

Article

Open Data for Transparency of Government Tenders: A State Analysis in Croatian Agriculture Land Lease

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Abstract: State-owned agricultural land is an asset that the state must manage in a responsible and transparent manner. Agricultural land is extremely important for farmers as it enables them to carry out agricultural activities. Due to its importance to farmers, it is often the subject of debate as stakeholders are often dissatisfied with the allocation and management of state-owned agricultural land. Qualitative research of the process of state agricultural land lease and the associated legislation in the Republic of Croatia enabled the analysis of the existing business model, with the results pointing to shortcomings in the Initial and Evaluation phases of the process. A steady rise in the number of tenders published in 2015–2022 was recorded. Local administrative units in the Continental region scored higher than those in the Adriatic region (both cities and municipalities) in terms of transparency. Unfortunately, the response rate from the local authorities was below 50% across both region and unit, further indicating low transparency. Based on the findings, a proposal of changes in the tendering process was made utilizing a digital platform as an environment for all stakeholders, which provides functionalities essential for the transparent implementation of tenders for the agricultural land lease in Croatia.

Keywords: transparency; accountability; agriculture land lease; transparency of tenders; tender process



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1. Introduction

Government or public tenders are typically defined as formal invitations for interested parties to participate in the government procurement process by providing services, goods, or leasing state-owned assets. A core responsibility of governments is the transparent and accountable management of public assets and resources, such as state-owned agricultural land [1], especially in the digital age, when information on tenders, public calls, public procurement, budget management and reallocation, subsidies, but also visibility of all these processes can and should find its way to users who seek it [2,3]. To make this possible, numerous initiatives have been launched to support the development of digital society and public government [1,4]. One of these initiatives is the [1,4] open data (OD) initiative, which argues in favor of free and unrestricted access to (government) data [5]. Due to this, the OD initiative has the potential to transform business processes towards more transparent and accountable practices, which confirms it as one of the main pillars in achieving fully transparent and accountable open public government.

Transparency and accountability in public institution processes' is the basis for providing good quality services to society. From the user's point of view, this reflects the quality

of public administration services in which digital technologies and open government data should be used to enable visibility and monitoring of activities, criteria, and results of a process from start to finish [6]. Further on, the creation of public value and value for the user is possible only through transparent and fair implementation of the process, and this requires understanding of public policies and ways of its implementation by stakeholders, i.e., government administration—counties, cities, and municipalities. Since government administration is responsible for the implementation of public tenders, it is on them to adopt an accountable, transparent, and fair approach to the management of state assets, e.g., state spatial capacities, financial resources, data capacities, infrastructure, and others, as well as the proper redistribution of all forms of state assets and resources [7,8].

State-owned agricultural land represents an important resource for a country, so its management must be done responsibly and transparently [9]. In many countries, e.g., Croatia, state-owned agricultural land is leased to private farmers based on an agricultural land lease tender conducted by the government administration. As part of the government procurement and in line with the principles of transparent and accountable state asset management, the process of land lease should be made fully transparent and accompanying data available as open data, but this is not always the case.

For several years there has been a debate about the (lack of) transparency of the tendering and allocation of state agricultural land in Croatia [10,11]. Numerous media articles [12–17] and scientific circles highlighted lack of transparency as one of the main problems of the Croatian agricultural sector. In one example, the author mentions leases won without all the necessary lease documents or contracts renewed without competitive bidding [14]. In some cases, a family connection was revealed between the beneficiaries of the tenders and local politicians [13], or the tendering process was canceled due to missing minutes of the lease commission where the most favorable bid was chosen [12].

The interest in agriculture in Croatia is decreasing, and more and more farmers are giving up this business out of great dissatisfaction caused by untransparent and potentially biased tendering processes. According to the Croatian Agency for Agriculture, Fisheries and Rural Development, the number of registered family farms has dropped by 25% from 2016 to 2023 [18]. Although Croatia continues to develop and refine its tendering frameworks, the issue of transparency appears to persist. Even the category-based scoring system introduced in the latest regulations reveals potential shortcomings.

Considering the aforementioned, the main goal of this paper is to provide insight into the current state of transparency of agricultural land leases in Croatia to detect barriers preventing a fully transparent land lease tendering process. To achieve this goal, authors propose the following research questions:

RQ1. *Are public calls for tenders of agricultural land lease publicly announced by the government administration?*

RQ2. *Is the decision on the most favorable offer publicly available as open data?*

RQ3. *To which extent are the offers from all the applicants in the tendering process available as open data?*

To answer the proposed research questions, the transparency issues of the current model of the state-owned agricultural lease tender, reconstructed from the binding laws, regulations, and practices, were analyzed. The transparency issues were analyzed based on available data on agricultural land lease tenders from the local level administration units' websites and through a survey with the local government.

2. Research Background

2.1. Research Theories and Practice Review

The Republic of Croatia has over 2.6 million hectares of agricultural land, of which about 33% is state-owned [19], and only 21% of state-owned agricultural land is offered through tenders for sale, lease, etc. [20]. Due to the fragmentation and unsettled own-

ership structures of agricultural land [21], many small agricultural producers rely on leasing state-owned land to ensure and stimulate the further development of agricultural production [19].

Inefficient management of state-owned agricultural land by local authorities in Croatia led to the establishment of the National Agency for Agricultural Land in 2009. The agency was responsible for leasing state-owned agricultural land [22]. With the establishment of the agency, responsibility for state-owned agricultural land was transferred from the local (regional) administrative level to the agency's centralized system. This should have helped speed up the land leasing process and make it more transparent. However, due to an even more inefficient land lease, the new 2018 Agricultural Land Act abolished the work of the Agency for Agricultural Land [23] and returned responsibility over state-owned land to the local administration.

