

# The Subsistence Majority

Understanding Rural Development and GMOs in a Transitioning Romania



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**Abstract:**

The production of genetically modified organisms (GMOs) has been steadily increasing around the world, and remains an especially controversial subject within the European Union. Romania is one of the few E.U. countries that grows such crops, while also having the largest rural population, proportion of agricultural laborers, and reliance on subsistence agriculture of all member states.

By using a qualitative methodology, this thesis examines official documents, scholarly literature, and expert interviews to better understand the complex relationship between GMOs and the subsistence population.

More specifically, the study examines the indirect effects of industrial GMO production on Romania's "subsistence majority", which is defined as the abundance of rural small-holdings which are characterized by their substantive agricultural livelihoods and mainly grow food for their own consumption.

Furthermore, it examines the barriers to producing high quality, non-GMO products for the market and how can these barriers be overcome. It argues that GMOs act as a barrier to sustainable rural development and that restorative agricultural policies should be created to encourage economic and social equality amongst Romania's small-scale food producers.

**Keywords:** Human Ecology, subsistence agriculture, Romania, post-socialist societies, European Union, industrial agriculture, GMOs, Monsanto, rural development, Eastern Europe, sustainability, agricultural policy, organic agriculture, small farms, semi-periphery.

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# 1 Introduction

## 1.1 Topic and Background Information

### Meeting in the Middle

Geographically, Romania is located squarely between Central Europe and the former Soviet Union. Sheltered by the Carpathian Mountains, yet having access to the Danube River and Black Sea, it can be seen as a gateway of influence for both Western Europe and Eastern powers. Historically, Romania has been somewhat of a melting pot, with each migrating culture leaving their mark on the land and people encountered. The Romance language spoken in Romania today ties its population to other Latin-speaking European countries while also exhibiting Balkan, Greek, and Turkish influences in vocabulary and pronunciation. In addition to Romanian, both German and Hungarian are spoken in the mountainous region of Transylvania and the Roma language is prevalent within some ethnic communities.

Ecologically, Romania is a meeting place of natural systems and a corridor for the spread of biodiversity (WWF Romania 2011). The country currently holds 60% of Europe's brown bears, 40% of its wolf population, and notably high levels of species, genetic, and ecosystem diversity (Bartók 2008). Romania has much to gain from its position as middleman, but through its history this potential has often been exploited or left untapped - especially in the realm of agriculture.

### Romania as Breadbasket

In the past, Romania has been a mass exporter of food, providing other nations with their daily bread. Besides the early use of Romania's grains as a source of nourishment for the Roman Empire, "Byzantium and the Ottoman Empire also drew increasingly on the lands of the lower Danube and the shores of the Black Sea for their grain supply" (Wolf 1982, 26). More recently, Romania played an important role in supplying the Soviet Union with food - while its own population struggled with intense rationing of staple products like bread and vegetables. Moreover, a report during the height of socialist rule indicated that "food exports to the Soviet Union have never been mentioned in the Romanian media or economic publications" (Socor 1986). It seems that throughout history, exploitation of Romania's land for agriculture has been exercised by foreigners and Romanians, alike.

Today, things look a bit different. Painting an accurate picture of the current reality of Romanian agriculture requires the analysis of several statistics, provided by the C.I.A. World Factbook, Eurostat and other reputable sources. To begin, this medium-sized country<sup>1</sup> currently boasts 39.5% arable land, of which

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<sup>1</sup> Only slightly smaller than the United Kingdom.

only 1.9% is irrigated for permanent use (Central Intelligence Agency n.d.). At first glance, one could infer that Romania is perhaps a low-producing country. However, this is not the case. Recently, Romania became the E.U.'s biggest corn grower, even surpassing France in total area cultivated (Kanter 2008). Given this information, some have claimed that the country holds much potential – in the words of Former Foreign Minister, Teodor Baconschi - for again becoming “the breadbasket of Europe” (Financiarul 2010).

With a population of just less than 22 million stretched over 238,391 sq. km. (Central Intelligence Agency n.d.), Romania has the lowest proportion of urban population in the European Union. Moreover, a staggering 30% of the labor force officially works in agriculture (Ibid.) which is the highest percentage, by far, of all E.U. countries. For such a significant number of people working in agriculture, one would reasonably ask why production is not much higher than current rates. This brings us to our next statistic, and one that clarifies the reality of “farming” in Romania; national data estimated that almost 80% of agricultural activity in Romania is done for small scale and/or subsistence purposes (Eurostat 2010). In addition, Romania has the most agricultural holdings per country of all E.U. member states, and averages at 3 ESU<sup>2</sup> per holding (Ibid.). This means that the vast majority of rural areas consist of small, family-run properties which bring in very little, if any, income<sup>3</sup>. This group of people – those that practice small scale, subsistence or semi-subsistence agriculture – is whom I refer to when using the term ‘the subsistence majority’.

Other issues of interest to Romanian agriculture are the history of forced cooperative farm systems during socialist rule (Verdery 2011), the competitive prices of imported goods at newly established supermarkets (as opposed to traditional open-air markets that stock local produce), and the trend of agricultural labor migrating to other E.U. territories for work (Luca 2009, 15). Each of these issues represents a barrier to meaningful and equitable agricultural development in rural areas. The widespread corruption that exists at all levels of decision-making in Romania (Index of Economic Freedom 2012) is also an important issue. However, this complex topic is out of scope for this particular study.

## From GMOs to OMGs<sup>4</sup>

Across the European Union there are a host of relatively strict regulations placed on growing and selling genetically modified crops (from here on referred to as GMOs, GM or GE crops), the latter of which requires adequate labeling of the GMO ingredients contained. Public opinion polls continue to illustrate widespread skepticism on the benignity of GMO food products on health, and studies show that

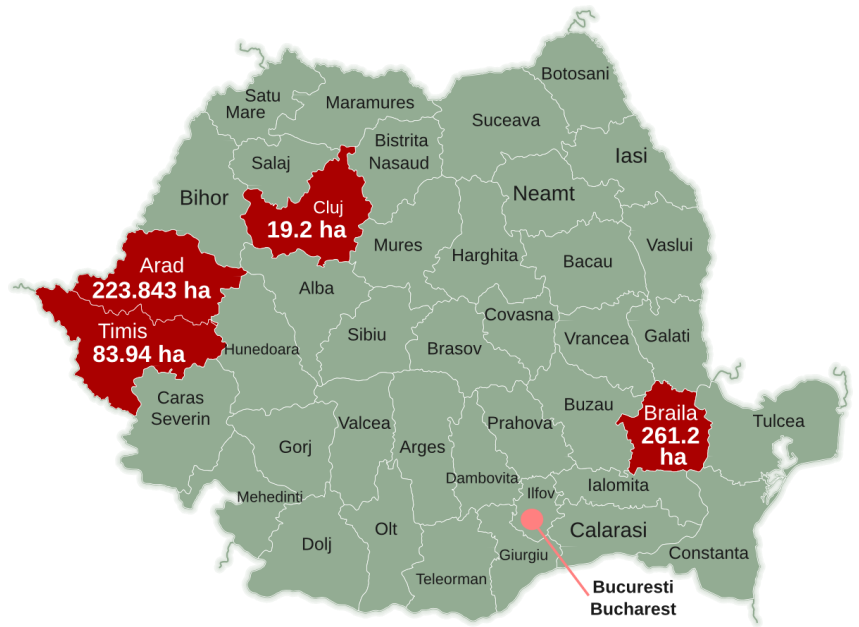
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<sup>2</sup> European Size Unit: measure used to determine the economic size of farms in the E.U.; 1 ESU equals 1,200€ (FADN, 2010)

<sup>3</sup> One such farmer in Buzău County that I interviewed said she averages only **600€ per year** in income from selling her goods at open markets. For a visual, I have included a photo of her son and his tomatoes on my title page.

<sup>4</sup> The Romanian acronym for GMO is OMG (organism modificate genetic)

“consumers in Romania are generally opposed to GM food consumption, similar to consumers in Western Europe” (Curtis and Moeltner 2007, 263). Significant attention is paid by local and global NGOs to the danger of cross contamination with native and heritage crops. In spite of this, over 500 hectares of GMO corn (from here on referred to as MON810) provided by the agricultural biotechnology company, Monsanto, were cultivated in Romania in 2011 (Figure 1).

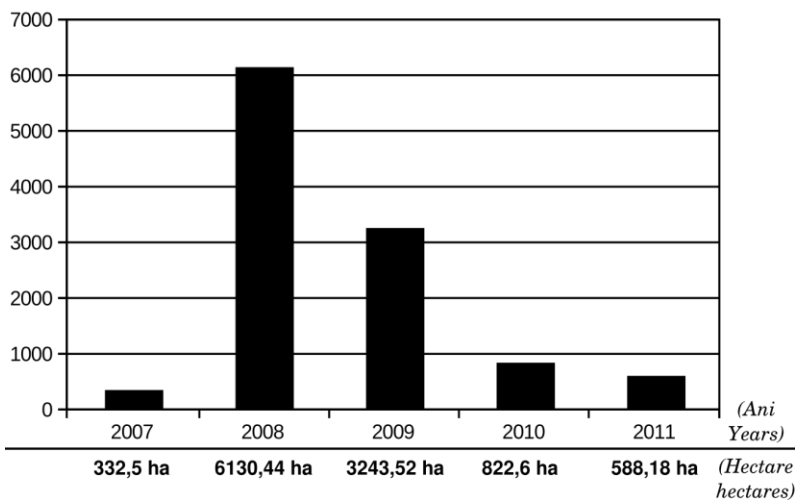


**2011** **588,18 ha**

**Figure 1, GMO Cultivation in Romania, 2011**  
Source: [www.infomg.ro](http://www.infomg.ro) (permission obtained for use)

Prior to their entrance into the E.U., Romanian industrial farms grew large quantities of the genetically modified, herbicide-tolerant soybean known as Roundup Ready. Since 2007 the cultivation of GMO soybeans was banned (per E.U. agreement) but controlling the extent of cross-breeding proved to be a challenge due to the poor management practices which led to contamination of conventional and organic crops. Similar cases have been recorded in The United States and Argentina, whose GMO production is past the point of control in some areas (Friends of the Earth 2011, 19).

**Situația cultivării OMG în România (porumbul MON810)**  
**Situation of GMO cultivation in Romania (MON810 maize)**



**Figure 2, GMO Cultivation in Romania, 2007-2011**  
Source: [www.infomg.ro](http://www.infomg.ro) (permission obtained for use)

GMO production in Romania has been reduced over the past 3 years (Figure 2), yet this topic remains vital in terms of rural development and E.U. relations. As Europe's largest producer of corn, holistic studies in regards to the GMO production in Romania should be undertaken. Though considerable research is funded and conducted every year by Monsanto to analyze the economic effects for large scale farms, very little has been written on the impacts that such crops can have on small scale and subsistence farmers.

## 1.2 Research Questions

### *1. How does GMO production affect small scale or subsistence agriculture in Romania?*

Through this research question, I hope to reflect upon the boundary between the two kinds of agriculture currently practiced in Romania; small scale/subsistence and large scale/industrial farming (which GMO production inherently represents). My aim is to explore the ways in which these two worlds are inextricably linked through direct and indirect effects of Romanian agricultural policy, as expressed through the Ministries of Agriculture and Environment, respectively. For the purposes of this study, indirect links between these practices will be treated with as much importance as direct ones. This is in order to better acknowledge the complexities of human-environmental relationships, especially in regards to land use and sustainable development.

