DIFFERENTIATION OF RENT FOR AGRICULTURAL-PURPOSE LAND

Evgeniy ZAVOROTIN, Alla GORDOPOLOVA, Nataliya TIURINA, Lyudmila POTOTSKAYA

Volga Research Institute of Economics and Organisation of Agro-Industrial Complex (VRIEOAIC), 12 Shehurdin st., 410010, Saratov, Russia, Phone: +78452648692, Email: nii_apk_sar@mail.ru

Corresponding author: nii_apk_sar@mail.ru

Abstract

Through processing the information on existing methods of lease, problematic situations on lease agreements of agricultural-purpose land held in shared ownership are studied in the article. The existing methods of rent under land lease agreements in case of joint lessor by the municipal districts of the Saratov region are considered thoroughly. It is established that the most common is the rent-in-kind. According to the study, it is advisable to use the monetary form of rent for improving the financial-and-economic results of agricultural production of business entities. The result of the study is the development of the method of differentiated rent. Using the SWOT-analysis the proposed method is scientifically substantiated, measures for threat manageability putting advantages of the method strengths, use of favorable opportunities to overcome its weaknesses, reduction of the adverse impact of the combination "weaknesses – threats" are determined. The recommended method reflects the land rent received in specific production conditions, taking into account the product yield, allows lessees and lessors to invest free funds. The method of calculating the differentiated rent is based on determining the anticipated net operating income depending on the level of agricultural producers who are lessees and lessors of agricultural-purpose land held in shared ownership, executive authorities and managing bodies of agric-industrial complex.

Key words: rent, agricultural-purpose land, rent differentiation method, land plots, shared ownership

INTRODUCTION

Agricultural-purpose land lease is a nongratuitous possession and use of land for agricultural production based on the agreement.

Land share is understood as a part of the agricultural-purpose land owned by the right of ownership to the person entitled to receiving and leasing it to a business entity [25]. Land lease in case of joint lessor (practically that is leasing the land shares to agricultural organization by all an shareholders of the farm) is not defined in the conceptual sense neither in the Civil Code nor in the Land Code of the Russian Federation [2, 7]. By-laws on this issue serve as guidelines, as they provide for the owner the free choice of the right to dispose his/her land share (pai). The same shareholders may act as lessees and lessors. This type of lease is not provided with the necessary legal framework and needs to be amended and streamlined.

The instrument for increasing the efficiency of lease relations is determining and setting fair rent rates under the lease agreements for agricultural-purpose land plots held in shared ownership.

Difficulties in calculating the rent under land lease agreements in case of joint lessor are manifested in the absence of regulation in contrast to the lease of land plots held in state or municipal ownership, in relation to which the Resolution of the Government of the Russian Federation № 582 of July 16, 2009 "On basic principles of determining the rent at leasing the land plots held in state or municipal ownership and the rules of determining the rent rate as well as the procedure, conditions and time limits of rent payments for the lands owned by the Russian Federation" is in force [14].

The study of existing methods of determining the rent under the land lease agreements in case of joint lessor in the subjects of the Russian Federation contributed to the identification of different approaches to this issue. The development of land lease is one of the factors for improving the efficiency of agricultural-purpose land use. Land owners prefer to lease them out and that allows overcoming a high investment barrier to business entities that do not have sufficient funds for the purchase of land for production purposes. Lease does not restrain the economic initiative, forms an effective lessee, because he/she is equally interested in the rational use of both own land and leased land [24]. The relevance of the development is determined by the possibility of using the proposed method of calculating the rent under lease agreements of land plots from agricultural-purpose land held in shared ownership in accordance with the main financial-and-economic results of agricultural production of the business entity.

The novelty of the study consists in scientific substantiation of the method, proposition of options for calculating the rent in accordance with the main financial-and-economic indicators of agricultural production of the business entity.

The fundamental provisions of the classical economists A. Smith [18], D. Ricardo [15] A. Marshall [9] and the most famous Russian scientists I.N. Buzdalov [1], S.N. Volkov [22], A.S. Mindrin [10], A.E. Sagaidak [16], N.I. Shagaida [8, 17] A.M. Yugay [23] etc. are of substantial significance for the development of methods of calculating rents.

