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Policy Brief
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Meat Safety Matters

Can public-private partnerships improve abattoirs in Ethiopia?

Meat consumption in Ethiopia is expected to increase 4.5 fold between 2013 and 2028, to 4.6 million tonnes per year. This trend poses a susbstantial public health challenge, not least due to the consumption of raw meat.

Introduction

The consumption of meat is central to Ethiopia's history and culture. Nationally, the demand for meat is projected to grow from about 1 million tons in 2013 to about 4.6 million tons in 2028. This trend is mainly attributed to population growth and rising per-capita income.[i] In general, as incomes rise, so does the consumption of animal products such as meat, eggs and milk.

From a public health perspective, Ethiopia also has special challenges in terms of ensuring that meat is safe to eat because of the common practice of consuming raw meat. Popular dishes included raw minced beef or *kitfo,* and larger pieces of beef or *kurt*. This practice increases the risks of consumers contracting certain "zoonotic" diseases, because cooking meat kills various types of parasites and bacteria. Zoonotic diseases include brucellosis, tuberculosis, salmonellosis and tapeworm infestation – there is a long list of diseases that can pass from animals to people via meat. Globally, 75% of the new diseases that have affected humans over the last 10 years have been caused by pathogens of animal origin.

One of the most important approaches for improving the safe supply of meat to consumers is to check the health of animals before slaughter, and also check the quality and safety of meat before it reaches butchers and retailers. For this reason, the effectiveness and performance of abattoirs is central to public health.

This Policy Brief summarizes the current challenges facing abattoirs in Ethiopia, and discusses how **public-private partnerships** can be used to build new and better abattoirs, and improve abattoir management and performance. The brief focuses on municipal abattoirs in Ethiopia's main towns and cities, and draws on a recent detailed study for the Ministry of Livestock and Fisheries (MoLF).[ii]

Ethiopia's municipal abattoirs – current challenges

In Ethiopia there are currently about 296 municipal abattoirs, and most of them were built over forty years ago through Second Livestock Development Project. Apart from some newer abattoirs in Adama, Jima, Hawassa and other locations, most other abattoirs are in a state of disrepair, and their physical, sanitary and operational condition are very poor. About 94% of these older abattoirs are located in the inner city or town, where expansion and safe waste disposal are no longer possible.[iii] However, with meat consumption set to increase, the risks of disease, and the need to ensure proper waste disposal, there is now an urgent need to relocate many abattoirs away from residential zones. The construction of new abattoirs is needed, in non-residential locations, and with adherence to modern structural requirements, hygiene management practices and environmental compliance.

Related to the Ethiopia government's Growth and Transformation Plan, 320 new abattoirs are needed. This will cost approximately ETB 3.8 billion, equivalent to over US$162 million.

Recently, MoLF and the Ministry of Urban Development and Housing (MoUDH) developed and approved four standard designs for abattoirs. Grades A and B are for the main urban centers and Grades C and D for smaller towns. Standard operating procedures (SOPs) for abattoirs are also developed, and 44 priority urban centres have been identified for abattoir development. The MoLF has also planned to construct 320 new abattoirs under the government's current Growth and Transformation Plan.[iv] However, the cost of construction is a major challenge, and no new abattoirs have been constructed - the construction of 320 abattoirs requires 3.8 Billion ETB. Most municipalities are not in a position to finance these projects. In general, municipal abattoirs in Ethiopia are suffering from limited public sector financial capital for construction or upgrading, and limited public sector technical and business capacity.

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Public-private partnerships (PPPs) – can they work?

The World Bank defines a PPP as, *"A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance"*.

Although municipalities have a responsibility for ensuring that meat is safe to eat, this does not mean that they must physically provide slaughter services. Instead, abattoirs can be operated by a third party, such as a private sector partner. With this arrangement, the municipal authorities and MoLF provides the overall regulatory and quality control of the facility, but the private partner handles the day-to-day management and operation. This type of partnership can also be extended to include abattoir construction, whereby the private partner builds, operates and maintains an abattoir, delivers a slaughter service of high standard, and charge users for the services. The government ensures that the construction and services are performed as agreed, through regular monitoring and enforcement as necessary. Within this arrangement, good hygiene practices and environmental protection can be emphasized.

Many private partners can be considered, but butchers are the major clients of abattoirs and so could make ideal private partners for abattoir PPP arrangements. Butchers' groups have expressed interest in managing abattoirs and indeed, this has already been partly achieved in Jima and Harar.

In terms of the construction of new abattoirs, the following figures are drawn from the recent MoLF/AKLPD assessment:

- A typical investment for a new category B abattoir is estimated at ETB 12 million (US$ 0.5 million).
- As 70% of the cost could be raised through loans from commercial banks, the equity investment would be less than ETB 4 million (US$171,000)
- If a city has around 30 to 50 butchers (on average), the investment requirement per butcher ranges from ETB 80,000 to 150,000 (US$ 3,417 to 6,407)
- Category C abattoirs require a capital investment of around ETB 8 Million ETB, with investment by individual butchers ranging from ETB 50,000 to 100,000 (US$ 2,135 to 4,272), depending on the number of butchers willing to invest.

Consultations with butchers during the MoLF/AKLDP study indicated that these levels of investment by butchers were feasible. If so, butchers could become good private partners for municipal abattoirs. Specific PPP options for constructing new abattoirs, and managing existing abattoirs, are summarized below.