### *2. What are the barriers to producing high quality, non-GMO products for the market and how can these barriers be overcome?*

The second part of the study consists of an inquiry into barriers to sustainable agriculture in Romania and attempts to address them through capacity building at the local and national level. Through this question, I hope to gather enough information to produce some Romania-specific policy recommendations. I am interested in the living standard of Romania's rural areas - much of which is considered to be below the poverty line by E.U. standards – and the efforts made by the Romanian government to develop these areas in a sustainable and equitable way. At the very least, I aim to begin a fruitful discussion of Romanian rural development and the potential to meet the demand for traditionally cultivated natural products while also empowering the subsistence population.

## 1.3 Aim/Purpose of Study

The primary concern of this study is to examine the relationship between GMOs and the subsistence-based agricultural lifestyle which represents the vast majority of rural Romania. Inquiry in this field can provide researchers an opportunity to add to the literature base on the effects of GMOs in transitioning, post-socialist societies. I hope to make connections between similar studies conducted elsewhere, and continue to employ a suitable methodology that is aimed at greater understanding of the complexities of this sensitive and timely subject. Ideally, this study could help inform and guide decision makers in implementing policies that would take the small-scale and subsistence agricultural sector into account, instead of mainly focusing on the relatively few large producers of GMO and/or conventional products.

## 2 Methodology

### 2.1 Romania as Case Study

An interdisciplinary research topic requires a synthesis of different social science-approved methods. For this study, I will use those mostly qualitative in nature, while also consulting quantitative secondary sources for accurate contextualization. The work shall be presented as a case study specific to Romania - the region in question - and can be compared to research performed in other parts of the E.U. or countries experimenting with GMOs. Thus, the scale of the case study is at the national level.

One of the advantages of the case study method is that it is well suited in instances where relatively little research currently exists - as is the case for GMO use in Romania - and can compile existing information in such a way that new perspectives and themes can be drawn from the available evidence. Or, more simply phrased, "case studies provide an opportunity to ask fundamentally different questions in a fundamentally different way" (Sillitoe 2003, 226). Though Romania represents a unique situation in terms of its recent E.U. membership, socialist history and large rural population, it is important to remember that "cases are often chosen not because they are extreme or unusual in some way but because they will provide a suitable context for certain research questions to be answered" (Bryman 2004, 51). In this case, Romania provides a suitable backdrop for research questions concerned with policy and development in post-socialist countries.

The materials gathered to perform this case study are diverse and holistic in breadth. Documents on Romania's ecosystems, agricultural history, consumer preferences, and sustainability strategies have been consulted and analyzed for relevance on the matter of GMOs and subsistence agriculture. This is a necessary process, as "with a case study, the case is an object of interest in its own right and the researcher aims to provide an in-depth elucidation of it" (Bryman 2004, 50). These documents will be presented in the Secondary Data section, and organized by categories of sources and themes of responses.

In addition, three expert interviews have been conducted which will provide necessary and insightful information. The interview results give the research the clear information and legitimacy needed for thoughtful analysis, as well as a more dynamic understanding of the documents and literature used. Finally, the conclusion will include answers to my research questions and possibly suggestions for future Romanian agricultural and rural development policy.

However, as with most case studies, my intent is not to produce knowledge that can be generalized and neatly placed into other contexts. As Bryman warns, "it is important to appreciate that case study researchers to not delude themselves that it is possible to identify typical cases that can be used to represent a certain class of objects... in other words, they do *not* think that a case study is a sample of one"



(Ibid.). Therefore, my findings will likely only be relevant for Romania's current trajectory, and not necessarily those of other transitional societies.

## Document Analysis

When using documents for the case study method, it is essential that they are verifiable and have gone through a rigorous fact-checking process. Peer reviewed articles from academic journals ensure that these sources are usable for the purposes of scholarly work, and thus, have been utilized extensively during the course of this study.

As for reliable and official statistical data, Eurostat, Food and Agricultural Organization (of the U.N.), United Nations Statistics Division, Unicef, and the World Health Organization (also U.N.) are recommended (Clifford and Valentine 2003, 70). Much of the data collected and represented throughout this text are derived from these sources. On official documents deriving from the state, we should remain critical, since "such documents can be interesting precisely because of the biases they reveal" (Bryman 2004, 387). Many of the documents encountered for the purposes of this study were written on behalf of the Romanian state. Like many political texts, these seem to be purposely written in a vague manner, and succeed in inspiring more questions than answers.

Finally, some documents released by the Monsanto Corporation itself have been included in the literature review, in an attempt to engage with the messages the company emits to the public. This category of literature is particularly of interest, as "documents deriving from private sources like companies are likely to be authentic and meaningful (in the sense of being clear and comprehensible to the reader), though this is not to suggest that the analyst of documents should be complacent. Issues of credibility and representativeness are likely to exercise the analyst of documents somewhat more" (Ibid.). This suggests that while corporate-produced documents such as Monsanto's may be accurate from a technical point of view, they may also (purposely) be leaving some information out of their scope entirely.

These official documents – from both public and private sources - are complimented with scholarly articles and expert interviews, thereby giving the findings and discussion chapter a more dynamic presentation of the thesis topic.

## Interviews

Interpretations of interview responses are elaborated in the corresponding chapter. The results of these interviews are discussed in the Findings section, and a synthesis with the literature discussed in the preceding chapter occurs in the Discussion. The transcripts of these interviews are also provided in the appendix, for the reader's convenience.

For the study, I chose to conduct interviews with experts in the field that were semi structured in nature. This "typically refers to a context in which the interviewer has a series of questions that are in the general form of an interview schedule but is able to vary the sequence of questions" (Bryman 2004, 113). Some could also deem these to be 'focused interviews' which "refer[s] to an interview using predominately open questions to ask interviewees questions about a specific situation or event that is relevant to them and of interest to the researcher" (Ibid.).

I chose to use interviews instead of the ethnographic-style participant observation because my interest is quite specific to GMOs, rural development, and agricultural policy and these issues are not likely to be observable on a daily basis. In addition, "the personal contact between interviewer and respondent often results in *more meaningful answers* and generates a higher rate of response" (Sillitoe 2003, 93, emphasis added).

Often these interviews surprised me by yielding fruitful information that exceeded my expectations. Such is sometimes the case with the interview method, and "although the interviewer prepares a list of predetermined questions, semi-structured interviews [can] unfold in a conversational manner offering participants the chance to explore issues they feel are important" (Sillitoe 2003, 117). These interesting quotes will be noted in the Discussion, though an in-depth or explanatory analysis of these responses is beyond the scope of the study.

### **3 Conceptual Framework**

#### **3.1 Theoretical and Analytic Tools**

##### **World-Systems Analysis**

As 'developmentalism' seemed less and less to explain the social reality through which we are living, various authors criticized one or another of its premises, groping towards an alternative framework of explanation, which I shall call a 'world-system perspective'.  
(Wallerstein 2010, 169)

World-systems theory helps researchers take the economies and political histories of the people they study into account (Wilk and Cliggett 2007, 109). As an interdisciplinary theory, it can be used in a variety of academic settings within the social sciences, such as anthropology, development studies, and geography. In addition to Immanuel Wallerstein's main categories of 'core' and 'periphery', he also speaks of a third intermediary zone, the 'semi-periphery'. To summarize, a semi-periphery zone tends to hold an "intermediate geographical position, intermediate wealth, and intermediate economic diversification. It is more diverse than the periphery and has many intermediate trade centers that deal directly with the

metropolitan area” (Hornborg, McNeill and Martinez Alier 2007, 106). Semi-periphery areas are also often times in a state of transition from one economic or political system to another. It is the unsettled reality of moving from a socialist organization<sup>5</sup> to one that is more market-based that leads me to use the term ‘transitional’ when describing Romania throughout my research. Through world-systems analysis, my study is able to focus on Romania from a macro scale, which is my starting point in understanding the use of GMOs as well as the relationship between Romania and other core countries.

Though an E.U. member since 2007, Romania is still (at best) representative of a semi-periphery state in terms of world-systems analysis. Like other countries under this category, Romania's cheap labor makes it a producer and exporter of goods such as textiles and machinery. It is a country that still struggles with the economic and social transition to a capitalist mode of production and as a result, remains highly sensitive to foreign suggestions in terms of ‘development’. The acceptance of GMO crops exemplifies this tendency, as does the pending shale-gas exploitation project with the major oil company, Chevron<sup>6</sup>. Accordingly, special attention should be paid to the subtle yet powerful influence of core countries.

Wallerstein's approach can be valuable when trying to make sense of global processes and transitional societies, such as Romania or other post-socialist states. Examining Romania's current agricultural system as one developed within a semi-periphery nation will help to better understand the attraction of growing GMO crops, despite public disapproval ratings or scientific research warning of associated health problems of consuming genetically altered products. Utilizing terms and concepts from world-systems theory will guide me towards illuminating imbalance of power at the national level, before then moving in for a closer inspection of the reality (literally) ‘on the ground’.

## Political Ecology

International development assistance went to farmers to instruct them in improved methods, to ‘educate’ them concerning ‘proper’ use of farm land, and to support them to undertake sometimes costly conservation techniques. Farmers, it was largely assumed, were the cause, and therefore the solution, to a major environmental problem [Grossman 1997]. Political ecologists, however, are keen to discover *why* farmers behave the way they do.  
(Peet, Robbins and Watts 2011, 25)

The progressive field of political ecology is one that seems to be redefined by each scholar that ventures into its intriguing way of understanding the complexities of human-environmental issues. “It is a concern with tracing the genealogy of narratives concerning ‘the environment’, with identifying power relationships supported by such narratives, and with asserting the consequences of hegemony over, and within, these narratives for economic and social development, and particularly for constraining possibilities

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<sup>5</sup> Romania’s communist period began in 1947 and ended with the bloody revolution of 1989.

<sup>6</sup> <http://www.bloomberg.com/news/2012-03-14/romania-calls-extraordinary-meeting-on-schengen-premier-says.html>

for self-determination" (Stott and Sullivan 2000, 2). This perspective will also provide my study with a complimentary micro-view to the 'big picture' uses of world-systems analysis.

I chose to use political ecology to bring an inspection of what's happening at the micro level back up to the surface, and to effectively communicate the connections between large scale GMO production and subsistence farming currently in Romania. This analytic tool is well-suited to the study topic, as the areas of interest to political ecologists often intersect with those of human geography and ecology. Additional insights can occur through assessments of economic and political phenomena that combine to produce a certain realities rooted in ecological distribution conflicts (Escobar 2006, 8). As a theoretical framework, political ecology is unique in that it's "originality and ambition arise from its efforts to link social and physical sciences to address environmental changes, conflicts, and problems" (Paulson et al 2005, 17).

The field requires that one be concerned and aware of the complex relationships between political economy and ecological studies, but research can be conducted and presented in a manner that involves knowledge in other disciplines such as sociology and social theory, anthropology, as well as the more technical area of sustainability science. Like world-systems analysis, political ecology is bred specifically for interdisciplinary use, and is useful in portraying Romanian agriculture as the dynamic system that it is.

Despite the fact that many political ecologists choose to define their field in different ways, the aim of those engaged in this practice is all in the same vein, "to analyze the interrelations created within subaltern struggles... around identity, environment, and ecologies, in all of their diversities" (Escobar 2006, 11). Through analysis in the political ecology tradition, this study has gained a more nuanced and historical insight that is specific to Romania. Engaging in critique and exploration of the issues and stakeholders involved with GMOs in Romania also helped me to become more engaged with my key concepts and their relevance to conversations on sustainability and equality in the rural areas.

## 3.2 Key Concepts

### Development

Development is used in everyday speech to refer to change. This change is usually viewed in positive terms. However, within geography, development usually has more specific meanings, referring to either national-level processes of economic, political and social change, or the positive change resulting from international actions to improve the living conditions of poor or marginal population, as well as being a country or region and implying high levels of urbanization, complex economic activity and standards of living. Such definitions are, however, not neutral as they reflect particular ideologies which vary across time and space. Geographers have been involved in both reinforcing particular concepts of development and revealing the ways in which they are based on the operation of power.