The central objective of the research is developing a method of calculating the rent under lease agreements of land plots from agricultural-purpose land held in common ownership. To solve it, it is necessary to identify problematic situations, analyze information on the existing rents and offer areas for the application of the author methodology.

MATERIALS AND METHODS

In this paper, using the SWOT-analysis the proposed method is scientifically substantiated.

The procedure for calculating the rent depending on the level of crop productivity, anticipated net operating income, land market price, taking into account the discount rate is as follows.

(i)The average actual crop productivity for the last *n* years is determined.

(ii) The range of estimated productivity is selected taking into account favorable climatic conditions for the subsequent number of n years.

(iii)Net operating income (R, RUB/ha) is calculated from actual data:

$$\mathbf{R} = \mathbf{P}_{\mathrm{crop}} \times (\mathbf{P}_{\mathrm{sales}} - \mathbf{C}),$$

where:

Pcrop – crop productivity, t/ha;

P_{sales} – sales price, RUB/t;

C – cost of production, RUB/t.

(iv)The predicted values of net operating income per 1 ha are formed using the statistical function "Forecast.lin".

(v)The land price (*V*, RUB/ha) is calculated at the discount rate:

$$V = R_{land} / e$$
,

where:

 R_{land} – land rent – net operating income derived from crops growing, RUB/ha; e – rate of return of capital, or discount rate.

(vi)The amount of rent is calculated (Arent, RUB/ha):

$$A_{rent} = V \times k_{rr},$$

where:

 k_{rr} is the rent rate under the lease agreement, in the example $k_{rr} = 0.03$.

RESULTS AND DISCUSSIONS

Theory

Lease of land plots from agricultural-purpose land occupies an important place in the system of land relations, especially from the point of view of effective land use. The determining factor is the rent rate for the land share which must satisfy the legal and economic interests of the lessee and the lessor.

The land rent can be set in monetary form, in kind or in the form of services. Principally, there is a tendency to use different options of payment in-kind for the use of land shares for agricultural production. Its monetary equivalent is paid in rare cases, mainly under the court decision in case of non-payment or incomplete payment of the rent-in-kind by the lessee. As a rule, the rent includes several types of payments: fodder or food grain, sunflower oil, sugar, flour, etc. As well almost always various services are provided within the structure of the rent. The monetary form of rent is peculiar to highly profitable collective agricultural organizations and peasant (farmer) farms. With the effective functioning of the land market, agriculturalpurpose land acquires liquidity and an increase in rent for land shares is observed.

It should be assumed that the rent-in-kind should be present within the system of lease payments, as it expresses the interest of the consumer (lessor) in receiving grain, grain screenings, straw, hay for the development of livestock raising on private subsidiary farms, vegetable oil, grain cereals, sugar as food products.

The most progressive types by the economic content include the monetary form of rent which provides the land share owner with ample opportunities to purchase the necessary products, commodities and services. It is required to take into account the balance of interests of lessee and lessor in a fair setting of the rent rate. Rent rate depends on many factors. It should be kept in mind that differential rent I (produced by natural fertility and location) is wholly owned by the land owner, i.e. the lessor, while the differential rent II (produced from the additional investment of capital in improving the fertile properties of the soil and the use of innovative technologies) must belong to the lessee.

Analysis of the data on the rent rate begins with the collecting the necessary information

which is divided into structured and unstructured.

Structured information is the useful information with which you can choose the appropriate method of calculating the rent: official materials of the Ministry of Agriculture of the Russian Federation [11], Federal Service for State Registration, Cadastre and Cartography (Rosreestr) [4], Federal State Statistics Service (Rosstat) [5] and their territorial administrations [3, 12, 13]. land Internet portals [19] and other sources [6, 20, 21, 26, 27].

For assessment the systematic collection of data on the rent rate paid in kind (grain, straw, etc.) and in value (monetary) terms per land share by the municipal districts of the Saratov region is carried out. This information important for decision-making is unstructured and requires significant material, time and financial costs.

Non-transformed structured and unstructured information is extracted from the operational database for detailing. The up-to-date level of software development allows carrying out computer analysis and giving an objective assessment of the current situation on the rent under the lease agreements of land plots from agricultural-purpose land held in shared ownership. For analysis it is necessary to have the option of quick handling of information, presenting it in different aspects, making ad hoc queries to it, and that is provided by the formation of a single data warehouse for their coordination. integration and Profile information can be presented in a specialized local storage – on the data mart (relational or multidimensional). The transformed information is used in the analysis procedures from the point of view of multiple measurements and for intellectual analysis, the technology of which allows substantiating the methods of calculating the rent under lease agreements scientifically.