Management of state agricultural land in Croatia is a topical issue that requires analysis and consideration of the issue from the perspective of legislation and implementation at lower levels. The stakeholders engaged in the tendering of state agricultural land leases include the local administrative unit, primarily responsible for issuing tenders for land leases, and farmers/agriculture producers, as applicants who constitute the demand side for agricultural land.

The evaluation of the practice of conducting public calls for tenders is a complex process that requires the understanding of various research theories. The starting point for the research is the analysis of the legislation and the responsible actors in its implementation, which is based on institutional theory.

Institutional theory focuses on institutions and their role in policy making, which can be interpreted through two policy cycle stages: agenda-setting stage as well as policy and implementation stage [24]. The institutional theory provides insight into how institutions shape behavior according to legislation rules on which they rely in their decision-making processes and how they coordinate the provision of goods and services [25]. Accordingly, the legislation for tenders of state agricultural land leases and the procedure for conducting the tenders were analyzed to identify problematic issues and shortcomings for stakeholders in the process. Agricultural land and its management in the Republic of Croatia is regulated by the Agricultural Land Act [26] and supplementary regulations and ordinances. According to the Act, state-owned agricultural land may be leased on a basis of a public tender conducted by the administration of a municipality or a city (Official Gazette 20/2018, Article 31) [23]. Although the act defines the conditions and provides for the possibility of leasing agricultural land, it does not provide guidelines for the implementation of the tender process. Public calls and the conduct of public tenders are regulated by the Ordinance on the Conduct of Public Tenders for the Lease of Agricultural Land and the Lease of Ponds Owned by the Republic of Croatia, which sets out in more detail the documentation, deadlines, and the required procedure (Official Gazette 104/2022). The act foresees the constitution of a Lease Commission whose task is to select the most favorable bid in the tender (Official Gazette 20/2018, Article 31), and the ordinance ensures a uniform tendering procedure at the country level. Thus, according to the ordinance, local-level administrative units, municipalities, or cities are obliged to conduct a public tender, i.e., to publicly announce a call for tender, giving all interested parties the opportunity to apply (Official Gazette 104/2022, Article 4). The ordinance also provides for the establishment of an information system for electronic tendering. Although it is in the early stages of implementation, the electronic conduct of tenders is expected to eliminate the possibility of manipulation in the tendering process. In addition to the act that provides for the possibility of leasing land and the ordinance that regulates the tendering procedure, the Program of Disposition of State-owned Agricultural Land must be in place for a land lease. Defined by the Act, the program includes all the agricultural land (and its characteristics) on the territory of the local administrative unit and ways of its administration, e.g., land lease. For a program to be binding, it must be approved by the competent ministry (Official Gazette 20/2018, Article 29). Without the adopted program, it is not possible to conduct a tender for

lease. Acts and regulations on agricultural land in Croatia have been frequently amended in the last couple of years [27]. Often, these amendments created problems in practical implementation [28], but have also brought some improvements, like a more transparent land lease. The latest amendment of the act from 2022 introduced a scoring system in the tender for lease procedure. Now, tenderers score points based on different criteria, e.g., type of agricultural production (Official Gazette 57/2022, Article 18), and only the ones with enough points get land for lease. Scores per criteria are regulated by the act, so the scoring schema is fully transparent, but the evaluation of submitted bids according to the scoring criteria may not necessarily be transparent. Additionally, the complexity of the model, such as determining who benefits in specific cases, could be subject to misuse.

Another relevant research theory, on which the analysis of the implementation of the tender for the allocation of state agricultural land in the Republic of Croatia is based, is the prescriptive decision theory. To gain pertinent insights into applying prescriptive decision-making theory for enhancing and transforming existing practices transparently and responsibly, a review was conducted on practices in other countries and the accomplishments of extant research related to the tendering of state agriculture land leases. The 2019 European Open Data Directive plays a crucial role in transparency of government processes. While arguing for unrestricted and public access to government data, i.e., open government data, this Directive provides tools for the public to control the government and therefore to increase trust in public procurement processes [29]. The importance of regulating agricultural land leases is also recognized by the European Union, where in 2021 it issued a detailed report on the regulation of data and information on agricultural land [28]. However, the document does not clearly indicate the difference between the leasing of private and state land, and it is hard to determine the differences between countries related to state agricultural land leases, except by a detailed analysis of their legislation and the process of leasing state agricultural land. It is also important to examine practices in neighboring countries with similar historical heritage. For example, in Slovenia, the Fund for Agricultural and Forest Land manages the leasing of state-owned agricultural land and farms, regulated by the Regulation on the Leasing of Agricultural Land and Farms. The regulation defines ranking and preferential criteria among lessees but does not mandate publishing tender results [30]. In Serbia, recent changes in law were made to enable long-term leases (30 years) in order to stimulate potential investors [31]. In the Federation of Bosnia and Herzegovina, state agricultural land can be leased to residents who confirm at least ten years of agricultural activity and residency with a court-notarized declaration. Preference goes to families earning predominantly from agriculture with insufficient land for economic security [32]. The allocation of agricultural land is a significant issue, often critiqued as mismanaged [33,34].