(Clifford et al. 2003, 365)

The term ‘development’ has a wide variety of uses and academic traditions, ranging from modernization to sustainability. For the purposes of this study, I want to state clearly that I am not using the common techno-centric explanation of “advanced in industrial capability, technological sophistication, and economic productivity”<sup>7</sup>. I prefer instead to begin with this simple definition, “to bring from latency to or toward fulfillment”<sup>8</sup>, not in reference to economics alone, but to the products of a healthy economy, such as access to medical care, nutritious food, safe infrastructure, environmental protection, clean water, education, etc. The Human Development Index (HDI) provides this kind of meaningful statistical data which can highlight the ‘under-development’ of much of Romania in comparison to the rest of the E.U. My definition of development requires the satisfaction of basic human needs (especially those of a population's most vulnerable communities) while not compromising the integrity of the environment past it's tipping point.

My motivation in using a definition of development that does not delve into ecologic modernization principles is that historically this understanding has created more than a few troubles of its own and also starts with a problematic viewpoint – that development has to look like it does in other (mostly core country) contexts.

In the post-Second World War period, many geographers working on and in the Global South embraced the optimism and hope that the transfer of technology from North to South would be the key to development. Through education and diffusion of technology, 'underdeveloped' or 'backward' countries, as they were often seen, would be able to progress through agricultural intensification, industrialization, and urbanization. These processes, it was argued, would lead to improved living conditions and quality of life. This route from subsistence, rural-based economies, organized around kinship or tribal social structures, to urban industrial societies with formal state institutions, was modeled on the experiences of the Global North and has been termed 'modernization'.  
(Clifford et al. 2003, 366)

Referring to any country as ‘backwards’ is not a useful or politically correct scholarly interpretation, and one that cannot be taken seriously within Human Ecology or academia as a whole. It suggests that there are power relations within the development umbrella which can become problematic in both theory and practice. Therefore, I wish to approach the term ‘development’ from a sustainability point of view that also appreciates the uniqueness of place and ties to the land as being valuable and indeed, necessary, for true development.

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<sup>7</sup> The definition of “developed” on freedictionary.com

<sup>8</sup> The definition of “develop” on freedictionary.com

## Sustainability

What is development without sustainability, but a temporary improvement? Development and sustainability are two concepts that are often intertwined, substituted, and confused for one another. The word 'sustainable' can also be found added onto many others such as 'development' and 'growth'. It is worthwhile to point out, however, that "although the concept is often expressed in terms of economics, the concept originated, and is firmly based within the physical environment" (Clifford et al. 2003, 378), which is precisely why it is appropriate to use within this study as a measurement of a healthy agricultural system. i.e. sustainable agriculture.

Probably the most cited definition is the one created through the World Commission on Environment and Development (WCED), also known as the 'Brundtland Commission', which defines sustainable measures as those which meet the needs of the present without compromising the ability of future generations to meet their own needs (Clifford et al. 2003, 372). To expand on this definition, I wish to note that here I am defining "needs" as those that are basic to a physical and social healthy human life (see development key concept) which are currently lacking in many parts of the Romanian countryside.

In addition, the operative definition for this study is developed by also acknowledging the idea that sustainable agriculture "integrates natural systems with human patterns and celebrates continuity, uniqueness and placemaking" (Early 1993), which was originally written from a sustainable design perspective. I feel that this brings a humanizing aspect to the concept of sustainability and can provide an interesting and thoughtful approach to rural and agricultural policy development.

Ideally, "a healthy society gives equal attention to ecological sustainability, economic development and social justice because they are all mutually reinforcing" (Marten 2001, 9). Marten's idea is important because it serves to remind us that the Romanian countryside is more than just the sum of its parts. Romania is not important merely for its economic potential, nor for its wilderness and natural resources. Instead, it is full of many people who would rather not become urbanized. Some will welcome it, but research and observation make the argument that many might prefer to continue living in the traditional way, but with improved access to basic services that support their rural lives and livelihoods.

## 4 Secondary Data

### 4.1 Official Documents

The National Sustainable Development Strategy of Romania was written on behalf of Romania's Ministry of Environment and the United Nations Development Program in 2008. It is essentially a comprehensive report documenting the current state of Romania's socio-economic system (including barriers to meaningful development) and projecting future scenarios and goals of the Ministry which aim

to develop Romania to more typical E.U living standards. The strategy also states a variety of statistics comparing Romania to other E.U. countries in order to show how far behind Romania is when it comes to access to clean water, basic infrastructure, medical services, and other development-related indicators. Curiously, within this 130 page document there is scant information about the subsistence population of Romania and no mention of GMOs at all – not even in the section dedicated to biodiversity preservation (Ministry of Environment and Sustainable Development, Romania 2008, 63)

One of the stated objectives within this document is “to reach the current average level of the EU countries for the main indicators of sustainable development” (Ibid., 13) by the year 2020. For this to be possible, Romania must treat sustainable development not as “one of several possible options, but the only rational prospect for advancement as a nation” (Ibid., 19). ‘Lack of education’ - especially in rural areas - is cited as one of the main barriers to development, but the proposed solutions are mostly oriented towards a narrow university education and career-based training without mention of how these programs will be adapted and brought to rural areas. Many other barriers and ideas on overcoming them are acknowledged, however, within the text no practical suggestions for action are related to the reader.

The National Strategy Plan for Rural Development produced by the Ministry of Agriculture is similar in that it gives a comprehensive look at current Romanian statistics and outlines structural disadvantages and improvement suggestions. On the topic of subsistence activities, this report had much to say. It states that “the main *issues* in Romanian agriculture are: a very large sector of subsistence and semi/subsistence agriculture, poorly equipped, with a relatively low yield, making an incomplete use of the owners work and using most of the production for their own consumption. This situation is counterweighted by the large commercial holdings... which are relatively well equipped, with high yields, but which still do not use the land to its true potential” (Ministry of Agriculture Forests and Rural Development, Romania 2005, 8, emphasis added). Through this choice of language the report seems to frame subsistence agriculture as a problem standing in the way of economic and social development, and instead praises the productive practices of industrial agriculture (and therefore, GMO production) while leaving questions of environmental and social effects unaddressed.

The report mentions that many local plant species are endangered (including some varieties of corn, beans, and potato) but then goes on to propose growing energy crops to produce biomass as a way to combat climate change. Surprisingly, the authors did not make the connection between the endangered crops and the threat of contamination by monoculture (usually of GM corn) inherent to producing such biomass. Nowhere in this text is a mention of GMOs, but “improvement of the genetic quality of cattle” (Ibid., 53) was listed as one of the tenants of ‘sustainable development’. This leaves one to wonder what their stance on other genetic ‘improvements’ would be.

From the Romanian edition of The Official Journal of the European Union, comes a recommendation memo from the European Commission in regards to preventing cross contamination of GMOs and conventional or organic crops. Released in July of 2010, it stated that coexistence of GMOs and traditional products is possible - even democratic - as long as proper precautions are taken. Consider the following excerpt, “in principle, farmers should have the possibility to cultivate the types of crops that they choose – whether they are genetically modified, conventional, or organic. This possibility should be harmonized with the will of the farmers and operators to grow cultures by using as little GMOs as possible”<sup>9</sup> (European Commission 2010, 3). However, this is followed with a very real warning of the costs of contamination, “Accidental presence of GMOs above the tolerance level set by E.U. legislation requires that the culture that was meant to be genetically unmodified to be labeled as containing GMOs”<sup>8</sup> (Ibid.). This means that producers of non-GMO products are at risk of contamination, misrepresentation in the market, and potential decline in sales due to the decisions of other nearby farmers who chose to grow GMOs. If this were to happen to a large producer, there may be a chance of imparting legal repercussions - but a small or subsistence-based farmer does not usually have this option at their disposal.

Many of the pressing issues surrounding GMOs were explored during a hearing organized by the European Commission in October of 2011, entitled ‘Socio-Economic Dimensions of GMO Cultivation’. During this all-day seminar, different experts and perspectives were introduced to represent the range of research and opinions on the benefits and shortcomings of GMOs. State representatives, researchers in biotechnology, and food and drink industry presenters from around the world generally expressed favorable reviews of GMOs, mainly citing the advantages in terms of increased yields. It was at this hearing that Argentina’s Ministry of Agriculture proclaimed that the country’s extensive use of GMOs has led to “environmental benefits [with] no adverse health effects” (Lema 2011), while evidence presented by NGOs such as Greenpeace - based on over 200 peer/reviewed scientific studies - revealed that the exact opposite is true (Greenpeace [European Unit] 2011, 16).

Finally, the European Joint Research Center presented their claim that “during the first decade of use by small farmers in developing economies, peer reviewed research has indicated that on average transgenic crops provide economic advantages for adopting farmers” (Rodriguez-Cerezo 2011), but without defining their criteria for “small farms”. This information is rendered false when applied to the Romanian context, as GMOs are categorically used by large commercial farms (Brookes 2005, 12) which can accommodate the required refuge area (at least 20% of the surface planted with GMO, according to E.U. regulations) to prevent cross contamination. This brings considerable doubt to the claim of economic advantage, given the small number of farms with the capacity to grow GMOs in Romania. Notably, claims of economic

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<sup>9</sup> Translation from Romanian, mine.



gains were never expressed in reference to increased equity or well-being amongst farmers.

## 4.2 Biotech Claims and Counter Findings

In Monsanto's annual monitoring report for 2010, the results of several scientific studies found that there were no adverse side effects from MON810 corn in Europe (Monsanto Europe 2011, 6) and that "the peer reviewed literature demonstrates that MON810 is as safe to human and animal health as its conventional counterpart and confirms that there is negligible impact from the cultivation of MON810 on biodiversity, abundance, or survival of non-target species, and the environmental risk of MON810 is considered negligible compared to conventional maize" (Ibid., 17). In addition, the report denies the claims made by the much cited study on the toxic effect of rats when fed MON810 corn (de Vendômois et al. 2009), thanks to the support of French High Counsel on Biotechnology. However, it comes as no surprise that biotechnology companies such as Monsanto would view and represent their products as being safe and effective, even in the face of growing concern from researchers and consumer agencies. In order to understand the larger debate on GMOs, it is necessary to also present ideas from outside organizations which address discrepancies beyond those that are technological in scope.

Independent researcher, Katalin Bartók, believes that the risks posed by GMOs in Romania far outweigh the potential benefits (mostly monetary) especially in regards to Romania's biodiversity and the threat towards it by the intensive agricultural treatment required by GMOs. In addition, "the increased use of GM crops hinders organic agriculture, an area in which Romania has the potential to be competitive in the EU market" (Bartók 2008, 327). According to the same source, the Romanian government is responsible for withholding information of the GMO cultivation within the country, from 1998 to as late as 2005.

If this period of confidentiality did indeed transpire, it could have been due to the fact that an overwhelming majority of Romanians oppose GMOs, regardless of their knowledge on the subject (Curtis and Moeltner 2007, 265). The same study also states that the collective sentiment is so strong, that "the majority of current GM-adverse consumers cannot be persuaded to purchase GM foods at any reasonable price discount" (Ibid., 270). This conclusion points to the disconnection between what consumers think they are purchasing (since there are no GMO labels) and the fact that they probably are consuming GMOs on a daily basis through products containing in corn syrup or GMO soya. It also speaks volumes of the lack of a true public debate on the matter which some attribute to "decades of apathetic slumber under stultifying communist rule" (Mitchell et al. 2009, 104).