After performing these operations with the use of software and hardware, the differentiation of rent under lease agreements is carried out and the most suitable for a particular business entity is selected from this analysis. The forecast of factors and final indicator of agricultural production is developed. The appropriate parameters to select the method of calculating the rent are set. At the final stage, the target information on the rent rate under lease agreements of land plots from agricultural-purpose land held in shared ownership, in accordance with the main financial-and-economic results of agricultural production of business entity is formed.

Practical significance, suggestions, results of experimental studies

Payment for land shares with grain, straw, hay, flour, grain cereals, sugar, sunflower oil, as well as through the provision of certain services is the most common in the Saratov region. In many cases, mixed (combined) forms of rent payments for the land share are used when lessee simultaneously makes payments to the lessor in the following options: 1 - grain, straw, sunflower oil, flour, grain cereals, sugar, money; 2 – grain, straw, sunflower oil; 3 - grain, straw, flour; 4 grain, money. Peculiarities of the combined form of rent are manifested not only in connection with the production activities of agricultural organizations but also with the climatic conditions of their location. For example, in Alexandrovo-Gaysky district, located in the arid South-Eastern microzone and having estuaries, the rent due to the low yield of grain crops is provided by the lessee to the owner of the land is not grain but straw and hay.

The rent-in-kind for the land share is mainly paid with grain. The lessor's need for grain is determined by the need for livestock raising on the private subsidiary farm, for sale and by other reasons. In 26 districts of 38 municipal districts of the Saratov region, lessors receive rent in grain in the amount of up to 1t; in 11 districts -1-1.5 t; in 7 districts -1.5-2 t; in the other 7 districts -2-2.5 t per land share. In some cases, lessors were provided with 3 or more tons of grain per a land share: in Samoilovsky district – 3t; in Balashovsky district -3.1 t; in Krasnokutsky district -4 t. Lessees practice provision of grain screenings per a land share along with the rent paid with grain. So, in Perelyubsky district for all agricultural producers (limited liability companies, agricultural production cooperatives and other organizational-legal forms) the main type of a rent is assumed landowners providing the with grain screenings -0.8 t, hay -0.5 t per a land share for development of livestock raising on private subsidiary farms.

Barley straw and millet straw are useful and nutritious fodder for big and small cattle, wheat straw quality is significantly worse. Straw as well as grain is provided as a rent for the land shares use. At most both types of products are provided for this purpose. The authors made a grouping of municipal districts of the Saratov region by the rent rate paid with straw per a land share. In the group 1 including 2 districts - Atkarsky and Novoburassky the rent rate paid with straw per a land share is up to 1t. Groups 2, 3 and 4, which chose a similar form of payment with lessors, have almost the same number of districts - 11-12 and the rent rate paid with straw per a land share: in group 2 it is 1-1.5 t; in group 3 it is 1.5-2 t; and in group 4 it is 2-2.5 t. Of all groups, the random nature is observed in the group 5 where the rent rate paid with straw per a land share is 2.5-3t, in such amounts the rent was provided only in Krasnokutsky district. Group 6 includes 9 districts and the rent rate paid with straw per a land share is more than 3 t. Thus, the rent rate paid with straw has a wide range - from 0.4 to 6 t per a land share. These changes are closely related to the production and economic activities of agricultural organizations and their financial capabilities.

Statistical data on the use of rent-in-kind in the Saratov region show that settlements with lessors are carried out not only with grain, straw and hay but also with processed products. The most popular type of rent is the settlement with sunflower oil. Thus, in Atkarsky district, the majority of peasant (farmer) farms pay the owners of land shares with sunflower oil in the amount of 5-10 l per a land share along with other forms of rent. In Dukhovnitsky district, peasant (farmer) farms provide for these purposes up to 25 l of sunflower oil per a share. The only district where the rent is not paid with such products is Krasnokutsky district. In 3 districts of the region – Atkarsky, Dukhovnitsky, Krasnopartizansky – the rent is mainly provided with flour, grain cereal or sugar if 50-100 kg of one of the specified processed products are due per a land share under the agreement.