Despite ongoing efforts, it is important to note that within scientific circles focused on related fields, this topic remains largely unexplored. Relevant research on the leasing of state agricultural land has not been conducted, likely due to the complexity of the issue. Existing research that dealt with a similar problem of tender implementation highlighted several key implications. Transparency and accountability in public administration are crucial for citizen trust. With the growing expectations of citizens [35], institutions need adequate resources and staff. Urban areas and cities have more resources (human, material, and financial), enabling them to act proactively and transparently compared to smaller rural environments [36,37]. Access to information on important issues is critical to building citizen trust. Spáč et al. [38] analyzed how local authorities (municipalities) in Slovakia operate and respond to requests for information. They also examined differences in municipalities based on ethnic group dominance, leadership by women, left-wing parties, or independents in providing information to citizens. The analysis shows that invoking the Freedom of Information Act increases the likelihood of obtaining information. The size of municipalities influences the processing of requests, with larger municipalities responding more efficiently [38]. More populous local governments receive more resources and operate more transparently [39]. The ethnicity, political orientation, and gender of local leaders also

affect responses. Minorities may face language barriers, and independent mayors are more likely to respond. Municipalities with female mayors comply better with free access laws than those led by males [38].

The contribution of the mentioned research is important for the topic of this paper, given that this research investigates a specific area of local government activity, the allocation of state property (land), where access to information, transparency of the entire process, and public accountability are very important.

The prescriptive decision theory is the basis for decision making on guidelines and recommendations and drives the development of new models and recommendations to improve current practice. This theory includes clarification of how decisions should be made, what is desirable in the public sector, and how it can contribute to accountability and transparency [40].

2.2. Current Agricultural Land Lease Model in Croatia

The current agricultural land lease model in Croatia is shaped by the Agricultural Land Act and relevant ordinances. Although these do not formally define all the steps of the process, the crucial ones are covered and made uniform for all administrative units. Based on the binding agricultural regulations and knowledge from existing tendering procedures, the authors recreated a tendering model to serve as a starting point in transparency analysis. This authors' interpretation model considers two user perspectives, the perspective of the local administrative unit (municipality)—LAU and the perspective of applicants (farmers). We focus on these two user perspectives only because they represent the essential and sufficient stakeholders in the tendering process. Further on, the reconstructed model divides steps in the tendering process into five key phases: (1) initial phase, (2) tendering phase, (3) evaluation phase, (4) formalization phase, and (5) finalization phase. This structure of the model will allow authors to identify steps or phases in the process that are mostly related to transparency.

The initial phase gathers activities related to preparation and publication of the public tender. From the LAU perspective, it includes activities of preparing the tender and its announcement, and from the farmers' perspective, it considers the activity of considering the conditions and criteria for applying for the tender. The tendering phase refers to the time from the announcement of the call, that is, from the beginning to the end of the period in which the tender is open. This is the period during which the local administrative unit receives bids and farmers compile and complete the bidding documents. The evaluation phase includes the announcement and the event of the public opening of the bids and their evaluation by the commission formed by the local administrative unit, whereby farmers may take part in this public event. This phase also includes the publication of results. Although no regulation explicitly states when the commission should be formed, we consider it as one of the tasks in the evaluation phase. In the formalization phase, a contract is signed with the farmer who submitted the best bid, and in the finalization phase, the acceptance/non-acceptance of the bid is reported, and if the best bid is not selected, the public is informed that the tender has been canceled.

3. Materials and Methods

Based on the review of current practices in the tendering process of leasing state-owned agricultural land, the majority of transparency issues can be connected to several activities in two out of five phases of the tendering model. The first is the publication of the public tender (initial phase), while the other activities include the publication of the most favorable bid as well as all other bids in the call (evaluation phase). Thus, the following methodology focuses on collecting data on the aforementioned activities.

3.1. Data Collection

In order to evaluate the transparency of the current model, we collected data on the transparency of state agricultural land tendering and leasing from local administrative units

in Croatia. Data are collected from two sources for the period 2015–2022 (the tendering process has been delegated from the national level to local government in 2015). First, we searched the official websites of all 556 units of local government (cities and municipalities) looking for information and documentation on state-owned land leases. If the websites were indexed and contained a website search option, we used key words in our search (e.g., “tender”, “land lease”, “agricultural land”). When the website search option was not present, we browsed the website under standard categories such as tenders or public calls, news, or documents, searching for information. Time needed to find the information was recorded, and a maximum of 15 min was devoted to searching each website.

The second approach was formally requesting the information on state-owned land leases (links to tenders, decisions on the selection of the most favorable offer and offers from all applicants) conducted in the 2015–2022 period from each local administrative unit via e-mail. In this e-mail, we introduced our research team and the purpose of the data that we are requesting. The elapsed time from inquiry to reply was also recorded (up to 60 days from the initial request). The responses were cross-checked with the data obtained in the first step, and a unified dataset was generated.

In addition, data on staff capacity [41] for all units of local government were collected for the most recent period available (2018) from the statistical reports of the Ministry of Justice and Public Administration. Data on population size of each unit of local government from the last national census [42] were also retrieved from the Croatian Bureau of Statistics. These variables have been shown to be related to the level of transparency in previous research.

3.2. Evaluating Local Government Transparency in State-Owned Land Lease

Each local administrative unit of government (municipality or city) was scored on their transparency when conducting state-owned land leasing based on three criteria:

- (1) published tender for state-owned land lease (value 1—published tender on website and/or reply to inquiry with the information)
- (2) published decision on the selection of the most favorable offer (value 1—published decision on the selection of the most favorable offer on website and/or reply to inquiry with the information)
- (3) published offers from all applicants (value 1—published offers from all applicants on website and/or reply to inquiry with the information).

If no information on tenders was available on the official website and we received confirmation from the local administrative unit that they have not conducted tenders in the period 2015–2022, these units were excluded from further analysis of transparency. When no information on land-lease tenders was available on the website and we received no feedback from the unit, the unit scored zero on the transparency scale. If a unit conducted multiple tenders in the time period, each tender was scored separately, and an average score for the local government unit was calculated.

