

Good Practice Brief

Mitigating Diseases and Saving Valuable Assets¹

Poultry Vaccinators² Delivering Services to the Doorstep of the Poorest in Bangladesh

Cooperation between Bangladesh's Department of Livestock Services and the non-governmental organisation - BRAC, overcomes service delivery limitations through an alternative animal health delivery channel. Here poultry vaccinators reach out to women poultry rearers with vaccination services, extension messages covering different aspects of poultry rearing and provide disease surveillance.

The Good Practice shows:

- The value of a decentralised service delivery model wherein about 19,900 trained women vaccinators, provide services to all 50 districts of Bangladesh through 1,260 BRAC branches, reaching out to over 2.47 million women poultry rearers.
- Marked reduction in poultry mortality from an average of 40% to 15%, resulting in an increase in average annual income from sales from TK 400 to TK 2919. This also resulted in increase in family consumption of eggs from 43 to 186 and meat from 1.6 to 16.7 chicken per year. (Dept. of Livestock Services, 1998)
- The cost–benefit analysis of doorstep poultry vaccination service shows that with an average vaccination of 500 birds per month, working on an average of 2 hours per day, an average supplementary income of 1,500 TK is guaranteed which even goes up to TK 3,000 in some areas.
- The sustainability of women poultry vaccinators wherein annual dropout rate is around 2% only and attendance in monthly refresher training is more than 90%.



¹ This brief is based on Good Practice Note, 'SA PPLPP (2009) Code: BDGP01, "Mitigating Diseases and Saving Valuable Assets: Poultry Vaccinators Delivering Services to the Doorstep of the Poorest in Bangladesh", Delhi, India.

² 'Poultry vaccinator' is the name commonly used, but formally they are actually called 'Poultry Worker'.

What was the problem and Where?

Small holder poultry production has a strong co-relation with poverty reduction and women's empowerment. With about 89% of rural household's rearing poultry in Bangladesh, the sector has a GDP share of 9% in the country. There are about 183 million indigenous chicken and 37 million ducks reared mainly in scavenging conditions on household waste and crop residue. Poultry in Bangladesh is also more equitably distributed compared to land. With just 9% population owning more than 1 ha of land and over 59% owning less than 0.20 Ha of land, rearing poultry provides a ready source of income and nutrition. Women in particular, who suffer impediments like illiteracy, poor health and mobility, find poultry rearing an extremely viable occupation.

However, mortality from preventable diseases like Newcastle, Fowl Pox, Fowl Cholera, Fowl Typhoid, Coccidiosis, Gumborro, deficiency diseases and worm infestations is often very high (ranging from 35% to 80%) within scavenging systems. Although 4 types of major vaccines (Ranikhet, Pox, Cholera and Duck Plague) have been produced by the Government, traditional service delivery mechanisms have been unable to serve all parts of the country. With only four field staff and one Government Livestock Officer deployed at each sub-district having to provide livestock services to about 200,000 poultry and 50,000 cattle and sheep³, the system suffers obvious limitations of human power and outreach. Furthermore, while commercial poultry has been patronized and serviced by the private sector and continues to grow at 20% annually⁴, the rural scavenging system and some small scale commercial farms neither had their own vaccination program nor access to Government's vaccination services creating high risk conditions for rearers. To address this gap, in 1983 the NGO called BRAC (Bangladesh Rural Advancement Committee) initiated a poultry vaccinator programme with an aim to prevent poultry from contracting common diseases through vaccination and dissemination of information to rearers.

How did the Good Practice Work?

This Good Practice grew out of a semi-scavenging poultry programme initiated in the 1970s by the Department of Livestock Services (DLS) and BRAC as well as other NGOs with support from both bilateral and multilateral donors that aimed to use poultry as a tool to reduce poverty among landless women. Through implementation and trying to turn problems into opportunities, the erstwhile programme evolved into the now famous 'Bangladesh Poultry Model'. The common feature of this poultry system of production, supply and services is that the requirements for services and inputs have turned into opportunities for people⁵.

