

Political debates and agricultural policies: discourse coalitions behind the creation of Brazil's Pronaf

Stefano Ghinoi^{a,d}, Valdemar João Wesz Junior^b, Simone Piras^c

^a University of Bologna, Department of Agricultural Sciences, viale Giuseppe Fanin 44, 40127, Bologna, Italy

^b Federal University of Latin American Integration, Rua Castelo Branco, 107, apt. 306 – Maracana, Foz do Iguaçu, PR, 85852-010, Brazil

^c University of Bologna, Department of Agricultural and Food Sciences, viale Giuseppe Fanin 50, 40127, Bologna, Italy

^d Department of Economics and Management, University of Helsinki, Latokartanonkaari 5, P.O. Box 27 00014, Helsinki

Abstract

The literature on rural development focuses on the socio-economic effects of agricultural support policies; the process of policy design, however, is devoted less attention. Identifying policy coalitions may help provide clarity on the motivations behind a given agricultural support system. Using Discourse Network Analysis, this paper studies the debates preceding the approval of the National Program for Strengthening Family Agriculture (Pronaf) in Brazil in the 90s. This represented a relevant overturn of the preceding policy framework. Two coalitions that opposed each other have been identified: while large farm business associations favoured measures to enhance productivity, movements comprising of family farmers aimed at introducing credit instruments for small producers. The strong pressure from social movements was key to the adoption of Pronaf. However, findings suggest that the Workers' Party, which found itself in a less conflicting position, played a brokerage role in the negotiation of the final policy package.

Keywords

Agricultural support; Policy-making; Discourse Network Analysis; Brazil; Pronaf.

Introduction

In the history of rural development, agricultural support policies have always served as key instruments in creating employment opportunities in rural areas and in expanding farm production, thus ensuring the sustainability of the sector. They have also played a crucial social role by alleviating poverty and compensating for the high risks associated with working in agriculture. The OECD (2018) defines agricultural support as 'the annual monetary value of gross transfers to agriculture from consumers and taxpayers arising from government policies that support agriculture, regardless of their objectives and economic impacts'. This broad concept encompasses a wide set of measures that can be grouped into two categories: producer support (direct payments, price support, foregone revenues, etc.), and general services aimed at creating conducive conditions for primary producers, such as institutions or infrastructures (Ibidem). Although private actors may also play a role, e.g. in the provision of risk management services, the agricultural sector relies heavily on public funding in both developed and emerging countries (see, e.g., the Common Agricultural Policy of the European Union). For this reason, this paper focuses on the role of national institutions in designing agricultural support policies. The specific measures adopted by a country constitute its 'agricultural policy package', which may be shaped by several competing goals (OECD, 2017). The prevailing goals depend on which issues take leading positions in political debates, both internally and in the dialogue with international institutions.

48 The political dynamics behind the design of an ‘agricultural support package’ are particularly
49 relevant in the case of Brazil. Agriculture has always been a fundamental sector for the Brazilian econ-
50 omy: in 2013, this country represented five percent of global agricultural production (the fourth largest
51 share after China, the USA and India), and six percent of global agricultural exports (the third largest
52 share after the USA and the Netherlands) (FAO, 2017). In the 90s, Brazilian agricultural support poli-
53 cies underwent impressive changes, with a corresponding impact on the evolution of the farming sector
54 and on rural labour relations. The National System of Rural Credit (SNCR), created in 1965, served as
55 a foundation for the modernization of Brazilian agriculture, allowing a transformation of its technical
56 base, an increase in productivity, and the consolidation of agro-industrial complexes (Leite, 2001). Fam-
57 ily farms – which in 1996 represented about 85 percent of the country’s production units, and which
58 used 31 percent of its total farmland (Guanzirolí et al., 2001) – were almost neglected, with resources
59 flowing to middle- and large-scale producers from the Centre-South who focused mostly on export crops
60 (Helfand, 2001; Leite and Wesz Jr, 2014). In 1995, the National Program for Strengthening Family
61 Agriculture (Pronaf) was thus created, with the goal of providing credit and other types of support to
62 family farmers¹ at favourable rates (Grisa, 2012; Petrini et al., 2016). Brazilian family farms exhibit
63 both small sizes and strong links between the family and the farm in terms of labour input, income and
64 management, in line with FAO’s (2014) definition of a family farm.

