Introduction
This paper describes a pilot project introducing community-based animal health services (CBAHS) in Indonesia, focusing on the implementation process, institutional change and impact. It also describes how the CBAHS has changed the perception of all stakeholders about the provision of services in rural areas. The pilot project was one component of a 5-year Department for International Development (DFID) funded project called The Decentralised Livestock Services in Eastern Indonesia (DELIVERI).

Background
DELIVERI project aim was to help the Government of Indonesia to reform livestock services. The project’s specific purpose was to “make livestock-related institutions more responsive to the need of small-scale farmers, including the resource-poor, through the adoption and replication of more client-orientated and participatory approaches”.

To do this, the project developed and tested new models of livestock service provision in four Districts in North and South Sulawesi. The project also included human resource development, institutional development and information activities at District, Provincial and National level to ensure that the lessons learned were institutionalised within District Livestock Services (DLS), Provincial Livestock Services (PLS) and the Directorate General for Livestock Production (DGLP), so that any successful models could be replicated throughout Indonesia.

When the project started in 1996, towards the end of the Suharto era, government services were highly centralised, bureaucratic and inefficient, although policies promoting decentralisation, privatisation and participation had been in place for a number of years. All budgets, services, programmes and projects continued to be designed and controlled from the capital, Jakarta, and regional and district staff simply followed orders. During the first two years, although farmers and field-level staff were enthusiastic about the project’s new approaches at field level, and a few enlightened senior managers recognised their value, the project had little impact on policy or processes within the bureaucracy. Then the economic, social and political crisis in 1997/8 pushed Suharto out of office and the new era of “Reformasi” forced ill prepared government departments to implement rapidly the long-shelved policies of “desentralisation”, “privatisation” and “partisipation”. By that time, the project had a number of successful pilot projects up and running, and some charismatic champions among livestock service staff at all levels, and suddenly found itself in high demand.

The CBAHS pilot projects proved particularly popular with government staff and farmers, and over the last two years of the project a total of 161 Community Based Animal Health Workers (CBAHW) were trained and established in 6 locations throughout the country. Five provinces in the island of Sumatera have been trying to replicate the CBAHS model in 12 districts.

Approach
The pilot project begun with a participatory rural appraisal exercise in each project location during which animal disease and poor accessibility to veterinary services was identified as one of the most important problems. Further discussions with communities and other stakeholders identified the CBAH approach as the best method to overcome the problem.

Each community nominated a representative to be trained as a CBAHW by the project, and afterwards they returned to their community to provide basic clinical animal health services for a fee. The were also given a soft loan to buy basic veterinary tools and drugs and were given an annually renewable certificate by the Local District Livestock Services (DLS) allowing them to provide services. Monthly meetings were held to provide some continuing education, and to exchange experiences and
information between the CBAHW and the DLS. In the year 2000, the CBAHW set up an association to represent their interests.
Institutional Impact
The implementation of CBAHS in the pilot project areas completely changed the delivery of basic clinical animal health services (see Appendix 1 for a detailed description of the institutional changes). Local communities who used to rely on the free but intermittent government service, welcomed the opportunity to take control of the service themselves. They were actively involved in the planning, implementation and evaluation of the service and were willing to pay for the service provided to them by members of their own community. The CBAHW were also highly motivated to provide a high quality service to their clients, and there was a significant increase in customer satisfaction with animal health services and an ever-increasing trend in the number of cases treated by each CBAHW per month.

The governments role in the provision of basic clinical animal health services decreased dramatically and they gradually delegated increasing authority to the CBAHW, while continuing to monitor the CBAHW activities and standard of service. The transition proved difficult for some DLS staff who felt threatened by their new role, or lacked the initiative and creativity to develop it. Gradually even some public-good services including mass vaccination, were sub-contracted to the CBAHW.

The change provided a powerful impetus for more strategic thinking by livestock service managers and decision makers at various levels in the bureaucracy to seek new ways of providing better services to local communities and to make the community more self-reliant. As they became more familiar with the principles of client-focused services, they began to try to apply them to other services. There has been a dramatic improvement in communication and exchange of information between livestock service staff and their clients.

The CBAHW also found themselves under pressure to improve the quality of their service, from clients who, since they were paying for the service, felt they had a right to make demands on the CBAHW - something that they never felt they could do with the government service.

Accessibility to basic veterinary services has increased substantially, livestock owners living in rural and marginal areas who used to have a limited access to basic veterinary services can now access basic services any time. This has led to a significant increase in cattle population. Following the economic crisis in Indonesia, the Indonesian Rupiah (IDR) lost over 70% of its value in less than one year, and people, looking for alternative ways to save their money were encouraged to invest in livestock since they felt that the availability of improved services through the CBAHWs reduced the risk of loss from disease..

Economic Impact
Most of the CBAHW have been able to make a profit out of their job within three to four months providing a big incentive for them to stay in the job, and ensuring the sustainability of the service.

