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**Satellite Imagery as Political Power – The
Case of CAP Disputes in Bulgaria and
Implications for Center-Periphery Political
Power within the European Union**

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**CENTER FOR
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Abstract

As the use of satellite imagery in a wide range of agricultural processes within the European Union increases, an important question has to be addressed. Is the wider integration of this type of technology altering the center-periphery power within the European Union? This study explores this issue through the perspective of the CAP subsidy framework in Bulgaria, where satellite imagery forms the foundation of the digital application process and plays an important role in the supervision process. This establishes the technology as a tool for decision-making in a rather one-sided manner in which the supervising authority (the Bulgarian Ministry of Agriculture) uses satellite imagery to observe the farmers without their knowledge of when and how the remote assessment might take place. On the one hand, the process introduces ethical and political dilemmas related to the concept of remote surveillance, particularly in countries like Bulgaria where the agriculture sector is not fully modernized. On the other hand, this might bring alternative ways for EU states and individual farmers to question the established approach or explore some of the gaps within the CAP subsidy process. Either way, a closer overview of the political power implications of satellite imagery will be beneficial for all participating EU states which rely on the technology for receiving their subsidy funds. The paper further proceeds to suggest a study of Bulgarian court decision materials about CAP funding disputes as an example of the kind of research that can be pursued to explore what role satellite technology plays in the power relations in the EU in a more practical way.

Keywords

satellite imagery, European Union, supervision process, power relations

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Introduction

The use of satellite imagery for remote extraction of information has changed immensely over the years, turning this previously sci-fi adjacent technology into an everyday medium of communication. From the very first satellite image of Earth depicting an area in the Central Pacific Ocean and a cloud captured by the Explorer VI Earth satellite in 1959 ("First Picture from Explorer VI Satellite", n.d.) till today, we have seen the technology mature to become more sophisticated, affordable, and ubiquitous. A sector where satellite imagery is quickly gaining popularity is agriculture and, more specifically, the Common Agriculture Policy (CAP) program of the European Union, where the technology is being applied as a tool for remote supervision. In the Eastern European country of Bulgaria, satellites are an integral part of the current CAP process. To adhere to the general CAP guidelines, all applications for funding there have to be submitted through the Integrated Administration and Control System (IACS), based on Copernicus Sentinels satellites imagery, and the boundaries of the parcels have to be entered in the Land Parcel Identification System (LPIS), a system using aerial and satellite imagery as its foundation (Integrated Administration and Control System, n.d.). Then, when it comes to assessing the applications, the supervising side can opt for in-person checks or remote assessment through satellite imagery again. This process can be potentially problematic when applied broadly because it does not consider the vast differences that exist between member states, as well as individual farmers' attitude towards being observed. For Bulgaria, where the agriculture sector has been modernizing at a slower pace than Western European EU states due to its complex political history, this assessment approach can lead to both advantages and disadvantages for individual farmers.

Of particular interest for this study is how this use of satellite imagery alters center-periphery power politics within the European Union. Similar to the way agricultural issues in the United States face the tension between state-level and federal-level political agency, the same issues play out against a parallel dynamic within the European Union. That dynamic is both political and linked to the complex relationship that European states have to each other. European state actors are trying to maintain an independent linguistic and cultural identity as nation-states, while at the same time attempting to create a cohesive and singular economic and quasi-political space. This fuzzy aspect of the EU is, from a political perspective, both a threat and an opportunity for state actors.

This use of satellite imagery as a form of constant invisible supervision and way of keeping farmers accountable echoes the core concept of the panopticon prison (1843) formulated by the English philosopher Jeremy Bentham. The panopticon was imagined as a type of prison system that instituted compliance through the idea that the actions of subjects can constantly be observed. The panopticon is just one prominent example of Bentham's ideas related to social structures, reforms, and human behavior, and it served as a tool for understanding modern ways for control and compliance by other theorists like Michel Foucault (1977), for example. Soon, this type of control, which Foucault (1977) refers to as panopticism, finds its place in the economic structure of capitalism. The contemporary relationship between surveillance and capitalism is discussed by Zuboff (2019) who explores how the use of modern technology for surveillance purposes can reinforce specific economic structures and weaken others, which are based on more traditional assessment models. This paper reviews the use of satellite imagery as a tool of political power by analyzing the connections between these sociological and economic theories from influential authors, each fascinated with a particular aspect of remote surveillance and its influence on society. It also proposes a future study of the legal documentation surrounding CAP fund disputes, which can provide an understanding of whether satellite imagery is being consistently used by the macrostructure in a way that takes away the power of the microstructure or the process is more nuanced.

