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"Reconcile land system changes
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A model to promote the adoption of improved feeds and forages innovations for sustainable livestock production in vietnam's northwest highlands

Hang Thi Dao[1], Mary Atieno[2], Michael Peters[3], Alan Duncan[4]

[1] *The Alliance of Bioversity International & CIAT, Trop. Forages Program, Vietnam*
[2] *The Alliance of Bioversity International & CIAT, Trop. Forages Program, Vietnam*
[3] *The Alliance of Bioversity International & CIAT, Trop. Forages Program, Kenya*
[4] *International Center for Livestock Research (ILRI), United Kingdom*

Abstract

The Northwest Highlands of Vietnam is a key region for livestock development, predominantly characterised by smallholder mixed crop-livestock systems and high livestock numbers. Despite past efforts to include improved feeds and forages innovation to respond to seasonal feed shortages, adoption remains low due to systemic challenges, including limited access to quality forages, inadequate knowledge on animal nutrition, and weak coordination among key stakeholders. Additionally, feed and forages development has often been overlooked in commune planning, leading to fragmented and short-lived interventions with unclear sustainability pathways.

To address these barriers, the CGIAR Sustainable Animal Productivity for Livelihoods, Nutrition, and Gender Inclusion (SAPLING) initiative piloted a model to promote the adoption of improved forages and feed innovations. The model emphasised inclusive stakeholder engagement, co-design and co-investment, hands-on capacity building, and integration of forage development into local planning processes through evidence-based dialogue.

Key achievements include strong capacity-building efforts particularly on cattle and pig nutrition. Two Training-of-Trainers (ToT) programmes equipped with 56 extension and veterinary staff with practical skills in feeding strategies (e.g. silage-making, urea-treated rice straw, feeding regimes), forage management. These ToTs enabled 38 Training-of-Farmers (ToF) sessions across nine communes—four in 2023 (90 participants, 36.7 % women) and 34 in 2024 (1,183 participants, 33.8 % women)—through co-investment from SAPLING and the Agricultural Service Center (ASC) of Mai Son district. Four demonstration farms were also established to evaluate the agronomic performance and suitability of eight improved forage varieties and serve as hubs for training and knowledge exchange. On-farm trials with best-performing varieties were conducted with 39 households who were trained in forage establishment and provided feedback on their perspectives and ratings on the performance and preferences of selected varieties. To further diversify forage options, five new legume species were introduced, evaluated, and registered for future dissemination. A study on the forage seed system was also undertaken to identify gaps and propose strategies for strengthening local seed supply chains.

Contact Address: Hang Thi Dao, The Alliance of Bioversity International & CIAT, Trop. Forages Program, 2QXM+87R Vien di truyen Nong nghiep, Pham Van Dong, Co Nhuu, Tu Liem, Hanoi, Vietnam, e-mail: H.Dao@cgiar.org

The SAPLING initiative demonstrated that sustainable livestock practices can be effectively promoted through technical training, local collaboration, and community involvement. The model successfully addressed feed shortages and improved productivity, offering a scalable approach for other regions across Vietnam.

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