



Revisiting group farming in a post-socialist economy: The case of Romania

Bina Agarwal^{a,*}, Krisztina Melinda Dobay^b, Rachel Sabates-Wheeler^c

^a Global Development Institute, University of Manchester, Manchester, M13 9PL, United Kingdom

^b Romanian Academy, Iasi Branch, 'Gh. Zane' Institute of Economic and Social Research, Iasi, Romania

^c Institute of Development Studies at the University of Sussex, Brighton, BN1 9RE, United Kingdom

1. Introduction

In the 1990s, Romania decollectivised its agriculture under the Law on Agricultural Land Resources (Law 18/1991). Like many former socialist countries which had undertaken farm collectivization under socialism on a large scale, members of former collective farms who were deemed the 'rightful owners' were to be given back individual land titles, and, to the extent possible, within the old collective farm. As Sabates-Wheeler (2005: 18) argues, Romania's land law 'partially attempted to recreate the property regime that existed prior to collectivization' (see also, [Aligica and Dabu, 2003](#)).

However, this was easier said than done. Verdery (2003: 134) notes, for example, that 30 percent of Romania's agricultural land was in state farms, not collective farms, thus leaving out many former landowners.¹ Those in state farms were to receive dividends from the proceeds of the farms rather than land. Those in collective farms were to receive land ranging from a specified minimum of 0.50 ha to a maximum of 10 ha. Where enough land was unavailable, those eligible would receive a parcel of equivalent size and quality elsewhere.

In practice, the average holding restored was 2.2 ha of arable land and up to 1 ha of pasture (Verdery, 2003). Many former owners had moved to cities. Some 57% who received land were over 65 years old and only 9% were below 40. In 1997, 41% of the rural population consisted of pensioners who received 65% of the land (Verdery, 2003: 103). Very few landowners had access to machinery or other production inputs. A World Bank survey conducted in 1991 (Jackson, 1997; cited in Verdery 2003: 104) found that only 9% of owners had a tractor, 28% had an animal for ploughing, barely 12% had a plough, and none had seeds. Credit access was also severely constrained ([Chirca and Tesliuc, 1999](#)). Without financial support and machinery, their fall back was to cultivate manually for subsistence needs.

In any case, the land parcels were small and often in fragments. Even family members did not always get contiguous plots. This made the use

of large farm machinery either infeasible or inefficient without land consolidation. Hence, while some did pursue individual family farming, many others pooled their land by forming formal or informal associations. Some earlier studies (e.g. [Sabates-Wheeler, 2002](#)) termed the large formal associations, *agricultural societies*, and the informal ones, *family societies*. Agricultural societies often included both members and non-members and were typically set up for product marketing, while family societies consisted of households with contiguous plots belonging to relatives, friends and neighbours who pooled their land and labour to farm collectively, with consensual decision-making. We will call the family societies 'group farms' in this paper.

Research by [Sabates-Wheeler \(2002, 2005\)](#) in selected districts over 1998–2000, showed that group farms had higher productivity than individual family farms. Groups could mobilise more resources and use them more efficiently. Indeed, research in several other post-socialist countries, notably, East Germany, Nicaragua and Kyrgyzstan showed better performance among group farms relative to individual family farms (see [Mathijs and Swinnen, 2001](#) for East Germany; [Ruben and Lerman, 2005](#) for Nicaragua; and [Sabates-Wheeler and Childress, 2004](#) for Kyrgyzstan. See also [Agarwal, 2010](#) for an overview).

Group farms in the 1990s, however, emerged due to the constraints that rural families faced at that time – lack of machinery, restricted credit, unfavourable terms of trade for agriculture, and so on. Since the 1990s, and even since 2003–2004 when Sabates-Wheeler undertook further research, many aspects of Romania's economy and polity have changed. To begin with, the country's entry into the European Union (EU) in 2007 opened up opportunities for farmers to get concessions, subsidies, credit and grants which enabled market development and large farm growth. The EU provided project aid specifically for buying farm machinery, and also special grants for young farmers. In addition, the Romanian government itself set in place systems of credit and farmer training (Government of Romania, 2008: 17, 26).

Second, in the 1990s, and even in the early 2000s, households were

* Corresponding author.

E-mail addresses: bina.agarwal@manchester.ac.uk (B. Agarwal), dobaykrisztinamelinda@yahoo.com (K.M. Dobay), r.sabates-wheeler@ids.ac.uk (R. Sabates-Wheeler).

¹ There were two broad types of communal farms in socialist Romania: (1) collective farms in which member-owners engaged in joint farming activities under the purview of the state, and (2) state farms, which were owned and directly run by the centralised government.

just getting used to the newly privatised and individualised farm structures. Limited economic growth and non-farm job opportunities, along with a culture of distrust of the State, meant that many households were ready to give farming a go, whether individually or by cooperating with close family members and friends. When Romania collectivised land, an estimated 70% of its population was in agriculture. In 1989, when it decollectivised, this figure was 28%, which rose to 40% within two years (Verdery, 2003: 94). This was also linked to urban to rural migration which increased after decollectivisation: agriculture absorbed the majority of migrants (Alexe et al., 2012). In addition, for many poor labour-constrained households, membership in large agricultural associations, which often gave returns in kind, acted as a safety net.

Third, since the 2000s there have been demographic changes in Romania, including an aging population and urbanisation, with large numbers of youth migrating to towns and cities. Between 2002 and 2010 the ratio of persons aged 65 years and over to those aged 15 years and younger, for Romania as a whole, increased from 0.79 to 0.99 (Alexe et al., 2012: 54). As farmers age and are unable to farm by themselves or in small groups, they have two choices: either to expand into large mechanised farms, especially if the family can induct younger members as entrepreneurs to continue farming, or to lease out their land to other farmers who have the means to expand farm size.

These developments, in turn, raise several interesting questions, such as: how long did the 1990s group farms survive under these changing conditions? Is there still a case for group farming? Are new group farms and agricultural associations emerging? If so, in what contexts and with what characteristics? These questions have particular relevance, both for Romania and globally. In Romania, a vast proportion of farms still remain extremely small and largely nonviable: in 2010, the average farm size was 3.45 ha and 71% of all farms were under 2 ha (Table 1). Globally, 84% of farms across 111 countries are under 2 ha in size (FAO, 2014:12). Hence the potential of group farming as an alternative model to small family farms is of interest in many countries. In fact, we find contemporary examples in India (see Agarwal, 2018, 2020a, 2020b; Sugden et al., 2020), France (Agarwal and Dorin, 2019), Norway (Almas, 2010; Hansen and Jervell, 2016), Ireland (Cush and Macken-Walsh, 2016), and parts of the United Kingdom (Ingram and Kirwan, 2011), although their numbers vary considerably, with several thousand in India and France and only a few in the UK.

In Romania today, the government is also proactively interested in promoting agricultural cooperatives (Giurcă et al., 2012, and

Table 1
Romania agricultural area size classes, 2010.

Classes	Number of holdings	% of holdings
<0.1 ha	291,778	7.6
>0.1–<2 ha	2,436,259	63.2
2–<5 ha	803,036	20.8
5–<10 ha	224,495	5.8
10–<20 ha	55,820	1.4
20–<30 ha	11,073	0.3
30–<50 ha	8786	0.2
50–<100 ha	7626	0.2
≥100 ha	14,153	0.5
Total	3,853,036	100.0

Source: Authors' calculations based on Romania's Agricultural Census 2010

Government of Romania, 2007, 2014),² as well as producer organisations for marketing farm produce.³ Hence, answers to the questions we have raised in terms of the factors underlying the survival of group farms formed in the immediate post-socialist period, and the emergence of subsequent new ones, are of considerable interest. To address them, in 2015 we revisited two of the counties Sabates-Wheeler had studied, one over 1998–2000 the other over 2003–2004, to trace the farms she had researched, in order to examine how many had survived, what had happened to those which were no longer functioning, and what factors had contributed to their decline. In addition, we sought out examples of newly formed group farms to assess in what contexts these had been formed.

