

Final report

Project title: International Competence Center „Large Scale Agriculture in Developed and Transition Economies“ (LaScalA)

Project number: K203/2016

Executive Summary

The project “International Competence Center on Large Scale Agriculture in Developed and Transition Economies” (LaScalA) has contributed to the objectives of the funding line “Cooperative Excellence” by promoting international, inter- and transdisciplinary collaborations for consolidation of already established topics and exploration of new research fields. In particular, the project pursued two overarching goals. Strategically, it aimed to extend and bring together the disperse network of international researchers on the topic of large-scale agriculture. Scientifically, it aimed to enhance and contribute to the research on the topic.

In order to achieve its strategic goal, the project has established the online platform that represents a unique collection of knowledge about large-scale agriculture worldwide. In the course of the project (2017-2021), the online platform published about 60 own produced reports, including those based on the project research results, and republished more than 1100 news about large farms operating in different countries. The platform includes the data page with information about approximately 200 large agrohholdings from 10 countries that altogether operate some 50 million hectares of farmland. The platform continues functioning after the project using existing infrastructures of the project partners.

Initially, LaScalA involved 11 university and non-university partners from 9 countries including the coordinating institution, Leibniz Institute of Agricultural Development in Transition Economies (IAMO, Halle, Germany). In the course of the project, the network of partners expanded to include additionally 6 research institutions, 3 online mass media, 1 consulting agency and 1 non-governmental organization.

The project has successfully organized 1 international scientific conference, held 3 scientific workshops/organized conference sessions and co-organized 5 international practical conferences, at which the project’s research results have been presented. These events have been widely advertised among relevant stakeholders using the opportunities conferred by the LaScalA online platform and own infrastructures of the project partners. As a result, the LaScalA events have attracted numerous stakeholders from research, agribusiness, policymaking and non-governmental sector. Furthermore, exchange among the project partners has involved 28 research stays at the project partners’ institutions in total.

The above activities have contributed to the achievement of the scientific goal of the project. The 2021 special issue of International Food and Agribusiness Management Review on “Growth of agrohholdings and mega-farms in transition and emerging market economies: institutional and organizational aspects” stands out in this respect as it summarizes the research work done in the project and presents the agenda for future research on the topic.

Several fieldwork and data collection initiatives as well as the application of various quantitative and qualitative methods resulted in the following research results: 17 articles in international scientific peer-reviewed journals; 7 publications in non-refereed journals; 6 publications in conference proceedings; 1 policy paper; and 50 presentations at international scientific and professional events in 2017-2022. Three PhD studies have been accomplished within the project while another PhD study is still being conducted by a former team member at a different research institution.

Overall, these achievements have proven the status of IAMO as the world’s leading research institution in the domain of large-scale agriculture and paved the way for fruitful inter- and transdisciplinary collaborations in the future.

1. Achievement of objectives and milestones

The LaScalA project pursued two overarching goals. Strategically, it aimed to extend and bring together the disperse network of international researchers in the sphere of large-scale farming in order to facilitate inter- and transdisciplinary transfer of knowledge on organizational, institutional and ethical aspects of large farming operations around the world. Scientifically, it

aimed to enhance and contribute to the research on large-scale agriculture in order to improve the understanding of its impacts on economic and social performance of the sector, welfare and distributional justice in rural areas and competition on factor and output markets.

In order to achieve these goals, the project was structured into three work packages that set out to conduct the following activities: to conduct research on organizational, ethical and institutional aspects of large-scale farming, in particular in the framework of the project's PhD studies; to organize a series of events and research stays to strengthen the network of scholars in the area of large-scale agriculture; and to establish an online platform in order to inform the general public about various matters of large-scale farming. This structure allowed achieving the project's goals efficiently despite a number of unanticipated challenges that arose during project implementation.

One of the major obstacles was the outbreak of the Covid-19 pandemic in early 2020. Aiming to respond to this challenge, the Leibniz Association made it possible to prolong the currently funded projects budget neutrally for up to 18 months. IAMO used this opportunity and successfully applied for the budget neutral prolongation of the LaScala project, thus shifting the project end term from May 2020 to November 2021. This allowed the project to timely accomplish several important tasks.