Efficiency in treating animal disease has improved substantially, in 1998 the cost to the government of treating one case was between IDR 111,000 to 212,000. In 2000, the CBAHW were providing the same service for only IDR 5,000 to 35,000.

The implementation of CBAHS significantly reduced government spending. A calculation of Net Benefit – Cost in 2000 showed an NPV of IDR. 88,96 million (discount rate 15%), proving that the cost to the Department of Livestock Services of establishing CBAHS is cheaper than continuing to provide the service themselves.

The DELIVERI CBAHS also contributed to poverty alleviation. The DELIVERI socio-economic impact report showed a significant redistribution of income from 1997 to 2000 in the district of Barru and Bulukumba (South Sulawesi). While the proportion of respondents in the ‘medium’ wealth ranking category in each District remained constant in 1997 and 2000, both saw an increase in the proportion of respondents falling into the ‘rich’ category, as well as a reduction in the proportion falling into the poor category (Kirby et al., 2001).

Other indicators of the impact of the CABHS are shown in Appendix 1.
Conclusion
The DELIVERI CABHW project shows that:

- Privatisation of basic clinical animal health services is consistent with the nature of the service and can substantially improved accessibility, quality and cost of the service
- Involvement of local communities in planning and implementation of animal health service can increase the self-reliance and decision making capacity of individual livestock owner
- CBAHWs have a comparative advantage to other animal health service providers in term of transaction cost, qualification and renumeration. They are suitable for the rural poor.

The critical factors for a successful implementation of CBAHW approach are:

- Enthusiasm and active involvement of local communities is vital in the sustainability of the service
- Participatory processes which were built in with DELIVERI project approach seems able to attract genuine interest and involvement of various parties in the programme
- Favourable policy context which enables local communities enthusiasm to flourish and provide continuous support whenever needed
- Close linkages with decision makers and managers which created common understanding and experience sharing with all parties involved in the implementation of the pilot project and to enable the introduction of the pilot project to be replicated elsewhere in Indonesia

References
Appendix 1. The Impact of the CBAHS in Indonesia.

<table>
<thead>
<tr>
<th>No.</th>
<th>The delivery of basic clinical animal health services</th>
<th>Before the implementation of CBAHS</th>
<th>After the implementation of CBAHS</th>
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<td></td>
<td><strong>STRUCTURE</strong></td>
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<td>1.</td>
<td><strong>Planning and implementation</strong></td>
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<td></td>
<td>All planning and implementation was done by the government at different levels. The planning was mainly done at central level and District Livestock Services (DLS) mainly did the implementation under the co-ordination of Provincial Livestock Services (PLS). Almost no consultation was done to the end user of the service (the livestock owners) Policies have tended to be implemented uniformly across the country with no consideration of locally specific needs, conditions or aspirations</td>
<td>Planning of CBAHS was done with the community. The CBAH Workers are representative of the community member. All implementation of animal disease prevention and treatment is done through or involving the local CBAHW</td>
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<tr>
<td>1.1</td>
<td><strong>Responsibility, accountability, control and co-ordination</strong></td>
<td>The DLS was responsible in the delivery of livestock services in their local area. The service was provided free of charge (including private goods like basic clinical animal health service). The DLS were accountable to the head of districts. The PLS was responsible to control and co-ordinate the implementation of regional program (and sometimes implement their own programme in the districts) and they were accountable to the governor. They are more focused on managing and monitoring the delivery of inputs rather than outputs There is some consensus that DLS projects are targeted to poorer livestock farmers but usually ended up servicing richer farmers.</td>
<td>The CBAHW are responsible to deliver basic clinical animal health services. The DLS already sub-contracted them to do some public-good service (such as mass vaccination). The CBAHW are accountable to their customers who pay them for services. Competition is introduced among the CBAHW to encourage them to give their best service. The control and co-ordination of CBAHW become DLS responsibility and done through monthly meetings and the issue of ‘certificate to practice’ to all CBAHW which are valid for 12 months. The service is accessible to all community members, regardless of wealth. CBAHW provides animal health service with correct qualification, cost and quality to the rural communities which are relatively poor compared to urban area</td>
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<td>1.3</td>
<td><strong>Consistency of structure with purpose and nature of service</strong></td>
<td>The service was planned from the perspective of the bureaucracy, it has often been below the expectations of the main benefactor of the service – the livestock owners.</td>
<td>The service was planned from the perspective of the clients. Because they pay for the service, it gives them the right to complain if the service is below standard. Competition with fellow CBAHW and other animal health service providers forces the CBAHW to maintain their standard of service</td>
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Provision of basic clinical animal health
service, which is a private good by government services, is not consistent with the nature of the service.

The service can be offered to limited area only due to limited government budget

services by private sector (i.e. CBAHW) is more consistent with the nature of the service.

The availability of good quality animal health services that is accessible to livestock owners living in rural and marginal area is the purpose of the provision of basic clinical animal health service by CBAHW. This can be extended to areas with limited animal health services without making a burden to government budget because new CBAHW are relatively cheap and easy to train. Because they will be able to make a living being a CBAHW, the candidates can be asked to pay for their own training.