This paper presents our findings and analysis on all these counts, based on a qualitative survey of the old (active and inactive) farms we located from Sabates-Wheeler's original samples, as well as some new group farms we found. We explore the causes for groups dissolving, such as aging, conflicts among members, youth outmigration, and climatic issues, as well as the factors enabling survival, such as the ability of farms to mechanise and enlarge farm size with leased in land, draw on new EU and government funding, and induct younger members to take over the farms. We also examine if lack of trust among people in former socialist societies is a barrier to forming cooperative ventures. We are not aware of any other study on Romania that covers these grounds. The answers, we believe, will have notable policy relevance.

The paper is divided into 6 sections. Section 2 below presents an overview of agricultural cooperatives in Romania at present, their regional distribution, and changes in numbers over time. Section 3 gives details of our field survey and describes the characteristic features of the group farms and agricultural associations surveyed. Section 4 traces the factors which underlie the decline of many former group farms and agricultural associations, the survival of some former groups, and the emergence of new groups. Section 5 examines the issue of trust and cooperation, and Section 6 contains concluding reflections.

2. Cooperatives in Romania as a whole

Cooperatives can take many forms. In its broadest sense, a cooperative is an association of persons who come together for a common (usually economic) purpose. The purpose could be joint farming, or running a business, or running other types of enterprises. Importantly, though, a cooperative can involve varying degrees of cooperation. An agricultural cooperative, for instance, could be formed simply for a single function – marketing; or for large investments beyond the reach of individual farmers, such as investing in combine harvesters, irrigation wells, or cold storage units. But, farmers could also take up farming in groups, requiring what Agarwal (2014) terms 'fully integrated cooperation' (as elaborated in Table 2).⁴

Romania, by official figures, has a notable number of cooperatives of all types which have been increasing over time. In the recent decade, between 2008 and 2018, some 962 new cooperatives (agricultural and non-agricultural) were registered, of which 77% were agricultural

² Also in the EU, the LEADER programme has brought a renewed focus on integrated rural development through decentralised local initiatives, including cooperative ventures: see Marquardt and Möllers (2010) on the operation of the programme in Romania. See also Rahoveanu et al. (2012) for arguments to promote agricultural cooperatives in Romania in the context of EU's CAP reforms.

³ In 2005 the Government of Romania passed an Ordinance (no. 37/2005) recognising producer organisations for marketing agricultural and forestry products.

⁴ Historically, group farming too has taken many forms, ranging from the large socialist collective farms formed top-down, to the small post-socialist group farms formed voluntarily in former socialist countries, as well as those which have no background in socialist regimes, such as in France (Agarwal and Dorin, 2019) and India (Agarwal, 2010, 2020b).

Table 2
Levels and nature of cooperation: A typology.

Level of cooperation	Nature of cooperation
Single purpose minimal cooperation	Membership in cooperatives or producer companies for marketing or input purchase, but individual cultivation
Single purpose medium cooperation	Joint investment in private irrigation or large machinery, but individual cultivation
Multipurpose limited cooperation	Collective crop planning, joint purchase of inputs and sale of outputs, but individual cultivation
Multipurpose, fully integrated cooperation	Group farming: pooling privately owned or leased in land, also pooling labour and capital, for joint cultivation, marketing, and profit sharing.

Source: Adapted from Agarwal (2014).

cooperatives. However, they were unevenly distributed across the country (Table 3). In 2015, for instance, of the 743 agricultural cooperatives, 23% were concentrated in the north-east, the concentration being especially high in Botosani County which had 14%. This county also had the largest number of additional registrations during 2008–2018.

However, a breakdown of active and inactive cooperatives in selected counties of the north-east for which there is data (Table 4) reveals that half the agricultural cooperatives that were registered here were inactive in 2016, meaning they had failed to file a report in 2015, had no operations, and had dissolved the company. Iasi County had the highest percentage of active cooperatives and Botosani County the highest percentage of inactive ones, although, in absolute numbers, Botosani County still had the most active cases, followed by Suceava County.⁵

Some 38% of the 50 active cooperatives in Botosani County practiced mixed farming — crops plus animal breeding — followed by trade in agricultural produce and breeding animals only (Table 5). In Suceava (with the second largest number of agricultural cooperatives in the region), half of the active ones are also into animal breeding and mixed farming. This suggests that animal breeding, on its own or with crops, is especially conducive to farmers cooperating, perhaps not surprising since animal breeding is much more labour intensive on an everyday basis than crops alone. The link between animal breeding and group farming is also found to be strong in France, where regions suited to animal upkeep (for milk or meat) in terms of pasture land are found significantly more likely to have groups farms than other regions (Agarwal and Dorin, 2019). Indeed, in Norway, group farms are found only in the dairy industry (Almas, 2010).

3. Survey data collection and farm characteristics

3.1. Survey data collection

Consider now the survey we undertook to examine the survival and renewal of agricultural cooperatives in more depth. In her original survey in 1998–2000, Sabates-Wheeler (2000) used mixed methods to collect detailed data on 259 farms in the Ialomita and Dimbovita counties of south-east Romania, a major crop producing region. Of these farms, 61 were group farms, others being large agricultural associations mainly doing product marketing, and individual family farms. Subsequently, in 2003–2004, she also undertook in-depth fieldwork on a smaller sample of 19 farms in Iasi County (in the north-east).⁶ In our current study we decided to follow up a sample of small group farms and some agricultural associations from both of these surveys, focusing on

⁵ It is interesting that in 2016, half of the 20 active producer organisations in north-east Romania were also located in Suceava County (authors' calculations).

⁶ For more background on this, see Dobay and Sabates-Wheeler (2003) and Sabates-Wheeler (2006).

Table 3
Cooperatives in Romania by region.

Region	County	No. of agricultural cooperatives, 2015	Total cooperatives registered (agriculture & other) 2008–2018	
North-East	Bacău	9	12	
	Botoşani	104	119	
	Iaşi	9	21	
	Neamţ	8	12	
	Suceava	27	32	
	Vaslui	14	21	
		(171)	(217)	
South-East	Brăila	9	8	
	Buzău	15	24	
	Constanţa	34	38	
	Galaţi	8	11	
	Tulcea	3	6	
	Vrancea	28	28	
		(97)	(115)	
South-Muntenia	Argeş	7	19	
	Călăraşi	27	25	
	Dâmboviţa	27	15	
	Giurgiu	7	7	
	Ialomiţa	19	16	
	Prahova	14	16	
	Teleorman	30	47	
		(131)	(145)	
South-West Oltenia	Dolj	21	29	
	Gorj	3	9	
	Mehedinţi	6	17	
	Olt	18	16	
	Vâlcea	9	15	
		(57)	(86)	
West	Arad	19	26	
	Caraş-Severin	16	21	
	Hunedoara	6	6	
	Timiş	16	26	
			(57)	(79)
North-West	Bihor	19	24	
	Bistriţa-Năsăud	18	40	
	Cluj	30	44	
	Maramureş	12	21	
	Satu Mare	25	26	
	Sălaj	13	20	
			(117)	(175)
Centre	Alba	15	36	
	Braşov	32	36	
	Covasna	7	11	
	Harghita	20	23	
	Mureş	10	14	
	Sibiu	4	3	
		(88)	(123)	
Bucureşti-Ilfov	Bucureşti	11	13	
	Ilfov	14	9	
		(25)	(22)	
Total Romania		743	(962)	

Source: Talmaciu et al. (2017:251), calculated by them from data of the Romanian Centre for European Policies – Agricultural Cooperatives – secondary analysis, and the National Trade Registry Office (for 2008–2018)

Iasi and Ialomita counties for our resurvey. We will call the cases on which Sabates-Wheeler previously did fieldwork as the ‘old cases.’