Furthermore, there were several adjustments of the project personnel structure. At the outset of the project, IAMO decided to increase the number of PhD positions within the project from three to four and expressed willingness to co-finance these positions from own funds. This proposal was supported by the Leibniz Association. Accordingly, the project's staff expenditure was reorganized so as to enable funding of four PhD students for two years each from the project's funds provided by the Leibniz Association and for another, third year from the IAMO funds in the form of IAMO PhD scholarships.

After two and a half years in the project, one of the PhD students accepted a job offer from the Giessen University (Germany) and, accordingly, moved to Giessen where he continued his PhD study on one of the LaScala topics. His PhD thesis is expected to be accomplished in mid-2023. The project's other three PhD theses were accomplished by May 2022. One of them was submitted for review in January 2022 while the other two will be submitted in June 2022. Some slight deviations from the financial plan occurred because of other unexpected changes in the project team. In particular, the initially employed postdoc/data manager could not continue her work after almost two years in the project due to family reasons. The newly employed person received a lower pay grade compared to her predecessor due to a shorter professional experience. This allowed to save some funds and use them for funding of her position also in 2021, during the budget-neutral prolongation of the project due to Covid-19.

In January-October 2018, the position of the project team leader was 65% financed from IAMO own funds. In 2018, the annual conference of IAMO, the IAMO Forum, was exclusively dedicated to the LaScala topics and, therefore, the project team leader was strongly engaged in organization of this event relevant for the whole institute. Again, this allowed to save some funds and reallocate them toward personnel funding at a later stage of the project.

Another instance of reallocating the project funds occurred when some of the planned project travels and events could not take place due to the Covid-19 restrictions, which allowed spending the unused funds for personnel expenses. For example, it was not possible to hold two project workshops planned for 2020. They had to be postponed and were held online in 2021. The released funds were used for personnel funding beyond the initial project schedule. Apart from these adjustments, the project's funds were used generally according to the plan.

2. Activities and obstacles

The project activities were undertaken to perform tasks within the following work packages (WPs): 1) Systemizing and conducting the research on large-scale agriculture; 2) Linking and expanding the network of researchers in the sphere of large-scale agriculture; and 3) Establishing an online platform/website on large-scale agriculture.

WP1 included inter-disciplinary research activities focusing on a broad spectrum of topics. The project addressed a number of novel research questions on issues such as organizational structure, economic and social performance of large farms and agroholdings, as well as

institutional frameworks for the development of these large-scale farming structures in emerging, transition and developed economies.

In order to take a detailed account of these issues, four PhD studies have been conducted within the project. One of them dealt with a unique topic of merger and acquisitions in primary agriculture. Another one performed a pioneering work on the impact of corporate governance on financial performance of agri-food enterprises. The other study examined how large agricultural enterprises address increasing societal pressures regarding farmland concentration. Last but not least, the fourth study focused on the role that land and labor market imperfections play in explaining the development of large-scale farming.

Noteworthy, three of the four PhD studies within WP1 had to start with some delays due to previous job commitments of the candidates selected for the PhD positions. In particular, they could commence their work in the project in October 2017, December 2017 and January 2018, respectively. The rest of the project staff, i.e. project team leader, postdoc/data manager, one of the PhD students and two student assistants started their work as planned by the project proposal.

Besides the PhD studies, the project team members were involved in joint publications and co-supervision of master theses with the project partners within WP1. Three master studies on the topics of land use, efficiency and corporate social responsibility (CSR) of agrohholdings were co-supervised. Some planned co-supervision activities could not take place due to the Covid-19 restrictions. Nevertheless, the project partners continue collaborations and expect to engage in co-supervision of master studies on the topic of large-scale farming in the future.

WP2 of the project aimed to strengthen the network of researchers in the sphere of large-scale agriculture via organization of events and research stays. The project has successfully organized one international scientific conference, held three scientific workshops/conference sessions and co-organized five international practical conferences. Due to the Covid-19 restrictions that caused cancellations of many international conferences, two conference sessions planned by the project for 2020 could not be held. The project had to revise its plans and to hold these two sessions online as one larger symposium at the postponed Congress of European Association of Agricultural Economists (EAAE) in July 2021. Besides the events, WP2 involved 10 research stays of IAMO representatives at the project partner institutions and 18 stays of researchers from the partner institutions at IAMO in 2017-2021.