Satellite Imagery as a Tool of Political Power

Upon first glance, satellite imagery provides a way to automate and significantly improve compliance assurance and decision making in the agrarian sector where large parcels of land out in the open need to be utilized and maintained according to prior agreements like subsidy contracts. Because this method allows for over-time assessment and quick access to images of the land, when necessary, satellite imagery can effectively eliminate many of the biases that in-person assessment carries. It can allow for an independent comparison between locations due to the identical method of gathering information. However, this type of data extraction and decision-making can also introduce a myriad of considerations, both ethical and scientific, when it comes to discrepancies and dispute resolution.

While we may have vast amounts of bird's-eye overview data about agrarian processes such as planning of planting, harvesting, crop supervision, crop yield optimization,

resource management, and efficient maintenance ("The Role of Satellites," 2023), this data is still open to interpretation depending on the stakeholders involved. The timing and manner in which the tool is used also matter greatly for the results and they are both determined by the state that uses them for supervision.

This paper focuses on one such scenario, namely, the use of satellite imagery by the European Union for surveillance of agricultural processes for farming subsidy assurance in Bulgaria. The farming subsidy assurance step is central to the successful administration of CAP funding, because farmers can only receive the financial support if they have adhered to the CAP guidelines. The boundaries for using satellite imagery to address disputes can become particularly blurry when we introduce concepts like governance and supervision, especially when satellite-derived data is being used by a macrostructure, such as the European Union, to police or control microstructures, such as the agrarian sector in EU states like Bulgaria.

This specific dynamic provides an interesting opportunity to study the use of satellite imagery as a tool of political power within center-periphery dynamics. The tension between center-periphery was first explored by Prebisch (1950) in a United Nations publication discussing the relationship between the United States, a focal point of the world economy, and the countries of Latin America, whose economic role was to deliver raw materials and supplies to be used by other nations (p.1). The objective of this model was to study the political processes and dependencies that occur when there is a dominant power which heavily influences the available opportunities for developing nations in the periphery. But in the context of this exploration, it is useful to consider this theory along Pierre Bourdieu's three types of capital. In "The Forms of Capital" (1986), Bourdieu lists the main types of capital in our society – cultural (the various types of personal achievements and symbols and objects of influence that one has), social (the benefits that one receives or can access from a belonging to a group), and economic (the traditional understanding of capital associated with finances and possessions). A main component of Bourdieu's capital structure is its convertible nature. Types of capital can change from one form to another, but the author emphasizes that even though cultural and social capital come from the economic one, they require time and deliberate effort to be transformed and used as economic capital (Bourdieu, 1986).

The occurrence of a similar process in Eastern Europe is explored in the book “Making Capitalism Without Capitalists” (2000). There, the authors describe how specific types of capital may be seen as more desirable during a specific form of government but when the political structure shifts, an adjustment in the capital exchange happens as well (Eyal et al., 2000). Zarycki (2007) further mentions how this aspect of Bourdieu’s theory connects to the concept of center and periphery by looking at the process through which specific types of capital and their conversion can illustrate a country’s status and whether it is dependent on other, more influential entities from within the center.

When it comes to the use of satellite imagery in Bulgarian agriculture subsidy funds, we can see the parallel through the established process in which the powerful EU structure selects the methodology for surveillance of the states in the periphery. Within the CAP system, which is an opportunity for farmers to obtain higher economic capital for their work, the EU has instituted satellite imagery as a main technological environment. Farmers use digital portals with satellite information to submit applications, their compliance is often checked using remote satellite assessments, and sometimes, they are denied funding if the images are interpreted to show that they are not eligible for the subsidy amount they requested. Therefore, the information derived from that satellite imagery is directly related to various decisions for distribution of capital making it a powerful tool in the process. This situates individual farmers as largely dependent on the technological preferences of the structure in the center, supporting the discussed theory of power distribution.