When we began our current study in 2016, we sought to locate the old cases in Iasi and Ialomita Counties. Through field visits, Krisztina Dobay, the Romanian co-author, found 33 old cases and undertook an initial investigation on their current status and availability. Tracking the old cases was not easy. In particular, where groups had become inactive, finding the former manager or members was often quite difficult: some had died, some had moved to another location taking up another job, and many required several visits. We found that four of the old cases had been individual family farms even earlier, and in 9 others the family had

Table 4
Agricultural cooperatives in the North-East Region of Romania (2016).

County	Number of agricultural cooperatives	Inactive	Active	% active cooperatives
Bacău	8	3	5	62.5
Botoşani	105	55	50	47.6
Iaşi	14	4	10	71.4
Neamţ	8	4	4	50.0
Suceava	34	11	23	67.6
Vaslui	12	5	7	58.3
Total North-East Region	181	82	99	54.7

Source: Talmaciu, Dobay, Apetroaie (2017:254): data processed by them from the County Agricultural Directorates’ websites, agricultural public consultancy offices, and official website of the Ministry of Public Finance, Romania.

Table 5
Agricultural cooperatives by main economic activity: Botoşani and Suceava Counties.

Main activity	Number of cooperatives	
	Botoşani (50)	Suceava (23)
Breeding cattle and other animals	7	12
Cultivating cereals, leguminous plants, roots and tubers, oil seeds, vegetables and fruits	5	1
Mixed farms (crop culture and animal breeding)	19	5
Trade with cereals, seeds, fodder and unprocessed tobacco, milk products etc.	12	1
Processing and preserving of fruits and vegetables	1	1
Auxiliary activities in plants	3	–
Auxiliary activities for animal breeding	3	–
Newly established	–	3

Source: Data processed by K. M. Dobay from the official website of the Ministry of Public Finance, Romania. The activities are as given in the National Classification of Economic Activities.

either moved abroad, or had passed away, or was otherwise not contactable. We therefore dropped these 13 cases, leaving us 20 ‘old’ cases, of which 6 were still active and 14 were inactive. We decided to research these cases in terms of their characteristics and activities, and, for the inactive cases, to also probe the reasons for their dissolving.

In addition, we searched for new cases which had not been studied by Sabates-Wheeler, to see what kinds of new cooperative ventures were emerging. Again, locating new group farms required probing for information from the extension specialists in the Chamber of Agriculture, as well as from some of the farmers we interviewed, and others who were in regular touch with communities, such as priests. We located 7 new cases, giving us 27 cases (old and new) in all (Table 6). We had wanted to concentrate on group farms but ended up with both group farms and agricultural associations. As it turned out, these were also revealing.

For the active cases, separate questionnaires were prepared for interviewing the managers, members, and reinters (who were leasing out their land to the farms). For the inactive cases, only the manager was

Table 6
Sample for the 2016 study.

	Old Inactive cases	Old Active cases	New active cases	All cases studied
County				
Iasi	9	6	7	22
Ialomita/Garbovi	5	–	–	5
Type Of Farm				
Group farms	9	6	5	20
Agricultural associations	5	–	2	7
TOTAL	14	6	7	27

interviewed (and, if unavailable, a senior former member), using a fourth questionnaire to probe in some detail why the farms had become inactive. Bina Agarwal and Rachael Sabates-Wheeler visited Romania for a week in June 2016 and, along with Krisztina Dobay, pilot tested and finalised the questionnaires.

For our inactive cases, we were able to talk only to the manager or a member who could still be located. For the active cases (old and new) we sought to conduct three sets of interviews: one with the farm manager; another with one or more members; and a third with one or more rentiers who were now leasing land to the group farm. Many of the rentiers had formerly been group farm members. Rentiers carried with them the history of the past and the reasons for becoming rentiers now. They thus supplemented the story of why farmers who were earlier doing group farming had become inactive. Each interview took about 1½ to 2 hrs. Overall, the sample was spread over 18 villages, covering 14 inactive groups, 6 old active groups, and 7 new groups. The interviews themselves took about 6 weeks to complete, but the entire process of locating and information gathering was spread over several months during 2016–2018. Permission was sought from each interviewee to record the interview and cite him/her anonymously.

3.2. Group farm characteristics

There are two types of farms in our survey: (a) group farms constituted by relatives and friends and involved in intensive ‘fully integrated’ cooperation for shared activities, and (b) large associations formed mostly of non-family members and undertaking limited, single purpose cooperation, such as marketing.

Among the 14 old groups which are now inactive, nine were group farms and five were agricultural associations, while all the old still-active groups are former group farms surviving from the 1990s. We have a further seven new groups formed in the mid-2000s, of which five are group farms and two are large associations. Overall, therefore, in terms of active groups we have 11 group farms and two associations. Although the sample is small, the analysis provides new and revealing insights into farmer cooperation in Romania.

3.2.1. Size and type of groups

To begin with, the number of members in each group has been declining over time (Table 7). In the founding years, the now inactive farms had an average of 8.4 members and one even had 20. The still-active old groups had an average of 5.2 members in the founding year which declined to 4.2 by 2016. The new active cases are even smaller, with an average of 3.4 members. Also, the new ones are much less dependent on permanent hired labour and use more temporary hired labour. Group size has also declined strikingly in the associations: they had an average of 255 members (among the inactive ones) while the new associations have 50–51 members.

There are differences in the nature of activities as well. The older farms concentrated more on crops while the new ones are more diversified, doing animal breeding plus crops. Notably, in all cases the group farms are constituted mostly of family members, and five of the 11 managers from the group farms have additional income sources.

Table 7
Active and Inactive groups: Characteristics and changes therein over time.

Characteristics	Inactive cases old (14)	Active cases old (6)	Active cases new (7)	
Relevant Year	Founding year	Founding year	2016	2016
	Group farms (9)	Group farms (6)	Group farms (5)	
Years of group functioning (mean)	14	–	17.57	13.2
• Range	3–19	–	6–25	6–26
No. of members (mean)	8.4	5.16	4.16	3.4
• Range	2–20	2–11	1–11	2–4
No. of households in groups (mean)		2.4	2.7	2.4
• Range		1–7	1–6	1–4
% Groups with males only		50.0 (3)	33.3 (2)	2
No. of groups by activity type				
• Crops only, or crops & vegetables, or fruit & vegetables	7	–	6	2
• Crops with animal breeding, or milk production	1	–	0	3
• Animal breeding only	1	–	0	0
No. of groups by relationships				
• family only		5	5	4
• family + non family		1	1	1
No. of groups with aged members				
• men over 65		0	2	1
• women over 65		0	0	1
% groups hiring permanent labour		–	50.0	20.0
% groups hiring temporary labour		–	50.0	100.0
	Large associations (5)	Large associations (0)	Large associations (2)	
No. of members (mean)	254.6	NA	NA	50.5
• Range	12–700			50–51
Main activity				
• Milk only	1	NA	NA	2
• Crops or fruit & vegetables	4			0
% Women (range)	NA	NA	NA	0–21.6

Note: Figures in brackets are no. of cases.
Source: Authors’ survey, manager interviews.

3.2.2. Average land owned and cultivated

Another striking change has been the substantial increase in farm size over time. The old still-active farms cultivated 29 ha on average in their founding year. By 2016 this had increased to 129 ha. The new active cases began with an average of 155 ha and more than doubled in size to 381 ha by 2016, the largest being 1100 ha (Table 8).

Notably too, among both the old and new active group farms, the increase in land area is almost entirely by leasing in more land. Among the old active cases, 42% of the land cultivated was owned. By 2016 this percentage had fallen to 9.7, while in the new active cases the percentage was only 1.9. This renting has been made possible by a large increase in the number of people (former members of group or individual farmers) wanting to rent out their land. The older active farms in

Table 8
Active old and new groups: Asset changes over time.

