

### **GEORGIA**

### **RURAL SMES DEVELOPMENT PROJECT**

Contract no. 81067022



# TECHNICAL NOTE: TECHNOLOGY LEASING OPTIONS FOR RURAL SMEs IN GEORGIA

Prepared by:

The Rural SMEs Development Project

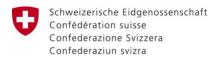
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### 1 INTRODUCTION

### 1.1 ABOUT THE RSMEDP

The Rural SMEs Development Project (RSMEDP) seeks to increase rural income and employment through sustained access to finance for rural SMEs through both supply and demand-side interventions. This requires enhancing the form and relevance of finance products on offer whilst strengthening the financial literacy and business capacities of rural SMEs through improved access to quality Business Support Services (BSS) from national agencies, business associations and consultancies. The first phase is from October 2021 until December 2024, with potentially further phases thereafter.

### 1.2 TECHNICAL NOTE

Between April and June 2022, PMO Business Consulting prepared a report: *identifying opportunities for the commercialisation of scale-appropriate technologies for rural SMEs in the agriculture and manufacturing sectors* under the RSMEDP project funded by Swiss Development Cooperation (SDC). This technical note draws upon the PMO report and RSMED's research and engagement with stakeholders on the topic of machinery and leasing options to summarise findings.



### 2 CONTEXT

### 2.1 TECHNOLOGY

Technology is often a key factor in enabling improved business performance and growth for rural enterprises. Utilising scale-appropriate machinery/ technology in production processes can increase efficiency, enable product diversification, compliance with regulations, and increase quality and quantity of production. Up to 40% of rural based SMEs in the agriculture and manufacturing sectors have not purchased some new or used fixed assets during past 3-4 years.<sup>1</sup>

This is due to SMEs experiencing challenges when acquiring new machinery/ technology for their businesses. These include knowing what the right machine/ technology for the business is, obtaining appropriate finance, installing and operating the machinery/ technology, and knowing where to purchase the machinery/ technology. Also, despite aspirations for expansion, investment strategies are often supply driven with few rural SMEs having clear plans about where and how to create new or larger sales markets to absorb new operational capacity.

### 2.2 LEASING

Leasing is a particularly effective way of financing investments for rural SMEs that are assetstrapped due to the set-up of the financial product. More lenient regulations enable leasing companies to finance MSMEs that banks are not able to. Nonetheless, the RSMEDP has found that many RSMEs lack information about leasing products<sup>2</sup> and those that have heard about leasing opportunities generally attain the information from their bank or machinery suppliers in relation to acquiring an asset. The outreach of leasing companies remains restricted as the few outlets are concentrated in urban areas and products are usually target at medium and large companies in specific sectors.

Leasing has gained importance as financial instrument among certain sectors and SMEs, but widespread uptake remains slow and concentrated on medium sized companies in particular sectors. Leasing companies offer financing directly or through machinery providers to businesses that need to purchase the

machinery. Despite advantages in choosing leasing products – such as a lower initial capital investment, lower monthly payments, and a fast turnaround time to conclude the financing arrangements – leasing services continue to grow slowly in Georgia.

Leasing is not regulated by the *National Bank of Georgia* (NBG) and the cost of capital is higher which reduces the profitability and feasibility of investments as well as a lack of awareness of leasing products. The high operational costs make their competitive environment difficult as they must compete not only against other leasing companies but against banks which have better financing structures and more cost-efficient operations. One implication of this is that if rural SMEs have sufficient creditworthiness, they tend to access funds through banks to acquire machinery – and rural SMEs with less creditworthiness can be drawn towards leasing products.



Leasing companies provide different products such as traditional leasing, leaseback, or operating leases. According to the latest BEEPS survey, leasing as a finance option grew by 3 points but remains low at only 8.5% of interviewed SMEs. In comparison, around 80% of companies use leasing as a financial instrument financing about one third

<sup>&</sup>lt;sup>1</sup> SME Survey, ACT, 2021.

<sup>&</sup>lt;sup>2</sup> RSMEDP SME survey analyses: Out of total number of respondents that have not used leasing (84%), 40% of them were not able to indicate reasons of not using the service.

of investments in more developed economies.<sup>3</sup> The slow development of the leasing sector in Georgia is partly caused by high interest rates which reduce the profitability or even feasibility of investments as well as a lack of awareness of leasing products.

