

THE SARAMI PROJECT - AN APPROACH TO BEEF SECTOR DEVELOPMENT

SARAMI PROJECT

The Enterprise Challenge Fund (ECF) supported Sarami Project has been a very successful private sector intervention that has established a sustainable business model that benefits smallholder cattle producers on the island of Espiritu Santo in Vanuatu.

The AusAID funded ECF provided a \$A1.375 million grant to Sarami to fund 30% of the project's overall funding.

The ECF funds made available to the project allowed the development of infrastructure and the establishment of sound business practices addressing:

- In field purchasing of steers and heifers from smallholders;
- Cattle transport from smallholder properties to Sarami Estate;
- Establishment and maintenance of improved pastures;
- Production of silage from forage sorghum;
- Use of silage as a cattle feed component; and
- On farm integration and management of cattle for finishing.

Funding provided by ECF included:

- Assistance with purchase of improved infrastructure (e.g. transport vehicles, cattle handling yards, harvester, feed mixer), and
- Contribution to costs associated with the establishment of the sound business practices.



SMALLHOLDER CATTLE



TRANSPORT VEHICLE



SARAMI ESTATE

CATTLE PURCHASES FROM SMALLHOLDERS TO SUPPLEMENT THE SARAMI HERD

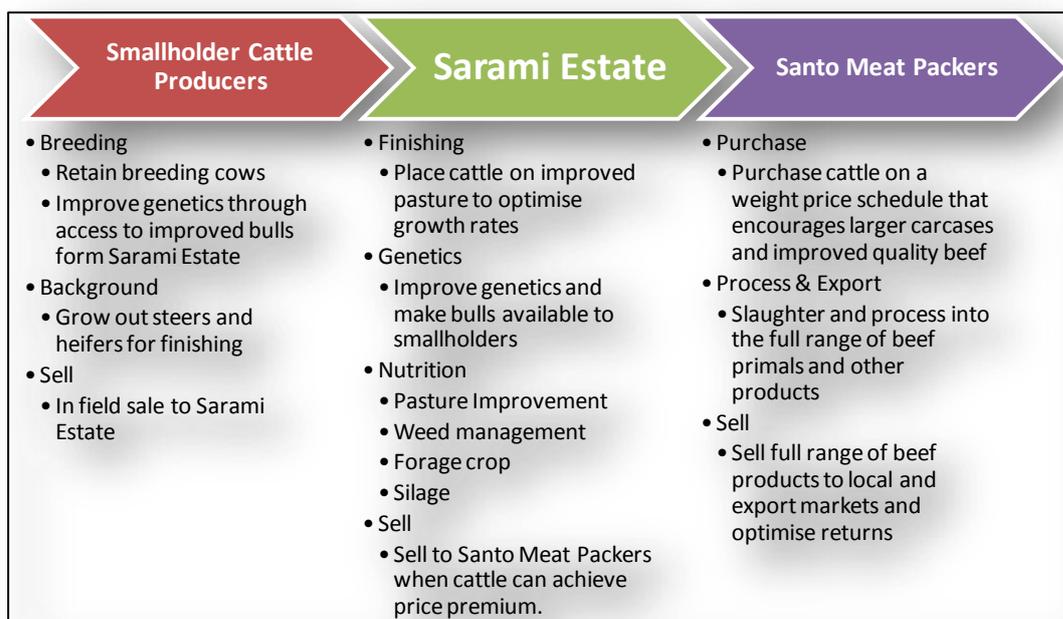
During the period 2010 to end 2012 Sarami Estate purchased 2013 cattle from 241 cattle producers - of these 128 could be considered small holders as they supplied less than 25 cattle over the 3 year period.

These cattle were purchased at a total cost of VTU57.5 (\$A0.61) million during 558 sales events from 21 locations across Santo Espiritu at an overall average price of VTU28,650 (\$A305) per head, considerably more than could be obtained from sales to other buyers!!!

The total sales value of cattle sold to the local abattoir between May 2010 and December 2012 was approximately VTU100 (\$A1.1) million. This indicates that the added value arising from the Sarami project over this period was in the region of VTU42.5 (\$A0.45) million.