The official position of the Romanian Academy on GMOs conveys its desire to see GM soybeans return to Romania, an acceleration of the GMO cultivation approval process, and generally imparts a

modernization outlook by its repeated value of increased efficiency in Romanian agriculture and considering GMOs to be a tool towards sustainable development (Academiei Română 2010). We are also warned that “prohibition of GMOs without any scientific basis delays progress in agriculture, deprives farmers of the right to choose what to grow, and reduces Romania’s competitiveness in the global market”<sup>10</sup> (Ibid., 9). No mention is made of Romania’s particularly large subsistence population or any scientific studies that indicate risks of contamination or toxicity.

It is only within literature produced by some environmental NGOs that any mention is made to the social consequences of GMOs and the ‘lack of control’ within Romania especially. Greenpeace writes much on these subjects, and has produced a report specific to the GMO soya which was officially grown in Romania up until E.U. accession in 2007. This report cites multiple instances where contamination of conventional and organic crops has occurred and that the cultivation of GMOs “is much more extensive than the [Romanian] Government knows about” (Paun 2006, 3). Both the report released for Romania and another publication released in Greenpeace’s name discuss the altered power relations inherent with GMOs, especially in regards to seed-saving. “Agrochemical companies do not allow farmers to save GE seeds for the next growing season, as this is considered to be an infringement of the agrochemical companies’ patents” (Greenpeace International 2007, 3). Unlike the documents originating from the state, this report believes that coexistence between GMO and non-GMO crops is not feasible because “GE crops are planted in the open environment... [and] it is impossible to control insects, pollen drift and wind flow” (Ibid., 4). However, because Greenpeace has such a negative reputation among industrial companies, its research is often overlooked and underutilized.

Finally, the Eco Ruralis organization released their position on GMOs in Romania, and it is from this piece of literature that we are introduced to the idea that GMOs do not exist in a bubble, and can have a real effect on the many small and subsistence farmers that make up the bulk of Romania’s rural areas. Eco Ruralis<sup>11</sup> claims that “Romania is a country in which corn crops have become a tradition, holding a rich genetic heritage of traditional corn varieties... GM crops represent an existential threat to the rights of the vast majority of small farmers in Romania” (Eco Ruralis n.d., 2). This last argument is one that cannot easily be refuted by supporters of GMO cultivation, and one that requires a further contextualization of farming in Romania.

### 4.3 Agriculture and Romanian Subsistence

We believe that in an agriculture dominated by subsistence, underdevelopment for the middle segment and few large firms, it is counterproductive, inefficient, and

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<sup>10</sup> Translation from Romanian, mine.

<sup>11</sup> See next chapter for information on my interview with the director of the organization.

unfair to help with public funds mostly large firms.  
(Luca, 2009, 21)

The above passage comes from a document released by the Romanian Center for European Policies, which is funded through the Soros Foundation. It contains information on Romania's bipolar agricultural system - few large producers, mostly small or subsistence farms - and the imbalance caused by the newly-adopted Common Agricultural Policy (CAP) on farming subsidies. The statistics obtained through this document can be quite extreme. One that stands out is that "in 2008, 0.2% of farms took in 30% of the CAP subsidies allocated for Romania. If we also include the farms in the category 100 – 500 ha, the result shows that 0.9% of farms received 51% of subsidies... though we must not forget [that] this statistic does not include the 2.6 million households that own less than 1 ha"<sup>12</sup> (Ibid.). It is through this same funding system that projects for rural development are deployed, and "this would mean the opportunity of Romanian villages to access funds for sewerage, drinking water, hygiene, for instance, [is] reduced" (Ibid. 22). Evidently, the favoring of large commercial farms (the only kind that can support GMO production) is intimately and inversely linked with the living standards of the subsistence majority.

Other pieces of literature that address the impacts of CAP on Romanian farmers are more positive towards it, saying that implementing CAP successfully induces a "change of the producers and consumers' mentality, the formation of another type of farmer, of another type of inhabitant in the rural area" (Giurcă 2005, 66). The article also provides statistics about the amount of money being provided to the agricultural sector (4.7 billion euros for 2007-2009) and declares that "one could therefore reach the conclusion that there should be no problems from this [monetary] point of view" (Ibid., 71). However, GMOs are not mentioned and subsistence farming is mentioned only several times. The concluding remark can be seen as the author's view on the potential of such farms: "facilitating the creation of a competitive sector by stimulating entrepreneurship in the rural regions might lead to a 'natural selection' among semi-subsistence farms... that have slim [chances] of becoming commercial farms" (Ibid., 91).

Of course, not everyone living in rural areas is involved with farming. Romania's many rural areas are far from homogenous (Fritzch et al., 2010) and it is important to consider the household characteristics and livelihoods represented within each region. An important study from 2005 identifies four different demographic clusters, with the more well-off living in proper towns and the poorest (and oldest) being the most dependent on subsistence production (Petrovici and Gorton 2005, 205). This demographic reality – the fact that the majority of subsistence households are operated by elderly people and/or pensioners – represents the lack of opportunities for young people to stay and strengthen the rural areas. Therefore, the

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<sup>12</sup> Source states that these statistics were obtained through Romania's Ministry of Agriculture and Rural Development.

aging population of these areas acts as a hindrance to sustainable development and instead creates a cycle of subsistence that cannot produce or sustain a thriving rural population.

In addition, “subsistence households are significantly more rural and remote, measured in terms of distance from the city and access to running water, and this raises the issue of access to agricultural markets” (Ibid., 211). The authors also note that “while commentaries on subsistence production have tended to stress its low productivity and efficiency, for Romania the importance of subsistence food production to household welfare should not be underestimated” (Ibid., 219). For development policies, the article suggests that these different clusters are taken into account and that for subsistence populations, improving access to land and agricultural markets would be the best means of poverty alleviation (Ibid., 220).

One of the results of Romania’s subsistence experience is a historical lack of chemical inputs such as fertilizers or pesticides (Ucenic and Ratiu 2009, 2). Simply put, the majority of small scale farmers have not been able to afford to enrich their soils with these additives and this has led to the belief that Romanian farmers often practice accidental-organic agriculture (Meikle 2010). These activities are not certified by any outside body as being ‘organic’, yet many could qualify as such on the basis of their traditional knowledge of agriculture and their abstinence from pollutants and lab-created stimulants. From a farmer’s perspective, however, the absence of these inputs implies a large amount of weeds which requires labor-intensive techniques that prove to be a challenge for an elderly population to keep up with (Ibid.). In spite of this, some researchers have calculated that “Romania has great openings for promoting and developing the ecological agriculture due to an agricultural area of 14.8 million hectares and unpolluted soils” (Ucenic and Ratiu 2009, 2). Yet, the potential for sustainable - if not, organic - agriculture cannot be reached without first addressing the poor living standards of the rural areas and the inequalities that currently exist through the presence of GMOs and the favoring of industrial agriculture through subsidies. Unfortunately, such observations are rarely found in literature on Romania’s agrarian system.

The final important piece of literature to mention is 2011's World Economic and Social Survey. Released through the United Nations Department of Economic and Social Affairs, it donates an entire chapter on the importance of small scale farming for sustaining the environment and for ensuring food security. It also provides ample evidence which suggests that the intensive agriculture fostered by the 'Green Revolution' has in many places led to over-cultivation and accompanying environmental and socio-economic consequences (United Nations 2011, 74). In regards to GMOs, the report believes that “the spread of genes from genetically engineered (GE) crops to non-GE ones is a more serious phenomenon than was originally thought” (Ibid., 96). The findings of the survey indicate that a sustainable future in agriculture requires the empowering of small scale farmers, not their elimination. What is needed,

according to their findings, is a combination of holistic land management education and the financial support and investment by governments, researchers, and the private sector.

## 5 Primary Data

In addition to the aforementioned secondary data consulted, I was able to conduct in-depth interviews with three stakeholders, each with many years of experience on different sides of the GMO issue in Romania. One of the most revealing was with a former state official from the Ministry of Agriculture and Rural Development. This interviewee gave me their perspective as an insider and witness to the government's role in allowing and promoting GMO cultivation as a development tool.

Interviews were also conducted through email with two other knowledgeable sources. One of them being the head of the Eco Ruralis NGO, which operates in Romania and is associated La Via Campesina, an international movement which “brings together millions of peasants... and agricultural workers from around the world, [and] defends small-scale sustainable agriculture as a way to promote social justice and dignity”<sup>13</sup>. Eco Ruralis describes itself as “a grassroots association made up of small farmers who practice organic and traditional farming based on environmentally conscious principles... Presently, there is no other association in Romania which explicitly represents the interests of small scale organic and traditional farmers”<sup>14</sup>. This interview proved to be fruitful to my understanding of how the Romanian government consistently produces measures and policies which favor biotechnology companies.

Finally, I interviewed an expert in Romanian agriculture with over 15 years of experience in the field including involvement in E.U. projects on rural development through farming/food investment. The information obtained through this conversation will help me to better answer the research questions at hand, but also left me curious about the perceived lack of cooperation and trust in rural Romania.

### 5.1 Respondent Voices

#### Arguments Against GMOs

*“I do not like GMOs but not because they are not good for humans health. This is from an economic point of view because the people and the farmers become dependent on this crop and then Monsanto or other companies can do what they want with the farmers. And in Romania, big farmers are very willing to produce these crops, but the small farmers cannot. The small farmers work more traditionally, and they want to produce what they already know because they trust the traditional product and seeds that are produced in Romania which are suitable for the region.” (State Official)*

*“There is no positive relationship between small scale farmers and genetically modified organisms. The negative impacts of GMOs can already be observed in many countries throughout the globe.” (Eco Ruralis)*

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<sup>13</sup> <http://www.viacampesina.org/en/>

<sup>14</sup> <http://www.ecoruralis.ro/web/en/>

*“I put them alongside nuclear power. Scientists consider that they can make the decisions for society. They are invariably over-confident about their knowledge. Society picks up the costs. Right now we do not need them in agriculture. They should be kept to highly controlled environments for the likes of the pharmaceutical industry. As to a local economy, I am far from convinced about their economic merits in agriculture per se. As to specific local economies where the focus needs to be on natural, artisan etc. type of products, their presence will be an economic disaster.” (Independent Expert)*

The respondents were overwhelmingly negative toward GMOs in Romania, despite their different sets of expertise on the matter. Contrary to my expectation, the state official and development expert also shares this negative view, both citing the bipolar economic circumstances created through the presence of GMOs in rural areas. The representative from Eco Ruralis opposed the use of GMOs more from human and environmental health point of view. All of the interviewees also cited the potential damage incurred by traditional agriculture and the need to protect rural areas from corporate interference.

### Who Benefits from Current Agricultural Policies?

*“...only the big ones will profit because they are producing for the market. This is why the Ministry of Agriculture cares about the big farmers not the small ones. Small farmers are producing more for their own consumption, but through our rural development programs we try to move these small farmers from self-consumption to commercial consumption, to start to sell their products. But it's a long process, we cannot do this overnight.” (State Official)*

*“I haven't met any Romanian small scale farmer that grows GM crops or would like to grow them in the future. I would say that this phenomenon is indeed a “large-farm” approach. On the other hand, many small scale farmers are turning towards the cultivation of peasant, local varieties, as these seeds are more suitable for their low-input, sustainable farming approach.” (Eco Ruralis)*

*“Where large-scale agriculture is active, the actual rural communities disappear in the context of them being linked to agriculture - villages become dormitories serving urban centers. Where rural communities are to survive with links to agriculture, invariably value-added, natural, quality, artisan product production is important. The presence of gmo will totally under-mine this.” (Independent Expert)*

Here the respondents clearly identify that the agricultural policies in place (such as the ones allowing GMO production) are tailored with industrial production in mind, rather than the subsistence majority. The fact that these large farms are so few - yet receive so much attention and subsidies – suggests the imbalanced priorities of policy makers and the powerful influence of GMO producers. All of the respondents in one way or another stressed the importance of developing a system that can also benefit the subsistence majority, as they are clearly in need of more support and attention.