Characteristics	Active groups old (6)		Active groups new (7)	
	In founding year	In 2016	In founding year	In 2016
	Group farms (6)		Group farms (5)	
Land cultivated, owned or leased				
Total land cultivated ha (Mean)	29.0	129.2	155.0	381.2
• Range (ha)	11–60	5–270	2–580	30–1100
Land owned (mean ha)	12.42	12.58	4.67	6.80
• Range	1–50	0–50	0.34–15	2–15
Land leased in (mean ha)	16.58	116.5	150.3	352.4
• Range	4.5–35	5–258	0–565	25–1095
No. of land parcels (mean number)	–	45	38 (4)	49 (4)
• Range	–	1–130	2–70	6–90
Rentiers, leases, rent				
No. of Rentiers (mean number)	8	56	54	148.6
• Range	1–30	1–120	10–120	4–364
Period of lease (mean years)	13.3	16.8	8.2	11.0
% written leases	66.00	100.0	80.0	100.0
Rent paid				
• % in kind	33.3	66.6	40.0	40.0
• % both in kind and cash	16.6	33.4	–	40.0
• % cash	–	–	20.0	20.0
• Not disclosed	50.1		40.0	
Pasture land				
Permanent pasture land (mean ha)	0 (4)	(2)	1.2	53.4
• Range	–	0–10	0–6	0–195
Temporary pasture land (mean ha)	–	–	0.2	2.75
• Range	0	–	0–1	0–11
	Large associations (0)		Large associations (2)	
Land cultivated (Association)	–	–	None	None
Number of members	–	–	5	50
• Association 1			51	51
• Association 2				
Permanent pasture land (mean ha) Association 1	–	–	110.0	110.0
Temporary pasture land (mean ha) Association 2	–	–	101.0	0.0 ^a

Note: Figures in brackets give number of cases.

^a Gave up pasture when government conditions for pasture subsidy became stringent.

Source: Authors’ survey, manager interviews.

their founding year leased from an average of 8 rentiers. By 2016, they were leasing from an average of 56 rentiers (and some from as many as 120), while the new group farms were leasing from an average of 149 rentiers in 2016, and one, extraordinarily, from 364 rentiers.

We are, therefore, observing a two-sided phenomenon. On the one hand, we have a large increase in the land available on lease, as former cultivators age, retire, or move to other jobs. On the other hand, there is a large rise in demand for land, as mechanisation and the availability of funds from various sources enables an expansion in farm size among those still cultivating. Rent, however, typically continues to be paid in kind, since many rentiers prefer to receive a share of the harvest for food security, sometimes even choosing the crop. As one of them told us: ‘We can mostly choose what we receive as rent. Last year I got maize, sunflower oil, and wheat.’

The two large agricultural associations, in contrast to the group farms, however, have barely increased their permanent pastureland, and one gave up its temporary pasture when the conditions for getting a government subsidy on pastures became more stringent. The Manager of

a Cow Breeders Association, H. village, Harmanesti commune, Iasi County, told us:

*We were required to obtain an association code and keep all the cows under the code. People didn't want to give their cows to the association. Also the association had to open a summer camp. This would need a trough, a fence (these we have) and a shelter which we don't have. We have members from three different villages and three different pastures to administer, so we had to organize three summer camps. This would have meant a large expense.*⁷

Table 9, which is based on interviews with the rentiers, complements the above observations on why some of the former group farms became inactive. Age and gender clearly played a role, since the average age of rentiers is 56 (some are over 80), 43% are retired, and 43% are women. They own small plots — on average 4.2 ha, some as small as 1.5 ha — typically inherited from their parents. Almost all the renting is done within the village itself, in most cases for 5 or 10 years, with written contracts. In arranging leases, existing relations of trust and reciprocity play an important role, as discussed further in section 5.

3.2.3. Characteristics of the members

The age of members also appears to be a factor among the inactive groups relative to the active cases. The average age of the former manager or member we interviewed in the inactive groups was 67.2 (one manager was 91 years old), relative to an average age of 45 and 42 among members of the old and new active groups, respectively

Table 9
Characteristics of rentiers leasing land to active group farms, 2016.

Characteristics	Rentiers (N = 14) ^a
Age and gender	
Age (mean) years	55.6
• Range years	33–84
% age 65 years and above	42.8
% female rentiers	50.0
Occupation	
% Retired	42.8
% In jobs (teacher, farmer, plumber, etc.)	42.8
% Housewife	14.3
Education	
% Education up to class 10	64.3
% Education with university or professional degree	35.7
Land owned (ha) by rentiers (mean)	4.20
• Range (ha)	1.5–10
Source of land owned	
% with inherited land only	71.4
% with bought land only	7.1
% with both (inherited and bought) land	21.4
Lease related	
% Rentiers from inside village	92.9
Period of lease (mean years)	8
• Range (years) ^b	5–10
% written lease contract	100.0

^a The 14 rentiers are leasing to 8 groups.

^b 57.1% rented for 10 yrs, the rest for 5–7 years.

Source: Authors' survey, rentier interviews.

⁷ On subsidy conditions, see also Article 6 of Order 619/2015, Ministry of Agriculture and Rural Development <http://legislatie.just.ro/Public/DetaliuDocumentAfis/167010>. Interestingly, in 2015 there was a change in EU's eligibility conditions for animal breeders to get government subsidies, with associations being eligible and cooperatives not, leading Romania to pose a question in the European Parliament. EU's written response was that individual countries could adapt these conditions, if necessary. https://www.europarl.europa.eu/document/E-8-2015-010012_EN.html.

(Table 10). The members of the new groups are also better educated and a larger proportion are unmarried or divorced. Notably too, a smaller proportion of spouses are now involved in farming (23% among the new groups relative to 36% among the older active groups). And 94% of the members in the new groups own a house compared with 64% of the members of the older active groups. Hence, the newer group farmers tend to be much more prosperous than the farmers of the earlier period.

This brings us to the key questions: why did some of the group farms formed in the 1990s still remain active in 2016 while others dissolved? And what kinds of new group farms have emerged?

4. Why did some farms become inactive while others remained active?

4.1. The inactive groups

Of the 14 groups which became inactive, only nine were small family group farms (seven doing crop cultivation, one growing both crops and vegetables, and one doing mixed farming with animals, bees and a vineyard). The rest were large membership-based associations: one ran a fruit orchard, another marketed milk, and three hired out machinery to farmers.

Notably, while almost all the inactive group farms and agricultural associations in our sample began soon after decollectivisation in the early 1990s, 13 of the 14 became inactive within a short window of time, 2005–2008 (Table 11). The farm managers/members of the nine group farms cited two main reasons for becoming inactive as a group: conflicts (in three cases) and demographic change (in four cases), while two gave diverse reasons. Consider first the conflict-related cases. Three groups in G. village (Garbovi commune, Ialomita County) cited intra-group conflict over cost sharing. For instance, in one group farm, one person was burdened with most of the responsibility of repairing a jointly-owned combine harvester, while others defaulted.

All of us worked on this combine, but one member in particular used to come and leave the combine damaged in my yard. I was obliged to invest time and money to fix it. He refused a few times to pay his share for the

Table 10
Members of active old and new group farms: Characteristics, 2016.

Characteristics	Members of active old group farms (N = 25)	Members of active new group farms ^a (N = 17)
Age		
Age of the members (mean)	44.8	42.0
• range	(24–75)	(27–68)
% age 65 years and above	8.0	11.8
Education		
% members educated up to class 10	52.0	47.0
% members educated with professional, vocational or university degrees	48.0	53.0
Marital status		
% Unmarried	16.0	23.5
% Married	84.0	70.6
% Divorced	0.0	5.8
Spouse's job		
% Housewife	16.0	23.5
% Farming	36.0	23.5
% Others ^b	48.0	53.0
Ancestry and home owned		
% members whose parents were farmers	96.0	58.8
% members with own house	64.0	94.0

N = number of members in given farm type.