A survey analysis of the amount of rent paid in monetary form per a land share in the municipal districts of the Saratov region gave the following results. The maximum rent rate in monetary form per a land share was noted in one district – Krasnopartizansky (31,700 RUB). Monetary funds in the amount of 15,000-20,000 RUB were paid in 3 districts of

the region – Arkadaksky, Ekaterinovsky, Krasnopartizansky. districts In 6 Arkadaksky, Balashovsky, Ekaterinovsky, Kalininsky, Krasnoarmeysky, Sovietsky - the rent rate varied from 10,000 to 15,000 RUB. The rent in the range 5,000-10,000 RUB was paid in the region most commonly, this group includes 9 districts: Arkadaksky, Atkarsky, Balashovsky, Balakovsky, Dukhovnitsky, Ekaterinovsky, Ershovsky, Romanovsky, Samoilovsky. The lowest rents under special were noted in agreements Baltaysky, Ekaterinovsky, Krasnoarmeisky, Krasnopartizansky, Marksovsky, Pitersky and Hvalynsky districts up to 5,000 RUB per a land share.

Table 1. Strategic areas of the rent differentiation method

Table 1. Strategic areas of the fent diff.	Strengths ↔ Opportunities		
Strengths	Opportunities	Measures	
Joint participation of lessee and lessors in income	Using the net income in the most effective areas	Scientific substantiation of the rent for each particular agricultural organization	
The joint participation of lessee and lessors in production risk	Increasing the responsibility of lessee and lessors in the economic-and-financial results	Joint participation of lessee and lessors in th development of a business plan	
Joint participation of lessee and lessors in the costs for improving the productive properties of the soil	Positive impact on the increase in crop production and livestock raising	Purchasing of mineral fertilizers at the expense of lessee and part of the rent of lessors	
Development of commodity-money relations between lessee and lessors	Opportunity of an agricultural organization for full control of crop products	Selection of the most profitable channels for th sale of grain and other crop products. Increase of profitability of a business entity	
Compensation of rent by lessee to the lessors from the harvest of the next year in case of crop failure in the dry year	Credibility of lessors to lessee on the terms of getting rent under the lease agreement	Conclusion of a long-term lease agreement in case of joint lessor	
	Strengths ↔ Threats threat manageability using strengths		
Strengths -	Threats	Measures	
Joint participation of lessee and lessors in income	Understatement of income share for the rent payment of to lessors by lessee	Legally correct registration of lease agreement between the parties, especially in terms of distribution of net income	
The joint participation of lessee and lessors in production risk	Disagreement of lessors to participate in production risk	Conclusion of the lease agreement with the lessor accepting this condition or change of approach to the rent setting	
Joint participation of lessee and lessors in the costs of improving the productive properties of the soil	Deficiency of effect from fertilizer application in a dry year	The use of fertilizers during irrigation. Investmen in organic fertilizers with long-term after-effect	
Development of commodity-money relations between lessee and lessors	Non-use of the proposed method by private subsidiary farms because of the profitability of rent- in-rind	Affording the purchase of natural products for running the private subsidiary farm within the ren amount	
Compensation of rent by lessee to the lessors from the harvest of the next year in case of crop failure in the dry year	Getting crop failure for 2-3 years	Availability of reserve from the harvest of favorable years or reservation of own funds for these purpose	
taking a	Weaknesses ↔ Opportunities dvantage of favourable opportunities for overcoming we	aknesses	
Weaknesses	Opportunities	Measures	
Complexity of the distribution of grain amount between lessee and lessors in percentage and physical terms of its gross yield	Scientific substantiation of rent taking into account specifics of economic activity of the agricultural organization	Analysis of the economic activity of the collective agricultural organization, determination of its financial capabilities	
Risk in obtaining a low net income due to the low selling price of grain	Determination of profitability of grain sales taking into account the time factor	Sales of grain to another region (abroad) or increas in demand for it in the domestic market	
Inefficiency of the proposed method for unprofitable agricultural organizations	Lease of high-fertile land, providing the best financial-and-economic results from the cultivation of the most profitable crops	The conclusion of the lease agreement of land shares in case of joint lessor only on crop rotation plots with high soil bonitet	
reduci	Weaknesses ↔ Threats ng the adverse impact of a combination "weaknesses – th	nreats"	
Weaknesses	Threats	Measures	
Complexity of the distribution of grain amount between lessee and lessors in percentage and physical terms of its gross yield	Negative impact of excessive rent paid by lessee on the economic activity of the agricultural organization	Scientific substantiation of the rent rate	
Risk in obtaining a low net income due to the low selling price of grain	Low rent due to low net income received by an agricultural organization	Reducing the rent to lessors with the insertion of this condition into the lease agreement	
Inefficiency of the proposed method for unprofitable agricultural organizations	The possibility of commercial failure of an agricultural organization	Financial recovery of the agricultural organization according to the current federal and regional legislation	

Source: Own elaboration.

