



**Georgian Ministry of
Agriculture
Georgian Academy of
Agricultural Sciences**



THE ECONOMIC EFFECTIVENESS OF INTEGRATION OF SILK PRODUCTION AND RECOMMENDATIONS FOR ITS REHABILITATION



**Publisher: “Agro”
Tbilisi 2016**

The word integration has a wide semantic meaning and identifies a merge of the units which have different organization and legal forms. Integration of silk production field with raw material producers and ready-made product manufacturers should be rather profitable considering specificities of this field.

The authors of recommendation:

Giorgi Nikoleishvili – GAAS Member-Correspondent,
Doctor of Economic Sciences, Professor.

Givi Japaridze – GAAS Academician, Doctor of
Economic Sciences, Professor;

Tamaz Kunchulia – GAAS Academician, Doctor of
Economic Sciences, Professor;

Elgudja Shapakidze – GAAS Academician, Doctor of
Technical Sciences, Professor;

Vano Sanadiradze – Georgian Ministry of Agriculture,
the head of Vani Information – Consulting
Service Center

Editor:

Omar Keshelashvili – GAAS Academician, Doctor of
Economic Sciences, Professor;

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INTRODUCTION

In Georgia, dictated from the interest of rehabilitation of silk production objectives, it is highly recommended to set up territorial integrated units/ plants, which will be a combination of a domestic silk production, cocoon manufacturing and regional spinning of silk thread. This will provide opportunity to connect economic interests of silk production to re-distribution of the profit gained from selling different product obtained from the manufacturing process. The goal is to create integration of farm, cooperative and other manufacturing units with the conditions agreeable for the both sides.

Naturally, the merge process will be accompanied by specific management problems and it should be based on through scientific investigations. In this particular case, the principals of silk production and management, as well as manufacturing and intensification principals should be strictly observed. Practical implementation of vertical integration in Georgian silk production started early in 1895, in “The Frist Partnership of Kutaisi Region”, which was directed by Nestor Tsereteli. He was engaged not only in production and selling of cocoon, but also he owed a plant where he produced thread. This approach was rather progressive in those days.

For the first time in Russia, the final payment to silk producers were calculated by the cost of final production (cost of cocoon, plus dry cocoon sale price, and other). This Cooperative manufacturing got net profit 3 428 rubles, out of which 10% was saved, 10% - was re-investment, but the rest of the profit was distributed to members of cooperative – 3.0 rubles – to each. The Cooperative represented a vertical integration type and was approved by all its members equally. In the result of a long and scrupulous study of Georgian historical model, we have come to the conclusion that in case we study thoroughly and re-modify and adjust the model to the traditions and existed socio-economic situation, it will turn out to be ideal in the given situation, and will certainly better that any other foreign models.

Integration of silk production has always been one of the central points in Georgia, but it was particularly addressed in 1974 at the first Country-wide Meeting of silk producers. It was then when the Ministries of Agriculture and Light Industries were given order to start the process of integration, but practically nothing was done in this direction. Light Industry was against integration with raw material producers.

During the second Country-wide Meeting of silk producers in 1984, (Western Georgia, Khoni) the problem was raised again followed by a severe criticism towards

the ministries which did not carry out the decision, but again with zero result.

In the first half of the 1990s, a considerable work was carried out in a scientific- silk production unit; - director Givi Kipiani. When Georgia moved to market economy, thread production plants stopped working.

The problem was raised again in 1994, but eventually, only recently, after 120-year gap, our proposal has been presented to the field specialists.

On the first stage of rehabilitation, it is advisable to to carry out integration between the producers of raw materials (Cocoon producers) and plants of silk-egg and thread production. But on the following stages a full cycle can be implemented.

An experience of silk producing countries testifies that the bigger is the competition, the more important is implementation of integration process. On the example of Vani Region, we present the final results of integration of producers of live cocoon and silk-egg production plant.

Within the given Recommendations we also present materials which describe integration process of industrial live cocoon producers and thread producing plans.



1. INTEGRATION OF SILK-EGG PRODUCTION AND RAW MATERIAL MANUFACTURERS: THE PRODUCTION, COSTS, PROFIT AND DISTRIBUTION

Before the mulberry tree disease “Leaf curl” was spread, Vani silk-egg- producing plant was manufacturing 14.0 – 15,0 thousand boxes of (each box – 27 grams) high quality silk-egg¹. The price for 1.0 kg of silk-egg was 350-400 rubles, and the silk plant was profitable. Thus, raw material cost price of silk-egg included raw material (cocoon) and exploitation expenses. The processed data results presented below are calculated on 10 kg silk-egg example, which is better accessible for an interested reader.