### On the Lack of Agricultural Cooperation

*“They do not want to do this, from the economic point of view. Because if they are selling through a cooperative, then they have to pay VAT and all the other taxes. If not, they sell directly at markets and do*

*not declare their income. So it's to avoid the taxes, that's why[...] they do not understand. They do not think long term and to organize with others. Even before communism this was the thinking. And we do not have experience in cooperatives or being organized.” (State Official)*

*“Communist cooperatives disappointed Romanian farmers, and they are still very weary in cooperating with each other. Public authorities didn't invest much effort in changing this trend.” (Eco Ruralis)*

*“First people hate the word. Second it means working with your neighbor. Third, it appears that many Romanians really dislike their neighbor. Fourth Romanians will not trust each other. In the last five years or so this has got far worse. The rewards have gone to those who are least socially-aware. It has become very dog-eat-dog and that is not an environment within which co-operation works.” (Independent Expert)*

I became interested in agricultural cooperatives in the Romanian context, and was met with several explanations for the absence of such and indeed, the negative correlation with the idea in general. One opinion blamed this on the historical trauma caused by the forced cooperative systems of the communist agenda. Another, that Romanians simply lack the trust needed for such ventures. Yet another blamed the complicated bureaucratic process and the desire to avoid paying higher taxes. Overall, my respondents indicated that agricultural cooperatives such as those seen in other parts of Europe are not well suited for Romania and were negative about the adoption of cooperative models in the near future.

## Future Projections

*“I think it will decrease in the future because I saw the data on the area of MON810 corn cultivated decreased a lot since the last years. So I think that in the future it will decrease.” (State Official)*

*“I think that decisions regarding the cultivations of GMOs are taken on a highly political level. The biotechnology lobby is very strong in Romania, ex-lobby actors become ministers of Agriculture, like our present minister, Stelian Fuia... our former agricultural minister also had strong ties with Monsanto [...]. Although Romania has a very opened position towards biotechnology, on a political level, this does not reflect in the fields, GM cultivation declining every year since its introduction in Romania” (Eco Ruralis)*

*“The primary issue is how to create demographically-sustainable communities. That means economic development that allows rural dwellers a standard of living that is attractive enough to encourage the next generation to stay. One has to be realistic, it is about sustainable agricultural and food businesses. That means real connections to the market.” (Independent Expert)*

The interviewees agreed that GMOs are probably on their way out, which reflects the drop in GMO use over the past 3 years (see Figure 2). All the respondents agreed that GMO presence in Romania has until now been due (at least partly) to political influences from supporters with ties to companies like Monsanto, but that the current trend indicates that there may be a need to start planning for a future without GMOs. This could signal an opportunity for the subsistence majority, but it will be difficult considering the strength of the biotech industry and the lack of meaningful governmental support.

## Ways Forward

*“I think that the most sustainable method is to help them with training to understand what to cultivate, what are the prices, where to sell, to give them information related to the market. And also they should get help with money to help start up projects.” (State Official)*

*“I believe that civil-society, foreign or not, should play an important role in spreading reliable information about food and agriculture and educating Romanian people. Also, through programs like WWOOF Romania, Romanian small scale farmers benefit from the cultural exchange happening on their farms, learning a lot about foreign initiatives in sustainable rural development.” (Eco Ruralis)*

*“It is very, very difficult. It requires a different set of ideas from what has worked elsewhere. I do not think the ngo-World has the capacity to implement the changes required. Neither is the capacity within the Romanian community to deliver the changes required. The only way changes can happen is through the development of one or two flag-ship activities to show the way forwards...”*

*The one thing I do know is that the solutions have been identified, it is just a battle to get past the governmental and ngo sides, not to mention those who cannot see where their own interest lies in trying to do something different and something that may have real social and environmental benefits.” (Independent Expert)*

All of the interviewees recommended that rural areas should ‘open up’ to the local or export market as a development strategy. The role of foreign investment was deemed by them to be a double edged sword, with potential benefits that could be negated if protective policies are not enforced. The respondents suggested the need of some kind of recalibration through training or education, but also noted that policies seen in other parts of Europe may not fit in a Romanian context and that a novel approach should be developed that could retain Romania’s agricultural heritage and large rural labor force.

## 5.2 Discussion

The interviewees all had unique viewpoints in regard to GMOs in Romania, but the former state official and the independent expert were in agreement over their economic reasoning. Both cited that GMOs create an unfair advantage (but also, dependency) for industrial farms while putting the subsistence majority at risk of cross contamination and inaccessibility for the local market. Meanwhile, Monsanto’s monitoring report claims that “no potential adverse effects related to MON810 have been reported or confirmed” (Monsanto Europe 2011, 13). However, this claim is limited to technical and monetary effects, and does not comprise a holistic accounting of the impacts of GMOs on small scale farming activities. Indeed, both Monsanto and Romania’s Ministry of Agriculture (in their Strategy Plan for Rural Development) rely heavily on economic indicators such as GDP for their understanding of development, but these quantitative figures alone cannot fully communicate the complexities of Romania’s agrarian sector, especially in regards to the prevalence of subsistence-based households.



In regards to the beneficiaries of agricultural policies, the respondents identified the large industrial farms. This corresponds with the results of the Soros Foundation funded report on Romania's two agricultures and the unequal relationship between policy and the subsistence majority. The independent expert interviewee even went as far as saying that the current rural development programs are "absolutely useless" to most small of subsistence farmers. This reality has been quantified by the aforementioned report, where it states that 2.6 million rural households own under 1 hectare of land (Luca 2009, 16) and that farms under 1 hectare are not eligible for subsidies of any kind (Ibid., 20). The state official interviewee pointed out that the Ministry of Agriculture (the entity that handles subsidy and rural development disbursements) only cares about the large farms. This opinion is upheld by the report, which states that "The Romanian agricultural establishment was trapped into a damaging mentality based on the idea that only large farms can be efficient and must be sustained" (Ibid., 25). In short, my interviewees and the Soros report observed that agricultural policies such as those implemented through CAP reward large farms, including all GMO producers, at the expense of the majority of the subsistence majority.

The lack of agricultural cooperatives in Romania was an unexpected topic that came up during my semi-structured interview with the former state official. I initially thought that developing agricultural collectives could be a capacity-building tool for subsistence farmers to use as protection from the indirect effects of the powerful GMO producers. Surprisingly, this idea was dismissed immediately and deemed as a tactic not fit for a Romanian context, even if cooperation would be to the subsistence majority's benefit. I carried on this inquiry to my next interviews with the director of Eco Rurales and also with the independent expert. Among my interviewees, there was no clear agreement on the origin of Romanian customs of private property individual entrepreneurship, but most indicated that the fairly recent communist experience may be one factor worthy of attention.

Romania's communist period and its experiences of surveillance and social alienation have been the foci of several pieces of scholarly literature (Kligman 1998, Tismaneanu 2009) and works of fiction<sup>15</sup>, though mostly from an urban perspective. The anthropologist, Katherine Verdery, is one of the few to publish research documenting the communist experience of those living in rural areas and her work could provide the necessary context to better understand the current situation in regards to the skepticism towards agricultural cooperation today. Verdery's extensive fieldwork in Romania shows that Romanian rural areas have a "history of smallholding and [a] minimal importance of communal tenure" (Verdery and Kligman 2011, 363). She also states that going from forced cooperatives to a decollectivization period increased the trust deficit in rural areas and that this process "completely reconfigured the connections among persons, things, and the values attributed to them" (Verdery 2003, 158). Thus, Romania's "story of

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<sup>15</sup> Here I refer to the film *4 Months, 3 Weeks and 2 Days*, which won the prestigious Palme d'Or at Cannes Film Festival in 2007.

property restitution is a story of forming... new social identities based in property and possessing” (Verdery 1996, 135). As the director of Eco Ruralis explained, agricultural collectivization is an unpleasant reminder of Romania’s totalitarian past, and remains a strong point of contention through this time of transition - even 20 years after the fall of the communist regime.

The interviewees predict a dismal future for GMOs in Romania, citing their reduced use over the past three years and the recent bans on MON810 in nearby Hungary and Poland<sup>16</sup>. All agreed that the use of GMOs is unsustainable in the long run, and that their presence is the direct result of lobbying from the biotech industry and even the American Embassy (according to the experiences of the former state official). The Eco Ruralis respondent stated that eliminating GMOs from Romania “opens up the road for a more sustainable approach in agriculture, taking a decisive step in assuring food sovereignty”. This is a sentiment that is echoed in the Greenpeace documents, which conclude that such a decision “would require the support and proper structure... but could lead to the establishment of an important opportunity” (Paun [Greenpeace Central and Eastern Europe] 2006, 16). Here I would add that this hope for the future has a better chance of realization if policymakers begin to take the subsistence majority into account.

The respondents also believed that indications of the inevitability of a Romanian GMO ban should inspire policy that can create meaningful impacts in the lives of Romania’s large rural population, though they differed in their opinions of how best to do this. Economic positioning was the preferred method of the former state official and independent expert, while the Eco Ruralis representative suggested a strengthening of local communities and engaging in cultural exchange programs that could inspire alternative capacity building initiatives specific to the region in question. Overall, the respondents favored expressions such as “training” and “access to information” over the more broad term, “education”, and all agreed that financial inputs from the state could help fund small projects and farms that would benefit agricultural livelihoods without urbanizing them in the process. Such ideas were also encountered in the U.N.’s recommendations on small-scale agriculture, though the term “education” seemed to indicate more of a technical and literacy focus and an institutional point of reference (United Nations 2011, 99). Other similarities between respondent recommendations and that of the U.N. occur when considering monetary inputs from public and private sources. Both maintain that financial support could be pivotal to further development of (and research on) rural areas, especially if those funds are used to promote sustainable agricultural practices that are capable of empowering the subsistence majority.

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<sup>16</sup> <http://www.fwi.co.uk/Articles/11/04/2012/132347/Poland-imposes-ban-on-Monsanto-GM-maize.htm>

## 6 Conclusion

Through this study, I have explored the complex relationship between the presence of GMOs in Romania and the negative consequences incurred by the subsistence majority. By using the lenses of world-systems perspective and political ecology, I was able to clearly discern the effects of economic macro-processes while also glimpsing into the cultural and historical nuances which are unique to Romanian rural areas. Overall, my findings suggest that these seemingly unrelated poles in the spectrum of Romanian agriculture are indeed linked through power relations which are negotiated through agrarian policies issued at the national and E.U. levels and that sustainable development in the subsistence majority requires a move towards policies that can address these inequalities effectively. Here I will reflect on my original research questions and then briefly offer some policy recommendations for the impending GMO-free future of Romania.

### 6.1 Return to Research Questions

#### *1. How does GMO production affect small scale or subsistence agriculture in Romania?*

My research indicates that the relatively few large farms producing GMOs have an unfair advantage in Romania's agricultural system. This of course, is the case for all E.U. countries that adhere to policies such as CAP, but is especially detrimental in Romania's case, where 30% of the population works in agriculture and almost half of all Romanians live in rural regions which are dominated by subsistence practices and poor access to basic infrastructure, potable water, educational opportunities, and medical services. In addition, large scale agriculture – which GMOs require – does not create many job opportunities due to their reliance on technological tools which take the place of human labor. This results in a large, yet aging subsistence population as young people leave to find opportunities elsewhere in Romania and the E.U.

