OPTIMIZATION OF PRESSURE ON AGRICULTURAL LAND OF UKRAINE AND MAXIMIZING THE PROFITS OF THE AGRICULTURE SECTOR

Abstract. It defined the scope and urgency of solving the problem of soil erosion in Ukraine. The report identifies the suitable solutions to the problem of soil erosion and projected revenue from their realization. Perspective ways of exploitation of agricultural land are defined.

UDK 338.43

Dmytro Zahrebelny
Bachelor of International Economics
Anna Gavrilyuk
Bachelor of International Economics
Dmytro Barabas
PhD, Associate Professor of Management department,
Kyiv National Economic University named after Vadym Hetman,
dmitry_barabas@mail.ru

The total square of arable land in Ukraine is 32.2 million hectares, 27 million hectares of which are cultivated. Ukraine is among the world's richest countries with black soil, called Chernozem, in general near quarter of the world’s black soil capacity is placed in Ukraine. The black soil is different from average soil by the high level of humus (15% compared to 4%), and it contains large number of phosphoric acids, phosphorus and ammonia (nitrogen). That is why chernozem has high value of crop productivity and is so fertile [4].

Nevertheless, in spite of the favorable circumstances, one of the main problems in Ukrainian agricultural sector is soil erosion. For decades, the situation with chernozem soil in Ukraine has been inexorably deteriorated by poor land management and further soil erosion. It is calculated that annually over 500 million tones of Ukrainian cropland are eroded, as a result near 32 million hectares of soil have a reduction of fertility. The destructive effects on crop production and Ukrainian economy cannot be overestimated: the third part of each dollar that is earned as added agricultural value is lost because of erosion – with each kilo of grown grain causes 10 kilos of eroded chernozem.

Conclusive proof of acceleration of soil erosion in the country shows that this problem leads to large destructions of other natural objects, such as rivers mud accumulation, harbors, and dam reservoirs (which feed hydroelectric power stations). However, there are other sensitive challenges, even more important, i.e. erosion of soil until the appearance of desertification [2].

Because of vast development of agriculture and forestry, invalid maintenance provision and other ecological matters violated area ratio of agricultural land, native hay lands, forest and water resources, and resulting an intense growth of erosion level, cropland’s densification, fertility reducing, falling of the natural Ukrainian landscaping resistance.
Consequently, the current circumstances such as wide exploit of soil (primarily croplands) during decades cannot be displaced with the help of analogous actions on playgrounds. Due to this argument, occurs the situation of low-effective funds and instruments, the aim of which is to strengthen agriculture and to reduce the processes of soil degradation causing the shortening of crop yields.

The edge of ecological balance of ecosystems and groundwater agrophytocenoses had been achieved in a substantial part of the arable lands. The major reasons of this process are destruction of soil water and wind erosion, irrecoverable damage to humus and nutrients, land mineralization and oxidation, dehydration of swamps, in particular eutrophication, contamination, pesticides and industrial wastes [1].

It is considered that unreasonable soil treatment is one of the main factors of soil erosion. On the contrary, the technique of agricultural preservation is considered to be more efficient and stable option. Soil erosion can be shortened with the help of no-till conservation agriculture, which also keeps the soil fertile, improves drought resistance, decreases the production cost substantially through fuel consumption minimization. The potential benefits for our country and the world as a whole can be gained through the massive climate assimilation of smart agriculture (conservation), if it is in complex with actionable technologies and methods of erosion control. With regard to the issue of conservation agriculture at the national level, it could bring the income of US$ 4.4 billion on 17 million hectares; this number is equal to 34 percent of agricultural GDP. Without counting global environmental and food security benefits, this outcome would almost counterbalance the depletion in natural capital of US$ 5 billion caused by soil erosion in Ukraine [2].

Nowadays the gross investment in agriculture is still among the most common in Ukraine and this sphere has very beneficial and advantageous conditions. Banks are more likely to lend the funds into agricultural business, which enjoys significant tax privileges. During the previous few years the net profit of big and medium-scaled businesses involved in agriculture received over 27 billion UAH, which is 68% of the net profit of all Ukrainian businesses, but paid less than 1% of total income tax. Moreover, grain traders and resellers owned by people close to the government, received fortunate possibilities to export crop after another redistribution of the grain market: almost 23 million tons of grain were exported in the 2012/2013 marketing year. They have earned significant profit in foreign currency, as well as the opportunity to handle quick and inexpensive income from abroad [3]. In 2016 the export of grain has already reached over 17 million tons by the end of November.

