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AGRI-FOOD POLICY REVIEW

Concerns about soil degradation: Should the Government correct its past mistakes at the expense of farmers?

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Recently, the government has become increasingly concerned about soil degradation, primarily due to skyrocketing acreages of sunflower. Mandatory norms of crop rotation have been thought to cure the problem. They will become obligatory as of January 2013. The attention to the problem looks indeed highly justified. Shouldn't the Government, however, tackle the problem directly, instead of interfering into the production processes of farmers? Moreover, the problem itself seems to be induced by the government after it introduced an export tax on sunflower seeds to support the domestic sunflower oil industry in 1999.

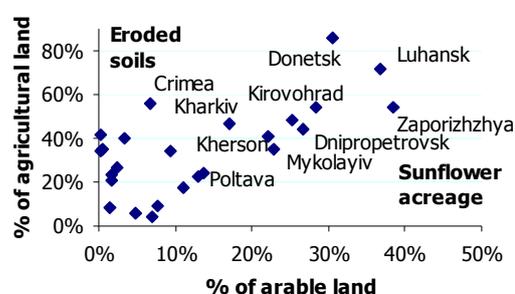
Up to 80% of soils in some regions of Ukraine are eroded (see Figure 1). To a great extent this has been driven by skyrocketing acreages of sunflower (see Figure 2) that was triggered by government policy. In 1999 the government introduced a 23% sunflower export tax to support its domestic crushing industry. This policy measure was introduced despite warnings from independent experts and scientists about negative consequences. Only under external pressure (the World Bank and WTO), the export tax has been gradually reduced to the current 10%. The consequence of this turned out remarkable. The policy has boosted sunflower oil crushing capacities and production in the country (see Figure 2). As a result Ukraine became a leading exporter of sunflower oil in the world. Besides, a huge domestic demand triggered a boom of sunflower acreage (by a factor of more than 3.5 since 1999, see Figure 2). In 2010 sunflower occupied on average 17% of arable land in Ukraine, against a scientifically optimal 12%. For some of the eastern oblasts this figure was well above 30% in 2010 (see Figure 1). In 2012/13 in some regions sunflower reached even 50% of all arable land.

As sunflower is considered to be very exhausting for soils (see Figure 1), the Government's concerns about exceedingly high shares of sunflower in arable land and land degradation are well justified. The state tries, however, to combat the problem mainly via introducing obligatory crop rotation norms. In 2009 for example, the amendments to some laws related to preserving soil fertility essentially introduced these obligatory norms of crop rotation due as of January 1, 2013. Obligatory crop rotation norms are also proposed in several draft laws, including the widely debated draft law "On Agriculture" (see AFPR #4) and recently rejected draft law "On Soils and their Fertility".

Is obligatory crop rotation a first-best tool to maintain soil fertility? We have doubts about it. If the main purpose of the government is to preserve soil fertility, it should tackle the problem directly, but not intervening into the production process. Intervening in the production process, on the contrary, will lead to a failure of farmers to timely adjust their production plans according to world market price signals and will ultimately result in forgone revenues. This will result in forgone investments and as a result in forgone productivity and sector growth, smaller contribution of agriculture to poverty alleviation and to economy growth in general. This will make the country overall poorer.

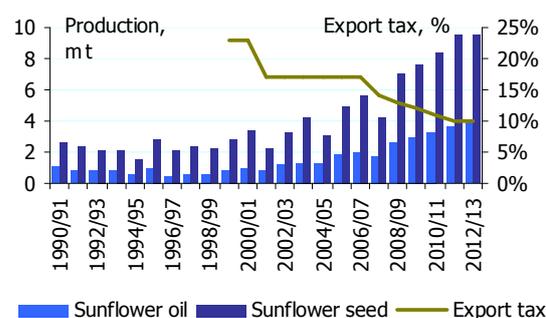
An environmental tax would be a better alternative to internalize the negative externalities of agricultural production. The size of the damage could be a basis for this tax. In this regard the government could a) introduce and enforce the soil quality control mechanism into the agricultural land lease agreements, and b) finance and develop agro-chemical laboratories to monitor regularly the quality of soils. So far, however, obligatory crop rotation looks more like the government is trying to correct its past mistakes at the expense of farmers.

Figure 1. Eroded soils vs. sunflower areas, 2010



Source: Ukrstat; Ministry for Agricultural Policy and Food

Figure 2. Development of sunflower sector



Source: Ukrstat