^a All the members of the active new group farms joined the farm after 2005.

^b Others includes: teacher, mistress, nurse, agricultural engineer, accountant, sales women, shop assistant, storekeeper, cleaner, social worker.

Source: Authors' survey, manager interviews.

Table 11
Characteristics of Inactive groups and reasons for becoming inactive.

Sr. no	County	Year started	Year it became inactive	Type of activity	No of members	Type of members	Reasons for becoming inactive
Group farms							
1	Iasi	1989	2008	Animals, bees, vineyard	7	Father and son	Father died, son busy with another job
2	Iasi	1994	2008	crops	14 (7 HHs)	7 families 6 families are relatives	Old age, manager died, had no machinery. Sold the land.
3	Iasi	2002	2005	Crops and vegetables	5 (3 HHs)	Families of brothers	Land they were leasing with water source got titled, so owners claimed it back. Their own land had no water
4	Iasi	1997	2011	crops	29	Relatives, friends and villagers with land on that plot	Old age, some members died, some formed smaller groups
5	Ialomita ^a	1991	2005	crops	3	Relatives	Conflict over cost sharing. One person invested in machine repair, others refused to share.
6	Ialomita ^a	1991	2006	crops	20	Villagers	Conflict over cost sharing
7	Ialomita ^a	1990	2005	crops	20	Non-relatives	Mechanisation replaced labour and, for some members, the farm work was too heavy
8	Ialomita ^a	1989	2008	crops	19	Non-relatives	Conflict over cost sharing
9	Ialomita ^a	1989	2006	crops	2	Woman and nephew	Woman manager fell ill. Her nephew was not efficient, so she rented out the land.
Agricultural associations							
1	Iasi	1992	2005	Crops; managed machinery for land preparation	330 (12 founding members in 2003)	Former village workers at state company	Drought over several years, crop failed. Conflict over crop rotation. Foreigners bought land.
2	Iasi	1992	2008	Fruit orchard	111 (300 in 2003)	Villagers with adjacent plots	Bankruptcy after paying penalty for using work force without registering.
3	Iasi	1990	2005	Crops; managed machinery for land preparation	250 HHs	Villagers	Drought, crop failed. The members did not pay for the services provided on their lands. A company came and rented the land.
4	Iasi	1997	2008	Supplied inputs, marketed milk and trained members.	2500 (in 2004 from 8 communes)	Villagers	The milk processing company stopped acquiring milk from the Association, as it was cheaper to import raw milk from Poland.
5	Iasi	1992	2005	Crops	700	Villagers	Drought followed by hail led to crop loss and bankruptcy; also old age.

^a All these cases are located in G. village. HH = households.

Source: Authors' survey: manager and member interviews.

repairs. Also, the involvement of other members in the group began to decline.

Another group farm from the same village gave the following explanation:

In 1991, CI and 19 other persons from Garbovi commune (including our relatives) decided to form an association. We thought we would be able to work the land better as a group. So, we pooled our land (a total of 170 ha) and cultivated wheat, maize and sunflower. All the members had the same responsibilities, divided in equal parts related to all tasks — ploughing, weeding, planting, fertilizing, harvesting and threshing. We leased in mechanical services and paid them according to the land each contributed to the association. But some members then started defaulting on payments and also to work less in the group. The balance in costs and work had to be covered by the others. As a result, those investing more were receiving less than what they would get if they were not part of the group. These members decided that it was better for them to leave the group and start working their land alone. So, in 2006, the association dissolved and every member took back his land and started farming individually.

It is striking that five of the nine inactive group farming cases all belonged to G. village, the only village in Garbovi commune, Ialomita County; and, of these five cases, three were of conflict. The rest of the inactive group farms were scattered across several villages in Iasi County. Here three groups dissolved due to demographic factors, such as old age, illness, or death of the manager/leader.

The group became inactive in 2008. The leader got sick and they decided that it is better to sell the land as they had a good offer. (H. village, Podu Iloaiei commune, Iasi County).

The group became inactive in 2011 because the members were old and unable to work the land any more. Some of the members passed away, others had health problems (including the leader). At the same time, people emerged in the village who were renting in land. The group didn't have machinery or other common assets. Each member withdrew the land that he owned and rented it out. (M. village, Miroslvesti commune, Iasi County).

In the remaining two out of the nine cases, one replaced labour with machines, and the other lost its water source: this group was leasing in land with a water source, but once the landowners received titles for their land they took it back, compelling the lessees to return to their own land that lacked water.

In contrast to the group farms, the five agricultural associations all became inactive due to economic problems. Three of those managing machinery for land preparation faced bankruptcy, since the farmers who leased their machines had crop failure due to drought and could not pay for the services. Meteorological data supports their narratives: the period 2005–2007 was indeed one of drought-like conditions (Bogdan and Marinica, 2008). Of the remaining two associations, the milk association lost its market due to competition from cheaper milk from Poland, and the fruit orchard association went bankrupt after paying a penalty on the charge of employing unregistered workers. Overall, therefore, demographic factors (old age, illness, death), internal conflicts, drought, and external economic conditions underlie the dissolution of the inactive groups we studied.

The rentier interviews give us additional insights. These individuals lease out their land to group farms, but were earlier in family groups or cultivating individually. In all the cases, two reasons were cited for renting out rather than self-cultivating the land: a lack of funds for hiring machines, and old age. For example, two rentiers from one of the old

still-active cases in A. village, Aroneanu commune, Iasi County, said:

R1: *In 2008 we decided that it is too hard to work the land. The costs for the mechanical services were too high and it was difficult to have a job and work in agriculture too. We—all the brothers together—decided to rent out our lands.*

R2: *In 2007, after several years of drought, we noticed that the costs were higher than returns from our sales, and the government subsidy was too low to compensate.*

Similarly, in S. village, Miroslovesti commune, members of a group which is now inactive, and who rent out their land, told us:

R1: *We were not able to work it alone because we did not have enough financial power or machinery.*

R2: *I am too old and I can't work the land by myself.*

In addition, the larger processes discussed earlier would also underly the move out of group farming, or the disincentive to form new groups. While old age was clearly a factor leading many to stop farming, being young and wanting to move out of the rural sector would be the other side of the coin. At the same time, as we will note further below, the presence of younger family members willing to work alongside the old, or take over inter-generationally, strengthened the ability of several of the groups formed in the 1990s to remain active.

4.2. Groups that remained active

Of the 20 groups in our survey that were formed soon after decollectivisation, we had noted that 6 were still active. What kept them alive?

The most important common factor appears to be their ability to successfully get funding from the EU to buy machinery and expand land area. Although EU funds are normally given to individuals, those who received them brought that advantage to the group. Of the six active group farms, five had successfully obtained EU funding to buy machinery and one was planning to apply. Typically (especially if they were family members) they formed one or more 'companies' but worked together as a group. One group farm had used EU funds to set up three companies, but all three family members worked together as a single venture. In some cases, where one of the group members was a young farmer, he/she took advantage of the EU's grants/subsidies to young farmers. Several mentioned being successfully recognised as an 'authorised natural person' which is a legal requirement for taking up economic activities (agricultural and non-agricultural) in rural Romania (Government of Romania, 2014: 301). In addition to the EU, the Romanian Government is also now active in supporting farmers in various ways, including by providing subsidised credit for machine purchase, and training farmers in new technologies through the Chamber of Agriculture. One group even invested in a grain mill by this means.

The second important factor is demographic. Many of the active groups had sons or other young relatives who took over as their parents/relatives retired. Indeed, even the ability to apply for funding and continuing to grow is linked to this factor.