Theoretical framework

Bentham’s Panopticon

In the late 1700s, English philosopher Jeremy Bentham described and developed in detail his brother Samuel Bentham’s vision of a revolutionary type of penitentiary house – a circular facility which allowed for a smaller number of inspectors to supervise everyone confined inside at any time they wanted. The guards were stationed in a separate section, higher than the cells, so that they could observe everyone inside while they themselves stayed hidden. The compliance in this system was established because the prisoners always had the feeling that they might be watched. Called a “panopticon” or “central inspection principle” by Bentham (1843), the new facility was described in detail in a collection of letters from 1787 that he wrote to a friend of his in England. Those letters were published as part of Volume

Four of the collection "Works of Jeremy Bentham" and contained precise information about the purpose, structure, and potential applications of the panopticon. According to Bentham (1843), in an ideal situation, when trying to ensure compliance and obedience, objects should be under constant surveillance. But since that is not always possible or can be rather costly, the next best thing is for all objects of observation to have the feeling that they can be watched at all times, even if they are not (p. 40).

This new approach to imprisonment transcended physical constructs of space and introduced a new dimension of psychological control. It relied on the prisoners' lack of knowledge of when they will be watched, to instill order and self-control and self-regulation in them. Many scholars argue that Bentham's prison introduced a new paradigm in society's understanding of social obedience and governance. While the exact prison that he envisioned both in function and design was not built at the time of his work on social reforms, his concept was extremely influential. It is important to look at how some the tenets of the panopticon prison described by Bentham, such as the role of constant and invisible supervision in encouraging compliance, have been implemented in the construction of other powerful systems of surveillance. Those systems extend outside the boundaries of a physical facility and are meant to keep people in order during day-to-day activities. Such modern interpretations of Bentham's prison from a social perspective, like Michel Foucault's (1977) panopticism, can help us better understand the logic, assumptions, and motivation behind some modern observational technology methods.

Foucault's Panopticism

In his work *Discipline and Punish*, Michel Foucault (1977) dug deeper into the meaning of Bentham's panopticon to discover how it related to the concept of discipline. Foucault (1977) claimed that the introduction of the panopticon led to the dissociation of the "see/being seen dyad" (p. 202) giving the observer disproportionate power and observational knowledge over the limited awareness of the observed. This type of machine and structure effectively altered power balances and introduced a second level of subjection in which the observed, not aware of whether there was an observer or not, subjected himself or herself to discipline in case someone might have been watching. Foucault (1977) emphasized that the panopticon prison was not just a building design but really more of a framework and structure of political machine that could be applied to situations of diverse contexts.

Foucault (1977) synthesized the sociological implications from the panopticon prison into a concept of control of discipline and power administration called “panopticism”. Its application was shown through an example of a French order from the seventeenth century about the strict supervision and control instituted during a plague to protect people from the spread of the infection. Similarly to the panopticon prison, each person had an assigned location and the many confined individuals were observed by few all-seeing guards, ensuring the establishment of discipline and achievement of seclusion. Foucault explained that this type of schema could be used any time there is a need for a group of diverse individuals to complete a task or adhere to a certain established behavior (p.205). This model closely mirrors the use of satellite imagery in Bulgaria to ensure compliance with European agriculture subsidy rules. One way this issue could be better analyzed would be through focusing on the “what if” situations outside the boundaries of the idealized version of compliance described in panopticism. By exploring the conflict resolution in cases on lack of compliance, it would be possible to see the argumentation of the observed and understand whether the use of satellite imagery was a key point in the discussion or it was just accepted as a regular part of the process.

Moving on to modern-day surveillance methods that echoed the characteristics of panopticism, Ünver (2018) discussed the use of geo-location and remote sensing for getting access to the location of both individuals and property. The author discussed some recent introductions to the field of digital surveillance that countries were using as well as the difference between the protection of privacy in the U.S. and the European Union. While this piece is more focused on the concept of privacy in surveillance as a whole, and not specifically on the difference that using satellite imagery might make, it establishes how geolocation supervision through satellite imagery has become a popular surveillance tool because it allows to track individual and processes effectively.

