced as a result of the collaboration with the communicable disease unit. UNICEF organized a global meeting to develop the socio-behavioural global response to AI prevention and control and the SEARO BCI Guidelines developed under APSED are being used as a key reference document with the health promotion focal person as a member of the drafting team.

Gender

Gender refers to the socially constructed roles, behaviour, activities and attributes that a particular society considers appropriate for men and women. The distinct roles and behaviour may give rise to gender inequalities that systematically favour one group.
Such inequalities can lead to inequities between men and women in both health status and access to health care.

The gender component of the project has received some attention. An assessment was carried out in 2008 in Timor-Leste. A gender assessment was carried out in Indonesia in 2007 which highlighted a lack of awareness and mechanisms to capture and incorporate gender data in decision making. Further work was undertaken to develop a policy on gender sensitive health care, the workplan of which is being implemented. It was noted that there is a WHO strategy on gender which aims to ensure that gender equality and health equity are incorporated into the Organization’s work. The group was informed that gender was raised at the fourth APSED meeting with specific gender-based recommendations made to Member States and WHO.

5. **Collaboration between Indonesia and Timor-Leste**

**Communicable diseases and cross-border control**

Communicable diseases, which could likely be contained as local epidemics, now have the potential to turn into global pandemics in a matter of weeks for example, SARS followed by pandemic (H1N1) 2009. It is estimated that nearly one billion people move across international borders every year. Factors contributing to wide geographic spread include movement due to employment, illegal activities/ trade and porous borders.

Past experience from SARS and more recently the current pandemic has sensitized policy makers to the need for cross-border collaboration. IHR (2005) has provided an opportunity to increase collaboration between different countries in the areas of surveillance and response and to address important issues in port health. The experiences have highlighted the global connectedness of health prompting the “One World, One Health” approach. The efforts at containment at source and increased sharing of information help to lessen the overall impact by providing lead time to plan control and mitigation strategies. Cross-border control of communicable diseases needs integrated, collaborative and coordinated approaches and actions.
Indonesia

With regard to the emerging diseases of importance, avian influenza, rabies and anthrax are priority diseases for the Ministry of Health and the Ministry of Agriculture. In addition, for the Ministry of Health, leptospirosis and plague are important. The country is also faced with dengue and malaria and has a strategy for polio eradication as well as a strategy for measles elimination. The potential impact of climate change on emerging diseases such as dengue and malaria was highlighted. The constraints facing Indonesia include decentralization, geographical factors, coordination and financial resources. Indonesia has a National Influenza Pandemic Preparedness Plan (NIPPP) which was developed for avian influenza. A number of activities are in place for managing avian influenza in the country such as guideline development for case management, specimen handling, field investigation, PPE usage etc. There are also systems for distribution of antivirals and supplies. Nearly 12000 “alert” villages have been established whose function is to detect and report unusual events including avian influenza outbreaks in humans and poultry. Simulation exercises were conducted to test epicentre containment. To deal with the new pandemic, Indonesia adjusted its policy by enhancing epidemiological surveillance activities, empowering hospitals, making drugs available and mobilizing them; enhancing contact tracing and managing cases at points of entry.

Timor-Leste

Timor-Leste has a national task force in place for managing avian influenza and there is a national committee for H1N1 preparedness and response with sub-teams for managing surveillance and response; medical and case management; communication; logistics and supplies and laboratory issues. For surveillance and response there is an integrated disease surveillance system in place since 2005. The laws for mandatory reporting are being developed. There is one rapid response team at the central level. The national hospital is designated as the referral hospital with a triage system and eight isolation rooms. Risk communication involves the health promotion department, districts, health facilities, churches and nongovernmental organizations (NGOs).
Laboratory capacity is limited and strengthening is being achieved with WHO assistance. In addition to limited laboratory capacity, the challenges facing Timor-Leste include staffing of the surveillance unit, support for transportation, logistics and communication; support for containment at points of entry and risk communication.

6. **Round table discussions**

There were three round table discussions to explore areas for joint working between Indonesia and Timor-Leste. A summary of the discussions is outlined below.

