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Bulgaria: The Effect of Improved Education on Agriculture

Bulgaria is situated in Eastern Europe with a total area of 110 994 square kilometers and a population of a little over 7 million people. The country currently faces big problems, when it comes to economy overall, but agriculture is one of the sectors that struggles the most. In order to understand these problems better, first we should look at the reasons of why they came to be.

During the post-World War 2 times and the Cold War Bulgaria was a part of the countries that were regarded as the “Iron Curtain”. This means Bulgaria was under the influence of Soviet Union and was restricted to stick to its policies when it came to long-term economic plans. Bulgaria was also the country that followed those plans more closely than any other “satellite” in the union. The labor force was shifted from the countryside to the cities, which were the big industrial centers. At first, that resulted in an impressive growth, but that was partly due to low starting point of the country. The agriculture sector at the time consisted of over a million peasant smallholdings, which were all nationalized through violence and threats by the beginning of the sixties. The country had good natural conditions for growing some kinds of crops, like wheat, but the BCP, which was the political party in power, had decided to focus its resources into livestock exports. Pigs and poultry production increased the most, but large amounts of sheep were raised as well. Those decisions resulted into a decrease of the arable land used for growing crops from 55% to 35%. In the late sixties there was also a labor shortage in the agriculture sector. The aftermath of these decisions was a lack of food, which the population quickly noticed and the country needed to resort to import. Just before the reign of the BCP had ended, the eyes of whole Europe were focused on Bulgaria, because the country was facing an environmental crisis caused by inefficient use of farm equipment and big industrial factories. This was only discussed after Zhivkov, the dictator of communist Bulgaria, was no longer in power. The year was 1989. Investigations showed that air and water pollution as well as soil degradation were the most serious problems the new government had to resolve. The second biggest challenge was moving from a central planning system to a market based one. It was hard to find foreign investors in the early nineties, because they favored the western countries like Poland, which were growing the same crops. All of this has led to the state we find Bulgaria to be in at the moment.

Now let us look at a normal farm family in the country. The count of 2011 has shown, that such families consist of a minimum of four members. The parents are typically in their forties and have teenage children. Every member of the family has access to health care, because Bulgaria follows a national health care system similar to the one Canada uses. A big difference we can observe in Bulgaria compared to the United States is that teenagers do not have a part time job, because most employers are not willing to take a teenager in their company. Also, people in Bulgaria are not allowed to drive until they are 18, which means teenagers do not have to worry about gas money and insurance payments. In terms of education, the children generally go to the local school in their village or town. Such schools provide the most basic level of education. The relationships between teachers and children are purely formal, teachers also earn respect by being strict and punishing every mistake. That makes the students extremely productive, but their overall day at school can be described as boring and dull. The family would own between 4 and 8 acres of land, but they most likely would not farm it by themselves. They would let the village’s corporation rent their land and decide what crops

to grow on it. That is a very common system in Bulgaria and can be found throughout the country, because every person that lets the town use his land is provided with a job. That means you will not necessarily be working on your property, but you will still earn money and you will not have to worry about making decisions such as which crops to grow and farm machinery maintenance. Each small town or village chooses to focus its resources in growing one specific kind of crop, like for instance wheat or corn. Here in the United States we can observe a different approach. In any farm region you can see a variety of crops, where one could have a priority, but others are still present. This is where the first major problem in Bulgaria occurs.

Growing one specific kind of crop is a gamble. In the north, the people focus their attention on wheat and corn, whereas in the south, vegetables and rose fields are more common. If during the year the environmental conditions are just right, the town will experience great success and high profit. That would also be a year when the typical farm family would not have to worry about paying their taxes and for the education of their children. But such a risky plan also results in total failures, because of the lack of flexibility. When one crop does not do great you do not have land, where you planted a backup one. Research shows that this happens once every 3 years and it leads to a lack of food, extremely high prices of bread and milk products, and people losing their jobs, and that is the worst possible scenario if you are living in a town based on agriculture. The main reasons for this are the droughts during the summer, which is regarded as the rain season on the Balkans.

Another big problem in Bulgaria is the excessive usage of pesticides and herbicides because runoff water to rivers, which are then used as a watering source by other farmers, carries them. The towns also do not rotate their crops on a regular basis, so the pesticides have a bigger effect on the soil. But that is not the only harm that these anti-pest chemicals bring to the Bulgarian agriculture. Since the country joined the European Union in 2007 it has started to encounter its strict regulation, which most farmers cannot follow, because they are not aware of the alternatives available on the market such as biological pest controls and different methods of cultivation. The punishments for not following the regulations are quite serious; they range from denying EU subsidies to the village in violation to prohibiting the products, from being exported to other countries in the union. These restrictions are one of the main reasons for the bad financial status of most farm families. Most farm families barely make the minimum wage of the country, which is a hundred and fifty dollars a month. Since the products are not allowed to be exported, the only market left is the Bulgarian market itself, where they have to compete with imported crops and vegetables, which are cheaper, because they were produced in a more efficient way. This ties in well with the next problem.