In the initial years I was the leader, and now I have transferred almost all my responsibilities to Costel, my son. Marius, my other son, is more in charge of the legal aspects of the business. (Father of the manager, A. village, Aroneanu commune, Iasi County).

Theoretically it could be argued that external agencies could help in

'matchmaking' between retiring farmers and young unrelated entrants to create joint ventures, but in practise this may not prove easy. In the UK, such an effort had mixed success (Ingram and Kirwan, 2011).⁸

4.3. New groups

New group farms and large agricultural associations have also been emerging in Romania since the mid-to-late 2000s. We interviewed the managers, members, and available renters of seven such farms.

Three features are striking across these new cases. The first is the low focus on crops: three of the group farms keep animals (varyingly sheep, cows, goats) either solely or along with some crops. One grows crops with vegetables, and only one cultivates solely crops. In contrast, most of the 1990s group farmers focused solely on crops. Second, all of the new groups have received financial support from the EU and/or the Romanian government. As with the 1990s cases which are still active, all the new groups have bought machinery using EU project funds, some have taken advantage of the EU young farmers grant scheme, and many have registered as EU's 'authorised natural person' which helps them supplement their incomes.⁹ In addition, they have used subsidised credits from the Romanian government in diverse ways. One group even bought a cooling tank. Moreover, many took advantage of a pasture subsidy provided by the Romanian government to graze their animals together. They also sold their milk together. Third, the number of members in all but one case are few (between two and five), but the increase in farm area, noted earlier, has been enabled by mechanisation. Fewer members means higher returns per capita.

Two of our new cases are larger associations doing cow breeding and milk sale. Each of them has about 50 members and around 100–110 ha of pasture land. One of the associations allows non-members to sell their milk through the association, since they have a cooling tank. Again, unlike the 1990s associations which went inactive, this one could get funding from the Romanian government for buying the tank. The second association manages three main activities: the exploitation and improvement of communal pasture (using subsidies); collecting and selling milk; and grazing the cows in common. As the manager explained to us: 'The main reason for establishing the association was to bargain for a higher milk price'.

The government's extension services in the Chamber of Agriculture (Iasi County Agricultural Directorate), as well as a mayor of a commune, with detailed local knowledge, also confirmed our observations that there was scope for new groups and associations emerging, especially in animal breeding, with farmers cooperating in joint herding and/or milk marketing.

Of the 15 new associations formed in 2014–15, only 5 got funds. Of these, 4 bought cooling tanks, and 3 are still working. They formed associations around animal breeding. Some 20–49 farmers got together with 1–4 cows. But it was only for marketing, since they had a cooling tank, and the milk was sold jointly. They got a good price. (Senior official, County Office of the Chamber of Agriculture, Iasi County Agricultural Directorate).

In our village, we have only 10 cows. But in the nearby village some young farmers from three families have started sheep farming. They have a common stable and they milk together. All the milk is processed into cheese. (Elected Head of Aroneanu commune, Iasi County).

⁸ In France's group farms, the transition typically occurs when children or relatives or someone who has first worked on the farm as an employee join as an associate, with older associates retiring over time (Primary survey of group farming in France undertaken by Bina Agarwal in 2016–2017).

⁹ This is in contrast to France, where group farms (GAECs) are seriously restricted in their ability to take up non-group activities due to prevalent rules governing GAECs (Agarwal and Dorin, 2019).

In sheep farming there is collaboration in terms of grazing herds through a common shepherd. After hundreds of years, sheep keeping is still done as before, according to a very precise calendar on when the herd is taken to pasture, when milked, and when processing is done.

Cooperatives around bee-keeping for honey and vegetable sales are also coming up. An official from the agricultural extension services in Iasi told us of 4–5 new associations of honey bee farmers in the county, who sell their honey together. And the Elected Head of Aroneanu commune, Iasi County, described a new cooperative for vegetable marketing:

Four years ago, some businessmen came from other localities and rented land. They formed a cooperative of 8 members, each with 0.5 to one ha of land. They grow the vegetables separately in their greenhouses, but sell through their cooperative.

5. Cooperation and trust

Trust is often cited as a necessary glue for cooperation. A common refrain we heard from villagers during fieldwork, and also from some of the academics we talked to, was that cooperatives have little future in Romania because people lack ‘trust’. An article on the LEADER rural development programme in Romania also emphasised this (Marquardt and Möllers, 2010). But is this really the case? Marquardt and Möllers’s (2010) argument relates more to people’s mistrust of public institutions rather than mistrust among people within communities. And while it is undeniable that trust is an essential component for sustainable collective action (Baland and Platteau 1996),¹⁰ the generalisation that communities in rural Romania have a trust deficit, which can undermine the likelihood of forming cooperatives, appears questionable for several reasons.

First, as noted in Table 2 and section 2 above, it is helpful to think of cooperation in agriculture as following not one model but a range of models with varying degrees of joint activities, ranging from simply joint marketing of individually produced output (‘minimum single purpose cooperation’) to doing all farm operations together (‘fully integrated cooperation’). The large agricultural associations we see in Romania, especially around animal farming, involve single (or dual) purpose cooperation: they market the milk for its members and sometimes also manage common pastures. Historically, as well as today, such dairy cooperatives for milk marketing are found in many regions, both in the Global North and the Global South.¹¹ Marketing cooperatives involve a minimum of trust. In contrast, doing all activities together, as in crop cultivation, or in the breeding and upkeep of animals, requires a high level of trust, since the members share economic risks, and the outcomes depend on each person fulfilling his/her share of the responsibilities.

Romania’s group farms of the 1990s, as well as a few of those that are still active from that period plus some new ones, represent fully integrated cooperation, since all activities are done in coordination. That some of those formed in the 1990s continue to exist suggests a fair degree of trust among those working together. That many of the members in small group farms are relatives, clearly helps, but there are also examples of farms with non-family associates. Immediately after decollectivisation, for instance, people came together not just with family members but also with neighbours and friends to form group farms. It is not unusual that people tend to trust each other if they know each other socially, and group

farms formed among relatives and neighbours have been found in several countries (e.g. Inayatullah, 1972 and Agarwal, 2020a, for South Asia; Agarwal and Dorin, 2019, for France; and Cush and Macken-Walsh 2016, for Ireland).¹² Of course, this is only one facilitating factor. Even when group members are relatives, conflict over economic issues can lead to dissolution, as we saw above in several cases in G. village.

Another factor emphasised by several respondents was the greater need for cooperation in the 1990s for the timely completion of tasks, since most of the operations were done manually. Now, higher levels of mechanisation reduce this need. These aspects are illustrated by the citations below:

Yes, the people used to work more together, because in that time there was no machinery ... There were groups of 10-12 persons (not only relatives) working together on hoeing, corn harvesting, reaping, loading and unloading the crops. (Manager of a group farm, C. village, Sipote commune, Iasi County).

The manual weeding and manual harvesting were done together by family, neighbours, friends. (Manager, S. village and Sipote commune, Iasi County).

Initially, we needed to work with others, but now we are more mechanised, so we do not need to cooperate. (Manager of a group farm, A. village, Aroneanu commune, Iasi County).

At the same time, even with machines, informal sharing and cooperation can continue, as graphically described by the Manager of a group farm in S. village, Sipote commune, Iasi County:

We do some things together with our neighbours and family members such as manual weeding, harvesting lucerne, harvesting maize manually... We also exchange equipment on barter. For example, I have a seeding machine and I ask someone with a cultivator to work my land, while I go to his farm to seed. We exchange other services too, or pay each other in kind.

Some of the new collectives, while reiterating the above, do express cynicism about current levels of cooperation:

In my parents’ times, people helped each other more, cultivating together, gathering the grass together, pasturing and milking together, etc. because they weren’t able to do all the work alone. All the work was done manually, so they were obliged to help each other in order to produce something. Nowadays, ... the highest amount of work is undertaken with technical equipment. Also, nowadays, people have different perspectives and aspirations. (Manager of a group farm, F. village, Andrieseni commune, Iasi County).