3.3. Statistical Analysis

Analysis of variance (ANOVA) was conducted on three levels (regional, county, and municipality/city) using the PROC GLM function in SAS statistical software version 9.4 [43]. Post hoc comparisons were conducted using Tukey’s HSD test. Pearson’s correlation coefficients were calculated between the average transparency scores of units of local government and staff capacity and total population size using the PROC CORR function in SAS statistical software version 9.4.

To measure spatial autocorrelation (spatial clustering) of the transparency scores in local government units, we calculated Moran’s I using the *spdep* package v.1.3-6 [44] in R v.4.1 [45]. We tested the significance of the correlation coefficient using Monte Carlo simulation with 100 permutations. Based on the results of the analysis, a new and improved model of state agricultural land lease was proposed.

4. Results

After the first phase of data collection for this research, data on 335 tenders for leasing state-owned land in 204 units of local government were collected. The majority of units published only one tender in the period 2015–2022 (63%), with notable exceptions such as the city of Bjelovar, which published ten tenders in the same time period. Only tender documentation was published in the majority of cases (67%), followed by both tender and decision on the selection of the most favorable offer (30%). In only five cases was the complete tender documentation (including tender, decision, and applicant offers) published on the official website. In the second phase of the research, we received a relatively small response from local administrative units (only 36% of units responded to our inquiry). Out of 200 responses, 62% of them replied that they have not conducted a tender for state-owned land lease in the 2015–2022 period, excluding them from further transparency analysis.

When examining the 2015–2022 time period, we can see a slow but steady increase in the number of published tenders from 2015–2017 (71% increase from the initial 7 tenders in 2015 to 2016 and an additional 58% increase from 2016 to 2017), with a small decline in 2018. After 2018, a huge surge of tenders was recorded (150% increase in 2019 and an additional 217% increase in 2020). After 2019, the number of tenders fluctuates but is still above 75 tenders per year (Figure 1).

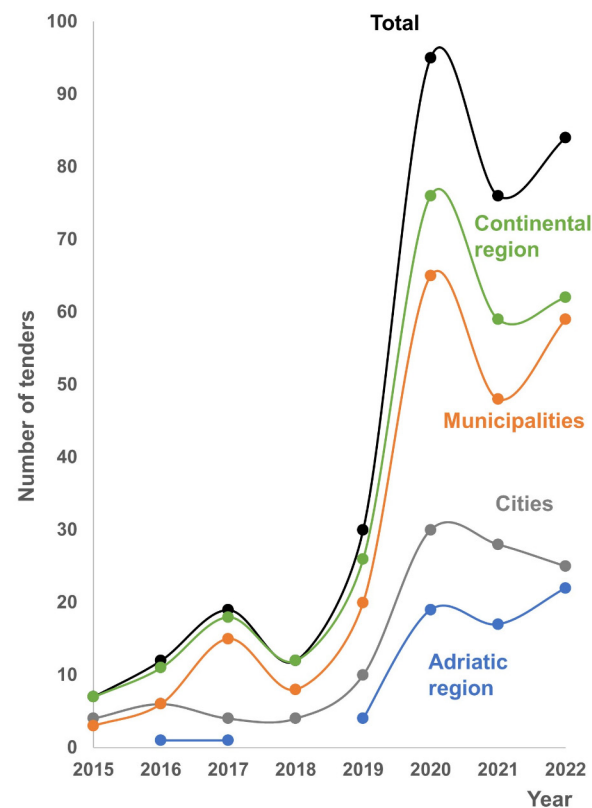


Figure 1. Number of published tenders for state-owned agricultural land lease per year by agricultural region (Continental, Adriatic) and type of local administrative unit (city, municipality).

Considering the unique peculiarities in the production of agricultural regions in Croatia and the geopolitical characteristics of the regions, the results of conducting tenders for the agricultural land lease are presented based on the Continental and Adriatic regions in order to identify possible differences (Figure 2). The Continental region has a total of 336 local administrative units, while the Adriatic region has 220 local administrative units.