65 The reform of the SNCR and the approval of Pronaf was preceded by extensive debates among
66 several actors (social movements representing family farmers, associations of agro-industrial businesses,
67 policymakers, academics, international development institutions, etc.) and in diverse contexts (the Con-
68 gress, mass media, universities, social mobilization in the streets, etc.). The conflicts between productiv-
69 ity increase and poverty reduction, farm businesses and peasants, export crops and products for internal
70 consumption, along with the issue of ‘land struggle’, were at the core of these debates (Welch and Sauer,
71 2015). Due to its impact on Brazilian agriculture, the resulting agricultural support policy has been ex-
72 tensively analysed in the literature (Flexor and Grisa, 2016; Garcias and Kassouf, 2016; Gazolla and
73 Schneider, 2013; Grisa et al., 2014; Leite, 2015; Resende and Martins Mafra, 2016). However, the po-
74 litical dynamics behind these significant changes to the norm have been studied much less. Identifying
75 the actors involved and their positions on specific issues is fundamental in understanding the logic and
76 motivations behind Pronaf.

77 This paper aims at assessing how political debates among key internal and external actors, in
78 terms of their interrelations as well as their agreement or disagreement on important issues, contribute
79 to the design of agricultural support policies. The approval of Pronaf was selected as a case study. The
80 political-ideological linkages underlying the process of policy design, and their success or failure in
81 influencing the final version of the programme, will be identified. Discourse Network Analysis will be
82 used as a methodology to map such linkages. This approach allows for the analysis of political and other
83 types of discourses in the form of networks. Through a codification of the statements of various stake-
84 holders, networks of actors sharing the same views on a topic will be created. Despite the extensive
85 research on Brazilian agricultural policies and Pronaf mentioned above, no study has quantitatively
86 analysed the role of socio-political actors within the design process to date, especially in the English-
87 language literature.

88 The rest of the paper is structured as follows: The next section contains a review of the literature
89 to detect relevant divisive issues concerning agricultural support policies. The third section outlines the
90 main features of Pronaf and identifies the stakeholders involved in its design process. The fourth section

¹ Garner and de la O Campos (2014, p. 17) develop a uniform concept of family farming or, equivalently, family agriculture, as ‘a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour, both women’s and men’s. The family and the farm are linked, coevolve and combine economic, environmental, reproductive, social and cultural functions’. This definition was adopted by FAO’s International Steering Committee for the International Year of Family Farming (FAO, 2014). The Brazilian law (article 3 of law 11,326 of July, 24th, 2006) speaks of ‘family farmer or rural familiar entrepreneur’, defined based on four simultaneous criteria: (1) possession, in any form, of no more than four ‘fiscal modules’ of land (a measure that varies from 5 to 110 hectares, depending on the region); (2) predominance of family labour; (3) minimum share (defined by the government) of family income obtained from family farm activities; (4) direct family management of the farm (Sanchez Peraci, 2011). Since this is an official definition in Brazil, we use it in the rest of this paper.

91 illustrates the methodology and the data collection process. Results are presented in the fifth section
92 and discussed in the sixth section, with a final section reserved for the conclusion.

93

94 **Literature review: agricultural support policies**

95 ‘Agricultural support packages’ need to be effective with respect to public goals, which vary depending
96 on the country and the ruling party. These goals include ensuring food security, improving rural living
97 standards, promoting sustainable production, building resilience, providing public goods, achieving in-
98 clusive development, etc. (OECD, 2017). Besides monetary support to producers, the provision of ser-
99 vices – education and training, physical infrastructure, information and innovation sharing systems – is
100 important in the achievement of these goals. Furthermore, support packages need to be coherent and
101 well-integrated in national economic policies and international dynamics (Ibidem).