High interest rates are caused by the regulatory framework governing the leasing industry.

Taxation issues such as VAT alongside the lack of acknowledgement of leasing institutions as financial sector providers increase operational and funding costs of leasing companies. The market is dominated by spin off companies of the two major banks and the main sectors leasing is targeting are construction and manufacturing and cars, construction and road construction equipment make up 49% of the assets. Most leasing in Georgia remains focused on vehicles and heavy machinery, the majority of which is imported.

#### 2.3 KEY PLAYERS

### **Leasing Companies**

The main players in the leasing market are the following companies: TBC leasing, Georgian Leasing Company, Crystal, and BB leasing.

**TBC Leasing** operates for more than 20 years in Georgia and has a 70% share of the market. The company finances construction, agribusiness, manufacturing, and healthcare sectors. TBC Leasing only has branches in Tbilisi, Batumi, and Rustavi which is a disadvantage in terms of access to wider target group. Therefore, main communication channel to reach rural customers is social media which is least effective for this target segment due to low adoption rate of digital technologies. TBC Leasing has three large sectors (construction, agriculture, and manufacturing) in portfolio, where small destinations are broken down. Due to seasonality, they try to offer products equally to all segments. Also, they actively participate on state programs such as Enterprise Georgia.

**Georgian Leasing Company** was established in Georgia and has been operating since 2001. It is a universal company that is a subsidiary of the Bank of Georgia. Accordingly, almost all products in its portfolio are founded, however, other industries that are more developed prevail: construction, infrastructure, and agribusiness. The target group of the customers is small and medium-sized

businesses, and the company works to increase the interest from SMEs. In the portfolio of the company predominates small and medium business leasing by quantity, while the big companies have a large share in total. Georgian Leasing Company cooperates with all international brands that have a presence in Georgia (both in construction and agribusiness). Moreover, the company prepares quarterly reports to review market trends and plans marketing campaigns to attract new customers.

Crystal is a small leasing company, which target customers are small and medium-sized businesses. They have 50 branches in Georgia, where the customers only can get the information about the leasing products and the main offices are in Tbilisi. The limit of the leasing product is GEL 100,000. Therefore, small companies are the main customers of Crystal Leasing. Moreover, the company is trying to diversify the sectors in which it issues leasing products and suggests that it will soon offer its products to the medical sector as well.

BB leasing is a subsidiary company of the Basis Bank and operates in the market since 2017. The target segment is medium and high-income companies and individuals. They offer clients auto and movable assets leasing, and the minimum amount of the contract is GEL 10,000. To attract customers, they mainly plan marketing campaigns in the regions because they do not have branches there. it is noticeable, that the share of the agribusiness in the company's portfolio is a 17%. Moreover, the company has a subsidiary insurance company, that provides technical assistance for the clients.

### Sectoral Associations

Sectoral associations generally focus on high level activities lacking the information about specific needs of businesses in their sector. Surveyed sector associations mainly stated that they do not have information on the machinery needs of rural SMEs.

Dairy Products Producers Association - The Association for the Promotion and Development of the Georgian Dairy Sector was established in 2006 with the support of OPTO International. The aim of the organisation is to promote the development of the dairy sector. Protect and lobby the interests of the sector. Develop and introduce modern standards for dairy and dairy

Development, European Journal of Multidisciplinary Studies, September-December 2017 Volume 2, Issue 7

<sup>&</sup>lt;sup>3</sup> Orjonikidze N. and Liparteliani G.N., 2017, Review of Georgian Leasing Market and Perspectives for

products. Popularization of dairy and dairy products. Increase the quantity and quality of milk produced in Georgia.

Georgian Farmers Association - GFA's mission is to strengthen the agricultural sector in Georgia and improve quality of life of Georgian farmers through bringing the farmers together and promoting their visibility. vision is to increase agricultural productivity in Georgia, strengthen the competitiveness of farmers and ensure that their contribution to the economic development of Georgia is recognized.

**Infrastructure Construction Companies** 

Association/ICCA - Infrastructure Construction Companies Association/ICCA was founded in 2015 by construction companies operating on the construction market. ICCA's mission is to protect the interests of its member companies, to facilitate the increase in their competitiveness, to introduce modern technologies and state-of-art standards, to support market recovery and long-term development of the construction sector.