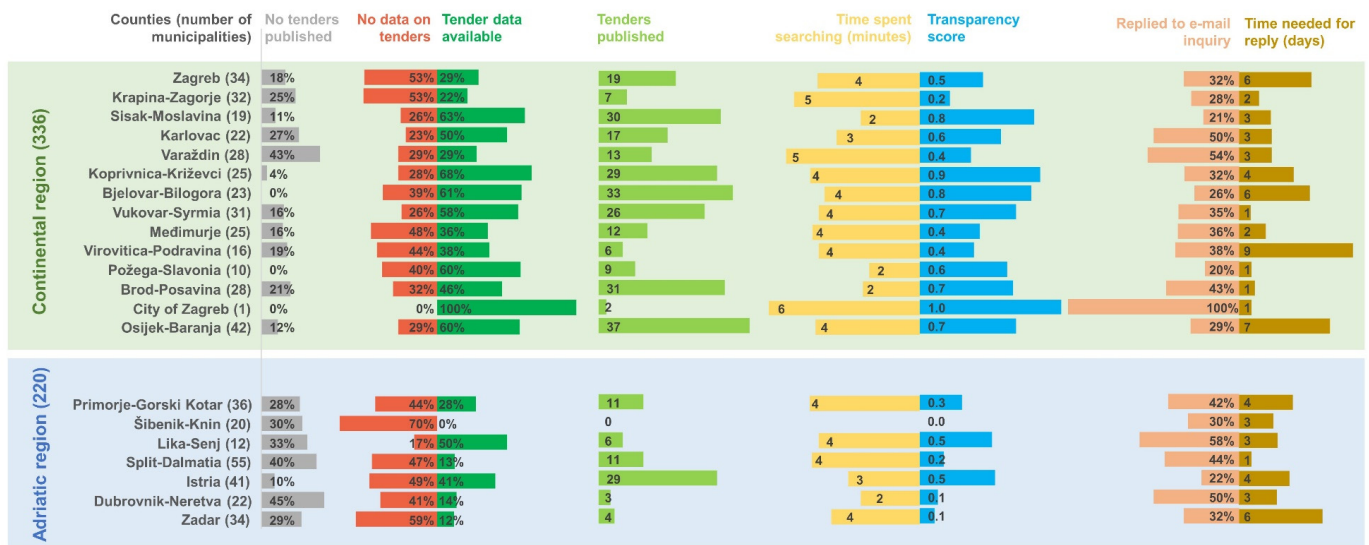


Figure 2. Tender for state owned agricultural land lease assessment results in Croatia on a county level divided into two agricultural regions.

In the Continental region, several counties had all of their local administrative units with at least one tender, in contrast to the Adriatic region, where the rate of counties with no tender published per local administrative unit was much higher. In the Continental region, there is a large percentage of local administrative units for which there is no information about tenders, with Zagreb and Krapina-Zagorje counties leading the way with 53%. In the Adriatic region, the situation is similar, with slightly higher percentages of local administrative units for which there is no data, with Šibenik-Knin county leading the way with 70% and Zadar with 59%.

In the Continental region, data are available for the city of Zagreb (100%), given that the only local administrative unit is the city itself. Koprivnica-Križevci with 68%, Sisak-Moslavina with 63%, and Bjelovar-Bilogora with 61% of the county where the most local administrative units announced a tender for the allocation of agricultural land. In the Adriatic region, Lika-Senj leads with 50% of them with a published tender. Šibenik-Knin does not have any available information about tenders.

It is noticeable that more tenders for agricultural land allocation were published in the Continental region than in the Adriatic region. Four counties had more than 30 tenders published in the Continental region, while in the Adriatic region, the county with the highest number of published tenders was Istria (29 tenders), while other counties had significantly fewer tenders for the allocation of agricultural land.

As the research was carried out by searching the official websites of local administrative units and contacting them, and these are also two important segments of transparent and accountable public government processes, the observed parameters for the implemented activities are presented. The time spent on the search in minutes ranges from 2 to 6 min. This is approximately how long it took the researchers to review the local administrative unit's website on average. It took the longest time to review the site of the city of Zagreb (6 min), which is not surprising considering that Zagreb is the capital of Croatia with a lot of published digital content. Analysis of variance showed no statistical differences in time needed to search and find data on tenders between regions (Continental and Adriatic) and type of local administrative unit (city and municipality).

When contacting local administrative units, data on responses and the time required for a response in days were recorded. In the Continental region, the city of Zagreb responded to the inquiry and was the only local administrative unit to provide insight into the data. Apart from them, only two other counties have more than 50% of collected responses from local administrative units, namely Varaždin (54%) and Karlovac (50%). In all other counties, less than 50% of responses from local administrative units to inquiries were

collected, which is a worrisome fact because according to the Act on the Right of Access to Information, access to the requested data should have been enabled. In the Adriatic region, 58% of responses were received in Lika-Senj and 50% in Dubrovnik-Neretva. In all other counties, less than 50% of responses from local administrative units were collected. In the Continental region, local administrative units of four counties responded in a single day. At the same time, Virovitica-Podravina took the longest across both regions (9 days). In the Adriatic region, the responses came the fastest in Split-Dalmatia, on average in a single day. Analysis of variance once again showed no statistical differences in time needed to receive a response from local administrative units on tenders between regions (Continental and Adriatic) and type of local administrative unit (city and municipality).

Analysis of variance revealed statistical differences in transparency scores on both the regional level and between cities and municipalities ($p < 0.0001$ and $p = 0.0015$, respectively). Observing the Continental region, it is evident that cities have a higher transparency score compared to municipalities (Figure 3). The score for cities is 0.7, while for municipalities it is 0.6. In the Adriatic region, the transparency score is somewhat lower; for cities, it is 0.4, and for municipalities, 0.2. Namely, in municipalities, as rural areas, more tenders are published, but the transparency score is lower in both agricultural regions. The reason for this may be that rural areas do not have enough available human resources that provide the necessary information or publicly publish and update it on official websites.

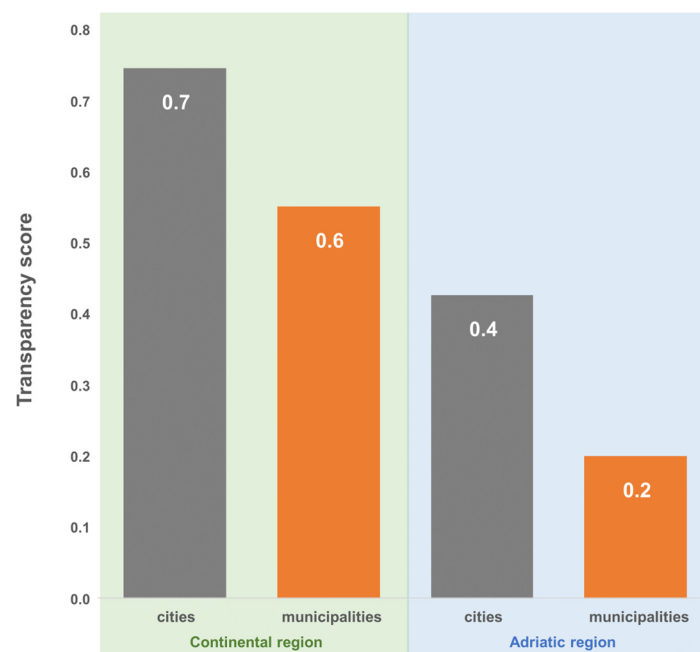


Figure 3. Average transparency scores of types of local administrative units (city, municipality) categorized by agricultural region.