One of the key impediments of the earlier programme phase was **high poultry mortality** caused by lack of capacity to provide timely vaccination services. BRAC thus initiated the first poultry vaccinator pilot in Manikganj district to test the feasibility of a decentralised service delivery model based on building local capacities. This pilot was later up-scaled to all 50 districts of Bangladesh. Herein, BRAC integrated the poultry vaccinator component within its pre-existing organisational structure. Activities were thus coordinated through functional linkages between the head office in Dhaka, regional offices and field offices. At the field level, BRAC staff worked directly with Village Organisations which provided them the administrative link to identify and monitor women vaccinators. Based on experiences from the pilot at Manikganj, where men and unmarried women largely dropped out from the programme, BRAC field staff have now adopted a participatory approach for selection wherein along with the Village Organisation⁶; widows, abandoned women and married women between the age group of 25-45 having basic level of literacy are selected democratically as poultry vaccinators. The mandate given to them is to function as an interface between BRAC field offices and the rearers by procuring and administering vaccines at fixed prices and schedules, to

³ Rahman, M.H., 2003. Livestock Section Review and Future Development Assessment. Policy and planning support unit / Ministry of Fisheries and Livestock, Dhaka

⁴ Asian Development Bank estimations quoted in the Bangladesh Quarterly Economic Update, 2007. Available at - <http://www.adb.org/Documents/News/BRM/brm-200702.asp>

⁵ Dolberg, Frans 2004. 'Review of Households Poultry Production as a Tool in Poverty Reduction with Focus on Bangladesh and India'. In: Ahuja, Vinod (editor), 'Livestock and Livelihoods: challenges and opportunities for Asia in the emerging market environment' NDDB, FAO, Anand, India, Rome, Italy.

⁶ As part of BRACs work, communities are organized into village organisations (VOs) comprising 30-40 members.

vaccinate at least 500 birds per month @ 1 TK per vaccination⁷ averaging to about 2 hours of work/day and to provide first aid and advisory support to rearers.

In the beginning, these vaccinators are inducted into a 5 day training followed by monthly refresher trainings. The induction training focuses on poultry vaccination including cold chain maintenance and appropriate vaccination techniques, poultry management including information on feed and brooding, disease control including identification of Ranikhet, Pox, Gumboro, Coccidiosis, Cholera, worms, parasites and malnutrition. Each vaccinator is also provided a free of cost vaccination kit comprising a bag, thermos and syringes. The refresher trainings serve as an important interface between BRAC field offices and vaccinators and create a platform to address emerging issues of importance such as building awareness about bio-security, share problems experienced in the field and knowledge of extension tools. BRAC

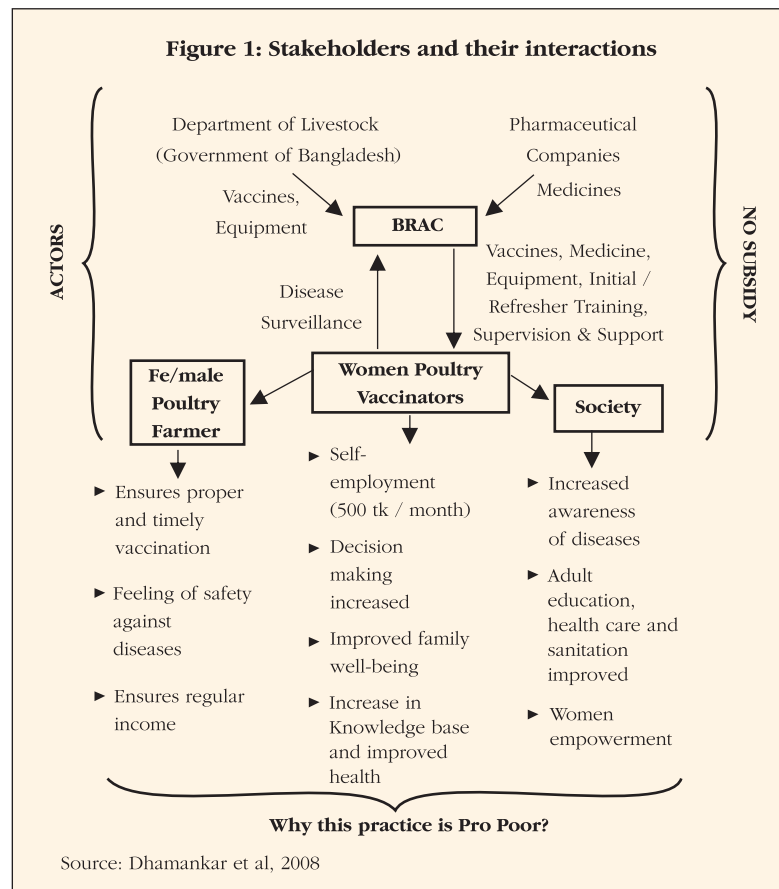
estimates that it takes approximately TK 750 to capacitate each vaccinator for their future roles.