In the result of fruitful work of silk-egg and silk producers, the profit gained from cooperation should be distributed proportionally to the following participants:

a. Silk producers, cooperatives and others who supplied raw material – cocoon- to silk-egg producers.

b. Employees and laborers of silk-egg plant, who worked hard and developed hybrid/ crossbreed silk-egg.

For example: for production of 10 kg / crossbreed

¹ *At present 1 kg (37 boxes) of imported silk-egg price varies from 800-1000 US dollars, which is very high.*

silk-egg was spent only 7 350 rubles. Among them:

a. The cost for 150 kg. pure-strain silk-egg was 2 250 rubles;

b. Costs for processing 150 kg cocoon (exploitation costs, fixed costs) was 5 100 rubles; net profit equaled 8 000 rubles per 10 kg silk-egg.

By-product of silk-egg production² is 248 rubles. And, hence, the total profit equaled $8000 + 248 = 8\ 248$ rubles. Net profit $(8248 - 7350) = 898$ rubles.

According to our calculation, overall profit – 898.0 rubles should be distributed among raw material producers and plant in the following way:

A. Expenses for silk-egg production – 30,7%,

B. For plant expenses – 69,3%

The result:

1. Total profit 898,0 rubles are distributed according to above-mentioned %.:

a. farms (cooperatives) as dividends will get 898 rubles, 30,7 % or 275,0 rubles, but

b. Plant will get 898 rubles , 69,3%, or 624.0. rubles.;

² **Note: Silk-egg producing** *plants have been totally destroyed for the last 20 years. For this reason we had to bring an old case and old materials. We are sure that the reality won't be changed significantly in future considering technical progress.*

That means:

1. Silk producers will get as a dividend 1,82 rubles after selling silk-egg

(275 ruble per : 150 = 1,82 ruble); but,

2. The Plant, calculated per 1 kg of silk-egg (624 ruble divided by 10 kg = 62,4 rubles) 62,4 rubles. Totally, the plant will receive profit for silk-egg production and selling, but calculated for 10 kg, this profit equals to 89,8 rubles. (898 : 10).

In case profit distribution is carried out according to the principal described above, each party – silk producers and plant employees will be equally interested in the process.

We think that the state should take part in this process.



2. INTEGRATION OF GEORGIAN SILK THREAD SPINNING-AND-TWISTING PLANTS AND SILK COCOON PRODUCERS, MANUFACTURING, COSTS, PROFIT AND DISTRIBUTION³

The study of the problem is based on the analysis of past experience of silk thread spinning-and-twisting plants' production and financial estimations in 1998-2000. In addition, it has been proved that the results of previous production activities and planned materials analysis have a lot in common, so we present only the results of planned materials analysis, which is the following:

1. in 1998 silk thread spinning-and-twisting plants used to buy 472.0 tons of live cocoon, which equals to 175 tons of air-dry cocoon (472 000 : 1,70), the price of which was 618,6 thousand lari;
2. The costs for storing raw purchased material per 1.0 kg cocoon equaled to 0,626 lari, and the total costs are (175.0 thousand kg X 0,626 lari) 109.6 thousand lari;

³ *The materials are obtained from factual data of 1990-s and the analysis of 1998-2000 planned data.*

3. In the result of spinning of 175.0 thousand air-dry cocoon, 50 tons of raw thread is obtained (175 000 kg air-dry cocoon: 3,5 coefficient), the expenses of which equals to 616,8 thousand lari. (50.000 kg raw thread X 12,3362), 616,8 lari;
4. Total expenses are (618,6 + 109,6 = 616,8) = 1345,0 thousand lari.
5. Different taxes should be added to the mentioned costs (25%), which make up 336,25 thousand lari. (1345 th.lari 25% = 336,25 th.lari);
6. Total costs, taxes and other expenses equal to 1 681,25 lari (1+2+3+4+5), and raw material spinning costs equal to 12,336 lari.

The results of the analysis of the abovementioned data testify that raw material producers (farmers, cooperatives and other units) used to get 36% (1681,25 th.lari) from the total, and silk-spinning-twisting plant – 64,0%; This means that, in case the parties unite and their integrated and efficient cooperation is successful and profitable, each part will get proportionally the following:

- Raw material producers will get about 36% profit, but the plant – 64.0%. The abovementioned conditions will be profitable for both parties involved in the process.

We believe that the given model of profit distribution will enhance interest in the participants of integration, as well as support restoration of the field.

The abovementioned problem will be defined in the same way in other field of Georgian agriculture, in addition, the problem of subsidies will be reviewed in a different way, which, we believe, is extremely important.

