Matthnai Ekouaghe, post graduate student
Kharkov National University of Economics

CIRCULAR ECONOMY IN UKRAINE: ECONOMIC MODEL PROSPECTS FOR THE NATION'S INDUSTRIES

The economic statistics for 2016 indicate that Ukraine has managed to overcome the toughest phase of the economic crisis. For the first time in four years, the Ukrainian economy recorded a positive growth rate of around 2%.

However despite its wealth of natural resources and the huge diversity of industries there is almost in Ukraine no change in the economic activities of natural landscapes. Little changed, mainly secondary forest plantations (artificial), wetlands, reserves are no more than 15-20% of the territory of Ukraine, although they should be 40-60%. So, it is dangerous, as it may lead to negative irreversible geoecological, bioecological processes in the Ukrainian ecosystem.

Here the foundation of the consumer society today finds its limits in the face of environmental challenges, the case of Ukraine's industrial model tends to confirm that.

The study of an eco-friendly industrial model for Ukraine such as circular economy which may find the balance between economic growth and environment could lead here to great prospects.

To understand this, we will study in the section 1 features of circular economy and its relation with the economy of Ukraine nowadays, then in the section 2 we may put in perspective the possibility of an economical model of circular economy for the Ukrainian industries.

Peculiarities of circular economy and its possible adequacy with the current economy of Ukraine

A circular economy is an economic system where products and services are traded in closed loops or 'cycles'. A circular economy is characterized as an economy which is regenerative by design, with the aim to retain as much value as possible of products, parts and materials. This means that the aim should be to create a system that allows for the long life, optimal reuse, refurbishment, remanufacturing and recycling of products and materials.

A circular economy is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times.

Circular economy asks for **system thinking**. All actors (businesses, persons, organisms) are part of a network in which the actions of one actor impact other actors (Ellen MacArthur Foundation, 2015a). In a circular economy, this is taken into account in in decision making processes by including both short- and long-term consequences of a decision, considering the impact of the complete value chain, and aiming for the creation of a more resilient system which is effective at every scale.

The Goal of a circular economy is to decouple economic growth form resource consumption by focusing on **value retention** In order to secure the ecosystems on which we rely, more than financial capital is of value. Social capital and natural capital play a role in the stability of our systems as well. In a circular economy, these values are reflected in the costs of products and services. The energy required to fuel this cycle should be renewable by nature.

This kind of economical model could an interesting alternative for a country like Ukraine.

Indeed , Ukraine has a large supply of many valuable mineral and raw material resources. Significant mineral resources in Ukraine include: iron ore, coal, manganese, uranium ore, natural gas, oil, salt, sulfur, graphite, titanium, magnesium, kaolin, nickel, mercury, etc. As for stocks iron, manganese, titanium and uranium ore Ukraine is ranked first among European countries, with the mercury ore reserve.

Despite all that wealth , Ukraine's environmental problems are extremely acute. The main problems in this country are: poor-quality water - eighty percent of water samples show that its quality does not meet the conditions of state standards. The most difficult situation with the quality of drinking water today in the Crimea.

The second problem is air pollution. The most "main" pollutants are industrial enterprises and cars. The most polluted regions are in the industrial east of the country - they are Donetsk, Dnepropetrovsk and Lugansk regions. And the most "dirty" cities were Makeyevka, Dneprodzerzhinsk and Odessa.

Degradation of land resources is another big problem. The active use of fertilizers led to an increase in the area of acidic soils. Almost 40% of the total area of land resources in Ukraine refers to contaminated land.

In connection with timber exports, forests are destroyed. The most difficult situation in the Carpathians and Crimea - because of deforestation and degradation of forest areas, soil erosion and landslide processes develop, which leads to an increase in the frequency and intensity of floods in the western regions of Ukraine, especially Transcarpathia

Ukraine is characterized by a diverse and powerful natural resource potential Historically, large-scale use of mineral and land resources has led to the formation of an appropriate fuel-energetic, metallurgical, chemical orientation of industrial development in combination with the developed construction industry and agriculture Dozens of industrial hubs in Ukraine have a natural resource the orientation of the other side, the distribution of elements of the natural resource potential across the territory is quite uneven which leads to the sectoral and territorial structure of each of the regions.

Through this perspective Ukraine's economy is smaller than it was in 1992, shortly after the collapse of the Soviet Union. At the time, Ukraine and Poland had similar-sized economies, but Poland's economy is now twice as big as Ukraine's.

The IMF estimates that the Ukrainian economy shrank 0.3% last year after barely growing in 2012.

Because many industries are so energy-inefficient, they are highly dependent on imports of Russian gas, which have been heavily subsidized.

In view of this, the prospect of a more optimal management of natural resources by Ukrainian industries is therefore a topical issue, given the urgency of the situation, the establishment of an economic model allowing recycling the resources already used, would allow the prospect of a stable economy that would allow the economy of natural resources and thus their renewal.

But what approaches to adopt? What policies can companies put in place to combine economic uregence and profit through the circular economy model?

Economic model prospects of circular economy for the Ukrainian industries

As said earlier the industrial activities of Ukraine have disastrous effects in the country's environment , and the models used by the industries, seems to be non efficient environmental way.