102 An important component of agricultural support packages is rural credit provision. Rural credit
103 provision has always served as one of the main policies used to support agriculture in developing coun-
104 tries. Until the mid-60s, the international organizations behind agricultural policies, primarily the World
105 Bank (WB), targeted mostly large-scale commercial farmers to interrupt the ‘vicious circle’ of low
106 incomes, low savings and low productivity (Ellis, 1992, p. 155). Later, the focus shifted to small family
107 farmers due to their higher efficiency and production potential, their lack of financing opportunities
108 beyond local moneylenders, and the expected positive impact on rural poverty (Ibidem). The equity
109 dimension has become even more relevant since the dawn of the 70s (Ibidem). Still, rural credit policies
110 today are driven by diverse goals (increase productivity, fight rural poverty, etc.) and targets (such as
111 specific crops or social groups), and rely on diverse institutions (state agricultural banks, commercial
112 banks, multi-purpose agencies, etc.) and instruments (low interest rates, tax concessions, etc.). Based
113 on a review of the literature on agricultural support policies, 19 divisive topics concerning the potential
114 objectives, targets, instruments and institutions of support policies, and which are likely to be discussed
115 by policymakers, have been identified. We refer to these topics as ‘divisive’ because the political strug-
116 gle over agricultural policies is polarizing, and it is always difficult to arrive at a compromise between
117 opposing positions (Paarlberg, 2013). These topics, summarized in Table 1, are used to classify the
118 statements of the actors involved in the design of Pronaf.

119 The first group of topics concerns the goals of agricultural support. A first potential goal is to
120 increase the incomes of people working in agriculture (both family farmers and hired workers). The
121 actors supporting this statement argue that agricultural support should aim primarily at improving the
122 living conditions of rural people. The second potential goal concerns agricultural productivity: its sup-
123 porters argue that the increase of farm productivity should be the main goal of any agricultural policy,
124 regardless of the destination of resources or the distribution of the resulting benefits. The third potential
125 goal is to achieve technical innovation. Actors backing this goal assign a great deal of importance to
126 the technological level of farms; hence, they aim primarily at stimulating the adoption of new technol-
127 ogies (machineries, high-yielding varieties of seeds, fertilizers, irrigation systems, etc.). Many authors
128 argue that the ability of rural households to adopt innovation, including new products and techniques,
129 increases if they have access to credit (De Souza Filho et al., 1999; Vicente and Vosti, 1995). The three
130 goals mentioned above are usually intertwined; for example, higher per capita incomes increase saving
131 rates and, thus, investments and productivity (Fuglie et al., 2012; Guyomard et al., 2004).

132

133

134

135

136

137

138

139

140

141

142

143
144
145
146
147
148
149
150
151
152
153
154

Table 1. List of divisive topics concerning agricultural support policies.