Correlation analysis revealed a high correlation between the population size of units of local government and the staff number of cities/municipalities ($r = 0.993$, $p < 0.0001$), indicating that larger cities and municipalities in terms of population also have a greater number of staff. The results of the analysis between transparency scores and both population size and staff number showed no significant correlation ($r = 0.02$, $p > 0.68$) indicating that although larger cities/municipalities have higher resources, those are not invested into actions increasing the transparency level of the unit.

In total, 432 spatial units (cities/municipalities) were included in spatial autocorrelation analysis (units with no published tenders based on data collection were excluded). Out of those, 16 spatial units were neighborless, and the majority of units (66%) had 3–6 neighbors. The value of Moran's I was 0.186 and was highly significant ($p < 0.0001$). A positive value indicates that the transparency scores are spatially clustered to some extent.

This can be seen in Figure 4, where small clusters of transparency score = 0 can be seen throughout the whole country.

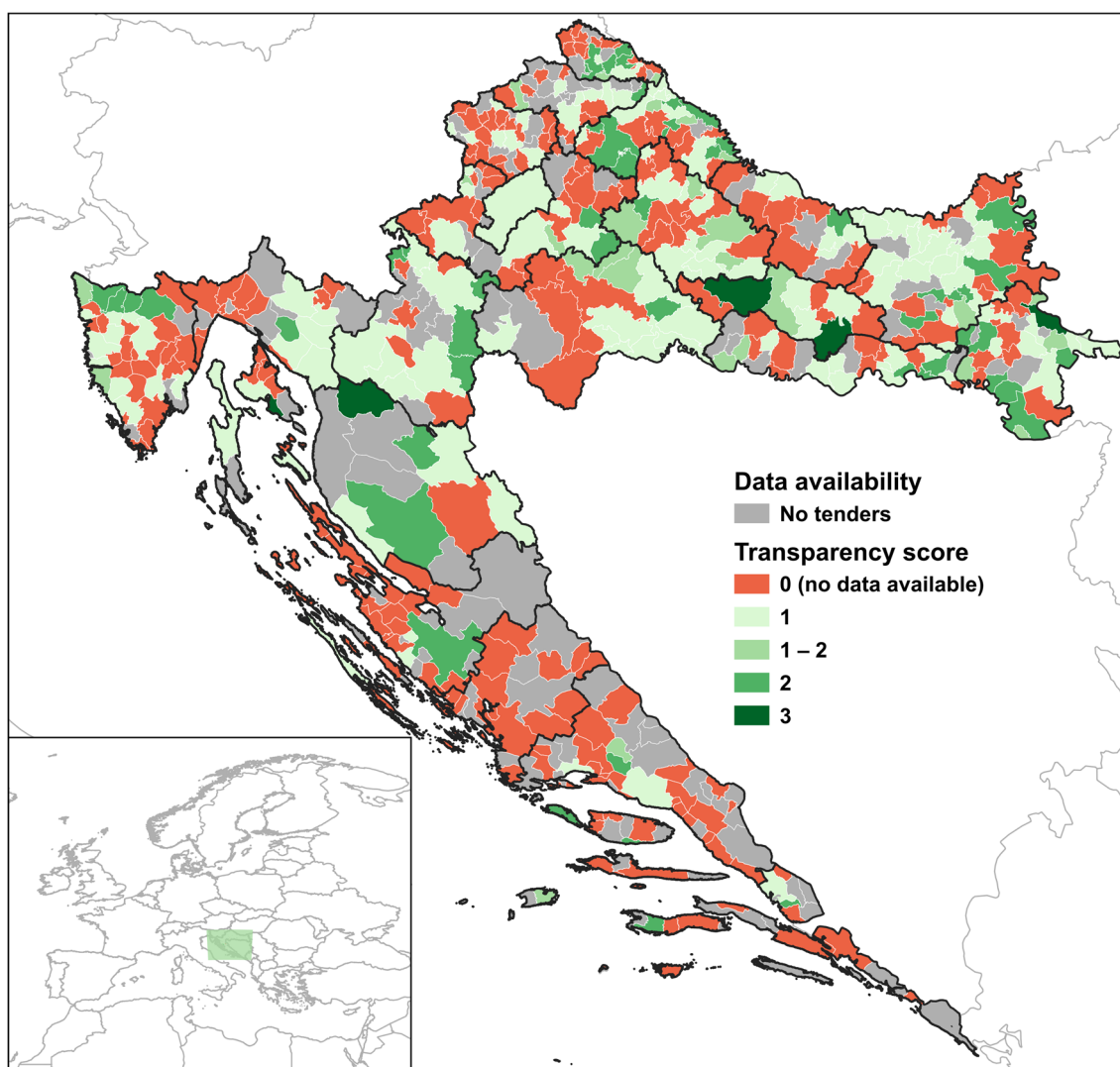


Figure 4. Tender transparency scores of local administrative units in the Republic of Croatia.

Small clusters of higher transparency scores can also be observed in Istria, along the border with Slovenia, the eastern part of the country (Slavonia), and central Croatia. Neighboring units with similar scores tend to belong to the same county, indicating that cities/municipalities adopt good (and bad) transparency policies from neighboring units that are pioneers in opening their data to the public according to EU and national regulations.