As I mentioned at the beginning, the country did not know how to use farming machinery efficiently, while the BCP was in power. The situation is not much different at present times. Most villages and towns still use heavy-duty machinery from the nineties, which are highly inefficient in terms of the gas usage to work done ratio. They are also highly expensive to maintain, but the employers are not receiving the needed subsidies in order to upgrade their equipment as we already discussed. The other option is third party investments, which are something really rare, because of the unreliability of the Bulgarian agriculture at this point of time. No one wants to put their money in a country, which suffers from soil degradation, highly outdated and inefficient equipment, lack of flexibility, when it comes down to problem solving, and most of all an uneducated labor force.

Now it is time to discuss, what is for me, the biggest problem in the country and if solved, that will lead to progress in all other areas, which I mentioned above. Education overall is in a good shape in Bulgaria, but when it comes down to agriculture specifically, it is virtually not present. Out of thirty-

two universities in the country, only one specializes in agriculture and it is easy to say that is not enough. Without proper education the future farmers of Bulgaria still do not understand the downsides of pesticide usage and are unaware of the alternatives. But the problem does not arise only at the level of college education; it is way before that, in elementary, junior high and high schools. Even in the areas, which rely on agriculture as their main source of income, the schools there do not have programs, such as AG classes and FFA chapters, to prepare the children to be successful farmers. These kids have to trust the knowledge of the people already involved in growing crops and breeding animals and that knowledge is highly outdated. Education is lacking, even when it comes to adults working in the sector at the moment. A survey in 2010 showed that more than 40% of the farmers and farm institutions in the country were not aware of how to apply for European subsidies. The reason for that was, because no one ever took the time or money to properly educate him or her on the matter. And then we get back to the point I made earlier, many of those who managed to get through the application process were denied subsidies, because of their use of pesticides and violation of other EU regulations, which they were not aware of in the first place, because no one presented them with that information to begin with. You cannot expect a child to learn how to properly ride a bike, without giving it the pedals. Until the education system starts providing the population with the needed knowledge and skills, the farmers will not be able to improve their practices and receive the subsidies to get new equipment and machinery. That renders the country unable to compete with its adversaries from Western Europe, because the production process is inefficient, with a lot of unneeded expenses and risk taking, which results in a lower profit, thus making our average farm family struggle in these times of a financial crisis. All of that just, because proper education is lacking.

There are many different possible approaches to the problem of bad and inappropriate education, but if I were to make a long term plan aiming to improve the situation it would look like this. At first I would focus my attention on the current generation of farmers. Since a large amount of the subsidies from the European Union and the Bulgarian government itself are not being integrated well at the moment I would use them in a different way. The aim of the money is to directly combat the challenges, but since an active approach to the problems is not working I would invest them in informing the farmers about the latest regulations and application processes for European subsidies. The way I would do that is by temporarily detouring the money planned for subsidies into organizing seminars throughout the country, where every village or town will be able to send farmers to take part, thus informing the general population in the rural areas, because then those people would be able to go back to their villages and share their new knowledge. I would also get representatives from the European Commission to come and present the latest changes in regulations and rules. The results would be a wider integration of government and EU money in the near future, because even the average farmers would finally be on the same page as everybody else in the Union. Also when representatives from both the institutions and the villages meet, they would be able to share their expectations towards one another, making it easier to understand the other side's thought processes. Not only that, but when everybody meets in person they would be able to bond, making it easier to work together in the future. The seminars in that sense will serve the purpose of team building exercises as well.

The next step I would undertake is to send people that specialize in the area of pesticides directly to the villages and towns. There they will explain the downsides of using these anti-pest chemicals and will introduce the alternatives. They will also educate the farmers on the matter of crop rotation and why it is important to not grow one kind of crop every year. After the villages are ready to move away from the use of pesticide and herbicides I would give them a small amount of subsidies for them to transition to some of the alternatives. The money will not be enough to cover the whole expense, but

will show them that the union is ready to cooperate and aid them in the process of modernization.

After that challenge has been overcome, the farmers will be completely eligible to apply for EU subsidies and will be aware of the process. Then I would organize a second wave of seminars throughout the country, which will aim to encourage the villages and towns to use the money they receive to modernize their equipment and buy new, more efficient machinery. That would actually allow Bulgaria to directly compete with the big exporters from Western Europe, like Poland, because one of the greatest downfalls of the country at the moment is energy usage. After the modernization Bulgaria will be able to produce products with less expenses, which would bring the price of the products down to a level, which is comparable directly to its western rivals.

The next step and final step would be the most important one of all- the integration of AG classes in school throughout the country. Since the schools will not be able to provide students with tools, equipment and workshops, because of the financial crisis, one would think that this step is impossible and maybe too ambitious, but I would approach this big project in a different way. The schools will not have to provide anything; they will cooperate with the local corporations and farmers. That way everybody gets something. The farmers will get help and will get to bond with possible future employees. The students on the other hand will get hands on experience that cannot be simulated in a school. I would also encourage schools to create FFB (Future Farmers of Bulgaria) chapters, in order to compete in various competitions though out the country. At that point finding third party companies to invest in such competitions and projects should not be hard at all, because agriculture in the country would have reached a reasonably stable and competitive level, and the European Union will consider Bulgaria as a strong ally rather than a burden.

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