6th INTERNATIONAL MULTIDISCIPLINARY CONFERENCE

A NEW VIEW ON TECHNOLOGIES BASED ON NATURAL RESOURSES COMPLEMENTARY TO TECHNOLOGIES BASED ON INFORMATICS' AND INFORMATIONAL RESOURSES.

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GENERAL

A country or a region's natural resources is a quantitative and qualitative accumulation, with a specific type of dispersion, a sine-qua-non condition for the concretization of local or zonal development projects. These could become "motivations" or "premises" for operational decisions.
In this context, natural resources may have a "role", a "function" and an instrumental objective character ("means") to initiate and support development.

In an integrative view, they become activity "concentrators". They can also generate area "synergies" or productive – economic and social alignments. Equally, natural resources can generate a "catalytic" role, a role of activity accelerator, making use of human efforts, bringing about social and economic development.

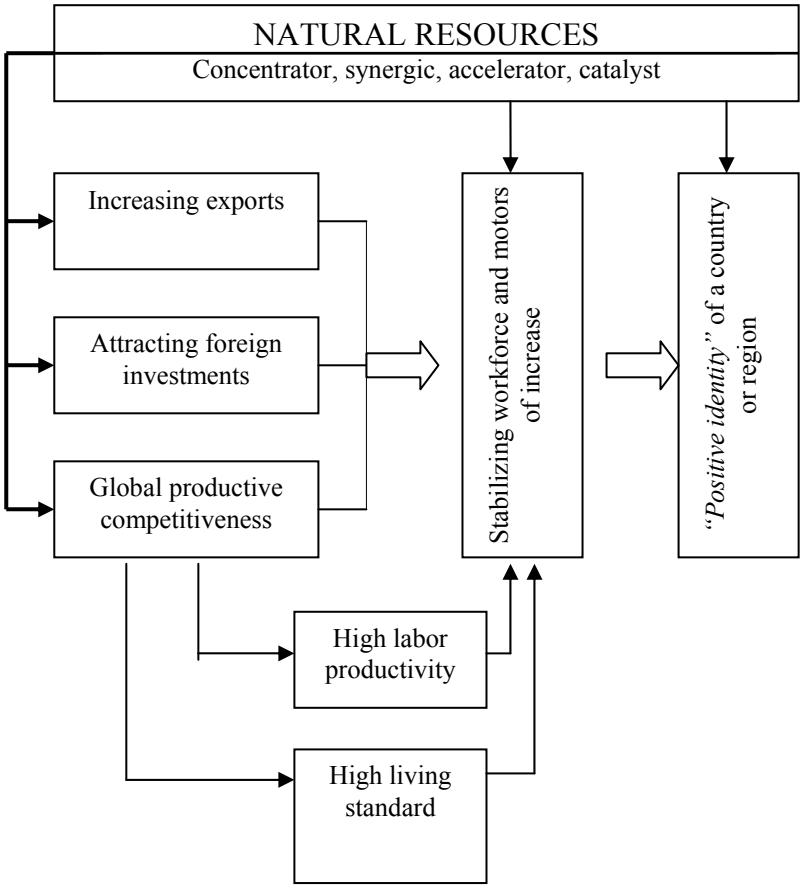

Fig. 1 Role, functions and instrumentality of natural resources

Natural resources - as objective existence - can create a vector force for production meant for export, being an increased attraction for foreign investors as well.

Attracting foreign investors is significantly related to the complex process of globalization. Resources are the ones that consolidate, from a quantitative, qualitative and operational point of view, the flow of exchange, that increase delocalization, make an operational impact on the highest updated performance levels.

As a result, an increase of competitiveness in locations with natural usable resource accumulations, that is an alignment to global competitiveness, is always expected. Labor productivity, operationally reached on a particular type of exploitable and usable resource, is impelled at the highest possible specific comparative level.

The closest consequences of the above situation is reflected in the creation and stabilization of workforce, increase of living standard and especially in the accepted operational, planned stabilization of motors of economic increase.

By and large, the existence of natural resources, their competitive exploitation and use generate a "positive identity" of a country or region.

EXAMPLES OF "POSITIVE IDENTITIES" IN VARIOUS COUNTRIES GENERATED BY THE EXISTENCE, EXPLOITATION AND USE OF NATURAL RESOURCES

Exploitation and making use of *forestlands* in *Sweden* represents $10 – 11 billion per year, covering the country's oil, clothes and food imports.