**Epidemiology and laboratory**

**Epidemiology**

Indonesia is one of three Member States in the Region which offers a two-year FETP. The Ministry of Health, Timor-Leste, has an established link with Gadjah Mada University in Indonesia whereby national staff from Timor-Leste can attend the two year FETP. So far as part of the CIDA project, two staff have been supported. To build a critical mass of trained epidemiologists in Timor-Leste, five national level staff should attend the two-year course and at least one officer from each of the 13 districts should attend the short FET course. In turn, Timor-Leste could offer field placements to students from Indonesia as part of the FETP field exercise.

**Rapid response and rapid containment**

Indonesia has trained rapid response teams at the national and sub-national levels. Timor-Leste has one rapid response team whose composition includes a key staff member from each unit. This therefore makes it difficult to send the team outside the country for training and re-training. An option is to conduct the training in-country with Timor-Leste trainers or for trainers from Indonesia to train the team in Timor-Leste.

The IHR (2005) require Member States to have in place capacities to detect and respond to public health events whether they are due to infectious diseases, chemical causes, food safety or radiological hazards.
This will require links between the epidemiology unit with chemical, radiological and food safety units. There is already in place collaboration between Timor-Leste and Indonesia’s Food and Drug Administration with a policy for collaboration being developed.

Laboratory

Indonesia’s laboratory capacity is very strong compared to that of Timor-Leste. There is already some collaboration in place between the two countries in this area. Staff from Bali province provided laboratory support to Timor-Leste and there are good relations between Timor-Leste with Surabaya Public Health laboratory. However, these processes are informal and should ideally be formalized.

**Points of entry and information sharing**

**Points of entry**

Under the IHR (2005) Member States are mandated to develop public health capacities at designated points of entry. In addition, countries sharing common borders should consider entering bilateral or multi-lateral agreements or arrangements concerning prevention or control of international transmission of disease at ground crossings.

Little has been achieved in developing capacity at points of entry in Timor-Leste apart from designating one airport and one seaport for building public health capacities in line with the IHR (2005).

In Indonesia, there are many regulated and unregulated points of entry with for example, Brunei, Malaysia and Timor-Leste. The discrepancy in the quality of services at borders has been identified and is being addressed. In 2007 there was a joint WHO/Ministry of Health assessment which showed that capacity in Indonesia is quite good by regional standards; the assessment recommended more training of port health officers.
Information sharing

A key component of the IHR (2005) is transparent, timely information sharing. The group was pleased to learn that there is currently a draft Memorandum of Understanding (MoU) between the two ministries of health which incorporates many issues of collaborative working across the health sector in both countries.

There was discussion regarding at which level information should be shared; whether it should be at the local, regional or sent up to the national level in each country for communication at the national level.

Health promotion and education

In Indonesia, the system for health promotion is well staffed throughout the country, with a focus on community empowerment activities. However, the relocation of trained staff to other departments is an issue of concern. Indonesia has a programme for primary school students where ‘little doctors’ can transmit messages (e.g. good behaviours) to their families. Timor-Leste would benefit from a junior staff receiving on-the-job training (vs. in classroom training) from Indonesia either at national/provincial or district level. Timor-Leste would also benefit from the Ministry of Health staff visiting Indonesia for training in health promotion through a three to four week attachment.

7. Conclusions

The meeting concluded that there has been progress with the CIDA APSED workplan. However, this progress needs to be accelerated given the short time remaining for the project. The round table discussions highlighted many areas for collaboration between the two countries. Following the round table discussions the priority activities that each country should focus on for the remaining months of the CIDA project were identified.

The priority areas for each country are listed as follows:
Priorities for Indonesia

- Strengthen collaboration between animal and human health sectors
- Undertake rabies prevention and control activities
- Build PH capacities at points of entry
- Follow-up the MoU between Indonesia and Timor-Leste
- Apply health promotion evidence into policies and programmes
- Incorporate gender into health care programmes

Priorities for Timor-Leste

- Surveillance and response
  - Develop a programme for district level staff to attend the three-month FET to build a critical mass of trained personnel
  - Develop a programme for regular training of the rapid response team
  - Develop a programme for regular training of the 13 district PH officers in outbreak investigation and response
  - Strengthen infection control measures
- Build capacities at points of entry
- Strengthen laboratory services
- Undertake health promotion in schools

