

Highlights from Impact Assessments ILRI and Livestock and Fish CRP

Ma. Lucila A. Lapar and Keith Child

Impact Assessment Focal Point Meeting

CGIAR Independent Science and Partnership Council – Standing Panel on Impact
Assessment (SPIA)

Marquette Hotel, Minneapolis, MN

25 July 2014



ILRI

International Livestock Research Institute

ILRI impact assessment studies

- ✓ Focus on ex post and ex ante impact assessment studies (mostly livestock technologies on animal health, feeds and feeding, genetics)
 - Thornton and Otero, ed. (1998). Compendium of ILRI research impact and adoption, ILRI Impact Assessment Series 1.
- ✓ Impacts of policy change – smallholder dairy marketing in Kenya (Kaitibie et al 2008)
- ✓ Application of experimental/quasi-experimental approaches in design of later IA studies
 - HPAI vaccination in Indonesia (2010)
 - Utilization of crop-residues in sweet potato-pig systems in Sichuan (2010)
 - Training in milk handling of informal milk traders in traditional dairy systems in Assam, NE India (2013)

Key highlights of recently completed studies (2012-2013)

- ✓ Ex post impact assessment of training in milk handling and certification by informal milk traders in traditional dairy systems in Assam, NE India.
 - prospective matched cohort study using a double difference design (before and after, with and without intervention), using 2009 surveys as baseline (KAP, milk quality assessment)
 - evaluation of economic impact and cost-benefit analysis (positive economic benefits from training, e.g., higher margins relative to non-exposed)
 - qualitative analysis of the process of influencing policy (outcome mapping)

Key highlights of recently completed studies (2012-2013)

- ✓ Ex post economic assessment of intervening against HPAI in Nigeria
 - applied a simple compartmental model to define endemic and burn-out scenarios for the risk of spread of HPAI in Nigeria
 - Used estimated risk parameters to stochastically simulate the trajectory of the disease, had no intervention been carried out.
 - On average, incremental benefit with intervention scenario amounted to US\$ 63.7 million with incremental net benefit of US\$27.2 million, and benefit cost ratio of 1.75.

Key highlights of recently completed studies (2012-2013)

- ✓ Ex post economic impact assessment of adoption of smut-resistant Napier grass in Kenya.
 - a reduction of 40 per cent of the yield due to smut would cost a farmer US\$108 in lost income from Napier grass sales. These losses can be offset by using *Kakamega I* rather than a susceptible variety.
 - production losses due to smut of about 0.2 tonnes per hectare per year for zero grazing systems translate to an annual loss to a smallholder farmer equivalent to 22 days of feed for a dairy animal or a loss in income on 220-330 liters of milk

New IA studies, approaches

- ✓ SPIA-funded study in Tanzania (Assessment of change in nutrition linked with changes in productivity and dairy income brought about by farmers' use of the dairy business hubs); experimental, DID + propensity score matching
- ✓ Integrating dairy goat and root crop production in Tanzania (impacts on productivity, livelihoods, environment of improved goat breeds with sweet potato and cassava); quasi-experimental, before and after comparison.
- ✓ Napier grass - impact assessment of Gene Bank technology
- ✓ ECF vaccine being planned (proposal development).

IA strategy

- ✓ L&F has defined its impact pathways based on Theory of Change framework (<http://livestock-fish.wikispaces.com/>).
- ✓ Develop and implement monitoring and evaluation framework adapted to above; well-defined indicators.
- ✓ Strong M&E → better IA studies
- ✓ In terms of strategic plans for IA moving forward, L&F funding is being considered for at least one IA per year (\$300k + co-funding from bilateral funds to be sought); details still work in progress on plan for implementation.

Key constraints to effective IA of center and CRP portfolio

- ✓ IA assessment studies are implemented at various levels, within CRPs and broadly across ILRI; coordinated approach to systematize application of methods and synthesis of learning:
 - Targeting theme in L&F – foresight, ex ante impact assessments; building capacity in application of TOA (Trade off Analysis, initially applied to ruminant model)
 - MEL (Monitoring, Evaluation and Learning) Unit – supports L&F specifically, but also has coordinating function for all IA initiatives within ILRI; limitations to fully support IA needs (capacity and resources).
 - IA initiatives for projects, focused on specific technologies and practices as interventions; diverse range of application of methods and scientific rigor.
- ✓ CRP funding for IA only for CRP work, non-fungible to support center IA initiatives that fall outside of CRP mandate, e.g., work prior to CRP era
- ✓ CRP work still evolving, may not yet be ripe for IA?

Challenges for IA in moving from center to CRPs

- ✓ Methods and approaches, better design, improved capacity for IA.
- ✓ How best to align center IA initiatives with CRP specific requirements; CRPs control the purse strings, hence can dictate the IA agenda.
- ✓ What are we learning from the IA studies that can inform future program design, in addition to validating the value of CGIAR work?