GMOs can be understood as the embodiment of power relations in agriculture through the dependency that they create, their potential to contaminate non-GMO crops, and by their mere presence, which was pushed by outside organizations. In short, GMOs represent a barrier to sustainable and equitable development in Romania. Thus, my findings and those of my interviewees shows that the coexistence of GMOs and small scale agriculture is difficult, unsustainable, and unlikely to be maintained in the long run. In the words of the independent expert interviewee, “Where large-scale agriculture is active, the actual rural communities disappear in the context of them being linked to agriculture - villages become dormitories serving urban centers. Where rural communities are to survive with links to agriculture, invariably value-added, natural, quality, artisan product production is important. The presence of [GMOs] will totally under-mine this.”

A major roadblock to overcoming this unequal relationship exists in the structuring of certain

government policies and the exaggerated attention that is given to large-scale producers by decision makers in Romania. The result of creating policies with large agro-businesses in mind is the disbursement of subsidies to those growing for the export market and the rationing of rural development funds meant for the large population in need of attention and support. These policies may benefit other European nations, but development in Romania requires a different approach – one that acknowledges and empowers the subsistence majority.

Finally, the subsistence majority is directly affected by risk of contamination of traditional crops by genetically-altered breeds such as MON810. This risk is substantiated by Romania's poor track record of containing GMOs, such as the experience with Roundup Ready soybeans.

*2. What are the barriers to producing high quality, non-GMO products for the market and how can these barriers be overcome?*

As mentioned for the previous question, the main barriers to sustainable development and the revitalization of rural areas are policies that favor industrial farms and GMO producers. Both the primary and secondary data consulted for this study clearly show that agricultural development policies in Romania are focused on assisting large industrial producers (many of whom produce for the export market) because of their higher profitability, and constitute a lower prioritization for those who arguably deserve the most assistance .

Within much of the literature consulted for this study, having such a large subsistence population is framed as a barrier. This should be realized and reconsidered, as many organizations (such as the U.N.) are now proclaiming that small-scale agriculture is the way to a (socially *and* environmentally )sustainable future. With this perspective, Romania's subsistence majority could be seen as a resource and not a burden, especially since much of these holdings operate without synthetic fertilizers or pesticides. The potential for a thriving and equitable rural area depends on the ability to make the subsistence majority visible and valuable to policy makers and Romanian consumers in search of sustainably produced food and artisanal products. Unlike other parts of Europe, forming cooperatives might not be the easiest solution for Romania. Further research should be pursued to determine other kinds of advocate groups that would be better suited in this context.

One final barrier to production is the growing difficulty of accessing even the local market, as traditional marketplaces become less frequented as before and supermarkets grow in popularity. Several of the documents analyzed and all of the interviewees agreed that gaining access to new markets is a bureaucratic endeavor, but also a vital tactic that could help the many small producers within the subsistence majority take advantage of their integral knowledge (of alternatives to large scale agriculture)

and of the growing demand for non-GMO products. Training (not necessarily “education”) and access to information and financial support is essential for success.

## 6.2 Recommendations

If we accept the notion that sustainable development amounts to meeting the current needs without compromising the ability of future generations to meet their own needs, the achievement of that goal depends on, and is influenced by, almost any political, social, and economic and/or administrative decision that we may take.  
Attila Korodi (former Minister of Environment, Romania), 2008

This study makes it clear that GMOs are only beneficial for large farms with political connections and access to government subsidies. GMOs cannot develop the majority of rural population (which is in dire need of help) and indeed, contributes to their continued underdevelopment. Furthermore, it seems that GMO presence has an indirect negative effect on subsistence farming, which again represents the vast majority of agricultural activity in rural areas. GMO use is decreasing in Romania, but as long as they are used, it means a disadvantage for the subsistence majority in terms of attention from administrations.

The Romanian rural area holds a great deal of potential for becoming a provider of quality non-GMO products, which is in high demand in E.U. (and steadily growing in Romania as well), and this demand could have positive economic - and living standard - effects for the subsistence majority. This study suggests that GMOs are not necessary in Romania, and are not a suitable form of sustainable agriculture. Production of GMOs has decreased in recent years and a transitional plan must be developed which can include the majority of those in rural areas, such as those engaging in subsistence practices. There is a clear need to focus more attention and E.U. funds on subsistence population and also create an ‘education’ program that can address rural disadvantages and agricultural policies should be changed to reflect a commitment to improving the welfare of the subsistence majority while also allowing them to continue their rural livelihoods and agrarian traditions. Pressure should be put on ministries to refine and clarify their plans - and follow through with actions – on engaging with the subsistence majority .

## 6.3 Contribution of the Study

The information at hand is of relevance to decision makers, agricultural activists, and rural populations, both inside and outside of Romania. Coordinating with other researchers and organizations can provide a better picture of the reality of GMO use, as information on the matter is currently scarce. The increasing use of GMOs across the world deserves to be scrutinized - before the situation reaches an uninformed fever pitch and gets out of hand, affecting global crops on such a level that permanent alterations are unavoidable. It is my wish that the research produced will go toward empowering and voicing the concerns of small scale farmers in Romania and beyond.

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## Appendix

### Interview Transcript, Government

Former State Official with Expert Knowledge  
3 March 2012, Bucuresti (Romania)

LJ: You have read my proposal and can see that I am interested both in Romanian rural development projects and also the GMO production, mainly corn, MON810. In my thesis, I am trying to connect these two, and I wonder if you see a connection between them as well? I am looking both at the Ministry of Environment as well as the Ministry of Agriculture because I think it makes sense when we are talking about this particular crop. From what I have been reading – at least from Monsanto's perspective – I sense this rhetoric about rural development and that these GMOs will help in some way with that. Do you feel that this connection between development and genetically modified crops is justified?

From my point of view, I do not see any link between rural development and GMOs. This is clear. But for the big farmers this crop is important because they are more efficient. This is the only positive thing about GMOs. I do not like GMOs but not because they are not good for human health. This is from an economic point of view because the people and the farmers become dependent on this crop and then Monsanto or other companies can do what they want with the farmers. And in Romania, big farmers are very willing to produce these crops, but the small farmers cannot. The small farmers work more traditionally, and they want to produce what they already know because they trust the traditional product and seeds that are produced in Romania which are suitable for the region.

LJ: Even though it is more work for them?

Yes, because they do not have money to pay for machinery or spray or other things and for them it's easier to pay people to come and weed for them. They give them a meal or two per day and maybe some money, so for them this is easier. The plots are also very small and not suited for machinery.

LJ: That sounds like what I have been reading so far about farming in Romania. But it does not explain why these GMO crops are being grown and presented under this rhetoric of development?

My colleague and I made some calculations based on the data from big producers and from the economic point of view they do see a result from using GMOs because the amount of fertilizer used and also the fuel and other associated costs and the human work. And in Romania it's a big pressure on the government from the farmers to approve GMO soya.

LJ: You mean to re-approve it? Is this pressure coming from big farmers?

Yeah from the big farmers, not from the small ones. From their point of view it's okay because we import a lot of soya and it's also modified; from Argentina, from Brazil, from US. This is used for animal breeding but we cannot produce here in Europe.

LJ: Yes, because there is now a moratorium on GM soya. But they did used to produce GMO soybeans in Romania, right?

Yes, before accession. But now after accession, because it is not approved in the E.U. we cannot grow it

anymore.

LJ: Were those GMO soybeans used inside Romania or were they exported?

They were exported but also used for consumers. Romania has very good land for cultivation of soya, but they do not understand that if they cultivate non-GMO soya they can have a profit also. It depends, because GMO soya is very cheap compared with non-GMO. There are some farmers that still cultivate for their own consumption because they also have animal breeding farms and they use them in the farm.

LJ: Conventional or GMO?

No, conventional. Because GMO is not allowed. But the total area cultivated is declined very much since accession.

LJ: Do you see Romania as continuing to use GMOs in the future? What do you think about countries like Hungary that have now stopped producing MON810?

Yes, they stopped everything. And also Bulgaria, Austria, France, Germany. Now only Spain, Great Britain, Sweden, and Romania – there are few countries that are pro-GMO. But I think it will decrease in the future because I saw the data on the area of MON810 corn cultivated decreased a lot since the last years. So I think that in the future it will decrease. It depends also, because I heard that Monsanto's patent expires in 2 years and they do not have anything to replace it.

LJ: Do you think cultivation of MON810 will decrease because they will make the farmers start to pay after 2 years, or because of a political decision going on public opinions?

I think it's a combination of the two, but the trend will be from the political point of view. If they do not patent for another ten years, it will be forbidden to cultivate, and the farmers will be oriented for other types of produce.

LJ: That reminds me, I was reading about Atilla Korodi, and how we said in 2008 that he is hesitant about GMOs. This was for the Ministry of Environment. But then, I see that someone else took his place immediately afterward, and I can't find any literature telling me what happened to him and his idea.

It was a political fight between the minister of agriculture, the minister of environment, and the prime minister. None of them have even now taken a decision on this. From the Ministry of Agriculture's point of view, we support it because our farmers want to cultivate and we want to help them to get an economic advantage. But the minister of environment said that this is not good for the environment, we have some studies even though they are not made here in Romania, and we should elaborate on them here over a long period of time to know more. Maybe over one year to know what are the effects. Since no decision was taken, we are now in between.

LJ: So, the Ministry of Agriculture approves them “for their farmers”, but who would actually benefit? It is the Ministry of Agriculture *and* Rural Development, after all, but not all farmers would benefit.

No, only the big ones will profit because they are producing for the market. This is why the Ministry of Agriculture cares about the big farmers not the small ones. Small farmers are producing more for their own consumption, but through our rural development programs we try to move these small farmers from self consumption to commercial consumption, to start to sell their products. But it's a long process, we cannot

do this overnight.

LJ: Do you know where the MON810 corn that is being produced is going?

We know where it is going because the legislation is very strict on this. Every farmer who wants to produce GMO has to tell the ministry where it will be produced and to tell the precise location and also they have some rules regarding the transportation. The legislation is quite strict. I don't know if it's really enforced. Also there are some rules regarding the limits on the crops having to be so many meters between conventional crops.

LJ: But what about exporting the corn, do we know for what purpose? For example I read that some may be sent to Syria to feed their livestock. Do the farmers know where it will be sent, or is this just known by distributors?

I don't know. But the production is not very high, because the area decreased a lot. I think that there are around 100,000 hectares used. This is out of 9 million hectares of arable land.

LJ: And this figure is only for the GMO corn?

Yeah. And the production cannot be more than, let's say, 5 tons per hectare. Because in Romania the production numbers are not verified, but for corn and for this type of production for the big farms can be higher. If we look at the total corn production in Romania, this GMO is quite small. But we had some problems last year and two years ago regarding the export of corn to Greece. I don't know if you've heard, but this was due to the protesting Greek farmers and they blocked the customs and they checked all the transport from Romania going through Bulgaria. They also reduced some cereal exports from Romania because they do not want GMO. We had some debates on the commission.

LJ: Is this because it would affect their farmers' livelihoods?

Yeah, because they do not grow GMO.

LJ: So, what percentage of farms in Romania are small scale or subsistence farms?

From total number of farms? Eighty percent. If we took into consideration the data from the paying agency which pays some money per area. We have the database with farmers, and they have to have more than one hectare. According to our statistical data, there are 8.5 million farms. But according to AFIA, we have in the database one million farmers and only 200,000 farmers have more than 100 hectares.

LJ: Ok, so most are micro-farms. What is their economic role now? Do they have access to any market?

It's mostly for their self consumption and the surplus can be sold at markets.

LJ: So what was the goal of the Ministry of Agriculture for helping these small farmers?

There are some rural development programs. Ones that small farmers can receive 1,500€ per year for five years and they have to have a business plan and to try to sell the products grown on their farm. They have to increase their product sold by 20% in 5 years. This is the rule.

LJ: Do you think this is an easy process for a lot of farmers to go through?

