



# EXOTIC PIGS CONTRACT FARMING

A solution to strengthen the pig sector in Rwanda

## MARKET CONSTRAINTS

Around 1.86 million rural households are involved in livestock farming in Rwanda and of these, 33% are rearing pigs. In addition, there are 38 large and 534 medium size commercial pig farms. While the pig sector has a high potential for growth due to the high demand for pork meat, domestically and from neighbouring countries, there are several constraints hampering its inclusive growth; these include:

- **Speculative and unorganised market for pigs:** The market of mature pigs is not organised to guarantee secured and profitable prices, especially for small pig farmers, who sell the pigs at a giveaway price to pig collectors and local aggregators, generally through door-to-door transactions or the weekly spot markets. The lack of remunerative price is explained by the presence of various brokers between the farmers and end-consumers, a lack of big off-takers to stabilise the price, the high

transportation costs, and the relatively low end-consumer prices for pork meat. The price per pig depends on the breed and size, but also the offer-demand balance. As farmers currently can't anticipate the selling price, they bear a significant risk when investing in the business.

- **Limited size farming and investment by small-scale farmers:** The lack of a secure market leads farmers, especially small-scale ones, to a general reluctance to invest in intensive pig farming. Instead, farmers tend to use keep a limited number of animals (i.e. one to five pigs) and use poor husbandry practices such as inappropriate pigpen, low use of animal drugs, use of less productive (local and cross) breed, and use of agriculture or food waste for feeding the pigs. Few small-scale farmers are using improved breed piglets and high-quality animal feed, therefore limiting their productivity.
- **Expensive and inefficient supply of feed:** The high cost of feed (RWF 400-500/kg, March 2022) also hinders the development of the pig sector. The high cost stems from the increasing cost of imported ingredients, which availability is often limited and unstable, as the feed industry has to compete against maize millers targeting human consumption, for which the demand is also rapidly growing. The demand for feed is also affected by the inconsistent quality of the feed available in the market, which is also a result of poor access to ingredients;
- **High cost of improved (exotic) breeds:** In March 2022, a two-month improved (exotic) piglet costs around RWF 35,000 to 40,000, while a pregnant quality cross-breed sows cost around RWF 300,000. In the absence of secured market and finance, this is out of reach for the majority of small-scale pig farmers who will prefer local and cross breeds sourced at the local market, with a slower growth rate and a poorer feed to pork conversion rate.
- **Biosafety and poor farm management:** Low mastering of measures to limit the spread of infectious diseases (as swine fever) can cause a high mortality rate, especially for farmers who keep exotic breeds. They experience a high mortality rate, up to 20% of the piglets reared.

## THE SOLUTION

IMSAR invested in establishing a contract farming model for improved (exotic breed) pigs – a solution with the potential to address major constraints hampering the growth of the sector.

### Contract farming with Vision Agribusiness Farm

IMSAR first partnered with Vision Agribusiness Farm (VAF), a piglets breeding centre, established in 2008 in Gicumbi District. VAF's core business is to sell exotic breed piglets to large farms. Under this intervention VAF intended to increase their market base by selling their piglets to smallholder farmers by establishing a contract farming model which entailed:

- **Access to piglets, inputs and extension:** VAF provided upfront 5 castrated piglets, improved feed, periodic veterinary services as well as biosecurity and farm management advice. The latter included the training of ten masons on quality pigpens design, who assisted farmers in building pig pens. The cost of the piglets and the feed provided on credit is then subtracted from the sales of the fattened pigs.
- **Access to market:** VAF would then buy back either live pigs (of at least 80kg) at an average price of 1500 RWF/kg, or pork meat at an average price of 2,300 RWF/kg to farmers that have complied with the pre-agreed rearing practices.

While this solution was effective in the first production cycle, the expansion of the business model was constrained by two issues: i) VAF's core business is pig breeding and therefore was limited to distribute the piglets that they bred themselves, which slowed down the pace of distribution of piglets to additional farmers interested in joining the scheme, and; ii) the model only entailed fattening piglets provided by VAF, limiting the possibilities for farmers to expand production on their own.

## Contract farming with Trebuco

Using learning from the first intervention with VAF, IMSAR then partnered with Trebuco, a company established in 2013 in Rubavu District. Trebuco, which undertakes three key functions: pig aggregation, pig slaughtering and pork meat export to Goma and Kinshasa. The contract farming model was strengthened in two ways:

- **Piglet's sourcing:** Trebuco would source piglets from multiple breeders, increasing the number of piglets available for the contract farming model;
- **Farm expansion:** Trebuco would provide one young sow and four castrated piglets; this allows farmers to fatten and breed their own pigs, reducing reliance on accessing additional piglets through the contract farming model only.

