Challenges and prospects in economic use of local natural resources in Belarus

By Aleksei Bykov and Svetlana Vertai

The offence to economic and energy safety is the most important of the challenges for a sustainable development of open export oriented economy of the Republic of Belarus which is the result of high dependence on imports of intermediate goods, including raw materials and fuel and energy resources. The world crisis consequences, with growing protectionism in foreign markets traditional for Belarus among them, result in increase of the negative foreign trade balance. The latter leads to permanent external borrowings and disbalances in the national financial system. A possible factor that could allow reducing imports and boosting exports of goods and services is the extended economic use of local natural resources.

Natural resources that are not to be transported outside the regional economic system under consideration are viewed as local and can be used within its territory; otherwise a resource is considered as centralized. The majority of Belarusian natural resources can be equally classified as local or centralized.

The analysis of scientific publications on natural resources economics and management proves that resource abundance does not automatically turn to economic benefits for a country, yet it may become a significant condition for its sustainable development.

We have studied retrospectively the factors of material, capital and labor intensity in gross value added that influence the production growth in Belarusian industries, as well as the share of local resources in the total material consumption over the period between 2000 and 2007. The analysis was based on "input-output" tables' data processing using correlation and regression methods. We found out that the industry supply with local resource did not essentially influence on the production growth. The analysis also revealed the basic causes that hinder the production growth in Belarusian industries with a big share of local resources, including:

- insufficient advanced processing of the local raw materials into final products;
- low competitive position of goods produced by specific industries with a big share of local natural resources due to the use of obsolete and overworn equipment as well as insufficient application of the innovative management technologies, particularly marketing concepts, entrepreneurial skills, flexibility and adaptability.

The analysis done helped to ground methodological approaches to economic assessment of local natural resources involvement into economic circulation. The general idea for the techniques offered is the choice of the value added parameter as a main criterion for decision-making:

1. Method of decision substantiation for export of products based on local natural resources is applicable for

goods traded at a stock exchange. The best variant of raw materials use (provided its economic efficiency) is where we create the maximum value added on a standard raw material unit

- 2. Method of efficiency estimation for investments into projects of processing local natural resources. The project to implement will be the one with the minimum value of the key indicator of the gain capital capacity, taking into account its commercial payback. The gain capital capacity indicator is calculated as a ratio of the project investments amount to the annual value added created in the project.
- 3. Method of efficiency estimation for delivery of products manufactured mainly with the use of local natural resources, to the domestic market. It assumes the analysis of the value chain within a integrate business process from raw material extraction or purchase to consumer goods production and selling. It is followed by calculating indicators of goods prices, total value added and material costs within the value chain. The efficiency criterion shall be the indicator of total material costs adjusted to the price and quality of the final produce; this indicator should be minimized.

These techniques applied to Belarusian companies specialized in forestry, wood processing, road construction and food processing has allowed validating strategic directions for development of firms that exploit local natural resources:

- The strategy of re-investing incomes from the export of raw materials into technological re-equipment implies the development of manufactures with advanced processing of raw materials through accumulation of raw material export incomes accrued during a period of favorable pricing environment.
- The strategy of joint value chain management is based on the interaction between the companies included in the integrate business process of the final produce, to find optimum decisions for all participants and decide on the subsequent joint distribution of incomes.

It is obvious that the principal limit to solve the problem of economic use of local natural resources in Belarus are considerable capital investments in manufacture modernization that will be required.

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