If we look at the data, there are a lot of farmers who are eligible and the budget is quite big, around 100 million euros for seven years. I have the data at home and I can send it to you. I have the data from the paying agency also and I can send you some information, it is in Romanian.

LJ: Yes, please. Is this an E.U. program?

Yes, it started in 2007 and it goes until 2013.

LJ: How do you personally feel about GMOs, in terms of the environment, human health and for the economy?

For the health, I don't think there are problems, because we eat a lot of it already. From the environment, I do not think that there are problems. Only from the economic point of view, as I said earlier, because the farmers become dependent on these companies that are very big and they are monopolizing on this product.

LJ: Do you think that they take advantage of these farmers?

Yeah, like maybe you saw in that French movie regarding GMO? I saw it in 2006 and I was shocked after I saw that movie. It's more on the farmers from India and it can affect them a lot after they sign the contract with Monsanto. It's a French movie.

LJ: In your experience have you met with representatives from the IMF or the World Bank to discuss GMOs?

Gmos? No. I did not meet with IMF, but World Bank, no.

LJ: So GMOs are not suggested for development strategy?

No, no. The American Embassy, they are pushing the idea.

LJ: Do you think that GMOs give a sustainable path to development?

No. Sustainable? No. Look at what they did in Argentina. It's not sustainable. And I read somewhere that the Incas died off because they overproduced corn on terraces and cut down the forest.

LJ: Do you think that GMOs help with economic distribution of wealth?

No, no.

LJ: How do you feel about Hungary's decision to ban GMOs?

It's their decision. I think it's right. And in Austria, the consumer don't want GMOs.

LJ: Even in Romania they did studies on consumer preferences, and most people did not trust GMOs. This is the case almost everywhere.

Yeah, but in Romania, most of the people don't know that we eat GMOs everyday and that all the pigs and

the chickens are grown with GMOs.

LJ: Do you think It would be helpful if GMO products would be labeled?

Yes, and it should be big and with colors so people can see it.

LJ: I am interested in the farming being done on 'The Great Brăila Island (Insula Mare a Brăilei). Are there only big farms on this island? Are there any small farms?

No, it is all *one* big farm there.

LJ: It is Culiță Tărăța's, right?

He owns 67,000 hectares in Romania. His director has ties to Monsanto.

LJ: I know that many small farms cannot afford fertilizer or spray their land. Do you think that the small farmers can use this to their advantage and market their products as organic or natural?

Most of the Romanians who go to the market are asking where it is produced. If it's in Romania, it's okay and they will buy. But we have to be very careful because the Romanian farmers are also very smart. And they will sometimes use some pesticides and fertilizer for the fruits and vegetables, and they will not follow the directions.

LJ: But what about exporting the products that are really natural?

For this to work you have to have some analysis made. We had some problems with Russia, who sent our products back because they were full of pesticides. And in Romania it is impossible for big retailers to buy small quantities from these farmers.

LJ: Why don't they form a cooperative and work together?

They do not want to do this, from the economic point of view. Because if they are selling through a cooperative, then they have to pay VAT and all the other taxes. If not, they sell directly at markets and do not declare their income. So it's to avoid the taxes, that's why.

LJ: That's too bad, because it could be in their benefit.

They do not understand. They do not think long term and to organize with others. Even before communism this was the thinking. And we do not have experience in cooperatives or being organized. I can tell you a story about the first producer organization in Romania. It was for apples. An Austrian man came to a farm in Romania where a lot of apples grew and he asked if they want to make a cooperative. The farmer said no, go away. The next year, he came again asking if they would organize together and put the apples to use. Again, the farmer said no, leave me alone. The third year, he invited the farmer to Austria, and he went. There he saw how people worked together in cooperatives. When he went back to Romania, he started the first producer organization. They can make apple juice for export.

LJ: I think that it's easy for us to assume that everyone would think that way, and act in their interest.

It's a different mentality. For example, the supermarket chain METRO wanted to buy melons from

Romanians in a melon growing region. They said that they needed so many in each shipment and that a schedule would be made up for the farmer with guaranteed payment after 30 days. They did not want to wait for the money or make a contract so they declined and resorted to selling their melons on the side of the road. Even through they pleaded with them, they did not want to partner. Of course they could not sell them all and were left with tons of melons to rot. And these people work very hard to grow and harvest this product, you can't say that it's easy. Also, it's just too complicated to pay the taxes for a business.

LJ: So what do you think is the best way to help these smaller farmers meet their basic needs?

I think that the most sustainable method is to help them with training to understand what to cultivate, what are the prices, where to sell, to give them information related to the market. And also they should get help with money to help start up projects. We have some studies done in Romania that says the much of the money that is granted without any obligation from the farmer is not actually used to develop his business. They use it as revenue or income instead. The big farmers are very rich in Romania, but the small ones are not. And 20% of the farmers cultivate more than 50% of the land. Foreign investment could help, but only if they come with technology that practices. I know a young farmer in Costanța and he said that it would be very good if the Romanian government would grant him some money to help him buy the land because in Costanța a lot of Danish and Irish came and bought a lot of land. They have the money, but many Romanians don't.

LJ: So ideally there should be a balance between foreigners coming in and having some positive influence and them coming in and taking up all the best land...

Yes. And you know in Romania a foreigner cannot just buy land. They must first set up and register a Romanian company or enterprise. Only after this you can buy the land, any size.

LJ: Do you feel that some lawmakers' ties with Monsanto have impacted it's use in Romania?

Well the area used for GMOs has now decreased a lot, so I don't think that they will have much influence in the future. In general, the researchers and farmers work the closest with Monsanto. It's difficult for politicians to influence people here. My friend who works for Monsanto says that they are very law-abiding and do not give farmers extra money for growing GMOs. The American Embassy was much more pushy about it. They would come to the ministry and lobby about GMOs.

## Interview Transcript, NGO

Eco Ruralis NGO

10 April 2012, Email Correspondence

1. Would you prefer to be kept as an anonymous source, or is it alright to use your (or Eco Ruralis') name in the text of the thesis?

You can use my name, Szocs Boruss Miklos Attila, Administrator Eco Ruralis – In support of traditional and organic farmers.

2. What is your role within Ecoruralis and how long have you been involved in this field of work?

I finished an environmental engineering university and masters degree, and in 2008 I got involved in the Romanian anti-GMO movement, working at an NGO named InfOMG Romania as a project assistant. Eco Ruralis is a partner organization of InfOMG, also being involved in this movement, from a small farmers

point of view, fighting for small scale farmers' rights. I became really passionate about this movement, and at the end of 2009 I was given the chance to become the administrator of this peasants organizations, working with small scale farmers from Romania, and networking with other organizations from Romania and Europe.

3. What kind of relationship - positive or negative - do you see between cultivation of GMO crops (such as MON810) and rural development for small scale or subsistence farmers?

There is no positive relationship between small scale farmers and genetically modified organisms. The negative impacts of GMOs can already be observed in many countries throughout the globe. An agricultural system based on patents, agrochemicals, heavy mechanization proves to be unsustainable, destructive towards small scale farmers, concentrating power in the hand of a few agribusiness actors, generating food insecurity, poverty and migration from the rural areas.

4. What evidence can you cite for your position on the matter?

There are many aspects to be considered on the negative impact of GMOs. I would like to add some links towards a gathering of studies which prove the adverse health impacts of GMOs: [http://www.infomg.ro/web/en/Resources/Scientific\\_studies/](http://www.infomg.ro/web/en/Resources/Scientific_studies/). Also, a research group from South America released a recent study on the impact of glyphosate –based herbicides used on herbicide tolerant GM plants on humans: [http://www.gmwatch.eu/images/pdf/Carrasco\\_research\\_paper.pdf](http://www.gmwatch.eu/images/pdf/Carrasco_research_paper.pdf). Socio-economical impacts of the GMOs are also very important and Friends of the Earth Europe highlights this in their report: 'The socio-economic effects of GMOs: Hidden costs for the food chain: [http://www.foeeurope.org/sites/default/files/publications/FoEE\\_Socio\\_economic\\_effects\\_gmos\\_0311.pdf](http://www.foeeurope.org/sites/default/files/publications/FoEE_Socio_economic_effects_gmos_0311.pdf). Finally, a United Nations conducted report, IAASTD argues that small-scale farmers and ecologically sensitive methods of farming are the way forward. Furthermore, it believes that the agricultural knowledge of indigenous people and peasant farmers can play an important role, along side more accessible agricultural science, in meeting the food demands of today: [http://www.agassessment.org/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads\\_Global%20Report%20%28English%29.pdf](http://www.agassessment.org/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Global%20Report%20%28English%29.pdf)

5. What kind of effects have you witnessed within the peasant communities that are in close proximity to GMO cultivation?

GMOs and the whole industrial agricultural system is not developed to function in fragmented agricultural lands owned by thousands and thousands of small scale farmers. Productivity in agribusiness is measured by the ability to join huge portions of land and the cultivation of monocultures along with all the aggressive chemical and mechanical interventions which are needed to protect and fertilize such an unstable and fragile agroecosystem.

In 2011, Romania cultivated 588 ha of GMO maize (MON810), a very small figure if we compare it with figures coming from the US or South America. The potential of contamination is high, even in Romania, given the fact that our country is cultivating millions of hectares of conventional and traditional maize varieties. Small scale farmers are not protected in any way against this contamination, their crops are exposed and the authorities lack the control to monitor and protect organic and conventional fields against contamination, even though they authorized the commercial cultivation of the GM maize.

6. Have you met any small/semi/subsistence farmers that grow GMO crops, or is this a large-farm phenomenon?



I haven't met any Romanian small scale farmer that grows GM crops or would like to grow them in the future. I would say that this phenomenon is indeed a “large-farm” approach. On the other hand, many small scale farmers are turning towards the cultivation of peasant, local varieties, as these seeds are more suitable for their low-input, sustainable farming approach.

7. Why do you think GMOs continue to be grown in Romania, though other E.U. countries have banned their cultivation?

I think that decisions regarding the cultivations of GMOs are taken on a highly political level. The biotechnology lobby is very strong in Romania, ex-lobby actors become ministers of Agriculture, like our present minister, Stelian Fuia (worked at Monsanto Europe: [http://ro.wikipedia.org/wiki/Stelian\\_Fuia](http://ro.wikipedia.org/wiki/Stelian_Fuia)), our former agricultural minister also had strong ties with Monsanto: <http://www.gmwatch.org/latest-listing/1-news-items/13697-monsanto-influence-on-the-eu>. Although Romania has a very opened position towards biotechnology, on a political level, this does not reflect in the fields, GM cultivation declining every year since its introduction in Romania: [http://www.infomg.ro/web/en/GMOs\\_in\\_Romania/](http://www.infomg.ro/web/en/GMOs_in_Romania/)

8. Do you see Romania as continuing to use GMOs in the future?

No. There is a very unfavorable climate towards GMOs in Europe, especially towards large scale commercial cultivation. According to the polls conducted by our organizations, the majority of Romanians do not want GMOs - <http://www.infomg.ro/web/en/Home/News/3/794>, and the government (especially the future government, because Romania is facing elections) will be pressured to take the one and only appropriate measure in order to assure food and crop security, a ban on cultivating the MON810 maize.

9. What do you think about countries like Hungary that have now stopped producing MON810?

These countries are a good example of public authorities listening and taking in consideration the scientific and socio-economic facts and also the will of their citizens. Also, this measure opens up the road for a more sustainable approach in agriculture, taking a decisive step in assuring food sovereignty.

10. Few Romanian leaders have come out against GMOs. What did you think after Attila Korodi left his position as Minister of Environment?