1.4. Key actors and decision making

Head of local DLS is the only person who made a decision, the rest (including livestock owners) had no vote

As the communities are becoming more self-reliant and the CBAHW are more confident in doing their job, they gradually assuming the decision-making activities regarding their livestock. The head of DLS still a key actor in maintaining standard of service.

2. CONDUCT

2.1. How the decision was made and implemented

Decision making: follows central policy or makes local decisions with little client consultation and then takes a passive approach to “marketing” and supplying the service. No public pressures are able to shape these decisions i.e. no popular participation in decision-making and no DLS accountability to customers.

Implementation: service accepted because it is free or at highly subsidised price rather than because it is good, passive response to requests rather than active searching for clients

The implementation was more geared in fulfilling administrative requirement in the use of budget rather than reaching the goal of the programme

Decision Making: CBAHWs are making demands on DLS—a means of conveying popular demands to DLS—through referrals, and are relaying ground-level information back to a public planning agency which is a step towards customer responsiveness.

The whole CBAHW issue has encouraged more strategic thinking by the decision makers and DLS staff about how to satisfy livestock animal health demands; encouraging a wider, longer term vision of needs and planned action to meet them. Planning and thinking ahead is more realistic.

Implementation: CBAHWs increasingly motivated to be active in their search for customers and to provide satisfactory services as their opportunities to make money increase following official recognition.

Competition from CBAHW has put some pressure to government animal health service to increase their quality and responsiveness. Higher qualification can save the demands of their service.

2.2. Pressure/incentives/conventions shaping the decision

Government’s production-oriented programmes was highly top-down, centralised, and hierarchical, with the

CBAH Service is a local programme, involving local communities and local government. It is best suited the local need
Central government in capital Jakarta making all of the major decisions including the type of commodities to be promoted and services to be provided, offering little flexibility for local managers to respond to local needs.

Civil servants see their role as delivering government programmes to the community, and are used to following instructions from their superiors. Civil servants find it as difficult to accept that they are servants of the community, as community members to believe they have a right to make demands and is flexible to change. The decision to change can be made locally.

CBAHWs are private and are aware since the beginning that they have to serve the community if they want to maintain their small enterprise (i.e. business as CBAHW). By paying for the service the clients have the right to make demands to CBAHW.

Members of the community are becoming more and more self-reliant and were pressurised to make a good decision on any investment of their livestock enterprise, including animal health.

3. PERFORMANCE

3.1. Accessibility to animal health services

One animal health post (AHP) in Minahasa district, North Sulawesi (staffed by 1 veterinarian and 2 paramedics) have to serve 32 sub-districts and 502 villages.

One AHP in the district of Barru, South Sulawesi (staffed by 1 veterinarian and 5 paramedics) serving 5 sub-districts and 71 villages.

The livestock owner have to travel relatively long distance to make a request and more than 40% of request took more than 3 days, 15% of request never received a response (Natasukarya, 1997).

53 CBAHW were trained in Minahasa in 1997

17 CBAHW were trained in Barru in 1998.

Average time to make a report is 17 minutes and 75% of the response takes less than 30 minutes, 21% takes between 30 to 1 hour and 4% takes more than 1 hour (Leksmono, 2002)

3.2. Quality of animal health services

Each AHP’s animal health service provider treat 12, 24 and 21 cases in 1998, 1999 and 2000, respectively, per month.

16 % of clients rate animal health service as good or very good (Natasukarya, 1998)

Each CBAHW treat 115.07, 183.04 and 104.24 cases in 1998, 1999 and 2000, respectively, per month.

78% of clients rate animal health services as good or very good (Natasukarya and Kirby, 2001)

An increase in population growth rate (8.86% in Minahasa and 6.46% in Barru in year 2000) as an indirect result of CBAHW work are observed (Leksmono, 2002)

3.3. Cost of animal health services

The cost of treating per animal disease case by the DLS is from Indonesian Rupiah (IDR) 111,000 to 212,000 (Chilver, 1998)

The cost of treating per animal disease case by the CBAHW is from IDR. 5,000 to 35,000 (Leksmono, 2002).
<table>
<thead>
<tr>
<th>Total DLS budget for the provision of animal health service is around IDR. 65.75 million for each DLS (Chilver, 1998)</th>
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<tr>
<td>No calculation of Benefit - Cost ratio has been performed to assess the efficiency of DLS animal health service.</td>
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<td>The cost of establishing CBAH services is IDR. 8.26 million in each district (Leksmono, 2002)</td>
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<td>Benefit – Cost is increasing from IDR. 29.61 million in 1998 to IDR. 30.98 million in 2000 with Net Present Value of IDR. 88.96 million (discount rate 15%) at the end of year 2000 (Leksmono, 2002).</td>
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<tr>
<td>By establishing CBAH services the cost of animal health service transferred to the private sector is IDR. 56.88 in South Sulawesi and IDR. 127.867 in North Sulawesi (Leksmono, 2002)</td>
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