Topics	References
Goal 1: increasing farm incomes / rural salaries	Delgado, 2010; Guyomard et al., 2004
Goal 2: increasing productivity	Fuglie et al., 2012; Gasques et al., 2012; Pretty et al., 2010
Goal 3: stimulating technological innovation	De Souza Filho et al., 1999; Vicente and Vosti, 1995; Vieira Filho and de Silveira, 2012
Target 1: profit-oriented (vs. subsistence farmers)	Delgado, 2010; Diaz Osorio, 2007; Hazell et al., 2007
Target 2: family farmers (vs. juridical persons)	Delgado, 2010; Diaz Osorio, 2007; Grisa and Schneider, 2014; Hazell et al., 2007
Target 3: specific productions (vs. single farm payment)	Helfand, 2001; Helfand and de Rezende, 2004
Target 4: small farms (vs. large farms)	Castro, 2010; Helfand, 2001; Wolford, 2005
Target 5: export productions (vs. self-consumption goods)	Delgado, 2010; Grisa and Schneider, 2014; Helfand, 2001
Instrument 1: financial sustainability of the credit programme	Bittencourt et al., 2005; Grisa and Schneider, 2014; Kumar, 2005
Instrument 2: tax concessions for commercialization	Aksoy and Beghin, 2005; Schiff and Valdés, 1992
Instrument 3: fair access to land (property rights), even by means of expropriation	Dethier and Effenberger, 2012; Norder, 2014; Ondetti, 2016
Instrument 4: reduction of the power of informal financial intermediaries	Braverman and Guasch, 1986; Gagliardi, 2008
Instrument 5: monitoring for financing continuity	Gunes and Movassaghi, 2017; Westercamp et al., 2015
Instrument 6: linking farms and researchers (vs. customer approach)	Rivera and Sulaiman, 2009; Sumberg et al., 2012
Instrument 7: farmers' training	Evenson, 2001; Feder et al., 2011; Schneider et al., 2004
Instrument 8: public subsidies (vs. private loans)	Delgado, 2012; Turvey, 2013
Institution 1: rural advisory services	Meyer, 2011; McMahon, 2012
Institution 2: producer cooperatives	Ellis, 1992; FAO, 2014; Markelova et al., 2009; Smith and Rothbaum, 2013
Institution 3: State agricultural banks	Turvey, 2013; Westercamp et al., 2015

155
156
157
158
159
160
161
162
163
164
165
166

The second group of topics concerns the targets of agricultural support. The first divisive issue focuses on whether policies should primarily target profit-oriented farmers who aim at maximizing their revenues, or subsistence and semi-subsistence farmers who strive to achieve decent life conditions. The second dilemma concerns whether funding and services should be provided primarily to family farmers (i.e., physical persons) or to juridical entities (e.g. corporations). This issue is particularly relevant in Brazil, as the concept of 'family farms', which replaced that of 'small producers', was at the core of the mobilizations which led to the approval of Pronaf (Welch and Sauer, 2015). The third divisive issue surrounds the supporters of funding aimed at specific crop or animal productions, and their opposition who favour the provision of generic loans and subsidies (such as the single farm payments of the EU Common Agricultural Policy). The fourth topic surrounds the advocates of small farmers, generally moved by equity concerns, and their opposition who opine that large producers deserve special attention

167 due to their role within the national economy (Helfand, 2001). The fifth topic concerns the destination
168 of crop and animal produce that benefited from policy interventions: on one side are actors who propose
169 that export produce (for Brazil: beef, chicken meat, soy, fruit juice, sugar, cotton, coffee, etc.) should be
170 given priority over produce intended for self-consumption or for local markets. This issue is particularly
171 relevant due to the role of Brazilian agriculture in international markets, which led former president
172 Luis Inácio Lula da Silva to promote national produce and free agricultural trade in supranational con-
173 texts. Many of these targets are closely related; indeed, due to the official definition adopted in Brazil,
174 family farms tend to be of small sizes, leading small producers to focus mostly on local markets rather
175 than on exports (Diaz Osorio, 2007; Hazell et al., 2007).