The various social extensions of the panopticon concept and the way it can be used to ensure compliance make it a tool of political power. Seemingly small changes to traditional processes, such as the replacement of in-person assessments with a hybrid model that is founded on satellite imagery-derived information systems, can change power structures. They can strengthen the power and influence that the supervising structure has in a political scenario. However, they can also provide the observed with some opportunities for challenging the power structure. For example, knowing that the assessment for

compliance will only be done remotely provides some individuals with the option to take advantage of the format for supervision. There are many examples of how individual behavior can change based on the presence of surveillance, which will be described in detail further in the piece, and they show the various ways in which center-periphery power can be influenced by the presence of satellite technology.

Zuboff's Surveillance Capitalism

Tools like satellite imagery often become part of complex political structures that are used to assert certain interests. This is particularly visible within the problematic notion of surveillance capitalism which can also be perceived as a form of political power because of the role data companies can play in the process. In the case of the Bulgarian CAP subsidy sector, this is visible through the concentration of power given to the private company TechnoLogica that has created and continues to manage the Integrated Administration and Control System (IACS), which is the portal for submitting all CAP applications. The fact that large amounts of information, stored and managed by a private company, are used to make decisions of economic significance for the region are worth exploring. According to EU regulations, countries participating in the CAP process should create their own Integrated Administration and Control Systems (IACS) which meet the requirements for quality and comparability across other EU countries ("Integrated Administration and Control System"). Seen through the center-periphery structure, this approach can potentially disrupt established power models because it gives individual member states the responsibility to create and maintain their own digital and application platforms allowing for more independence. However, the requirement to adhere to common regulations for how those digital platforms should function in support of the EU's interests very much confirms the already established center-periphery relations.

Extensively discussed in Shoshana Zuboff's (2019) book "The Age of Surveillance Capitalism", surveillance capitalism is an economic structure that is powered by the behavioral data of customers. In this subsection of capitalism, the hyperfocus on production from the earlier era of industrial capitalism has now been replaced by a fixation on people's behavior and the ability to predict and alter it. Zuboff (2019) looked at the power that large corporations, for example Google, were starting to acquire through the fast accumulation of personal and behavioral data about consumers. The subsequent introduction of

sophisticated technology and machine learning to processes that data also started to influence the way people related to their surroundings.

Two aspects of surveillance capitalism mentioned by Zuboff (2019) in her work are key for this study. The first is the author's commentary on satellites and, in particular, the way their enhanced sensing capabilities have enabled gathering information about patterns of actions and the incentivizing of particular kinds of behavior (p. 103). In the case of using satellite imagery in agrarian sectors, this can be seen in the choices that farmers are making, such as what fruit or vegetable to plant, based solely on what will be visible through satellite imagery. These changes in behavior can be very deliberate and based in the knowledge the CAP applicants may not be checked using in-person assessment but only observed remotely. This can lead to attempts to take advantage of the CAP funding opportunity without being fully compliant. Investigative research shows the continuous corruption patterns within Bulgarian agriculture. One way people manipulate the system is by filling out applications and attempting to collect funds without actually having any produce, which can most accurately be confirmed through in-person inspections. In 2019, 22% of all subsidy applicants did not receive funds because they did not plant the produce that they claimed they would but simply submitted applications ("Agrarian Minister," 2020). Another type of fraud that has emerged in the sector is the so-called "millions from the air" affair, in which large companies are receiving European funds for land that is actually owned and regularly maintained by individuals who have not submitted applications themselves. Sometimes those farmers have no idea that this is even happening and that others are profiting from their work. In other cases, the companies are offering to pay the individuals for the service while they keep a significant portion of the funding ("Millions from the air," 2019). While the first type of corruption can be uncovered through the new capabilities of satellite imagery ("enhance"), the second can remain hidden unless investigation into ownership or complaints takes place.

This CAP system in Bulgaria is connected to various other instances of corruption connected to concentration of influence. Sabev et al.'s (2021) report on EU funding for agriculture reviews the distribution of European funds to various EU member countries and some of the issues affiliated with that. With regards to Bulgaria, the authors discussed the issue of concentration where a large part of the funds go to a smaller number of companies and individuals. Another article from Beluhova-Uzunova et al. (2017) showed that many of the direct payments from the CAP projects went to a small number of larger farms. Such

examples are important to consider when analyzing the need for stricter surveillance of the funds' distribution, because they show that the CAP system is not perfect and people have tried to exploit it.