The presented analytical material provides substantial, though not complete, factual information on the rent rate per a land share paid in kind and in monetary form, and the reasons for that. It is revealed that the predominant form of rent, which is used by economic entities (collective organizations and peasant (farmer) farm) in their activities in the municipal districts of the Saratov region, is a rent-in-kind. This is quite understandable position of lessees and lessors, caused primarily by the grain market situation and their own economic situation. Rent-inkind is a product of simple and contracted reproduction. The monetary form of rent per a land share is peculiar to the lessees conducting economic activity in the conditions of the extended reproduction.

Differentiation of rent takes into account the joint participation of the lessee and lessors in income, production risk, costs for improving soil fertility, the development of commoditymoney relations between them, compensation of rent to lessors by the lessee from the next year's harvest in case of shortage due to adverse weather conditions in the current year.

The practical significance of the application of the proposed method of calculating the rent is in preserving the shared ownership, rational use of funds, sustainable agricultural production, contributing to the improvement of the fertile properties of the soil, increase in crop productivity, rent use efficiency.

The areas of application of the method of calculating the differentiated rent under lease agreements of the land plots from agricultural-purpose lands held in shared ownership are presented in Table 1.

The differentiated rent is determined according to the main financial-and-economic results of agricultural production of the business entity (Table 2, Fig. 1).

Table 2. Options for calculating the rent under the lease agreement, taking into account the discount rate on the example of grain crops

Year	Grain crop productivity	Net operating income	Land price,	Rent
	(P _{crop}), t/ha	(R_{land}) , RUB/ha	(<i>V</i>), RUB/ha	(Arent), RUB/ha
2012	1.07	1,224.40	12,244.01	367.32
2013	1.53	1,517.30	15,173.01	455.19
2014	1.77	2,185.24	21,852.42	655.57
2015	1.33	3,098.77	30,987.67	929.63
2016	2.1	5,063.10	50,631.00	1,518.93
2017	2.7	5,149.17	51,491.70	1,544.75
forecast	2.1	3,906.10	39,061.04	1,171.83
forecast	2.3	4,401.21	44,012.14	1,320.36
forecast	2.5	4,896.32	48,963.23	1,468.90

Source: Calculated by the authors from statistical data.



Fig. 1. Estimated indicators of net income and rent in 2012-2017 and the forecast period Source: Own elaboration.

The developed method of calculating the rent under land lease agreements has become widespread among agricultural producers of municipal districts of the Saratov region

through the regional Ministry of Agriculture, Association of Peasant Farms and Agricultural Cooperatives "Vozrozhdenie", Saratov Regional Trade Union Organization of Agricultural Workers of the Russian Federation.

CONCLUSIONS

Non-compliance with the balance of interests, violation of property rights and lease, complexity of the calculating the rent and its payment, emergence of abandoned and degraded land block the development of rent relations. To address these problems the method of calculating the differential rents under leases of land plots from agriculturalpurpose lands held in shared ownership. The article presents the options of the developed method of calculating the rent under lease agreements of land plots from agriculturalpurpose land held in shared ownership, depending on the productivity of agricultural crops, share participation in net income, estimated net operating income, land market price taking into account the discount rate. Rent in the amount of 1,468.90 RUB/ha is possible to be paid if estimated grain productivity is 2.5 t/ha.

REFERENCES

[1]Buzdalov, I.N., 2012, Land Relations: the Thorny Way of Reforming, Economics of Modern Russia, 3 (58): 99-116.

[2]Civil Code of Russian Federation, http://www.gkodeksrf.ru, Accessed on Feb. 23rd, 2019.
[3]Department Agro-Industrial Complex and Environment Reproduction Belgorod Region, http://belapk.ru, Accessed on Apr. 27th, 2019.

