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Citation for published version:

Allan, FK, Wong, JT, Ducrotoy, M, Borne, P-M & Le Guen, M-E 2024, *Learnings from Poulet du Faso*..

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

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Learnings from Poulet du Faso

Fiona Allan¹, Johanna Wong¹, Marie Ducrottoy², Pierre-Marie Borne² and Marie-Elodie Le Guen² June 2024

The Poulet du Faso initiative aimed to improve the genetics and control of infectious diseases of local chickens, by crossing local cockerels with exotic Sasso hens, and kick-starting large-scale production of vaccinated day-old-chicks. This brief describes key lessons learned during the project and factors for success to consider in the design and implementation of future projects.

Takeaway lessons

The Poulet du Faso initiative is a prime example of bridging the gap between large-scale and small-scale commercial farms, while also having a positive downstream impact on traditional farmers. Adoption of a **business approach, consideration of the whole value chain, and the transfer of skills, capacity and technology to local stakeholders ensured sustainability of the model**. This model has resulted in better productivity and higher meat production while maintaining local preferences. Farmers are the main beneficiaries of the value chain, receiving 70-80% of total profit generated.

This kind of initiative cannot be implemented overnight. It **requires time and technical expertise**, and the identification of a hardy breed capable of withstanding the local rearing conditions.

To implement the project, three key players were necessary (Figure 1):

- **Selection centre** to produce elite local breed cockerels (Coq du Faso), the fathers of the Poulet du Faso (PdF)
- **Multiplication centre** comprised of a Breeder farmer to cross the selected cockerels with Sasso hens (the mothers of the Poulet du Faso) and a hatchery to produce PdF day-old chicks (DoC) at scale
- **Distribution network** to ensure the day-old-chicks (DoC) reach small-scale producers

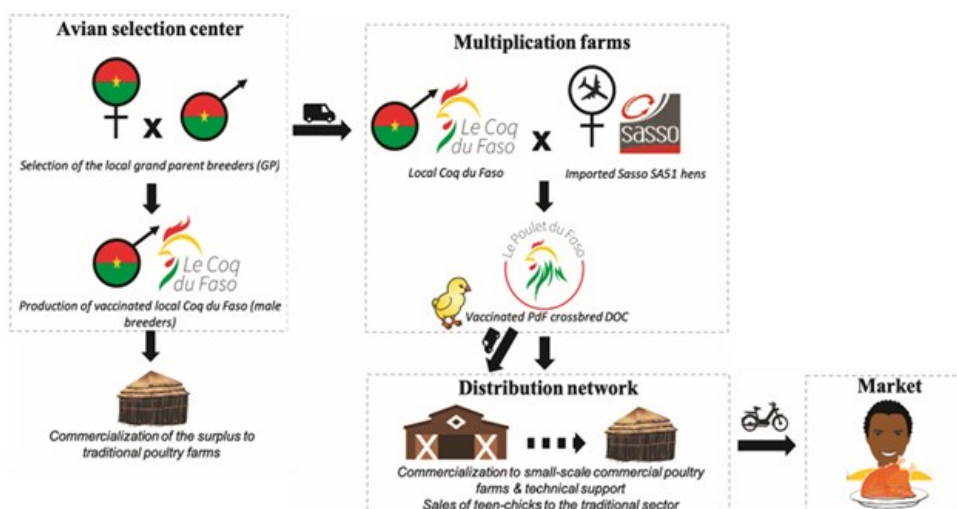


Figure 1. Key players of the Poulet du Faso project.

¹ SEBI-Livestock

² Ceva Santé Animale
 SEBI-Livestock

Limitations and Lessons Learned

Selection Centre

Production capacity: The selection centre managed selection of local birds to produce Coq du Faso, the key product for the production of Poulet du Faso, and to renew the pedigree flock. Capacities of the pedigree and production buildings were a limitation, requiring destocking and down-time between batches.

Performance variation: A large variation in performance was observed in the selection centre between individual hens for the first batch, but results standardised with subsequent selection rounds. Variation is more common for the earlier batches, as the team needed time to be properly trained and to become fully effective.

Multiplication Centre

Mortality and sanitary problems: Initially, cockerels and hens were reared separately, before being introduced in the production building when hens started laying. However, mortality and sanitary problems were observed, likely due to high stress levels from physical and physiological changes. Pecking was also a cause of higher mortality rates. Working with Fadima Farm, a privately-owned hatchery, allowed for introduction of hens and cockerels at an earlier age, whereby mortality returned to normal. This highlights the challenges of rearing birds in multi-age batches within semi-open buildings. Selecting hens of similar age is an important consideration to avoid pecking and to facilitate management and monitoring of performance.

Production standards and disease outbreak: Stagnation of the laying rate was observed in a breeding farm between the 3rd and 4th project generations, likely due to a coccidiosis outbreak that occurred around the production peak. Regaining optimal productivity after disease introduction is a great challenge. Success relies on maintaining very high levels of health and biosecurity to avoid disease outbreaks. External factors, such as power cuts or equipment breakdowns, take time to rectify and can also affect production.

Distribution & market

Technical competence: At the outset, there was a low level of technical competences amongst small-scale commercial and traditional farmers, who had poor access to veterinary and feed services and inputs. Development of a segmented value chain model (based on models successfully implemented at scale) reduced the level of risk for farmers. The model involved 'mother-units' rearing chicks from day-old to 42 days, and finishing units rearing from 42 days through to slaughter weight. Mother-units are operated by those farmers who can provide the higher management levels required during the most sensitive first 42 days of rearing; less intensive management is required for chicks over 42 days old. The system is particularly appealing to finisher farmers; high levels of care in the mother-units produces finisher chicks that are more robust and have improved growth and lower mortality. Trained technical-commercial agents helping farmers fulfil their goals are also important components of the value chain. During the project, a limited liability distribution company that employed the technical-commercial agents, was established. The company set up a data system to better forecast demand to enable hatcheries to produce in line with farmer demand. The company's financial success relies heavily on the complementary services it provides to farmers, including high quality feed, vaccination services, and animal health product sales.