The investments in Swedish forestlands are around $ 1-1.5 billion per year, and approximately 26% of the total workforce of the country are connected to forestry.

In *Finland* the situation is similar, 25% of the country's export is related to forestry, a quarter of the world's production of cardboard ad paper belonging to this state.

Over 350 local communities in *Canada* depend on exploitation and making use of forestlands (1 of 17 jobs is in this field).

In *Argentina,* 25% of the export volume comes from off-shore oil, and 90% of the oil equipment are made in the country.

The Netherlands is an example of competitiveness based on production and making use of natural resources in the flower market of the world, and *Italy* is competitively highly placed in the production of ceramics.

In *Canada* almost 400 thousand jobs are directly connected to building materials coming from local resources, the country being leader in high productivity environment friendly technologies in the field.

It is thus obvious that natural resources can generate productive and economic operation ensembles that have a positive impact on the respective owner country.

A country like *Romania* can become prosperous and productive virtually in any field o activity, as long as natural resources are present in the productive and economic process and when they are exploited and put to use efficiently.

Equally, a country has to be directed to new technologies – especially the ones in informatics – keeping at the same time its interest for traditional, technically and technologically rehabilitated industries, based on natural resources.

This combination is more feasible, compared to an exclusive extreme attachment to the field of informatics as long as natural resource based technologies could physically generate real added value.

ELEMENTS OF THE "NEW ECONOMY"

The first decade of the 21st century is a period of decantation, that is introduction of "new economy" development lines, which synthetically could be characterized by the following :

- Communication without frontiers;
- Disappearance of traditional limitations and boundaries between domains;
- Liberalization of trade and investments;
- New, faster and increased transport, delocalization and localization between areas, regions, etc.;
- Change, improvement and rapid increase of technologies;
- Increased rate of change in all fields;
- Increase of demand and consume of new products and services;
- Innovations and productivity become instruments of increase and prosperity;
- Semi-processed or processed materials change in "integrated manufacturable goods";
- Operationalization of competitive advantage coming from differentiations between products and technologies;
- *Comparative advantage* turns into *competitive advantage;*
- New partnerships and cooperation and strategic alliances.

In the orientations and tendencies from above, natural resources are catalysts of economic and social development. Stimulation, that is focusing interest on the objective, real role played by natural resources in the "new economy" of creating *competitive advantages* , becomes important.

National and international economic reality is characterized by aspects such as:

- In various countries and regions, economic development is still closely connected to the functioning of exploitation and making use of natural resources;

- In the course of time, but at present as well, the way in which natural resources contributed and is contributing to providing existence and development of human society is acknowledged as positive;
- The immediate and medium term effects of exploitation and making use of natural resources contribute to drawing up solutions of economic and social progress in various less developed, or economically less dynamic countries.

Industries become inter-relational and inter-correlated. Industry groups are already becoming sub-systems submitted to commitments of generating competitive advantages, most frequently based on natural resources motivating new productive actions (generated by opportunities offered by employees in mining industry).

COMPLEMENTARITY OF INFORMATICS' AND INFORMATIONAL TECHNOLOGIES

When large technology systems were shattered, at least four dominant technology types were established in the general production and industrial environment: *a*) the ones with information processing; *b*) for new materials; *c*) clean modern technologies; and *d*) biotechnologies.

Information is the "substance" or material submitted to processing in informational technological processing.

Informatics provides physical electronic support for the respective technologies.

The most significant impact of informational technologies is the existential modification of the configuration and content of communication.

In modern times, economic and technical information is highly characterized by accuracy, relevance, consistence, opportunity, concision.

Industries exploiting and making use of natural resources basically apply intensively information.

In this context, the complementarity *"natural resources – informational resources – informatics' resources"* highlight an intrinsic productive and strategic, deeply correlative, non-antagonistic co-existence.

CONCLUSIONS

- Natural resources play an important part in the context of "new economy", being contributive, motivating and generating of economic and productive activities;
- Communication regarding resources, exploitation costs and transport is comparable with other types of resources, such as informatics' and informational ones, having a role of generating a "competitive advantage";
- High geographical dispersion of natural resources motivates "opening of new markets" when submitted to exploitation and use;
- The use of regenerable natural resources can support durable development;
- Informatics' and informational technologies contribute to the elimination of empiricism and risks in the exploitation and putting to use of natural resources;
- Natural resources production (mining, forestry, water etc.) comes from technological systems that are improved in view of framing outputs to production systems compatible with the requirements of product and service flow afferent to a durable development.

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