The second aspect of Zuboff's (2019) analysis that is relevant to this exploration is the role that companies which develop technology for surveillance or act as data brokers between people and the government have in agrarian processes. For example, in Bulgaria the private satellite analytics company TechnoLogica manages all components of the remote sensing subsidy management ("Bulgarian experts," 2023). They supply the satellite imagery and maintain the portal used for submitting the information to the European Union. This provides disproportionate power with little supervision to a private company and introduces a grey area in the case of a visual discrepancy, where the observed behavior does not match the predicted one. Unsurprisingly, there is little academic research being done into the structure and goals of the company. Yordanova and Filipe's (2011) case study of TechnoLogica's corporate social responsibility gives some basic understanding of the company's values but it is difficult to infer much about its technological focus. Available media coverage and press releases on the company's website give some information about their broad contributions to the modernization of the Bulgarian agriculture sector ("TechnoLogica gets second place," 2015). However, considering that many of those articles are written to promote the work of the company, they do not provide the needed independent overview of their work and suggestions for how to enhance their processes.

And while the role of such companies in the surveillance capitalism environment can be problematic, eliminating private companies from the process is also not a perfect option. As it stands, the subsidy distribution system is complex and prone to structural manipulation, because the European Union requires each country to set up its own implementing authorities. In this case, the Bulgarian Agrarian ministry becomes a proxy for the European Union and is responsible for maintaining all channels for information. A 2016 piece in the Bulgarian independent investigative journalism website Bivol! explained the potential for corruption if the Bulgarian government involved no external company for supervising the process. There are 4 components in the European subsidy financial channel – "coordinating, paying, certifying and auditing" ("Why the certifying organization," 2016). The ministries (in this case, the Agrarian Ministry) coordinate the process, the agencies deal with the payment distribution, and the certification and auditing are usually given to large external companies

("Why the certifying organization," 2016). It is important to keep those components separate, especially the auditing, because if the government has to make the decision for all of them, that would incentivize corruption.

Earth Surveillance and Power Politics

The use of satellite imagery for surveillance has been key in many forms of political power. For example, the technology has been used for a vast number of military applications. May (1986) described how military space systems using satellites were used for a variety of purposes including remote supervision of areas of interest, notification, information flow, etc. Morgan (1994) discussed how within the United States, there was a strong connection between commercial satellites for communication and military defense satellites. The author also noted that in cases where the military departments had found it challenging to obtain funding for satellites for defense purposes, they have turned to using communication satellites for obtaining critical information while continuing to adhere to international regulations (p. 240). Another example of the extension of power and influence of satellites on political relationships was the use of satellites in the Cold War. The US and USSR each poured immense efforts into space exploration trying to best each other and establish their dominance in the sphere (Grego 2011). Shreve (2003) acknowledged that while the use of satellites during the Cold War was largely seen as an example of the power competition of the US and the USSR during that period, the achievements in satellite use were also described by the leaders of the countries as broader contributions to society and innovation (Shreve 2003). A similar attitude can be seen today with the use of satellites for innovation within the agrarian sector where the main focus is often not on their use for surveillance, but on the innovation that they add to the sector.

When reviewing the use of satellite imagery as a tool of power, it is also important to consider the observed side's response. When Nardon (2007) looked at the use of satellite observation for control during the Cold War by the U.S. and the Soviet Union, she considered the implications of Bertham and Foucault's analysis of the panopticon and attempted to test the influence of the tool in the tense race between the U.S. and the Soviet Union in the period 1950-1980. According to Nardon (2007), when used for the purposes of military control in that scenario, the panopticon power of the satellite was not fully effective and observed

states were not fully passive. This study is important for grasping the limited effects of the technology and understanding the earlier uses of the satellite for observation.