Figure 2. Selected grandparent male of local breed produced by the Boussé Avian Selection Centre. Source: Ceva.

Farmer capacity: Access to selected breeds is not sufficient to ensure improved performance without adequate feeding and management. It is critical to build farmer capacity in poultry management. 'Mother-units' allow concentrated efforts during the first highly sensitive weeks of rearing, although many farmers preferred to be in charge of the full cycle in order to gain the full profit margin, therefore an adapted version of the mother-unit was commonly practiced, where farmers with small buildings would buy large batches and sell a proportion of the flock at one month of age to manage stocking densities. Developing a network of extension and technical-commercial agents also supports farmers technically, strengthening capacity, and provide them with quality inputs. Average mortality reduced from ~10% in peri-urban and mother-unit/finisher farms to 7% and 5% respectively, reflecting the positive impact of the technical-commercial agents' support.

Uneven distribution of profit: While the net profit per Poulet du Faso sold was estimated at 1.5 USD, it was not distributed equally among stakeholders in the value chain. Those investing the most (the selection centre and distribution company) generated the lowest margins; these stakeholders are the most vulnerable to risks, such as a biosecurity breach that could severely impact results and return on investment.

Steps to Success

The steps outlined here were critical to success during the project timeline. However, factors enabling long-term success, such as approaching the project with a business mindset, also need to be built in from the outset. These factors are outlined in a separate Sustainability brief.

1. Secure the feed supply: Plan for managing the main production costs (feed 65%, genetics 20%, sanitary control 5%) from the beginning by establishing privileged partnerships with strategic providers, as the markets and product quality for these expenditures often fluctuate. Finding quality feed, in sufficient quantities, is challenging, yet without adequate feed, the genetic potential cannot be fully expressed resulting in significant economic consequences all along the value chain. Sourcing feed providers and signing agreements with them to secure the supply is vital to success. This may also help you access preferential prices, enabling cost optimisation, and reducing vulnerability to product shortages and benefitting from better quality products and services. This project showed that it is possible to reach optimal rearing conditions in low-resource settings with the appropriate support.

2. Find cooperative business partners with complementary and shared objectives: It is critical to be able to depend on reliable partners, yet establishing successful partnerships is complex and time-consuming.

To mitigate risks, comprehensively explain the business plan and its objectives so partners understand, and a comprehensive contract should be formalised. Regular communication between partners allows problems to be resolved quickly. The success of a business relies on developing a whole chain of skills. Therefore, partners should be chosen according to their complementary expertise to provide adequate support to the different stakeholders of the value chain. This is particularly important for initiatives requiring high-level technical expertise, such as genetic and sanitary management. It is also critical to work with local partners, or those familiar with the local context, and identify stakeholders who can bring expertise to fill the remaining skills gaps. Despite the challenges and limitations faced during this project, the commitment of the team paid off in turning the activity into a successful business. The quality of work is widely recognised, which has provided new opportunities to continue developing the business.



Figure 3. Small scale commercial farming is providing essential income for female entrepreneurs in Burkina. Source: Ceva.

3. Adopt an integrated and consistent marketing approach: The Poulet du Faso product was completely demand-driven by local farmers. Based on the sector's market values, adopt a holistic approach to identify viable and sustainable solutions to the interconnected opportunities and challenges faced. Once needs are identified, it is necessary to 'imagine' and scope out appropriate solutions. It is important to find the best strategy to implement this solution without disturbing the existing market. By segmenting the market, targets and potential partners can be identified to develop a whole value chain around the primary product and ensure sustainability of production and distribution. Forecasting production and sales targets will ensure stakeholders will each profit sufficiently, and enable you to set attractive prices for customers without destabilising the market. It is important to invest in marketing to make the product known to potential customers, as well as valuing by-products, without impacting production of the primary product. Finally, using a marketing approach facilitates identification of strengths and weaknesses in the value chain, allowing for adaptation of the strategy accordingly.

4. Innovative processes: To improve poultry production while maintaining local preferences, the project chose a genetic strategy of crossing selected local cockerels ('Coq du Faso') with dual purpose exotic hens (SASSO SA51 breed). This cross had not been tried in traditional poultry farming improvement previously, and the purpose-built selection centre was the first of its kind in Africa. The resultant Poulet du Faso crossbreed benefitted from 1) faster growth, allowing more production cycles per year, whilst being well adapted to traditional systems, 2) more eggs produced by the exotic hens met farmer requirements for day-old chicks, and 3) maintenance of the preferred local phenotype and consumer taste. The hatchery stage was also highly innovative for Burkina Faso, producing crossbred day-old chicks to meet the needs of local markets.

5. Market your product appropriately: Unique brand tags were used to allow traceability throughout the value chain. Even though the logistics of delivering the tag with each chick was complicated and was added cost and labour for the farmers, this was an essential part of the success of the brand, building consumer confidence and helping to ensure long-term viability. Since the end of the project, tagging has ceased as farmers now recognise Poulet du Faso chicks on sight.

Read the full report

Le Poulet du Faso: A Success Story Improving Traditional Poultry Genetics and Health in Burkina Faso (2022). <https://www.ceva.com/commitments/le-poulet-du-faso-a-success-story-improving-traditional-poultry-genetics-and-health-in-burkina-faso/>



Contact us:
sebi@ed.ac.uk
sebi-livestock.org

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