5. Discussion

5.1. Transparency in State-Owned Land Lease by Local Government

The analysis of the call for tender of the state agriculture land lease in Croatia has revealed open questions and opportunities for improvement. The analysis shows that more tenders were published in the Continental region than the Adriatic region, which was expected since the Continental region has more agricultural land and a long farming tradition in the country. The data collected on the level of transparency of local administrative units are worrying. Only in 5 counties, more than 50% of local administrative units provided data on the conducted tenders based on the request sent to them. Although the Law on the Right of Access to Information obliges them to provide the interested society with the

requested information, this has not proven to be correct in practice. The question arises as to the reason for this practice and why the representatives of the local administrative units are shirking their responsibility and violating the transparency of the operations. Even though the obligation to publish the results and the most favorable decision is not defined in the current decision-making system, there is no obstacle to publishing them to raise and develop transparent practices. When conducting tenders, only 30% of units disclosed the decision on the most favorable tender.

The research carried out has shown that cities have better transparency compared to municipalities, although there are certain differences between cities depending on the region (Continental and Adriatic). Looking at the number of employees and inhabitants in the cities and municipalities, previous research states that cities and municipalities with a larger number of employees and inhabitants should be more transparent in business, but our research does not confirm this. No correlation was found to show that local administrative units with higher capacity have greater labor transparency.

The analyzed period from 2015 to 2022 was characterized by a weak but stable increase in the number of calls for tenders. Of interest is the year 2020, in which there was a significant increase in the number of tenders, and the question arises as to whether this is in connection with the COVID-19 pandemic and the pandemic-related situation on the market. According to the OECD [46], global production of key commodities such as wheat, corn, rice, and soybeans has increased. As there were numerous restrictions on the import and export of food, it is possible that national policies were geared towards this and gave their agricultural production a chance.

Spatially grouped data show that there is an influence between local administrative units, i.e., there is a high probability that when looking at a particular local administrative unit, the neighboring local administrative units have similar transparency scores. This suggests that neighboring local administrative units influence each other in their operational practices.

5.2. Potential Improvements of the Current Model

To ensure full transparency in the allocation of state-owned agricultural land through the tendering process, the implementation process and all related data should be open and publicly accessible to all interested stakeholders. To achieve this, we propose several improvements to the current model of leasing state agricultural land that should contribute to a higher level of transparency, primarily for the applicants in the tendering process, but also for the general public. The suggestions for improvement are considered to be simple but effective solutions and relate to different phases of the process (Figure 5).

The initial phase is considered an extremely important part of the process as it determines who can apply for the tender and under what conditions. This phase is managed by the local administrative unit (LAU), so the improvements are mainly focused on creating an unbiased and objective tendering environment. To increase transparency in this phase, the authors propose: (1) the establishment of a national digital tendering platform (TP), (2) the establishment of a national repository of state-owned agricultural land (SOAL) as part of the TP, and (3) various ways of disseminating tenders. The establishment of a tendering platform is expected to have three advantages. First, it will serve as a single access point for applicants to find all binding laws, regulations, obligations, and conditions in one place. Secondly, it will enable digital bid submission in the tendering process, and thirdly, it will serve as a dissemination platform for calls for tenders. In addition, the integrated part of the platform, the National Repository of SOAL, will provide an overview of vacant and occupied plots in local administrative units and their occupancy period in real time. This should help interested applicants better plan their future applications. Finally, the authors propose to publicize the call not only via the LAU website and the TP mentioned above, but also through additional online/offline advertising. This could contribute to a higher audience reach and more bids in the tendering process—transparency and healthy competition.