An interesting case study by Myers (2010) from the field of archaeology deals with the ethics of surveillance through satellite imagery. The author begins by exploring some of the good features of free and easily accessible tools like Google Earth such as the fact that they allow archaeologists to look at areas that might be difficult to visit in person or monitor the potential damage of important locations. However, the same tools can also pose ethical issues because they might capture personal information of individuals without their consent or awareness. The author looks at one such case from the prison area of Camp Delta in Cuba which reveals how satellite imagery can be used to assess change over time, but also acknowledges that while satellite imagery can capture vast amounts of information, it still might not have all the necessary information regarding specific ownership of institutions or boundaries of parcels of land. Such details need to be independently researched and verified and that the satellite imagery should not be automatically accepted as truth.

In Ünver's (2008) "Politics of Digital Surveillance, National Security, and Privacy", the author explores a variety of modern surveillance tools and how they are being currently used. This piece helps not only understand the relevance of satellite imagery as a surveillance mechanism, but also see how other monitoring methods complement it and build a whole structure of surveillance that satellite imagery becomes a small part of.

It is important to note here that in the case of CAP incentives for farmers, the individuals are voluntarily applying to be part of the program and they are aware of the fact that satellite imagery is one of the primary methods for assessment of compliance. However, what still matters is the way that information is used and how their funds might be influenced by the information extracted from the satellite imagery. One example for a problematic use of the information is presented in Kovács' (2015) exploration of the surveillance in CAP subsidy distribution in Hungary. This piece looks at the unpleasant experience of farmers dealing with the subsidy processes since the program has been used to increase the presence and control of the state in the sector of agriculture.

The complex legacies of Bulgarian agriculture throughout the years

When discussing the influence of satellite imagery in the CAP subsidy system in Bulgaria, it is important to first look at the history of Bulgarian agriculture to establish some existing attitudes towards modernization, land ownership, and supervision. Such an analysis should include the process of nationalization of private property in the agriculture sector during the Totalitarian regime of the Bulgarian Communist Party and its affiliated political parties between 1946-1990. Daskalov (2011) provided an extensive overview of this socialist totalitarian regime in Bulgaria including aspects of the partial nationalization of private property and collectivization. His exploration of the different ways in which the regime affected social structures is useful for understanding the connection between control and property. For example, Daskalov (2011) talked about available research on the issues in collectivization in agriculture such as the harsh methods of control exercised by the state to ensure compliance such as various penalties for farmers (p.279). Another way to look at the process of post-communist adaptation is presented by Norkus (2012) who explored what paths for development existed after a country has been under a regime.

According to Norkus (2012), Bulgaria, along with most of the other countries that were under the heavy influence of the Soviet Union, was under a patrimonial form of late communism. This type of late communism enabled the upward social mobility of people from the countryside who joined the urban middle class. The author's extensive research on possible paths for post-communist economy helps to understand the way the Bulgarian economy has arrived at today's shape. Bachev (2007), who has contributed a vast body of research into Bulgarian agriculture and economics, talked about the myriad of ways farming has been shaped by the lingering effects of the regime. He explains that the Bulgarian model of agriculture is rather distinctive and has features such as "enormous concentration of resources in few business enterprises, widespread use of vertically integrated modes, domination of informal modes and personal relations, numerous missing markets and failures, backward technological "development" (p. 18). His analysis of Bulgarian agriculture traditions and features can serve as a foundation for further analysis of the ways Bulgarians are reacting to the use of satellite imagery for subsidy surveillance.

After the country's accession to the European Union in 2007, the agricultural sector in Bulgaria went through a process of accelerated modernization and digitalization. For the focus of this study, it is interesting to consider the introduction of the digital platforms used

for the administration of the European CAP funds which have become an indispensable part of the subsidy process. One of these is the Integrated Administration and Control System (IACS) mentioned earlier in this paper. In a use case regarding soil quality, Schillaci et al. (2023) dug deep into the structure of the system before using its insights for the case at hand and found that IACS is actually a network of several databases that containing different information, such as satellite imagery of parcels of land from EU member countries, the program that farmers use to map out their own land, which is used in CAP, and many others.