176 The third group of divisive topics concerns the instruments or strategies implemented to achieve
177 effective agricultural support. The first instrument concerns the financial sustainability of the policy
178 package. Stakeholders in support of this statement maintain that policies should be financially sustain-
179 able, meaning that the economic returns (e.g., taxation of resulting profits) should overcome or at least
180 equal the costs. Within this framework, non-repayable loans aimed at helping poor farmers bear their
181 costs, for example, are unlikely to be adopted. The second instrument deals with the manner of financing
182 producers. Actors backing this statement believe that tax concessions (e.g. on the products commercial-
183 ized) are preferable to subsidies or loans. According to the FAO (2001), compensation for high taxation
184 on agriculture enables farmers to be more competitive. The third instrument entails a radical approach:
185 ensuring fair access to land, even if by means of a land reform. In large countries where many farmers
186 fall under the poverty threshold, access to land is an actual issue. The assignment of property rights to
187 disadvantaged people is a driver of innovation adoption and, thus, of farm modernization (Dethier and
188 Effenberger, 2012). In Brazil, article 186 of the 1988 Constitution foresees the possibility of expropria-
189 tion for social interests and is, thus, at the core of the claims of social movements (Norder, 2014). The
190 fourth instrument addresses the power of private intermediaries who may adopt an ‘exploitative or mo-
191 nopolistic behaviour’ (Ellis, 1992, p. 155). Proponents of this statement aim to address corruption and
192 the inability of rural markets to avoid, for example, loan-sharking situations. The fifth instrument con-
193 cerns the evaluation of how resources are utilized by their recipients. Supporters of this option are of
194 the opinion that the continuity of credit and service provision should be bound to constant monitoring
195 or to positive before-after assessments. Braverman and Guasch (1986) point out that rural financial mar-
196 kets are unable to monitor the use of funds. It is for this reason, for example, that France, in 1956, created
197 the Centres of Rural Economy, which were responsible for monitoring the management of subsidized
198 loans (Westercamp et al., 2015). The sixth instrument concerns the idea of connecting public and private
199 researchers with farmers, as opposed to adopting a customer approach, as these connections may ensure
200 better focus on farmers’ priorities (Sumberg et al., 2012; FAO, 2014). A seventh instrument is agricul-
201 tural training and technical assistance. Its backers believe that formal education (provided, e.g., by rural
202 extension services), a fundamental component in any agricultural support package, must be assigned
203 importance. A last divisive issue with respect to instruments concerns the nature of producer support,
204 that is, whether public or private (market-based). Actors on one side prefer public subsidies, while those
205 on the other side suggest that loans should comply with market rules, so that profitability for the issuing
206 institution prevails over the welfare implications for their recipients. Although these eight propositions
207 are not exhaustive of all potential instruments, they cover a wide range of issues and do not necessarily
208 contradict one another.

209 The fourth group of divisive topics deals with the institutions in charge of providing producer sup-
210 port and services. The first type of institution is represented by agricultural extension services, institu-
211 tions concerned with providing free goods (e.g., better-performing seeds) and services (e.g., training on
212 how to use new seed varieties). Actors in favour consider public extension services to be important in-
213 stitutions. A second type of institution is represented by cooperatives and farmer groups (either state-
214 sponsored or resulting from farmers’ initiatives), which ‘are often used as the ultimate lender to farmers’,
215 and may also become ‘viable local credit organizations in their own right’ (Ellis, 1992, p. 158). Actors
216 in support of this type of institutions believe that agricultural policies should stimulate cooperation
217 among producers and rely on the resulting organisations to be more effective. A third type of institution
218 is represented by state agricultural banks (as opposed to private credit institutions). Brazil opted very
219 early for a mixed banking system, leaving the states of the federation free to choose their preferred
220 system (Westercamp et al., 2015). Actors who support this third type of institution support the public

221 option. Broadly speaking, the debate on institutions is based on two clashing ‘schools of thought’: the
222 supporters of public intervention, who deem it necessary to attract urban capital, and the advocates of
223 minimalist regulation, who have dominated during the past decades (Turvey et al., 2013, p. 210).
224

225 **The Brazilian case study**

226 *From the SNCR to Pronaf: a brief context²*

227 Brazil is ‘a relatively industrialized middle-income country that maintains a significant family farm
228 sector oriented to the domestic market, while also playing a key role in the global agri-food sector as a
229 dominant agricultural exporter’ (Graeub et al. 2016, pp. 1-2). This strong dualism (reflected in agricul-
230 tural support policies), coupled with the fact that agriculture continues to play a fundamental economic,
231 commercial and social role (FAO, 2017), justifies the choice of this country as a case study. The federal
232 government of Brazil has also implemented various public policies over the years. These include mac-
233 roeconomic (fiscal, monetary, trade and exchange rate policies), sectorial (rural credit, technical assis-
234 tance, price and market policies, etc.), as well as intersectoral interventions (economic, infrastructural,
235 labour, environmental, social, territorial planning, etc.) (Delgado, 2001; Delgado, 2012; Favareto, 2007;
236 Heredia et al., 2010).

