IO2.2. Best practices on zoonoses interventions.

Type of practice	International Project co-financed by the World Bank
Best practice title	Nepal Zoonoses Control Project (NZCP)
Period of implementation	July 2012 / March 2014 (21 months)
Location	-
Geographical coverage	Nepal
Contacts	Project Team Leader: Norman Bentley Piccioni
Link	http://projects.worldbank.org/P130089/zoonoses-control-project-zcp?lang=en&tab=overview
Target audience	The project was intended to directly benefit the farmers and the rural population whose livestock is threatened by zoonotic diseases (ZD) and who depend on livestock for their livelihoods, food security and nutrition. In addition, the project aimed to strengthen the key government agencies involved in prevention and control of zoonotic diseases, protect consumers of livestock products and the public at large from infection, and contribute to the wider global public good of mitigating the risk of pandemics.
Objectives	- The objective of the project is to enhance the country capacity for the prevention and control of infectious diseases that transmit between animals and humans (zoonosis) under a One Health approach. - This was a necessary first-step in reduction in the incidence of infectious diseases from animals to humans which will also lead to increase livestock productivity and strengthen the livelihoods base for food insecure communities. - This objective was achieved through two types of interventions: planning and preparedness; and prevention. If successful, the proposed project would contribute to reduce the burden of disease in animals, the consequent economic losses, the risk of human infection, and the loss of productivity attributable to animal and human infections in Nepal. - In addition, this project was specifically linked up with the GAFSP-financed project that was being prepared in parallel, to support the realization of these outcomes in the mid- and far west regions of Nepal. - The project also leveraged with and contributes to enhancing the Climate Resilience Agriculture Management Information System, which was prepared by the Pilot Program for Climate Resilience.
Short description	- The implementing Agencies were: Department of Health Services, Department of Livestock Services, Ministry of Agriculture Development, Ministry of Health and Population.

	- The project consisted of four components: (a) animal health - the objective of this component was to control avian influenza and broaden the scope to control a wider set of zoonosis. (b) climate sensitive disease risk mitigation - this component aimed to enhance livestock climate resilience by bench marking priority climate sensitive infectious diseases under the One Health approach. (c) human health - activities in this component covered improvements in the support for surveillance, diagnosis and case management of priority zoonotic diseases in humans. (d) communication. - The main studied zoonosis were *Highly Pathogenic Avian Influenza, Brucellosis, Leptospirosis, Toxoplasmosis, Cysticercosis, Hydatidosis* (or *Echinococcosis)and other two additional zoonosis (TB and rabies).* - The total project cost was US$10 million. - The capacity enhancement targets for prevention and control of infectious diseases were achieved building on the infrastructure developed by Avian Influenza Control Project. - Indicators include: • training, communication outreach, and awareness building of 54,139 (28,549 and 25,593, respectively) farmers in 75 districts of whom 9,717 were female participants (40% of the targeted number), which exceeded the targeted 24,000 people; • improved capacity for prevention and control of zoonosis and effective coordination among the three implementing agencies was evident in the successful containment of 216 HPAI H5N1 outbreaks; • inter-sectoral consultative ranking procedures and criteria used in the identification of priority zoonosis; • benefits from capacity/ institutional enhancement were reflected in the inspection of 14,506 animals (more than double appraisal goal of inspecting 7000 livestock) at the model service centers; • inspection of 14,506 livestock at model service centers and quarantine offices by project closing; • In direct response to the poverty alleviation strategy 1243 PAF24 Group farmers received training in biosecurity (exceeding the target of 1,000); • establishment of 6 zoonotic diseases (ZD) surveillance plans; • development of a system for collection/ monitoring incidence / case prevalence of priority ZDs; • identification of climate sensitive HPEDs by NARC; • implementation of surveillance from 40 sentinel surveillance sites in

	the districts;26 • implementation of the poultry culling compensation plans and the possibilities that the approach will be sustained and improved; • increased awareness of prevention and control of priority ZDs among human health workers and general public as indicated by comparing pre and post KAP survey. • Although the difference was very minor considering the very short time (two months) between the two surveys, there was a change in knowledge, attitude and practices (pre: 44.31 percent, 56.31 percent and 40.61 percent, versus post: 42.16 percent, 58.78 percent and 45.27 percent for K, A and P respectively).
Activities	***1. Component A: Animal Health*** (appraisal US$5.40 million; actual US$4.80 million). It has the following four sub-components: • Enhancing institutional capacity in the development of veterinary legislation, developing a One Health Strategy and action plan, and identifying key infectious diseases involving climate change. • Building capacity for surveillance and diagnosis through refurbishment of laboratories, provision of equipment, and staff training. • Strengthening and modernizing live animal markets, increasing awareness about bio-security, and upgrading quarantine facilities. • Supporting project management through the recruitment of consultants to assist the Department of Livestock Services which was responsible for overall implementation of the project including financial management, procurement, and monitoring. - This component was implemented by the Department of Livestock Services and it facilitated the development of a One Health strategy and action plan. ***2. Component B: Climate Sensitive Disease Risk Mitigation*** (appraisal US$ 2.00 million; actual US$1.70 million). - The activities of this component included improvements in climate impact assessment on diseases and concrete interventions to mitigate climate risk. Some of the interventions included the following: • Building livestock climate resilience by bench marking priority climate sensitive diseases and their impact on production. • Collecting information on climate vulnerability. • Designing and implementing early warning mechanisms to mitigate livestock diseases risk induced by climate change. - This component was implemented by the National Agricultural Research Council. ***3. Component C: Human Health*** (appraisal US$2.00 million; actual US$1.45 million).

	- The component aimed to: • Strengthen sentinel sites by equipping them with adequate facilities and training public health workers on the prevention and control of zoonotic diseases. • Assess the prevalence of such diseases in humans. - Though this sub-component was implemented by the Department of Health Services, collaboration between third Department and the Department of Livestock Services was critical. - This was especially the case with the linking of the Animal Health Information System in the Department of Livestock Services and the Early Warning Alert and Response System in the Department of Health Services. ***4. Component D: Communication*** (appraisal US$0.6 million; actual US$0.5 million). - The activities under this component focused on communication issues including the following : • Strengthening the Avian Influenza communication strategy to encompass priority diseases and raising awareness on those diseases and preventive practices. • Building institutional capacity. • Providing technical assistance to two of the collaborating Departments: the Department of Livestock Services and the Department of Health Services. • Undertaking Knowledge, Attitude, and Practice (KAP) surveys. - The revision of the Avian Influenza communications strategy to include priority zoonotic diseases was supported by this component. - This component was implemented by the Department of Livestock Services and it was designed to support communication activities for zoonotic diseases control.
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Key words	Zoonoses, avian influenza, animal health, one health