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SARAMI PROJECT BUSINESS PROCESS



SARAMI PROJECT INVESTMENT AND OUTCOMES

INVESTMENT	ACTUAL OUTCOMES
Cattle genetics at both smallholder and Sarami Estate levels	Demonstration that current smallholder cattle genetics with good nutrition (eg provided by Sarami) are capable of producing carcass weights in excess of 300kg. Improved commercial bulls have been provided to smallholders under an incentive program. Age of the bulls at time of delivery are being reduced so that they are easier for smallholder farmers to manage. Commenced establishment of a stud Brahman herd using embryo transfer technology and Brahman genetics sourced from Australia to further improve the genetic base of the Sarami & Vanuatu cattle herd.
Cattle purchase & transport infrastructure.	The in-field purchasing logistics put in place under the Sarami project are highly preferred by smallholders due to: <ul style="list-style-type: none"> • Improved returns for small cattle • Reduced need to attempt to grow out cattle to abattoir target weights • In field negotiation and cash payments • No need to deal with transport logistics or costs • Benefits that flow from confidence in management, technical and commercial advice provided to smallholders from the Sarami buyer who is also producing cattle • Opportunity to participate in the commercial bull incentive program
Cattle handling, management and induction	Improved cattle yards have been constructed that work well with cattle that are unfamiliar with yards. The yards have been fitted with weigh and crush pens to assist with smallholder cattle induction processes and to allow drafting to ensure that the cattle liveweights are sufficient to achieve abattoir's requirements and standards and achieve the price premium available prior to delivery.
Pasture improvement	Approximately 600 hectares of improved pasture has been established using heavy tractor machinery for ploughing and paddock preparation. Most of the improved pasture consists of Signal grass inter-grown with Hetero legume. Trials have also been conducted with Hamil and Mulato grasses established, as well as Centro (Centrosema molle) as an alternative legume. All three provide good options for future pasture improvements at Sarami. Stocking rates and periods on the improved pasture need to be actively managed to be sustainable. Sound weed control practices are highly important in maintaining improved pasture. After weeds are brought under control, Sarami conducts manual weeding practices as a maintenance program.
Forage crop and silage production	Forage sorghum has been grown and utilized for the production of silage. Silage was produced using a mechanical harvester and treating the silage with a high quality enzyme additive to enhance fermentation. A silage heap of 7000 tonnes has been produced. Cattle feeding using silage as the main component (supplemented with copra meal and rock salt and mixed in a feed mixer) has been successfully demonstrated. Trials were conducted using root crops as a supplement in the feed formula. This was discontinued due to the logistics of accumulating sufficient root crop when required.

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BENEFITS TO SMALLHOLDER SUPPLIERS

Analysis of the business model also shows that

- Smallholders that sell steers to Sarami at the preferred liveweight around 300kg stand to earn an additional VTU9,400 - VTU12,400 (\$A100 - \$A132) per head because of the higher price and free transport provided by Sarami (Distant farmers benefit more because the higher transport savings).
- For the same reasons smallholders that sell heifers to Sarami at the preferred liveweight around 300kg stand to benefit by in the region of VTU14,750 - VTU17,750 (\$A155 - \$A190) per head.
- Steers that Sarami grow out from 300kg to 600kg liveweight provide a contribution to farm overhead and fixed costs of VTU18,725 (\$A200) per head (this is after deducting for all direct farm costs, including transport from smallholder and to the abattoir, and the provision of free bulls to smallholders incentive program).
- Heifers that Sarami grow out from 250kg to 550kg liveweight provide a contribution to farm overhead and all other costs of VTU12,225 (\$A130) per head (Note heifers finished weights are consistently some 50kg less than steer finished weights).

The above analysis shows that the Sarami project is a sustainable business model whereby both smallholders and Sarami benefit.

SUPPLEMENTARY BENEFITS

An important indirect benefit of the Sarami model is the relationship that is built between the Sarami cattle buyer and the smallholder cattle producers. Information provided by the Sarami buyer is highly respected by smallholders because the buyer is involved in the cattle business and not simply searching out cattle for slaughter. The provision of technical, management and commercial advice from the Sarami buyer to smallholders fulfills a need that cannot be provided by agricultural extension officers who are not engaged in the cattle business.

A further supplementary benefit of the Sarami project has been the delivery of heifers to the Solomon Islands. In 2011 the sale of four hundred heifers from Sarami was negotiated with the Government of the Solomon Islands and due to the success of this first delivery the sale of a further 400 artificially inseminated heifers and 20 commercial European bred bulls is under negotiation. These cattle will provide sound, well adapted genetics for the production of heavyweight carcasses in a Pacific environment.

BUSINESS DRIVERS & RISK

The business driver that makes the Sarami project successful is the premium price schedule offered by the abattoir (Santo Meat Packers), located at Luganville, that encourages the production of heavy carcass weight steers and heifers. These price premiums allow Sarami to purchase steers and heifers from smallholders at a higher price and then to add value to these animals by growing them out to heavy carcass weights to take advantage of the abattoir's premium.

The gradual evolution of the abattoir price schedule over the period has been influenced by discussions between Sarami and the abattoir.