In terms of WP3, the LaScala project has established the online platform <https://www.largescaleagriculture.com/home/> that represents a unique collection of knowledge about large-scale agriculture worldwide. Coordinated by the postdoc/data manager, the platform regularly publishes own reports on various aspects of large-scale farming; republishes news of professional mass media about the development of large agrohholdings and mega-farms worldwide; maintains the library of international scientific publications on the topic of large-scale agriculture; and includes a continuously updated open-access database of socio-economic indicators of large farms operating in different countries.

3. Results and successes

Among the WP1 results, the 2021 special issue of International Food and Agribusiness Management Review on “Growth of agrohholdings and mega-farms in transition and emerging market economies: institutional and organizational aspects” stands out as it summarizes the research achievements of the project and presents the agenda for future research.

Furthermore, the project research activities have resulted in a total of 17 articles in international scientific peer-reviewed journals; 7 publications in non-refereed journals; 6 publications in conference proceedings; 1 policy report; and 50 presentations at international scientific and professional events in 2017-2022.

Using a range of quantitative and qualitative methods, the PhD studies conducted within the project have gained essential insights into the topic of large-scale agriculture. In particular, by the example of large corporate agrohholdings in Russia and Ukraine, one of the PhD studies has shown how a continuous expansion via acquisition of mainly inefficient farms leads to mid-term efficiency drawbacks for the agrohholdings. Another PhD study has found that agrohholding affiliation, professionally and gender diverse corporate boards of directors have a strong

positive impact on financial performance of agri-food enterprises in Russia. By putting the focus on large farms and agroholdings in several countries (Argentina, Kazakhstan, Romania, and Russia), the other PhD study has shown that CSR of agricultural enterprises is driven primarily by the need to address existing institutional gaps on the markets for farmland, labor and capital while these gaps may also lead to a discourse failure between farms and their particular stakeholders. Yet another PhD study has shown, by the example of Ukraine, how interest-seeking behavior of land registration authorities translates into inefficient land rental markets and farmland concentration while labor market failures may be the reason behind costly substitution of technology for labor and replacement of performance-based incentivization with digital technology-enabled monitoring of hired labor.

Within *WP 2*, the project has organized a number of events and academic exchange activities. The highlight of these activities was organization of the IAMO Forum “Large-scale agriculture – for profit and society?” that took place on June 27-29, 2018 in Halle, Germany. The IAMO Forum is the annual conference held by IAMO that, on average, brings together 150-250 participants representing research, politics and agribusiness. In 2018, the conference was dedicated to the topics of the LaScalA project. For more information about the event, please follow this link: <https://forum2018.iamo.de/about-the-conference/>.

Another highlight of *WP2* was the EAAE Pre-congress Symposium “Large Scale Agriculture in Transition and Developed Economies: Organizational and Societal Issues” (July 20, 2021, Prague, Czech Republic, online). The symposium summarized the project’s research results and presented the agenda for future research on large-scale agriculture. More information about the event can be found here: <http://www.eaae2021.org/en/large-scale-agriculture-in-transition-and-developed-economies-organizational-and-societal-issues>.

In addition, the LaScalA project has been and is engaged in co-organization of the annual Large Farm Management (LFM) conference together with the Association “Ukrainian Agribusiness Club” in Kyiv, Ukraine (<https://lfm.com.ua/en/>). The LFM conference is, on average, attended by more than 300 top managers of international agribusiness companies.

In terms of *WP 3*, the key result of the project was the launch of the online platform on large-scale agriculture in 2017. Since then, the online platform has published more than 1100 relevant news on large farm operations worldwide. A substantial part of the news was republished thanks to the partnerships with mass media partners established during the project, such as those with Agroportal (<https://agroportal.ua/>) and Latifundist (<https://latifundist.com/>) in Ukraine and Agroiinvestor (<https://www.agroiinvestor.ru/>) in Russia. About 60 own produced reports, including those based on the research results of the project, were published in 2017-2021. The platform includes the data page that contains information about approximately 200 large agroholdings that operate a total of some 50 million hectares in 10 countries. This information is verified and updated semi-annually. The platform continues its functioning also after the project end using existing infrastructures of IAMO.