Georgian Wine Association - The growing strength and diversity of the Georgian wine industry brought the producers together in 2010 to establish the Georgian Wine Association (GWA) as a forum for mutual support, development and the exchange of ideas. GWA is the voice of the Georgian wine sector on national and international markets, working to increase public awareness and appreciation of Georgian wine and to promote and market Georgian wine internationally.

### **State Agencies**

Over the past few years, various development agencies established in Georgia. Their main objective is to create sustainable environment and to help business companies to expand their manufacturing.

Rural Development Agency (RDA) was established in 2012 by Ministry of Agriculture to promote rural development in Georgia. The main mission of the agency is promoting the well-being and prosperity of farmers and rural residents by providing them with necessary resources most effectively. The agency implements variety of projects initiated by the Ministry of Environmental Protection and Agriculture of Georgia. RDA has information offices in all municipalities, where the agency relates to potential beneficiaries and implements projects as a result of data analysis.

**The National Environment Agency (NEA)** is a legal entity of public law within the system of the Ministry of Environmental Protection and

Agriculture in Georgia, which was established as an agency on September 1, 2008. The agency is an organization independent from state administration authorities, which operates independently under state control.

Enterprise Georgia (EG) is the primary coordinator of programs and policies to support SME sector development. It aims to support start-ups, improve competitiveness, build skills and help Georgia diversify its economic base to promote an export-led economy. To that end, it helps coordinate key state support programs, promotes better access to finance, and offers consulting, capacity, and business intelligence services.

### 3 RESEARCH

### 3.1 RESEARCH QUESTIONS

The RSMED project sought to identify opportunities to support rural SMEs through the leasing sector by answering the following research questions:

- What constraints for adoption by rural SMEs and suggest new operational models that can increase the uptake of scale-appropriate machinery by rural based SMEs?
- What best-bet scale-appropriate technology/ machinery options have latent demand in the rural agriculture and manufacturing sectors?

### 3.2 METHODOLOGY

The methodology included **key informant interviews (KIIs) with market players** – including sectoral associations, state agencies/ regulators, leasing companies, machinery providers, and rural SMEs. The interviews were investigative in nature and interviewers asked follow-up questions to elicit accurate responses from the interviewees. Semi-structured interview tools were prepared by the research company for use in the KIIs.

### 3.3 RESPONDENTS

The PMO study collected and analysed information from various stakeholder groups, including sectorial associations, state agencies, leasing service providers, machinery providers, and rural SMEs. The information on relevant SMEs was collected through desk research and in-depth interviews with the representatives of each stakeholder group.

**Sectoral associations**: 4 KIIs with sectoral associations to understand the range of scale-appropriate machinery that will enable rural-based SMEs to optimize processes, become cost-efficient, and diversify production which will lead them to efficient operations and growth.

State agencies/regulators: 4 KIIs with state agencies and regulators to understand current and upcoming requirements towards government regulations and specific standards that oblige rural SMEs to invest in special equipment/machinery.

Leasing service providers: 4 KIIs interviews with leasing companies, to identify potentially viable offerings for rural SMEs. Current communication practices and ways to engage with targeted segments to improve their marketing and promotional performance in rural markets are also researched.

Machinery Providers: 10 KIIs with machinery importers/resellers to identify models that can be applied to increase the uptake of scaleappropriate machinery by rural-based SMEs.

**Rural SMEs:** 25 KIIs with SMEs to explore their needs and identify the ways to overcome the barriers regarding access to financial instruments. Information on the possible ways to uptake the necessary technology/ machinery is also acquired.

Respondents were drawn from: Adjara x3; Samegrelo-Zemo Svaneti x6; Imereti x4; Kvemo-Kartli x6; Kakheti x6; representing the following sectors: Manufacturing (Beverage and food, nonmetallic materials) x17; Hospitality (Hotels, Restaurants) x3; Agriculture (Livestock meat and livestock dairy) x7.



# 4 FINDINGS & CONSTRAINTS

### 4.1 SUPPLY SIDE

Equipment suppliers in Georgia keep small inventories on the ground. Generally, these include irrigation systems, tractors, and various implements. Machinery companies present low-cost, small-scale, high-demand products in showrooms, warehouses, or branches. In other cases, machinery is imported on demand. In addition, the price of the machinery in the stock varies from \$500 to \$8000. Equipment suppliers monitor demand for small appliances year-round and replenish stock. The other remaining equipment, which is large and requires customization, is ordered by the user after the details are specified.