The economic growth that results from this strategy is significant and dependent on a private sector driven approach that responds to a cattle market that pays a premium price for improved quality

cattle and which is structured into breeding/backgrounding (by smallholders) and finishing operations (by Sarami).

Major risks associated with the sustainability of this business is a restructuring of the price schedule that reduces the premium available for heavyweight steers and heifers due to changes in market conditions. The secondary risks are normal farming risks associated with poor rainfall (mitigated by the retention of a silage feed stock) and animal disease (not of significant concern in Vanuatu).

Now that this innovative value chain has been soundly established on a commercial basis it would be expected to continue as a sustainable business operation and make further contribution to economic activity in Vanuatu, especially in Espiritu Santo, over future years.

PROJECT GROWTH POTENTIAL

The Sarami project demonstrated that it can encourage smallholders to restructure their cattle herds to increase the number of cows in the herd; to reduce the numbers of steers and surplus heifers through selling younger lightweight cattle to Sarami; and, to improve weaning rates.

It is considered possible for smallholder farmers in the short to medium term to increase the cow percentage in the herd to say 70% and improving weaning rates to say 60%. This strategy provides the following outcomes for smallholders:

- Those with an average of 6 cattle that produce an average of 2 more animals per year can increase their incomes by VTU54,000 (\$A574) per year.
- Those with an average of 24 cattle that produce an average of 5 more animals per year can increase their incomes by VTU70,000 (\$A745) per year, and
- Smallholders with an average of 60 cattle that produce an average of 11 more animals per year can increase their incomes by VTU142,000 (\$A1,510) per year.

These significant income benefits do not occur if smallholder cattle are sold direct to the abattoir at lower liveweights rather than to Sarami for finishing.

The Sarami model allows smallholders to both improve income and increase herd productivity and thereby generate a significant increase in the contribution of the beef sector to the overall Vanuatu economy.



SILAGE

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OPPORTUNITIES FOR REPLICATION OF SARAMI MODEL

REPLICATION IN VANUATU

While it would be desirable to have a competitor on Espiritu Santo to provide competition for lightweight cattle purchased by Sarami it is considered that the cattle numbers available are currently insufficient for two viable operations. It is desirable for Sarami to work with smallholders over the short to medium term (up to 10 years) to establish a sound base for this alternative approach to beef sector development.

However the same market and production conditions exist throughout Vanuatu and if a suitable private sector cattle ranch or estate is interested in adopting the model then it is desirable that this alternative approach be encouraged on the Island of Efate.

REPLICATION IN FIJI

Due to the different market conditions for slaughter cattle in Fiji, along with the absence of formal price premiums for quality cattle, there is limited opportunity for direct replication of the Sarami project. To establish a sustainable business model in Fiji there is a need to work in both the cattle raising and the meat processing/wholesaling space.

Fiji has a beef supply deficiency and although there is a market for quality beef in tourism and for more discerning local customers there is no structure in place for identification of indigenously produced improved quality beef. This means that customers sourcing quality beef must rely on the supplier's reputation. This market mechanism has inherent problems as purchasing managers (particularly in the hotel and resort sector) have a high level of distrust of single supplier arrangements. Without some control/accreditation system that is embedded in the value chain it is too easy for meat traders to substitute inferior product.

The Fijian beef production and processing sectors would benefit from a beef quality grading system. This need not be complex but similar to that which the Sarami project depends on in Vanuatu; i.e. - a simple system that relates carcass weight (say over 250kgCW) to animal age (say less than 6 permanent incisors) with perhaps some low impact exclusions for poor fat cover, dark meat and yellow fat that is able to be applied and monitored through to the customer. This mechanism would provide the basis for price premiums for young heavyweight carcasses as exist in Vanuatu.



SMALLHOLDER FARMERS



PREPARING GROUND FOR IMPROVED PASTURE



IMPROVED PASTURE

POSSIBLE INTERVENTIONS

Possible interventions in large cattle ranches that could result in similar positive outcomes to those of the Sarami project include:

- Improved commercial bulls provided to smallholders under a delivery incentive program.
- Further development of stud herds with possible sourcing of genetic material from Sarami.
- Implement in-field purchasing logistics preferred by smallholders through:
 - Improved returns for small cattle
 - In field negotiation and cash payment
 - Use of transport contractors to reduce smallholder costs
 - Opportunity to participate in a commercial bull incentive program
 - Improved confidence in the management, technical and commercial advice provided.
- Cattle handling yards upgrade.
- Implementation of pasture improvement program with advice and support from Sarami.
- Possible use of farm machinery contractors for land preparation and pasture improvement
- Implementation of forage crop and silage production program with advice and support from Sarami
- Development and trial of cattle feeding rations utilizing crop sector byproducts in conjunction with silage.