When it comes to digitalization introduced specifically in Bulgaria, Kostadinova (2021) undertook an assessment of the current digital technologies used for agriculture and found that while there are a lot of new introductions, there was a discrepancy in the level of digitalization between different sectors. She also established that the country needed to support farmers better by providing more training, encouragement, and financial bonuses for farmers to encourage the adoption of modern technology. Bachev (2020) further assessed the state of the current program for Agricultural Knowledge and Innovation System (AKIS). He found that the system consisted of various organizations that engaged with each other but did not contain extensive data to be as informative as it should be. Bachev (2020) suggested that more work should be done to ensure the system has a better maintained supply of information.

Bulgaria, like other countries that joined the European Union, experienced changes in its agriculture processes that looked different from those of its fellow EU states. Csáki and Jámboř's (2013) study of different European countries' agriculture patterns after joining the EU showed that countries had different approaches to modernization because of the varying local and historical foundations that they had. Applying the same surveillance methodology for a process like the CAP subsidy distribution for each of those countries might not be the best approach because it would not consider the historical background that exists in that region. Last but not least, to understand the Bulgarian perspective in the issue, it is important to look at some strategic documents such as "*Bulgaria 2030: National Development Programme*" (2020) which outline priority goals of the country regarding agriculture. These can help see what the sector considers its main objectives in order to evaluate if the CAP system is supportive or restrictive of those processes. For example, on the topic of agriculture the document mentions the large importance placed on the protection of the environment along with the need for modernization in the sector. It appears that processes like the

introduction of satellite imagery in agrarian processes supports the modernization aspect but only if its use is done strategically to enhance the experience of farmers, boost productivity, and make farmers better informed.

Proposed Study

There are various ways for researchers and governments to approach the topic and propose some adjustments to the process that will ensure the technology is being used in a fair way as an innovative method for compliance assessment and not as a tool of political power.

Considering the panopticon environment that remote observation creates, it can be challenging to know where to look for to get a better understanding of what the foundational issues are. One potential area for exploration would be to look at examples when the balance of the CAP system in Bulgaria is disturbed, meaning the subsidy applicants are denied the full amount of funding requested on the bases of lack of compliance. This will give researchers a look at how appeals are received and what the argumentation surrounding the use of satellite imagery in the CAP distribution system is like. These cases are handled by regional administrative courts in Bulgaria and the court decision materials are preserved in official digital repositories maintained by the Supreme Judicial Council, such as the United Portal for Online Justice ("United Portal for Online Justice", n.d.).

A similar exploratory study, utilizing those resources, is also the subject of a continuous research effort by the author of this paper aimed at better understanding the complex information processes occurring within this sphere of Bulgarian agriculture. Other academics might find inspiration in regional research on areas in Bulgaria where those disputes are more frequent, in exploring of the linguistic choices taken when discussing satellite imagery in court, or even in analyzing media coverage of issues within the CAP distribution system in Bulgarian media and independent investigative journalism websites.

Conclusion

All in all, this paper focused on some of the most important aspects of the center-periphery political power that are influenced by the widespread introduction of satellite imagery in the CAP subsidy system in Bulgaria. Simultaneously extending the power of the European Union by serving as a panopticon tool for surveillance and giving individual states some relative control by assigning them with the responsibility of creating their own digital systems for the use of that technology, this process is complex and nuanced.

This study reviewed some of the most important tension areas that should be further analyzed by the EU member countries to ensure the process for assessment is fair and takes into account the history of each country's agriculture and the current digitalization capacity of the sector. Theories on remote surveillance from Bentham (1843), Foucault (1977), and Zuboff (2019) illuminate our understanding of the influence the technology of satellite imagery can have on society when integrated to replace traditional in-person assessment models. And Bourdieu's (1986) concept of different types of capital assists with seeing how these social mechanisms connect with actual economic processes occurring in Bulgaria.

This discussion establishes the need for a more in-depth understanding of the role satellite imagery plays in the CAP distribution process and suggests some areas and materials that academics can review to find the answers to such questions of political power. A proposed study explains how, for example, analyzing Bulgarian court documents of disputes around the use of satellite technology in the CAP system can help see if the Ministry of Agriculture, acting as a representative of the interests of the European Union, uses satellite images in a way that takes away some of the power of the observed individual farmers. This type of research can explain the role of each participant in the problem, provide a model for analyzing similar processes in other Eastern European countries, and propose ways to address some of the observed problems by guaranteeing a fairer consideration of individual farmers.

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