Decisions regarding GMOs should be based on scientific and social-economic facts not political power plays. After Attila Korodi, the same political party took over the Ministry of Environment seat and still the consumers of Romania wait for proper measures to be taken in the context of bio-security.

11. What kind of markets do the members of Eco Ruralis have access to for selling their goods? Is anything exported outside of Romania?

Most of the Eco Ruralis members are small, subsistence, semi-subsistence farmers and also organic producers (some of them with organic certification, most of them without). Most of their products are sold on farm, at the local peasants' markets and in some cases in organic shops from their regions. Our farmers support a strong local distribution chain, providing food and goods at a regional level, instead of aiming foreign markets.

12. Do many people in your area receive support (economic or otherwise) via national rural development programs?

Accessing development funds proved to be very difficult in Romania because of bureaucracy. The young farmers' program seems to be attractive, and some of our members applied. I would say that there is a lower than average rate of absorption.

13. How do you personally feel about GMOs, in terms of the environment, human health and for the local economy?

I personally believe that biotechnology is a very unstudied and relative science, and its place is in laboratories, not in the fields. While other branches of biotechnology evolved successfully (medical uses, like the development of insulin) in a closed environment, "green" biotechnology (GMOs in agriculture) is a great threat for humanity and the environment. Studying ecology, soil fertility and other subjects and also the scientific facts presented by independent scientists I learned that the cultivation of GMOs leads to genetic erosion, fall of biodiversity and the agricultural systems in which they are cultivated are unsustainable, depleting soil fertility and addicting their users, large scale farmers and agribusiness, to the vicious circle of agrochemicals and synthetic fertilizers. As a consumer, I demand my rights of knowing what is in my food, and how it can affect me. I personally do not want GMOs in my food as long as independent studies are showing me that they are harmful. Regarding, local economy in my region; it did fine. Global economy suffered, hence the pressure to accept GMOs and biotechnology along with the cocktail mix of Round-UP and other chemicals.

14. Do you think that Romanian farmers are lied to or taken advantage of by companies such as Monsanto?

Yes. Monsanto is not a charity foundation, it is a corporation using the most effective marketing methods to sell their products. Biotechnology companies present their products as revolutionary and ultra-productive, using farmers and consumers as their ultimate lab-rats, while more and more independent studies and statistics dismantle their myths. Farmers must have the right to use truly sustainable solutions in agriculture and consumers deserve healthy and ethical food.

15. How can GMOs affect social and power relations within the rural community?

While GMO cultivators have the power to sow GM seeds and to contaminate their neighbors, small-scale and organic farmers are not given the chance to defend themselves from this threat. Agribusiness companies grab large amounts of agricultural land from rural areas, bullying small scale farmers and using aggressive agro-chemicals, causing large scale pollution. The relations are one-sided, agribusiness companies having a powerful negative effect over the rural community.

16. Have you ever visited Insula Mare a Brăilei? What is your impression of this "project"?

I personally did not, other co-workers of mine did. The south of Romania has an important agricultural landscape in our country where large scale, industrial agriculture developed in the past, and still can develop. I consider it unsustainable and destructive for the local community. Authorities should focus on strengthening rural areas, not dissolving them.

17. What role do you think foreigners should play in terms of promoting sustainable, small scale agriculture in Romania?

I believe that civil-society, foreign or not, should play an important role in spreading reliable information

about food and agriculture and educating Romanian people. Also, through programs like WWOOF Romania, Romanian small scale farmers benefit from the cultural exchange happening on their farms, learning a lot about foreign initiatives in sustainable rural development.

18. Why are there so few agricultural cooperatives in Romania?

Communist cooperatives disappointed Romanian farmers, and they are still very weary in cooperating with each other. Public authorities didn't invest much effort in changing this trend. Associations like Eco Ruralis constantly promote the idea of local and regional cooperatives amongst small scale farmers, and also some of our farmers are part of such cooperatives.

19. What barriers do you see to getting more farmers to work together and advocate for themselves and their products/lifestyle?

One important barrier is the lack of governmental support in this matter, unfortunately the Romanian government promotes an agricultural landscape where land is concentrated in the hand of a few agricultural operators, trying to dissolve small-scale diverse farming, traditional seeds. Also, age is another barrier. Romania lacks young, active farmers which can promote successfully their work and lifestyle and also the cultural legacy gained from their ancestors, a strong, sustainable and independent peasant community.

20. How do you think these barriers can be overcome?

Various NGOs along with Eco Ruralis are working to connect small-scale farmers, giving them the chance to share their experiences, their problems and their success. Only by bringing together small-scale, traditional and organic farmers we can build a voice in front of the governmental representatives, also exposing a sustainable and strong community.

Also, Eco Ruralis started various programs, like the traditional seed conservation and distribution program, or WWOOF Romania which help farmers to regain their heritage and also to exchange their ideas while benefiting from help given on their farms.

Through involving into the discussions for a new Common Agriculture Policy in Europe Eco Ruralis is taking the Romanian peasants' voice at a European level demanding a fair treatment and recognizing their importance as good stewards of the land and in assuring food sovereignty.

## Interview Transcript, Other

Independent Expert

27 March 2012, Email Correspondence

1. What is your role within Romanian agriculture and how long have you been involved in this interest/field of work?

I have been involved for 15 years now. I have been involved in EU projects, rural development advise, investment planning and hands-on farming / food investments. As to the further I am looking to do more on the agri-supply side, food marketing and rural development with respect to the Carpathian / Transylvanian regions.

2. What kind of relationship - positive or negative - do you see between cultivation of GMO crops (such as MON810) and rural development for small scale or subsistence farmers?

There is no role for gmo with small-scale farming. If you are talking subsistence farming, almost by definition they need control over their planting material. Generally subsistence farmers renew their seeds infrequently and home-save. There is an issue of plant breeding royalties on home-saved seed but I am not sure if that non-payment will ever be a major financial loss to breeders who are mainly selling to commercial farmers. One hears a few horror stories with respect to the efforts made to protect their rights by gmo seed producers.

My wider viewpoint is that there is enough improvements in production that can be made around the World by improving the use of non-gmo technologies that we do not need gmo's.

3. What kind of effects do peasant communities that are in close proximity to GMO cultivation experience?

Within the EU, the primary issue concerns how the rural communities are going to be able to develop. Where large-scale agriculture is active, the actual rural communities disappear in the context of them being linked to agriculture - villages become dormitories serving urban centers. Where rural communities are to survive with links to agriculture, invariably value-added, natural, quality, artisan product production is important. The presence of gmo will totally under-mine this.

4. Have you met any small/semi/subsistence farmers that grow GMO crops, or is this a large-farm phenomenon?

In this part of the World it is a large-farm phenomenon. I have not researched the broader global issues in countries like India and that appears to be where the issue is. I am not sure what the status of gmo-maize growing in Romania is and whether they are being used by small farmers, I doubt it. As to soybeans, it is/was in the hands of the large-farms.

5. Why do you think GMOs continue to be grown in Romania, though other E.U. countries have banned their cultivation?

There are some crazy ideas about gmo soybeans here. There are some wild claims about the gmo-ban costing farmers fortunes. My guess is that certified gmo-free soybean would be more economic to grow. I would suggest that other factors are driving the gmo-soybean issue here. Romanians seen as a potential back-door into the EU for gmo soybean. You will also find some answers if you read the CVs of the current political hierarchy in agriculture here.

6. Do you see Romania as continuing to use GMOs in the future? In other words, is this a sustainable practice in your opinion?

Not is they take a close look at the market and set about becoming the main supplier of gmo-free soybean to the EU. Frankly there are problems with the whole perception of Romanian agriculture. It is seen as potentially a large-scale commodity producer by the current incumbents who are mainly linked to southern agriculture. Romania will not be able to compete with the global players and should be looking to produce for the EU and what the EU markets want. In terms of soybeans, Romania is a drop in the ocean compared to South America.

7. What do you think about countries like Hungary that have now stopped producing MON810?

I suspect that they have worked it out, you produce what the market wants and the EU markets do not want them.

8. Few Romanian leaders have come out against GMOs... What did you think after Attila Korodi left his position as Minister of Environment?

As I said, check out their CVs and see who they have worked for in the very recent past.

9. Many farmers in Romania cannot afford to use chemical inputs - do you think this can be used to their advantage when developing an international market that prefers "natural" products?

The answer is yes, but it is going to take vision and leadership.

10. How effective are support systems (economic or otherwise) via national rural development programs?

Absolutely useless.

11. How do you personally feel about GMOs, in terms of the environment, human health and for the local economy?

I put them alongside nuclear power. Scientists consider that they can make the decisions for society. They are invariably over-confident about their knowledge. Society picks up the costs. Right now we do not need them in agriculture. They should be kept to highly controlled environments for the likes of the pharmaceutical industry. As to a local economy, I am far from convinced about their economic merits in agriculture per se. As to specific local economies where the focus needs to be on natural, artisan etc. type of products, their presence will be an economic disaster.

12. Do you think that Romanian farmers are lied to or taken advantage of by companies such as Monsanto?

Yes.

13. How can GMOs affect social and power relations within the rural community?

The major issue is the ownership and the attempt to remove control over THE primary resource used by rural communities, their seeds. Society should not allow it to happen.

14. Tell me about your definition of "rural development", in a Romanian context.

The primary issue is how to create demographically-sustainable communities. That means economic development that allows rural dwellers a standard of living that is attractive enough to encourage the next generation to stay. One has to be realistic, it is about sustainable agricultural and food businesses. That means real connections to the market. Dreaming that the current situation is sustainable will mean that there will be nothing left in 20 years time. The vacuum will be filled by large agribusiness. A major problem is that too many people with something to say about rural Romania seem to think that rural Romania's can stay where they are and live on Euro per day and that they will be happy in some sort of peasant museum. Rural Romania is not at the moment the Utopia that many try to portray it as.

15. What role do you think foreigners should play in terms of promoting sustainable, small scale

agriculture in Romania?

A lot as it is about a long-term vision. Currently long-term in Romania extends about as far as tomorrow afternoon. You cannot plan and develop agriculture within that context. It is also about connecting rural Romania and its small-scale agriculture to the wider EU market place. That will take skills that are not currently within Romania. I would, however, also add that one needs to be wary of the self-appointed foreign experts on this subject, there are too many dreamers who are too far from reality to be of great use. There is a bit of a plague of them in Romania.

16. Why are there so few agricultural cooperatives in Romania?

First people hate the word. Second it means working with your neighbor. Third, it appears that many Romanians really dislike their neighbor. Fourth Romanians will not trust each other. In the last five years or so this has got far worse. The rewards have gone to those who are least socially-aware. It has become very dog-eat-dog and that is not an environment within which co-operation works.

17. What barriers do you see to getting more farmers to work together and advocate for themselves and their products/lifestyle?

Mainly the deterioration in social awareness and responsibility and the comments in 'The only solution lies within the development of social-businesses within the supply-chain and, to be honest, foreign leadership within them. Without it I am not sure there will be any trust. Even if there is foreign leadership within such an organization, there has to be tough controls over the relationships the organization has with suppliers. Also, to be honest finding foreign management that can understand and handle the Romanian environment is also difficult.

18. How do you think these barriers can be overcome?

It is very, very difficult. It requires a different set of ideas from what has worked elsewhere. I do not think the ngo-World has the capacity to implement the changes required. Neither is the capacity within the Romanian community to deliver the changes required. The only way changes can happen is through the development of one or two flag-ship activities to show the way forwards. To-date these have not got on the political agenda here. The ngo side is also reluctant to change its thinking and models so as to find specific solutions for the Romanian situation. Net result is that nothing has happened.

The one thing I do know is that the solutions have been identified, it is just a battle to get past the governmental and ngo sides, not to mention those who cannot see where their own interest lies in trying to do something different and something that may have real social and environmental benefits.