4. Equal opportunities, career development and internationalization

The LaScalA project’s coordinating institution, IAMO, is committed to the Leibniz equal opportunity standards and aims to achieve equal employment across all levels of qualification. The LaScalA project adhered to these standards by employing a female postdoc/data manager for coordination of the LaScalA online platform. To provide career perspectives for female early stage researchers, the project ensured that one of the project PhD students was female. Furthermore, one of the two student assistants throughout the whole project duration was also female. Moreover, women were very well represented in the list of project partners.

Alongside collaboration with the partners from several countries and continents, the LaScalA team at IAMO was highly international and included citizens of Chile, Colombia, Germany, Kazakhstan, Moldova, Romania, and Ukraine.

LaScalA became a jumping point in the career of its PhD students. For instance, after accomplishment of the PhD studies, one of the project researchers has been employed as a mid-level manager by a well-known international agribusiness company while another one has become a lecturer at the renowned university in one of the project’s focus countries.

Last but not least, the LaScalA team leader participates in a joint mentoring program for postdocs and senior researchers at IAMO that includes training in soft skills such as management and PhD supervision.

5. Structures and collaboration

Initially, LaScalA involved 11 project partners from 9 countries (Argentina, Czech Republic, Germany, Kazakhstan, Netherlands, Romania, Russia, Ukraine, and USA). In the course of the project, the network of partners expanded to include additionally 6 research institutions from Brazil, Czech Republic, Germany, Kazakhstan, Sweden, and Ukraine; 3 online mass media from Russia, and Ukraine; 1 consulting agency from the USA; and 1 non-governmental organization from Germany.

6. Quality assurance

The LaScalA project aimed to establish a steering committee that would be composed of the private sector representatives alongside the project's research partners. Unfortunately, this initiative had to be postponed due to the Covid-19 restrictions. Nevertheless, the project maintains tight partnerships with renowned professional associations, such as the Association "Ukrainian Agribusiness Club" (UCAB) and German Agricultural Society (DLG), in terms of which the above initiative is being further discussed. Fruitful exchange and cooperation with other actors from private and non-governmental sectors were established during the project's research and transfer activities in Argentina, Kazakhstan, Romania, and Ukraine.

The project was monitored by the IAMO ethics committee upon relevant project content during its course. No animal testing has been conducted in the course of the project.

7. Additional resources

The value of in-kind resources generated by IAMO within the project's research and transfer activities is equivalent to one full-time postdoc position in personnel cost and to one position of a student assistant in consumables. The value of in-kind resources generated by the project partners is equivalent to one full-time postdoc position in personnel cost.

8. Outlook

IAMO, has been engaged in research and transfer activities on the topic of large-scale farming since two decades. Support through the funding line "Cooperative Excellence" has enabled IAMO to maintain and improve its status of the world's leading research institution in the domain of large-scale agriculture via strengthening and expanding the network of international partners interested in the topic. The partnerships that were promoted and established in the project pave the way for fruitful inter- and transdisciplinary collaborations in the future. For instance, currently, IAMO cooperates with DLG to set up an international discussion club of managers of large agricultural enterprises that would serve as an exchange forum on economic and societal impacts of large-scale farming operations. Cooperation between the project partners involves also a number of joint publications and ongoing applications for funding opportunities with regard to some of the LaScalA topics. At least five publications based on the research results obtained during the project are still in the pipeline for 2022.

The results achieved within the project enable the LaScalA partners to continue working together in the future on a broad number of research questions, including but not limited to the topics envisaged by the future research agenda in the 2021 special issue of *International Food and Agribusiness Management Review*. Topics such as institutional and technological frameworks for the development of agrohholdings and mega-farms, structural heterogeneity and strategic orientation of large agricultural enterprises as well as societal acceptance of large farming structures are of particular interest for joint research efforts.