[4]Federal Service for State Registration, Cadastre and Cartography, https://rosreestr.ru/site/, Accessed on Apr. 20th, 2019.

[5]Federal State Statistics Service, https://www.gks.ru, Accessed on Apr. 22nd, 2019.

[6]Guidelines for Registration of Land Use of Agricultural Organizations, Ministry of Agriculture of the Chuvash Republic, Cheboksary, 2005.

[7]Land Code of Russian Federation, 2001, http://www.consultant.ru, Accessed on Feb. 25th, 2019. [8]Lerman, Z., Shagaida, N., 2006, Land Policies and Agricultural Land Markets in Russia, Land Use Policy, 24(1): 14-23. [9]Marshall, A., 1993, Principles of Economic Science, Vol. III, Progress Publishing Group, Moscow, 352 p.

[10]Mindrin, A.S., Pakhno, V.S., Chernyaev, A.A., Zavorotin, E.F., Miloserdov, V.V., 2002, Rent of Agricultural Land: Methodical Recommendations, Printing house of State Unitary Enterprise "Agroprogress", Moscow, 30 p.

[11]Ministry of Agriculture of the Russian Federation, http://mcx.ru/, Accessed on Apr. 21st, 2019.

[12]Office of the Ministry of Agriculture in the Rostov Region, http://www.donagro.ru, Accessed on Apr. 15th, 2019.

[13]Office of the Ministry of Agriculture in the Saratov Region, http://minagro.saratov.gov.ru, Accessed on Apr. 16th, 2019.

[14]Resolution of the Government of the Russian Federation № 582 of July 16, 2009 "On basic principles of determining the rent at leasing the land plots held in state or municipal ownership and the rules of determining the rent rate as well as the procedure, conditions and time limits of rent payments for the lands owned by the Russian Federation", http://www.base.garant.ru, Accessed on May 1st, 2019. [15]Ricardo, D., 2016, On the Principles of Political Economy and Taxation, Eksmo, Moscow, 1040 p.

[16]Sagaydak, A.E., 1990, How to Calculate the Rent for the Land, Agropromizdat, Moscow, 46 p.

[17]Shagaida, N.I., 2010, The Turnover of Agricultural Land in Russia: the Transformation of Institutions and Practice, In-t Gaidar, Moscow, 332 p.

[18]Smith, A., 2007, Inquiry into the Nature and Causes of the Wealth of Nations, Eksmo, Moscow, 960 p.

[19]Specialized Land Portal zem.ru, http://zem.ru/, Accessed on Apr. 12nd, 2019.

[20]Starovelichkovskoe Rural Settlement of the Kalininsky District of the Krasnodar Region, http://admsw.ru/, Accessed on Apr. 30th, 2019.

[21]The Land Lease Agreement with the Multiplicity of Persons on the Side of Landlords № 36/16 of December 28, 2016, http:// www.vplavic.ru/munzakaz/detail.php?id=559643, Accessed on May 7th, 2019.

[22]Volkov, S.N., Khlystun, V.N., Ulyukaev, V. Kh., 1992, The Basics of Land Tenure and Land Use, Kolos, Moscow, 144 p.

[23]Yugai, A.M., 1989, Rent and Rental Efficiency in Agriculture, Economics of Agricultural and Processing Enterprises, 2: 42-47.

[24]Zavorotin, E.F. et al., Methods and Mechanisms for the Development of the Regional Agro-Industrial Complex, 2018, Publisher "Saratov source", Saratov, 147 p.

[25]Zavorotin, E.F., 2006, Regulation of Land Relations: Theory, Methodology, Practice, Publishing Center "Science", Saratov, 215 p.

[26]Zavorotin, E.F., Gordopolova A.A., 2015, Mechanisms of State Regulation of Land Relations in the Volga Region, Scientific Review: Theory and Practice, Vol. 9, p. 54-57.

Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 19, Issue 3, 2019 PRINT ISSN 2284-7995, E-ISSN 2285-3952

[27]Zavorotin, E.F., Gordopolova, A.A., Tiurina, N.S., 2017, Methodological Aspects of the Application of Indicators of Structural Changes to the Assessment of the Transformation of Land Relations, Scientific Review: Theory and Practice, Vol. 1: 18-25.