237 The SNCR was created by law 4829 of November 5th, 1965 to support agricultural investments
238 (from the purchase of farm equipment to the building of infrastructures), cover the costs of production
239 and commercialization of farm output and increase productivity, among other goals. The SNCR repre-
240 sented the foundation for the modernization of Brazilian agriculture. Indeed, it allowed for a successful
241 transformation of the technical assets of the farms, an increase in agricultural productivity, the consol-
242 idation of agro-industrial complexes, as well as the integration of agricultural capital in financial net-
243 works (Leite, 2001). However, prior to the mid-90s, the SNCR had mostly favoured medium and large-
244 scale farms in Central and Southern Brazil that produce coffee, soy, sugar cane, oranges and cotton, and
245 that are mostly export-oriented (Gonçalves Neto, 1997; Graziano da Silva, 2003; Helfand, 2001). A
246 large share of farms, accounting for about 70 percent of the total, did not have access to credit
247 (Bianchini, 2015, p. 16) and, therefore, could not enjoy the benefits associated with the SNCR. These
248 consisted mostly of family farms.

249 Family farming is a system historically present in the Brazilian countryside³. Although often
250 invisible in analyses dating to the colonial and imperial periods, which focused on large property and
251 their production for foreign markets, small farmers were present in all regions of Brazil (Delgado,
252 2004). Based on data from 1960, Queiroz (2009, p. 61) points out that ‘Brazil, contrary to what is
253 commonly said, is not a predominantly monoculture country, but a country of polycultures; small pol-
254 yculture farms provide food to the sixty million inhabitants of Brazil and employ the majority of the
255 rural workforce’.

256 However, the family farming sector of Brazilian agriculture was hit particularly severely by the
257 advent of modernization, which fostered land and income concentration, rural outmigration, environ-
258 mental problems, etc. (Graziano da Silva, 2003; Teixeira, 2005). Family farms became even more vul-
259 nerable in the economic context of the 80s, characterized by deep crisis, stagnation, indebtedness and
260 inflation, and of the 90s, during which the Brazilian economy underwent economic liberalizations, re-
261 gional integration and privatizations (Bianchini, 2015; Grisa, 2012).

262 The political liberalization that followed the end of the military dictatorship in the 80s allowed
263 for the rebirth of civil society organizations such as trade unions and social movements inspired by
264 landless people, rural workers and family farmers. In this context, the agrarian reform, along with the
265 expansion of the Landless Workers’ Movement (MST), gained a lot of visibility, resulting in the for-
266 mulation of a National Plan for Agrarian Reform (PNRA) by the government in 1985. In addition, the

² To further this debate, see Bianchini (2015), Grisa (2012), Mattei (2010), Moruzzi Marques (2004), Piccolotto (2011), and Santos (2011).

³ In Brazil, the concept of ‘family farming’, both as a productive system and as a socio-political entity, was defined in the 90s by social movements, academics, and politicians who contributed to the design of state policies and norms, thus gradually replacing the categories of ‘smallholders’, ‘subsistence farmers’, ‘low-income producers’, etc. (Guanziroli et al., 2012; Piccolotto, 2011; Medeiros, 2001; Schneider, 2006).

267 National Confederation of Agricultural Workers (CONTAG) began drawing up a proposal for a differ-
268 entiated agricultural policy for small producers in 1986. During this same period, the Workers' Unified
269 Centre (*Central Única dos Trabalhadores*, CUT) also had among its guidelines an agricultural policy
270 focused on the interests of small producers and workers (Picolotto, 2011). These social movements
271 played a very important role in the recognition of the sector and its demands.