8. Next steps

The following steps were agreed to by the participants:

(1) Indonesia and Timor-Leste to submit revised CIDA APSED workplans for the remainder of the project;
(2) WHO/SEARO to provide ongoing support for implementation of the project
(3) WHO to continue regular donor reporting; and
(4) A follow-up monitoring meeting to be organized by WHO Timor-Leste in 2010.
9. Closing

Dr Khanchit Limpakarnjanarat thanked the participants for attending the meeting and for their valuable inputs. Outcomes from this meeting included the recognition that project implementation needs to be accelerated and that there are many areas for collaboration between Indonesia and Timor-Leste. More importantly, there is willingness on both sides to collaborate. It was noted that if the priority actions were followed up the project will be implemented successfully leading to further fulfillment of APSED objectives and IHR (2005) obligations.
Annex 1

Programme

Monday, 24 August 2009

9.00 – 9.15 Welcome and Opening Remarks – Dr Subhash R Salunke
9.15 – 9.30 Meeting Objectives – Dr Khanchit Limpakarnjanarat
         Group Photo
9.30 – 9.45 Burden of Emerging Infectious Diseases in the South-East Asia Region –
         Dr Khanchit Limpakarnjanarat
9.45 – 10.00 Background on CIDA APSED project – Dr Shalini Pooransingh
10.00 – 10.15 CIDA APSED project implementation so far: an overview –
               Dr Shalini Pooransingh
10.45 – 11.00 Progress with implementation in Indonesia – Dr Graham Tallis
11.00 – 11.15 Progress with implementation in Timor-Leste – Dr Yuwono Sidharta
11.15 – 11.30 Progress with implementation of regional level activities –
               Dr Khanchit Limpakarnjanarat
11.30 – 11.45 Progress with implementation of Health Promotion activities –
               Dr Davison Munodawafa
11.45 – 12.00 Progress with implementation of Laboratory strengthening activities –
               Dr Shalini Pooransingh
12.00 – 12.15 Progress with implementation of Gender activities –
               Dr Shalini Pooransingh
12.15 – 12.45 Open discussion - Issues and challenges faced with implementation
2.00 – 2.15 Emerging Infectious Diseases and Intercountry collaboration –
               Dr Khanchit Limpakarnjanarat
2.15 – 2.30 Emerging Infectious Diseases: preparedness and response in Indonesia – Dr Rita Kusriastuti
2.30 – 2.45 Emerging Infectious Diseases: preparedness and response in Timor-Leste – Dr Yuwono Sidharta
2.45 – 3.15 Discussion

Implementation of the CIDA APSED project in Indonesia and Timor-Leste
3.45 – 5.30 Round Table Discussion: collaboration on surveillance and response
Moderator: Dr Graham Tallis
• Capacity building in epidemiology
• Capacity building in laboratory

Tuesday, 25 August 2009

9.00 – 10.30 Round table Discussion: collaboration on surveillance and response
Moderator: Dr Khanchit Limpakarnjanarat
• Containment at points of entry
• Information sharing

11.00 – 11.30 Round table Discussion: collaboration on surveillance and response
Moderator: Dr Davison Munodawafa
• Capacity building in health promotion/education

11.30 – 12.30 Summary of discussions

1.30 – 2.30 To agree areas for collaboration/joint activity between Indonesia and Timor-Leste under the CIDA funded APSED framework

2.30 – 3.00 Next steps

3.00 – 3.15 Closing
## Annex 2

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The Asia Pacific Strategy for Emerging Diseases (APSED) has been used as a regional strategic framework for the core capacity building required under the International Health Regulations (2005). The goal of the APSED workplan is for all countries and areas of the Asia-Pacific Region to have the minimum capacity for epidemic alert and response by 2010 in the five programme areas of work. These five programme areas are: surveillance and response, laboratory strengthening, infection control, zoonoses and risk communication.

The South-East Asia Region as a whole is making good progress towards achieving the strategy’s stated objectives. The Canadian International Development Agency (CIDA) agreed to fund the implementation of APSED in Indonesia and Timor-Leste in the South-East Asia Region for a four-year period from 2007–2010. This meeting was held to monitor progress in implementation of the project and to agree follow up actions.