**Equipment suppliers are mainly represented in Tbilisi.** In addition, they are not able to supply a big variety of products to all sectors. Outside Georgian machinery providers rural SMEs choose: Turkish, Chinese, Ukrainian and European markets. The average delivery time of machinery from EU countries is from 3 months to 6 months.

## Machinery importing companies mainly cooperate with Turkish, Chinese, European and American machinery manufacturers.

Procurement of small and medium-sized tractors, excavators is popular from China as the price of the equipment is cheaper. Second-hand machinery is often purchased from Europe and America. In the case of approving efficiency of second-hand machinery leasing companies let the customer purchase a second-hand machinery using leasing service.

Covid-19 has changed the delivery time and prices of equipment. The deadlines for importing equipment have been increased, if earlier the import took place in 30 days now this process can take up to 2 or 3 months. Raw material prices have risen due to economic fluctuations in the world. Consequently, year-round equipment suppliers cannot be guided by a single price list as prices change frequently throughout the year.

Leasing products are less popular mainly due to lack of information on leasing terms. Clients buy equipment through bank loans or personal finances. Moreover, leasing interest rates are often more expensive than bank loans; therefore, consumers prefer to borrow from banks. Basically, leasing services are seen as an

alternative option for entrepreneurs who cannot provide collateral. It should be noted that mostly rural small and medium-sized entrepreneurs are unable to provide collateral, but due to lack of information on leasing services and its benefits, leasing products are less popular in Georgia.

### 4.2 DEMAND SIDE

SMEs prefer to buy low-cost or secondary machinery. While leasing companies have restrictions to finance purchase of used machinery or new machinery from untrustworthy suppliers. SMEs disregard the risks associated with untrustworthy suppliers of machinery including advanced payments, absence of warranty and non-guaranteed quality of machinery or its parts etc.

Machine productivity is the priority in the process of selecting machinery. Other criteria in the process of purchasing machinery are price and machinery delivery time. There is less interested in purchasing energy-efficient machinery. While energy-efficient machinery will significantly reduce the cost to entrepreneurs in the long run, due to financial scarcity, they are focusing more on equipment that is relatively inexpensive or productive.

### SME awareness of leasing products remains low.

The market players are few and consequently, the awareness of leasing services is low. Moreover, the companies do not have offices in the regions, and they attract customers with the help of marketing campaigns and state programs, which is not an efficient way of communication for rural SMEs. Therefore, most of the SME entrepreneurs do not have information about leasing products and its benefits.

Language is a major obstacle in the process of obtaining information about innovations. Small and medium entrepreneurs mainly get information about the machinery through the Internet such as social media and internet forums. Information about the new machinery is mainly in English and Russian. In addition, entrepreneurs who are members of different sectoral associations point out that they get newsletters about innovations.

### 4.3 ENABLING ENVIRONMENT

Associations play a role in providing information but are not actively involved in the capital attraction process. They share information about grants, and programs financed by GOG via email. Also, Information on current technological

innovations in the sector is shared by sectoral associations via email to entrepreneurs. It is noticeable, that this is not an effective way of communicating with rural entrepreneurs as they often do not use or check email. Before the spread of Covid-19, associations encouraged entrepreneurs to attend local and international machinery exhibitions, forums, where entrepreneurs had direct communication with machinery providers.

The European Association Agreement, which provides for the establishment of European standards, will change the demand for equipment. To reduce CO2 emissions, it is necessary to develop new standards in production, which will reduce air pollution. This includes both premium quality fuel consumption as well as the purchase of new standard equipment. Therefore, soon the demand on new equipment which helps to reduce carbon emission will increase. It should be noted that leasing companies refuse to purchase built in and other machinery that cannot be confiscated. Thus, such regulations may not increase the demand for leasing services.

The leasing market is closely linked to macroeconomic changes. As Georgia is a developing country, even small economic changes (such as inflation, GDP growth, and exchange rate fluctuation) dramatically affect the leasing market. Therefore, worsening macroeconomic indicators negatively affects both the demand and supply side. Also, it is noticeable that development of the leasing market is mainly dependent on state regulations, macroeconomic conditions, business environment, state programs, international trade regulations and investment market conditions.

The increase in the state funding programs has led to an increase in demand for agricultural machinery. Enterprise Georgia and the Rural Development Agency created projects that helped SMEs to improve their machinery assets. The cofinancing program included partial financing of the leasing product interest. Therefore, the program incentivised SMEs and increased the demand for leasing products.