## THE RESULTS

KEY RESULTS UP TO MARCH 2022	VAF	TREBUCO
Masons trained	10 (2 women)	10 (2 women)
Farmers contracted	98 (48 women)	300 (171 women)
Pens built	74	135
Number of piglets distributed	490	1500
Number of fattened pigs sold	392	N/A
Income increase/farmer/cycle	RWF 143,000	N/A
Exports sales	WF 78.9m	N/A

*"The support in promoting contract farming have helped us in building a more profitable business model as now we reach further the value chain. It is also helping us realize the company vision of pioneering innovative business models in pig farming."*

Jean Claude Shirimpumu, MD, VAF Ltd

*"I was very thrilled that VAF give piglets on loans which tackled my financial burden and in addition provided rearing guidelines and recommendations from masons on good pens construction. I knew very little about pig rearing and at a point I hesitated to take on exotic breeds as they require a lot but my neighbour and VAF assured me that they will guide me and help in any way they can to safeguard the piglets. I grabbed the chance with both hands."*

Mukandayisenga Immacule 30, contracted Farmer

*We are very grateful for IMSAR and their support to try out this model, we have been able to establish closer relationship with farmers and increased our chance of getting more (meat) supply. With the progress made so far we believe that it will generate better (sales) results.*

Irakunda Eric, Operations Manager, TREBUCO Ltd.

## KEY LEARNING

- The contract farming model performs better when it is driven by an aggregator or processor.** While VAF's constraints in breeding higher volumes of piglets necessarily hampered the scale-up of the model, the implementation of the two interventions suggests that aggregators/processors like Trebuco are best placed to drive contract farming models. In particular, when pig processors' operations, like Trebuco's, are operating below full capacity due to the limited availability of pigs, they have high incentives to invest in the contract farming model. Nevertheless, formal partnerships between processors that and breeders provide advantages to both parties, and should be encouraged.
- The contract farming model would benefit from the involvement of feed suppliers and innovations in the animal feed sector.**

Access to affordable and high quality feed remains a key constraint to the growth of the pig sector. While both VAF and Trebuco provided some feed on credit as part of the contract farming model, the cost of covering the amount of feed necessary for the full fattening cycle remains prohibitive. Aggregators that intend to adopt the model should consider partnering with animal feed suppliers and/or agrodealers to allow farmers to access high quality feed for the entire fattening cycle on credit. An alternative option would include a financial institution, either to directly lend to the aggregator, or for the aggregator to provide a guarantee, so that farmers with a contract can access feed.

IMSAR has also paved the way for insect-based animal feed to be available at scale in Rwanda, a cost-effective solution that can make high quality feed more accessible to pig farmers. Additional investment in this novel sector is needed for insect-based animal feed to reach farmers at scale.
- The supply of exotic breeds is still sub-optimal.** The limited availability of exotic breeds remains a key challenge to many pig farmers, as the demand for exotic piglets outstrips current supply. As many breeding centers rely on traditional reproduction techniques, there is a need to innovate the sector, for instance through Artificial Insemination, and/or scale the capacity of existing breeders as well as assisting farmers with breeding vs fattening alone. Innovations in this space should also look at breeds resilient to changing climate conditions and diseases;
- As the sector expands, so should the availability of veterinary services and products;** The outbreak of swine flu in 2020/2021 killed thousands of pigs. This reinforced the need of improving access to veterinaries and animal health technicians with the knowledge and skills to advise and support farmers to deal with pig health issues, as well as adopting good rearing practices. As for the above learning on feed, while the contract farming models implemented with IMSAR support included access to animal health services, it would be preferable if the provision of these services was availed through a formal engagement between the aggregator and vets. This would both reduce the management required by the aggregator and encourage opportunities for vets to grow their reach. IMSAR had explored some innovations in this space, including a model for the Council of Vets to develop and offer training programmes to vets, as well as partnerships between vets and inputs suppliers.
- The contract farming model contributes to women's economic empowerment.** The model proved being particularly effective for women pig farmers as it largely addresses women's lack of access to finance, by providing most inputs upfront on credit (piglets and some feed), and poor access to services, through the provision of animal health specialists as well as training provided by the masons. In addition, according to VAF's managing director and operations manager:

  - It was mostly women who expressed interest in joining the trainings offered;
  - Women pig fatteners produced healthier pigs than their male counterparts;
  - Women farmers showed better pay back rates and overall greater ease of doing business.
- While the interventions have been relatively short, the proof of concept is highly promising.** Indeed, farmers have started expanding from fattening only to breeding on their own to increase their production, while reducing the costs of acquiring piglets from breeders. Several development partners in Rwanda, as well as in DRC, are exploring the potential to further facilitate the adoption of the pig contract farming model, an encouraging sign that the model will be scaled.

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