BRAC manages a streamlined supply of equipment, vaccines and medicines to the vaccinators. Female Poultry Vaccinators provide vaccination service (on a cost basis) in groups by dividing each village into four parts and administering vaccines in rotation. Rearers are informed of the vaccination dates and spots where they bring their birds on a routine basis. The DLS on its behalf, which used to earlier administer vaccines free of cost now supplies vaccines in smaller vials to BRAC field offices on a cost basis. These are then picked up by poultry vaccinators for administration. BRAC also purchases basic medicines for de-worming in bulk and supplies it to vaccinators at lowest rates. The cold chain and financial sustainability of the model is thus maintained through an interplay between the DLS-BRAC-Poultry Vaccinators and rearers. The vaccinators are held responsible for their services by both the BRAC field staff and the VO on a routine basis through monitoring of outputs.

This model today reaches out to 2.47 million women poultry rearers in the farthest regions of Bangladesh and has been successful in reducing mortality levels and increasing incomes for the poorest. It has also created an invaluable opportunity for self employment for rural women with over 19,900 vaccinators delivering services in the country. Recent studies conducted by DLS and BRAC reveal that knowledge of balanced feed and timely vaccination has taken strong root in the villages. Women vaccinators, who earlier had to struggle for livelihoods are well respected and have developed strong skills in handling all disease prevention procedures and are aware of protocols to respond to outbreaks like Bird Flu.

Key Learnings

This practice effectively showcases a workable Government-NGO cooperation wherein the combined strengths of the Government viz.: resources and technology and the human-power and networks available to



⁷ The vaccinations are to be conducted before 8 am.

an NGO were used in a sustainable and cost effective manner to provide vaccination and information services to the remotest areas of Bangladesh. Further the poultry vaccinator also served as a critical link between rearers and animal health authorities by contributing to epidemiological surveillance. As an example, during Bird Flu, the vaccinators were given specialised trainings to equip rearers to prevent and respond to outbreak conditions. A critical element emerging from this practice is also the importance of mass vaccination to reduce mortality to a minimum. Here introduction of payment for vaccination services, maintenance of cold chain, improved bio-security awareness and easy access to technical back-up support all proved vital for the success and sustainability of the model. Another remarkable aspect was the selection criterion adopted. Drawing from BRAC's integrated agenda of reducing poverty and empowering women, the tireless efforts put in to select widows, abandoned and married women as vaccinators gave women a chance to overcome societal resistance and become financially strong professionals and skilled entrepreneurs.

What and Where Next?

This practice is worthy of replication because it highlights that decentralised vaccinations and health care delivered by trained poultry vaccinators with access to technical back up support provides a strong foundation for mitigating diseases. The Government of Bangladesh is convinced by the positive outcome of this practice and has encouraged NGOs and Private sector to upscale the activity. To this end, BRAC's attempts to introduce standardisation in selection criteria, training content and duration and frequency of training has served as a strong base to build the skills of vaccinators. Thus, while a definitive legal framework that fully safeguards the ethics and encourages professional fair play for such semi- skilled professionals to dispense simple services is not yet streamlined in Bangladesh, it does set an example of how far openness on behalf on the government can go in mitigating diseases. Secondly, it requires a persuasive and integrated approach to empower women as vaccinators. In this case it took strong selection, motivation, supervision and monitoring to encourage women to break stereotypes and become vaccinators, who now also benefit from other BRAC programmes related to sanitation, adult education, legal awareness and health promotion. Thirdly, the easier the access of poultry vaccinators to technical support, the better the performance. The distance to and quality of the (veterinary) support are also decisive factors.

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