In Andrieseni commune, Iasi County, the Manager of a group farm in S. village felt that earlier, ‘individualism was not as high as it is nowadays.’ Similarly the manager of a group farm in G. village in the same commune said that: ‘Today, although I think that cooperation should be our first choice in order to resist the market, unfortunately, people are not sufficiently aware of its benefits.’

Notwithstanding this pessimism about people’s ability to work together today, in practice new groups have been forming even in the late 2000s, where people are working together. Some of the cooperation is deep. The manager of one group farm that was raising sheep and goats with two relatives and a friend in R. A. village, Aroneanu commune, Iasi County, reported:

¹⁰ There is also a growing recognition now in former socialist countries, of the importance of ‘rural values’ and ‘community values’ for reviving rural development (see e.g. Nemes, 2005–06, for Hungary and more generally).

¹¹ See e.g. Bijman (2018) for the Netherlands. He also provides a historical perspective. See also, Mascarenhas (1988) for the Amul dairy cooperative in India with many million members.

¹² Of the 14 cooperatives in South Asia studied by Inayatullah (1972), almost all had members with strong kinship ties. Similarly, Agarwal (2020a) found that about one-third of the members in women’s group farms in two states of India were related to one another.

We do crop rotation together after pooling the land. After harvest we compensate members in kind. My sister and her husband provide mechanised services for all, but the other two members/partners pay in kind. The sheep and goats are milked in common by hired shepherds. All the activities related to the common sheepfold are funded by the three partners according to the number of animals that they own. Milk is similarly distributed. Also, the manager and friend rotate responsibility for milking (herding the sheep to the milking area), ear tagging and fixing the fences.

It is notable that even when people feel cooperation is more difficult now, it is expressed in terms of changes in values and perspectives rather than a lack of trust. In any case, the fact that people are still forming new groups suggests that the climate is still conducive to cooperation. Some of this is related to economies of scale in machine purchase and use and the desire to expand farm size. This is more possible in a group, than individually.

Our reason for forming the group was economic. We reckoned that it would be easier for each of us to cover the costs for the needed equipment than to buy it individually. So, we decided to put together our forces and buy a combine. Also, each of us came with two tractors, one plough, one disk, one seeding machine, put them together and started working our land as a group. (Former manager of a group farm, G. village, Garbovi commune, Ialomita County).

In other words, it is possible to have what Agarwal (2020c) terms ‘strategic cooperation’ as versus ‘empathetic cooperation’. Strategic cooperation may be seen as cooperation between people who come together for achieving a common goal based on enlightened self-interest, even if they differ in other respects (say in their political views or social situation). Empathetic cooperation would mean going beyond strategic goals to empathize emotionally with other members of the group.

Moreover, social capital/social networks and sustained reciprocal relationships in communities can, in turn, create trust. This is poignantly revealed by the rentiers when deciding to whom to rent out their land. When we asked them why they chose a particular person or farm enterprise over others, it was apparent that a significant factor was their judgment of the lessee’s capability as a farmer, and hence his/her ability to provide an adequate rent (since rent was often received in kind as a crop share). In other words, they placed trust in a person’s capabilities, and did not necessarily treat trust only as a moral value, although that was also mentioned. For illustration, consider below some of the answers that the rentiers gave us, when we asked them why they had selected a particular landlord.

S. village, Andrieseni commune, Iasi County:

R1: *Because he has always been a serious and responsible man. Also, he has studied agriculture and is capable, and can thus get high output.*

R2: *Because I trust him... There is no other tenant that is so serious and trustable in this area. That is why almost everyone from our village rents their land to him.*

F. village, Andrieseni commune, Iasi County:

Because I have known him for a long time and I trust that he is a serious person, well-intentioned. Also, he is our neighbour.

G. village, Andrieseni commune, Iasi County:

R1: *Because he has always been a responsible man. Also he is young, able to work, and has equipment.*

A. village, Aroneanu commune, Iasi County:

It is the nearest land to the village and I am in the neighbourhood of the P. group. Also, it is the only renter I knew. I didn’t know the C. group. When we used to work our land by ourselves, the P. group was always providing us mechanical services in time.

C. village, Sipote commune, Iasi County:

They are our neighbours and they are good guys and offer us the possibility of choosing what products we want as rent: wheat, maize, sunflower oil.

The voices above thus reiterate the many reasons for cooperation, of which prior trust is just one. Another important one is the economic benefits of reciprocity.

6. Concluding reflections

In a context where a large proportion of farms in Romania (and globally) remain small and fragmented, it is important to consider the potential of creating cooperative ventures in agriculture, including both group farms and larger associations, as institutional solutions. Romania provides an important case study of changes since the 1990s in the potential and difficulties of cooperation.

In particular, uniquely, on the basis of our qualitative survey, we were able to follow-up on group farms and large cooperative associations, formed in the 1990s after decollectivisation, to examine which were still active, which had dissolved, and in which context new ones were emerging. We were thus able to trace the kinds of factors which affected whether farmers continued in groups or moved out of group farms and/or large cooperatives.

We found that of the 20 former group farms and large associations, only six group farms had survived, but new group farms and associations have also been formed — of which we studied seven. An aging membership or conflicts among the members were the primary reasons for the group farms becoming inactive, while the large associations were unable to survive the economic challenges posed by drought and related factors. A substantial out-migration of youth from the rural areas since the mid-2000s in search of non-farm jobs also meant that the groups could not regenerate inter-generationally. Notably though, the group farms that did remain active over the years were able to make the transition to a new generation. They had younger people willing to take over the farms, and modernise and mechanise them.

The process of mechanisation also enabled a concentration of land use and management, creating a demand for leased land by those who wanted to continue farming. On the supply side, this was helped by a parallel availability of land for lease from those who were earlier members of groups or were farming alone, but were now too old to continue and had no one to take over the farm. We thus see in our results a significant increase in the number of rentiers and growth in farm size.

Romania’s ascension to the EU, which gave farmers in general, and young farmers in particular, access to EU subsidies and grants, is likely to have had mixed effects. On the one hand, the subsidies and grants enabled farmers to apply for ‘projects’ to acquire machinery and to register as legal entities as individuals. This meant that farmers who earlier needed to be part of groups to survive could now move out on their own. On the other hand, the ability of farmers to acquire machinery through EU projects also provided a basis for close relatives and friends to continue cooperating, if they so wished. Our fieldwork shows that all of those who were still active as groups since the 1990s, pooled the gains from EU projects and the Romanian government’s financial support to continue functioning as group farms. The machinery they acquired appears to have helped them overcome labour constraints, expand farm size, and modernise their tools and farming methods.

This shift, however, was not uniform across all farm activities. Crop cultivation by groups declined, while livestock breeding for milk and meat, which requires substantial amounts of labour and coordination, still provided the *raison d’être* for continuing in groups or forming new ones. Most of the new groups are constituted around animal breeding, sometimes supplemented with crop cultivation. This is not unlike the scene in other parts of Europe, such as France and Norway, where also group farming around milk and meat continues to sustain as well as attract new farmers. This

picture also fits the larger one we had noted for Romania, where in the two counties that have the biggest concentration of agricultural cooperatives in the country — Botosani and Suceava — most cooperatives are those breeding animals solely or along with cereals, with very few cultivating only crops.

Overall, cooperation among farmers, including group farming, does appear to have a future in Romania, within specified contexts. Certainly, we found enough trust and potential benefits to warrant strategic cooperation.

Author credit note

We decided not to credit contributions individually. The sequence of authorship reflects the overall relative contributions.