Tax breaks help increase demand for leasing services. In 2020 after the changes in tax regulations, re-defined as Value Added Tax (VAT) payer in connection with registration and cancellation registration rules. New regulation for small and medium entrepreneurs incentivized purchasing new machinery with leasing and increase their production.

There is an increased demand for energy efficient machinery – due to the rising cost of electricity and other energy related resources. In March 2021, the change in the law on the preservation of atmospheric air obliged large entrepreneurs to have continuous self-monitoring systems. This change increased demand for new equipment from more than 85 companies. It is noteworthy that the continuous monitoring system is not available in the local market, therefore entrepreneurs must look for equipment in foreign markets.

### 4.4 CONSTRAINTS IN THE LEASING MARKET

The leasing system underperforms for rural SMEs in two key areas: promotion and outreach to rural areas and market research into the targeting of leasing products in particular sectors. Leasing companies and their partner machinery dealers often do not prioritise or have a good understanding of rural customers' needs. Leasing companies focus on larger ticket-size activities and do not proactively explore the rural SME market and lack detailed surveys/ reports about customer needs.

Therefore, they do not identify and target latent demand in the market. As awareness of leasing products remain low, leasing companies as well as machinery providers lack effective marketing strategies to promote machines, technologies and the leasing products and the machinery and technologies at offer are often not suitable for rural small enterprises.

Machinery providers similarly do not conduct market research regarding the needed equipment/machinery for rural SMEs in more marginal areas and they lack skills in market research and marketing to promote the products and their selling options (loan, leasing). In addition, there is often weak synergy between leasing companies and machinery suppliers in rural areas.

Machinery suppliers in rural areas also have low knowledge of leasing products, lack the ability to promote and sell their products by selling the benefits of leasing. Machinery providers generally do not engage in proactive marketing or awareness raising campaigns and have low awareness of scale-appropriate machinery with potential demand in their areas. Also, the lack of information about recent market trends, regulations, and demand causes them to redundancies in their inventory stock (machinery, equipment).

### 5 TECHNOLOGY OPTIONS

### 5.1 BEVERAGE, FOOD, & NON-METALLIC MATERIALS MANUFACTURERS

### **Beverage Manufacturers**

Rural producers of alcoholic and non-alcoholic beverages mainly adhere to ISO standards (Mostly wine producers which export or would like to export their product in near future). For beer and non-alcoholic producers, the key market is mainly Georgia. Wine producers share local and foreign markets. From 2023 the HACCP standard becomes a mandatory requirement, thus to meet the demand for HACCP standards, the demand for new machinery may increase.

Rural carbonated lemonade manufacturers name following machines which they need to purchase or replace: Raw water tanks, Raw water pumps, Carbonated drink mixing system, Filling system, packaging systems.

### Wine and Beer manufacturers

After the Russian embargo, the quality of Georgian wine increased significantly. In accordance with export requirements, it became possible to purchase machinery for wine production on the Georgian market but winemakers often choose personal contacts and contact directly machinery companies abroad. Mostly winemakers choose Western European countries to buy good quality machines for wine making.

Rural Wine manufacturers name following machines which they need to purchase or replace: *Pumps, Packaging/bottling machines, Tanks, Filters.* 

Relevant machinery for Beer manufacturing in the Georgian market is not reachable. Beer manufacturers say that they order machinery from Eastern and Western European countries, like: Czech Republic, Germany, Poland, Belgium.

Rural Beer manufacturers name following machines which they need to purchase or replace: Malt Mills, Beer Fermenters, Brite Tanks, Mash Turns, Pumps, Packaging machines, Refractometers, Heat exchangers, Kegs, Bottling machines.

### Dairy product manufacturers

Rural dairy producers sell their products mainly on the Georgian market. It should be noted that a mandatory legislative requirement for dairy producers has been in place since 2015 year, which implies mandatory compliance with the HACCP standard. Dairy product manufacturers have no challenges in meeting general hygiene standards, although many of them have difficulty maintaining their production line. The production line is partially filled with machinery. Manufacturers point out that the main barrier to full mechanization of the production line is the lack of financial resources.

Rural SMEs from a dairy manufacturing sector name following machines which they need to purchase or replace: *Milk separators, Milk tanks, Emulsification tank, Storage Tanks, Vacuum degassers, Milk cooling tanks.* 

Plastic manufacturers - Rural plastic manufacturers buy suitable machinery in Turkey and China. Plastic manufacturers point out that the delivery time of the machinery is from 2 weeks to 6 months.