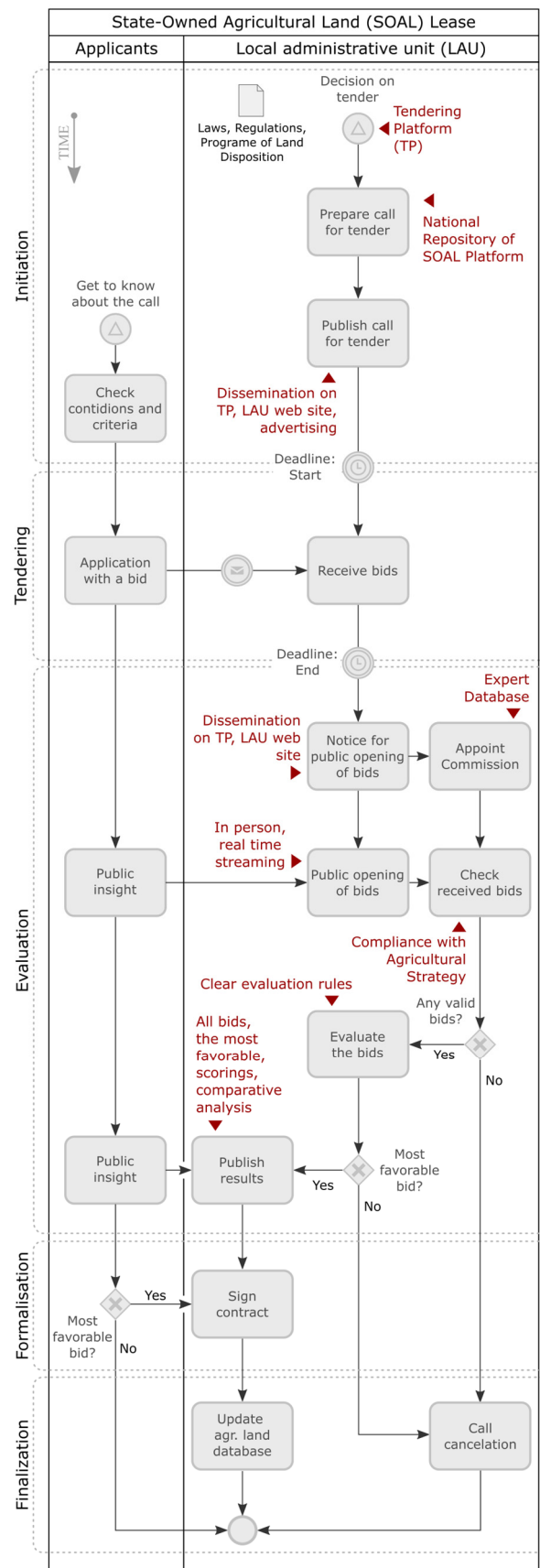


Figure 5. Proposed model for state agricultural land lease process in Croatia with improvements in initial and evaluation phases of the process.

The evaluation phase of the proposed model is where most of the improvements can be found, as most of the key tendering activities fall into this phase. These improvements relate to LAUs that have to decide on the most favorable bid and publish the results. As a first step, the new model proposes to announce the public opening of tenders via the tender platform and the LAU website to ensure that all applicants receive the information in time. A commission will then be appointed to review and evaluate the bids and decide on the most favorable bid, with the novelty being how the members of the commission will be selected. As the appointment of the commission requires the involvement of experts to evaluate the bids responsibly and fairly, a higher level of transparency could be achieved at this stage by randomly selecting the experts from the Expert Database, thus minimizing a priori subjective decisions. The public opening of bids is another activity in which all bids received are opened in front of the audience present. Instead of a traditional, face-to-face event, the new model proposes a hybrid event with face-to-face attendance and online streaming in real time (with video recording). In this way, all interested parties can be assured of a fair and transparent bid opening. The evaluation of the bids, the centerpiece of the tendering process, is a follow-up activity that requires the greatest attention and reasonably the highest level of transparency. Firstly, the applications must be in line with the objectives of the agricultural strategy in order for the bids to be qualified. However, the conditions for agricultural production set out in the strategy, and therefore the conditions that the interested parties must fulfil, should not be taken into account equally in all agricultural regions. If the applications do not match these objectives, the bid is dropped. For the bids that are in line with the strategy and therefore qualify, the evaluation should be based on clear evaluation rules and fair scoring. The evaluation rules should be publicized and include clearly defined criteria, sub-criteria, and possible points for each situation or status of the applicant. The final step in this phase is the publication of the results. The novelty in this activity is that all applications should be made publicly available on the tender platform together with the following (relevant) documents. This includes the list of all bids received, the selected—most favorable—bid, summarized scores per applicant according to criteria/sub-criteria, and a simplified comparative analysis of all applications (e.g., a table).

In the last year, there have been some changes related to the implementation of the call for tenders of agricultural land leases. Namely, since November 2022, the Ministry of Agriculture has started to transparently publish public calls for tenders on the official website, where all public tenders for leasing agricultural land owned by the Republic of Croatia can be found, but this is not an obligation. With this functional improvement, a positive shift in publishing tender is noticeable. In December 2023, the Ministry presented a new e-Lease application—a software solution for the disposal of state agricultural land whose goal is to digitize the process. The application is presented as a solution that will contribute to openness, transparency, and clarity for the entire public, but according to its functionalities, it does not enable this. Some of the functionalities offered by the newly developed application are guidelines when filling out the application, subsequent delivery of documentation, and drafting of contracts for agricultural land leases. Therefore, it can be concluded that the developed application solves the problem of an administrative nature, but not the deeper issue of the implementation of tenders for state agricultural land leases, and even less the evaluation procedure. Stakeholders in the process (local self-government units, the Ministry of Agriculture, or the applicant) log into the application, which means that it is not available and open to everyone, and thus transparent and open implementation of the tender is not ensured. Also, a large number of farmers are still dissatisfied and believe that there is still bias and rigging in the tenders that are conducted.

6. Conclusions and Policy Implications

Research on the implementation of tenders for agricultural land leases in Croatia has shown that it cannot be claimed that the process is transparent and even less that the allocation of land has been carried out responsibly. In the entire process, in most

local administrative units, important data (evaluation and comparative analysis) for all stakeholders in the process are missing. Some shortcomings or loopholes in the current legislation were identified, which leave opportunities for manipulation in the implementation of tenders for agricultural land leases. In addition, the results of the evaluation and the selection of the most favorable offer should be made public and transparent. The fundamental change to the process relates to the introduction of a platform for the management of state agricultural land. These changes would enable an open and transparent procedure for all stakeholders and raise the management of state land to a higher level. Additionally, changes in legislature are needed as well, explicitly prescribing all stages in the tendering process. Without legal regulation of the tendering process, the responsibility will remain at the level of local administrative units, which does not guarantee uniform enforcement of the tendering conditions and full transparency. This could also have a positive impact on sustainable use of agricultural land in Croatia, since national policies include measures that ensure maintaining the long-term health of natural resources.

The limitations of this research relate to gaps in data collection. A small proportion of local administrative units did not respond to our request for data, nor did we find the data on their websites, limiting the analysis due to uncertainty of the status of tenders in said administrative units. Although linked to the Croatian agricultural land lease tendering process, proposed methods consider transparency aspects characteristic of any tendering process, which makes the procedure replicable no matter the model of land lease in background. Future research will be focused on the user-side of the agricultural land lease tendering process in Croatia in order to gain complete insights into the tendering process and to possibly identify additional barriers that were not observed in this research.

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