PPP Options

New abattoirs –significant investment is needed to build new abattoirs in non-residential areas, and a "Build Own and Operate" (BOO) PPP arrangement is the preferred option. The contract period often ranges from 20 to 30 years. The arrangement is suitable for butchers associations, not least because it requires mobilizing resources. However, it might also be used by youth associations if the finance can be raised.

Operational abattoirs – these are pre-existing abattoirs in relatively good condition, and are not situated in residential areas. Here, an "Operate, Maintain and Own" (OMO) PPP arrangement can be used. Whereas leasing the facility would provide only the rental income to the Government, an OMO also involves royalty payments from the private partner to Government. An OMO can be a good option for youth groups because the up-front capital investment requirement is very limited, Butchers can also be considered, as they already have the knowledge and skill to manage the abattoirs. A third option is to sell the facility to a private investor. An OMO would provide a consistent and incremental revenue stream to the Government, whereas the sale of an abattoir would deliver a single large payment to Government.

Value for money

An analysis of value for money is provided in the Table overleaf, and clearly illustrates how the BOO and OMO options for category B and C abattoirs are financially viable for both the private partner and for municipalities. As financial performance varies directly with capacity, it is presumed that viability would also hold for category A facilities. Overall, the value for money of PPPs for municipal abattoirs is demonstrated by:

- Replacement of the current subsidies drawn from municipal resources, to support abattoir operation by royalty payments from the private partner to the municipalities.
- PPP leading to high standards of meat quality and safety, due to far better buildings and equipment, and staff training, and adherence to new working practices developed by the MoLF and MUDH. Municipalities cannot afford to improve existing abattoirs, or construct new facilities. High abattoir standards of welfare and hygiene under PPPs will be promoted, with inspection and monitoring by an independent body (local animal health staff); at present, independent monitoring is not assured.

Value for money analysis

Category of abattoir	PPP option	Revenue share to Government	Project IRR	Equity IRR	NPV @ 14% (million ETB)	Payback period	PV to Government (million ETB)
B	BOO	48%	18.3%	20.4%	5.69	5 years, 10 months	127.24
	OMO	60%	18.6%	20.3%	2.11	6 years, 2 months	159.05
C	BOO	23%	18.3%	20.3%	2.41	5 years, 10 months	15.24
	OMO	44%	18.9%	20.7%	0.93	6 years, 1 month	29.16

IRR – internal rate of return; NPV – net present value; PV – present value (of the stream of royalty payments using a discount rate of 14%).

- Significant reduction in environmental pollution as PPP Concession Agreements will specify full compliance with existing and future environmental protection legislation: in most of the existing facilities the disposal of waste is non-compliant (e.g. on open fields or into rivers), and environmental compliance officers find it impossible to act against municipal authorities. New abattoirs will be sited away from residential areas (94% of abattoirs are currently in inappropriate sites*).
- Efficient use of by-products will be encouraged under PPPs e.g. by stimulating the development of a rendering industry; this will enhance revenues and therefore, royalty payments.

Overall, PPPs are a technically sound and financially viable alternative for addressing the current crisis in abattoirs, protecting consumers from zoonoses and food safety hazards, as well as protecting the environment.

The way forward: How can Government promote PPPs for municipal abattoirs?

The Ministry of Finance and Economic Cooperation (MoFEC) has recently developed a PPP Proclamation and a PPP Policy, and both will enable rapid progress with PPPs in the livestock sub-sector. Establishing a PPP team in the MoLF is now needed, to work closely with the MoFEC and implement the new PPP policy and proclamation.

The Federal Government could facilitate the introduction of PPPs by providing a fronting-role, and partly contributing capital for new abattoirs. Funding from the International Finance Corporation (a division of World Bank) may also be explored.

At the level of abattoir-specific actions,

- The Proclamation covering the illegal slaughter of animals should be strictly implemented, so that more animals are handled by abattoirs
- General Private Sector licenses for abattoirs should be regulated specifically to protect the interests of PPP operated abattoirs.
- A policy and budget for training of youth groups and butchers for abattoir technology and business must be in place before entering into dialogue with them for PPP-based abattoirs.

Disclaimer. The views expressed in this Policy Brief are those of the AKLDP project and do not necessarily reflect the views of USAID or the United States Government.

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Endnotes

[i] Shapiro, B.I., Gebru, G., Desta, S., Negassa, A., Nigussie, K., Aboset, G., and Mechal, H. (2014). *Ethiopia Livestock Sector Analysis*. ILRI Project Draft Report. Nairobi, Kenya. International Livestock Research Institute (ILRI)

[ii] Agriculture Knowledge, Learning, Documentation and Policy Project (2017). *Study to Assess the Feasibility of Public-Private Partnerships for Selected Livestock Facilities/Service Areas in Ethiopia.* USAID/Ethiopia - AKLDP Project, Addis Ababa Ethiopia. Available from http://www.agri-learning-ethiopia.org/wp-content/uploads/2015/10/PPP-Report-final.pdf [07 September 2017]

[iii] CNFA Agricultural Growth Program- Livestock Market Development (2016): *Standardization of Domestic Abattoirs in Ethiopia*- AGP-LMD Consultancy Report. Addis Ababa, Ethiopia

[iv] Ministry of Livestock and Fisheries (2016). *The Second Growth and Transformation Plan for the Livestock Sector (2016-2020)*. Ministry of Livestock and Fisheries, Addis Ababa, Ethiopia.