Agricultural business is becoming more and more attractive to Ukrainian oligarchs and businessmen that are used to business enlargement in an extensive way through dirt-cheap privatization and the distribution of the state budget. Even if world situation shrinks up to 50 percent of current cereals and crop prices, agriculture will remain profitable in Ukraine even though investment may fall down sharply. Despite the fact that current situation is under a significant risk, given the extensive nature of commercial farming. Great enterprises that nowadays invest significantly in farming, are expecting the fast income, so they are mainly concentrated on growing crops that exhaust the soil, especially industrial crops. Over 2005-2013, sunflower arable land increased from 3.7 to 5.2 million hectares; corn lands raised from 1.7 to 4.7 million hectares, while land used for growing rapeseed grew from 240,000 to nearly 2 million hectares. At the same time, fields of traditional food crops are dropping. If this experience is kept in the future, it will hurt the fertility of Ukraine’s black soil and the strong and prospective farming influence will actually leave behind damaged ground [3].

To prevent soil erosion and select the crop species in rational way, we suggest our own set of grown crops. Nowadays new markets of alternative agriculture develop in Ukraine and these markets have a great demand not only in Ukraine, but also abroad. Let’s take a berries market into consideration. Foreign marketing experts put a lot of effort and resources to position the berries as a vital component of the nutrition of a healthy person. Focusing the consumers’ attention to the fact that to consume berries is fashionable, marketers were able to increase demand to unprecedented level. According to various analytical publications production of berries in Ukraine is increasing
annually by 4%. Almost the entire volume of gross berries yield is exported. This fact is not surprising, as there are several reasons: a) high price abroad; b) Ukrainian berries are popular in European countries; C) conquering new markets (for example, China, where a third part of consumption of berries is imported because of distrust to local producers). This is a highly profitable business, especially if you grow organic raspberries, blackberries, blueberries. Organic is a hit in Europe, which you can be used by Ukrainian producers.

Another interesting agricultural direction is the cultivation of energy willow, which can grow on soils of low fertility and is even able to improve its structure and increase prolificacy. Processing of plants will enable enterprises to turn from consumers into energy producers.

Besides, demand on the world market stays also on dried and frozen onion that Ukrainians can export in large amounts. Now is the time when it is necessary to focus not only on fresh products but also on processed ones. Furthermore, technologies do not stand still in the agricultural sector. The use of drones allows farmers to monitor the soil conditions, the quality of plowing and sowing, to predict the amount of harvest, to protect the plots from fire and theft and even to improve "pointwisely" the condition of the soil, by making microfertilizers. Technology allows with accuracy to the millimeter to sow seeds or to harvest instantly.

References


УДК 330.341.1

Власова Інна Володимирівна
к.е.н., доцент, доцент кафедри інвестиційної діяльності
ДВНЗ “Київський національний економічний університет імені Вадима Гетьмана”

ОСОБЛИВОСТІ ДЕРЖАВНО-ПРИВАТНОГО ПАРТНЕРСТВА В ІННОВАЦІЙНІЙ СФЕРІ

Світовий досвід показує, що найбільш перспективним напрямком реалізації інноваційної політики є взаємодія влади і бізнесу в межах створення державно-приватного партнерства в інноваційній сфері [1, с. 144].

Державно-приватне партнерство (ДПП) в інноваційній сфері не грунтовано на взаємодії в межах окремих проектів, як при будівництві і експлуатації об’єктів інфраструктури, де всі ролі, права і обов’язки, розподіл ризиків детально прописані. В інноваційній сфері сутність державно-приватного партнерства можна визначити як «товариство» або як відносини, засновані на дослідженнях та інноваціях, за допомогою яких державні та приватні учасники спільно здійснюють інноваційний процес. Саме в інноваційній сфері державно-приватне партнерство може приймати різні моделі і форми взаємовідносин, які учасники вважають найбільш ефективними для досягнення своїх цілей.

Виокремлюють дві мети угоди між бізнесом і державою в інноваційній сфері. Перша - це проведення спільних досліджень і розробок, при якому компанія або кілька компаній отримують можливість використовувати результати науково-дослідних та дослідно-