Indeed the contribution of big companies , especially in long-term programs of safe man-made impact on the environment is needed. Ukrainian companies are still ready to sacrifice the environment for quick money. Enterprises do not have sufficient economic motivation to introduce new technologies and, thereby, reduce the negative impact on the environment.

The fact to open an research and development subsidy costs a lot for a company , and the design the conception and construction take time and a lot of money and resources.

For Ukrainian companies the alternative for this situation, should be the establishment of Competitiveness clusters.

According to the French website for the promotion of clusters , Competitiveness clusters are bringing together, on a well-identified territory and on a targeted theme, companies, small and large, research laboratories and training institutions. National and local governments are closely associated with this dynamic. A competitiveness cluster aims to support innovation. It promotes the development of particularly innovative collaborative research and development (R & D) projects. It also supports the development and growth of its member companies thanks to the launch of new products, services or processes based on the results of research projects. By enabling the companies involved to take a leading position in their markets in France and internationally, competitive clusters are engines of growth and jobs.

A new industrial policy that combines the territory, innovation and industry better than in the past appears necessary here, the recycling of natural resources seems possible to integrate into the production process of industries, since the ecology is carrier of innovation.

On that matter Ukraine has already made several moves by establishing the national ecological policy.

The purpose of national ecological policy is to stabilize and improve the condition of environment of Ukraine through integration of ecological policy into social and economic development of Ukraine to guarantee the environmentally safe environment for life and health of human being, to introduce the ecologically balanced system of nature use and to preserve the nature ecological systems.

Main principles of national ecological policy are:

- Strengthening the role of ecological governance within the system of state governance of Ukraine to achieve equality of three components of development (economic, ecological, social) that causes focus on priorities of sustainable development;
- Considering the ecological consequences when making the managerial decisions, when developing the documents, which contain political and/or programme principles of state, sectoral, regional and local development;
- Inter-sectoral partnership and involvement of stakeholders;

Still to implement this strategy, Ukraine should set its own strategy on competitiveness clusters.

In fact, based on a vision shared by the various players, each competitiveness cluster could develop its own five-year strategy, which enables them to:

- to concretize partnerships between the different actors with recognized and complementary skills;
- bring out collaborative strategic R & D projects that can benefit from public aid, particularly from the single interministerial fund (FUI);
- promote a global environment conducive to innovation and the cluster's players by leading activities to encourage, share or support cluster members on topics such as access to private financing, international development , industrial property, forward-looking management of skills and human resources, etc.

To carry out these different actions, it relies on its ecosystem of innovation and growth. This allows companies to glimpse the perspective of the different tasks to be produced in a timetable and work on the economic and environmental impact of a product or a concept.

If we have to cite an example here, we talk about the competitiveness cluster policy put in place by the French government. Launched in 2005, the competitiveness cluster policy aims to boost the competitiveness of the French economy by increasing its competitiveness and innovation in the territories.

The ultimate goal was to create future jobs by gaining market share in high potential sectors. Needless to speak about the results of that policy in the French economy; more research centers, high quality standards in terms of consumption and production, more eco-friendly products and less natural resources wasted.

For Ukraine this may be a renewal for companies .These firms would gain a competitive advantage by performing in some way that their competition cannot easily replicate. Research & Development efforts given Competitiveness clusters could lead to an improved type of business process ,cutting marginal costs or increasing marginal productivity making easier to realize a competitive advantage.

As said earlier , Ukraine faces a huge Degradation of land resources due to intensive industrial activities which is big problem. The opportunity given by Competitiveness clusters, could allow, Ukrainian firms to adopt an eco-friendly industrial model by balancing the management of natural resources.

As a concept that distinguishes between technical and biological cycles, the circular economy is a continuous, positive development cycle. It preserves and enhances natural capital, optimizes resource yields, and minimizes system risks by managing finite stocks and renewable flows. A circular economy works effectively at every scale.

Investment in innovation, research and development is an essential component of supporting an innovative and enterprising economy. It assists in creating and maintaining high-value jobs and attracts and develops business and talented people. The example of France cited above may inspire Ukrainian industries, to improve the standards of production through Competitiveness clusters for a better management of land resources.

References

1. Fundamentals of landscape ecology, url: http://studbooks.net/27630/ekologiya/osnovy_landshaftnoy_ekologii
2. National Academy of Sciences of Ukraine, url: http://www1.nas.gov.ua/en/Structure/de/iei/Pages/default.aspx
3. Environmental problems in Ukraine, Sergey Poddubnyak Lawyer URL: http://blog.liga.net/user/spoddubnyak/article/12788.aspx
4. Competitiveness cluster – Definition, url : http://www.innoviscop.com/en/definitions/competitiveness-cluster
5. The Circular Economy: A Wealth of Flows, Ken Webster, Ellen MacArthur Foundation Publishing, ISBN13: 9780992778422, pp 210 pages, 2015
6. The New Geography of Innovation: Clusters, Competitiveness and Theory , Xavier Tinguely, Palgrave Macmillan pp 305pages ,ISBN-13: 978-1137367129, 2013