Acknowledgements

We would like to thank several people for their contributions: Mihai Talmaciu, Simona Roxana Ulman, Camelia Apetroaie and Krisztina Melinda Dobay who constituted the fieldwork team in Romania; senior research analysts, Ram Ashish Yadav and Sanjiv Pasricsha, for coding and organising the data in Delhi; and Elena Ionita for organising some followup interviews. For the fieldwork, Bina Agarwal provided research funds from her Major Research Fellowship, Leverhulme Trust, UK, for which we thank her and the Trust. We also acknowledge the research assistance made possible by Bina Agarwal's prize research funds, awarded to her by the International Balzan Prize Foundation. For logistical support we are grateful to the Institute of Economic Growth (Delhi); the Global Development Institute, University of Manchester; and the 'Gh. Zane' Institute of Economic and Social Research, Romanian Academy, Iasi Branch.

References

- Agarwal, B., 2010. Rethinking agricultural production collectivities. *Econ. Polit. Wkly.* 55 (9), 64–78.
- Agarwal, B., 2014. Food sovereignty, food security and democratic choice: critical contradictions, difficult conciliations. *J. Peasant Stud.* 41 (6), 1247–1268.
- Agarwal, B., 2018. Can group farms outperform individual family farms? Empirical insights from India. *World Dev.* 108, 57–73.
- Agarwal, B., 2020a. Does group farming empower rural women? Lessons from Indian experiments. *J. Peasant Stud.* 47 (4), 841–872.
- Agarwal, B., 2020b. A tale of two experiments: institutional innovations in women's group farming in India. *Can. J. Dev. Stud.* 41 (2), 169–192.
- Agarwal, B., 2020c. Labouring for livelihoods: gender, productivity and collectivity. *Indian J. Lab. Econ.* 63 (1), 23–37.
- Agarwal, B., Dorin, B., 2019. Group farming in France: why do some regions have more cooperative ventures than others? *Environ. Plann. A Econ. Space* 51 (3), 781–804.
- Alexe, I., Horváth, I., Noica, R., Radu, M., 2012. Social Impact of Emigration and Rural-Urban Migration in Central and Eastern Europe, Final Country Report Romania, Gesellschaft Für Versicherungswissenschaft, Und-Gesta Itung eV. study undertaken for the Social Affairs and Inclusive Development Department, European Commission.
- Aligica, P.D., Dabu, A., 2003. Land reform and agricultural reform policies in Romania's transition to the market economy: overview and assessment. *E. Eur. Econ.* 41 (5), 49–69.
- Almas, R., 2010. I have seen the future and it works: how joint farming may solve contradictions between technological level and farm structure in Norwegian dairy production. In: Bonanno, A.B., Jussauma, R., Kawamura, Y., Shucksmith, M. (Eds.), *From Community to Consumption: New and Classical Themes in Rural Sociological Research*. Emerald Group Publishing Limited, Bingley, pp. 3–16.
- Baland, J.-M., Platteau, J.-P., 1996. *Halting Degradation in Village Communities*. Oxford University Press, Oxford.
- Bijman, J., 2018. Exploring the sustainability of the cooperative model in dairy: the case of The Netherlands. *Sustainability* 10 (7).
- Chirca, C., Tesliuc, E., 1999. *From Rural Poverty to Rural Development*, World Bank, National Commission for Statistics, 28998. World Bank, Washington DC.
- Bogdan, O., Marinica, I., 2008. Characteristics of the Summer Drought 2007 in Romania. mimeo, Institute of Geography of Romanian Academy, Bucharest, Romania.
- Cush, P., Macken-Walsh, Á., 2016. Farming 'through the ages': joint farming ventures in Ireland. *Rural Soc.* 25 (2), 104–116. <https://doi.org/10.1080/10371656.2016.1225833>.
- Dobay, K.M., Sabates-Wheeler, R., 2003. 'Institutional Complexity after Land Reform in Romania,' Year Book of the Gh. Zane Institute of Economic and Social Research, Romanian Academy, Iasi, pp. 111–132.
- FAO, 2014. *The State of Food and Agriculture Report: Innovation in Family Farming*. UN FAO, Rome.
- Giurcă, D., Alexandric, C., Rusu, M., 2012. The Reform of the Common Agricultural Policy in the Context of the Post-2013 Budgetary Perspective. European Institute of Romania, Bucharest.
- Government of Romania, 2007. *National Rural Development Programme 2007-2013*. Ministry of Agriculture and Rural Development, Romania. http://old.madr.ro/page/s/dezvoltare_rurala/nrdp_en_official%20version.pdf.
- Government of Romania, 2014. *National Rural Development Programme 2014-2020*. Ministry of Agriculture and Rural Development, Romania. https://www.madr.ro/docs/english/rural-development/NRDP_2014_-2020_EN.pdf.
- Hansen, B.G., Jervell, A.M., 2016. Change management in dairy farming. *Int. J. Sociol. Agric. Food* 22 (1), 23–40.
- Inayatullah, 1972. *Cooperatives and Development in Asia: A Study of Cooperatives in Fourteen Rural Communities of India, Pakistan and Ceylon*. UNRISD, Geneva.
- Ingram, J., Kirwan, J., 2011. Matching new entrants and retiring farmers through farm joint ventures: insights from the Fresh Start Initiative in Cornwall, UK. *Land Use Pol.* 28 (4), 917–927.
- Marquardt, D., Möllers, J., 2010. Evaluating the implementation process of LEADER in Romania'. In: Paper Presented at the 118th EAAE Seminar on Rural Development: Governance, Policy Design and Delivery. Ljubljana, Slovenia, 25-27 August.
- Mascarenhas, R.C., 1988. *A Strategy for Rural Development: Dairy Cooperatives in India*. Sage publications, New Delhi.
- Mathijs, E., Swinnen, J.F.M., 2001. Production organisation and efficiency during transition: an empirical analysis of East German agriculture". *Rev. Econ. Stat.* 83 (1), 100–107.
- Nemes, G., 2005-06. *Integrated Rural Development: the Concept and its Operation*, Discussion Paper, Magyar Tudományos Akadémia. Közgazdaságtudományi Intézet, Budapest.
- Rahoveanu, T.M., Rahoveanu, M.A.T., Cristea, I., 2012. Prospects for Agricultural Cooperatives in Romania in the Context of CAP Reform 2014-2020, vol. 12. Scientific Papers Series, *Management, Economic Engineering in Agriculture and Rural Development*, 4.
- Ruben, R., Lerman, Z., 2005. Why Nicaraguan peasant stay in agricultural production cooperatives. *Eur. Rev. Lat. Am. Caribb. Stud.* 78, 3–19.
- Sabates-Wheeler, R., 2002. Farm strategy, self-selection and productivity: can small farming groups offer production benefits in post-socialist Romania. *World Dev.* 30 (10), 1737–1753.
- Sabates-Wheeler, R., 2005. *Co-operation in the Romanian Countryside: An Insight into Post-Soviet Agriculture* (Colorado). Lexington Books.
- Sabates-Wheeler, R., 2006. Safety in Small Numbers: Local Strategies for Survival and Growth in Romania and the Kyrgyz Republic. Working Paper 265. Institute of Development Studies, University of Sussex.
- Sabates-Wheeler, R., Childress, M.D., 2004. Asset-pooling in uncertain times: implications of small-group farming for agricultural restructuring in the Kyrgyz Republic. IDS Working Paper No. 239. Institute of Development Studies, Sussex.
- Sugden, F., Agarwal, B., Leder, S., Saikia, P., Raut, M., Kumar, A., Ray, D., 2020. Experiments in farmers' collectives in Eastern India and Nepal. *J. Agrar. Change*. <https://doi.org/10.1111/joac.12369>.
- Talmaciu, M., Dobay, K.M., Apetroaie, C., 2017. A socio-economic perspective on agricultural cooperation in Romania. *Agricultural Economics and Rural Development* 14 (2), 239–258.