Rural plastic manufacturers name the following machines which they need to purchase or replace: **PVC mixing unit, Granulators.** 

### 5.2 AGRICULTURE, LIVESTOCK MEAT, & LIVESTOCK DAIRY

### Milk suppliers

Small and medium-sized milk producers face many obstacles. First of all, they have a lack of knowledge and skills to produce quality milk. Also, due to low financial income, they suffer from a lack of machinery for producing quality dairy milk and machinery for livestock feed. Some farmers, during the conversation, noted that their farms do not have electricity and water supply, which causes additional problems.

Special machines needed for the sector are available on the Georgian market and machinery providers have in stock. However, due to the lack of financial resources, farmers do not have the opportunity to purchase the machinery they need. The key market for dairy producers is mainly Georgia.

Rural milk suppliers name following machines which they need to purchase or replace: *Milking machines, Milk tanks, Pre-stack tanks, Interim tanks, Tractors, Solar panels.* 

### Meat Producers

The main market for meat producers is Georgia. Since 2015, compliance with the HACCP standard has become mandatory for the meat processing sector, so they are required to comply with

hygienic norms in the enterprise, as well as the presence of machinery required to comply with the standard at the facility.

Rural meat SMEs name following machines which they need to purchase or replace: *Packaging machines; Large Cages; Coolers; Distribution-refrigeration machines*.

Meat producers name important equipment to have in the slaughterhouse such as: *Bristler Baumanns, Rib pullers, meat saws*. In the Georgian market, there are companies importing machinery for meat products, but they do not have machinery represented in showrooms. Machinery to produce meat products is mainly imported from Eastern Europe and Turkey. Machinery delivery time is from 2 weeks to 3 months.

### Hazelnut processing plants

The number of hazelnut processing plants in western Georgia is growing every year. Hazelnut producers note that the main market for selling hazelnuts is European countries and this fact is due to the high quality of Georgian hazelnuts. Hazelnut manufacturers buy machine tools mainly in the European and Turkish markets. The manufacturers point out that direct communication with the equipment manufacturers is much more effective than purchasing the equipment with the help of a Georgian machinery importers.

Rural hazelnut processing plant representatives name the following machines which they need to purchase or replace: **Shelling machine**, **Nuts peeling machine**, **Hazelnut roasting machine**, **Hazelnut grinder**, **tractors**, **Mowing machine**.

### 5.3 HOSPITALITY & WASTE MANAGEMENT SECTORS

### Hotels

Small and medium-sized hotels in the regions of Georgia are mainly interested in purchasing kitchen appliances. The main sources of financing for hotels are bank loans and different financing projects implemented by the Government of Georgia, which help small and medium-sized businesses (for example, Enterprise Georgia).

Specific hotel machinery is available on Georgian market, but the surveyed respondents prefer to buy machines for hotel directly from the Turkish hotel machinery manufacturers. Hotels in their catering facility use the HACCP standard. The active use of the HACCP standard in the restaurants is driven by state requirements.

Rural SMEs from hospitality sector name following machines which they need to purchase or replace: Prep Table refrigerators, Ranges and ventilation, Freezers and refrigerators, Slicers, Ovens.

### Recycling enterprises

Waste management is one of the most important challenges, especially for small and medium-sized rural entrepreneurs, as they do not have sufficient financial resources to purchase biological, chemical, or special equipment to help effectively manage industrial waste. (It should be noted that due to the size of the enterprises surveyed in the study, industrial waste does not cause significant damage to the environment).

The main obstacle in target sectors is wastewater, which significantly damages the aquatic environment in general. Water is mainly contaminated in the process of cleaning enterprises. Generally, detergents and disinfectants cause water pollution.

It should be noted that the removal of faecal masses is a significant problem for small farms, and most often farmers identify the need to purchase a tractor. Tractors and trucks also need animal slaughterhouses to transport animal waste: to compost plants, fertilizer plants, biogas plants, and incinerators.

Entrepreneurs name following *machinery* for fixing waste management problems: *Waste balers, Separators, Shredders, wrapping machines, Tractors.* 

From the above-mentioned machinery, there are practically no similar machines on the Georgian market, only tractors can be purchased directly from the shops.



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