272 To support small producers, the government of Itamar Franco (1992-1995) created, in 1994, the
273 Program for Valorising Small Agricultural Production (*Programa de Valorização da pequena*
274 *Produção Rural*, Provap), which relied almost exclusively on resources from the National Development
275 Bank (BNDS). The federal government tried to encourage the activities of small farmers, and this had
276 a significant impact on food production (Schultz and Ahlert, 2016). Thus, Provap was followed by
277 Pronaf, and by the Program for the Generation of Employment and Rural Income (Proger Rural), which
278 also depended on BNDS funding sources and other public funds (Schneider et al., 2004). By recognizing
279 the peculiarities of family farms, the new norms provided credit and services to this socioeconomic
280 group at favourable rates, in a manner different from the SNCR (Grisa, 2012). This represented the first
281 national-level policy that specifically targeted the needs of family farmers (Schneider et al., 2004).

282 Since its approval, Pronaf has experienced several modifications. Besides the regular changes
283 brought about by the yearly Family Farm Harvest Plan (*Plano Safra da Agricultura Familiar*), which
284 defines adjustments in credit lines, financing conditions and volumes of available resources, Pronaf has
285 undergone three major phases. The first phase spanned from its creation to the end of Fernando Hen-
286 rique Cardoso's government in 2002. It represented a period of operationalization of the programme by
287 improving credit facilities, regulating access conditions, as well as mandating rural finance institutions
288 to reach out to those historically excluded from agricultural policies (Abramovay and Veiga, 1999;
289 Copetti, 2008; Mattei, 2006; Schneider et al., 2004).

290 The second phase of Pronaf spanned between president Lula's first term and president Dilma
291 Rousseff's first term (2003-2014). It was characterized by a boosting of the resources endowed, an
292 enlargement of the geographical focus to cover the entire federation, more flexibility of financial rules
293 (interest rates reduction, deferment of payments, increase of the resources thresholds per contract, etc.),
294 enlargement and diversification of the beneficiaries (by gender, age, and activity), simplification of
295 access conditions, and a revision and diversification of the funding system (De Souza et al., 2013;
296 Mattei, 2012; Gazolla and Schneider, 2013; Grisa et al., 2014; Capellesso et al., 2018).

297 The third phase began with Rousseff's second term as president, was consolidated during her
298 impeachment, and continues to date. Data provided by the Central Bank of Brazil (2018) showed that
299 between 2014 and 2017, Pronaf was affected by a reduction in the volume of funds, a decrease in the
300 number of contracts, and a decrease in the value of subsidies paid by the government to stabilize the
301 interest rates. The most recent data on rural credit indicates concentration and exclusion in Brazilian
302 agriculture (Bianchini, 2018). However, these processes are much broader than specific changes in Pro-
303 naf: they represent an overturn in public policy and in the institutional framework of family farming, as
304 many programs have been blocked, reformulated, or placed under review. The marginalisation of family
305 agriculture in the nation's political and institutional scene became clear with the abolition of the Min-
306 istry of Agrarian Development and other agencies linked to rural development, which represented the
307 main basis of legitimacy and support for sectorial policies (Niederle et al., 2017).

308 The transformations that took place during these three phases also led to changes in the political
309 coalitions supporting specific policies. However, within this paper, we focus only on the initial period
310 of policy design.

311

312 ***Actors involved in the design process of Pronaf***

313 The design of Pronaf involved various different actors (Bianchini, 2015; Grisa, 2014; Moruzzi Marques,
314 2004; Picolotto, 2011; Santos, 2011; Schneider et al., 2004). These actors can be grouped into three
315 categories: civil society organisations, political actors, and international multilateral organisations. The
316 list of actors whose statements were analysed for this paper are reported in Table 2.

317 Civil society organisations include two main interest groups: 'on the one hand, the institutions
318 representing large landlords and agricultural capital; on the other hand, the institutions which supported
319 the adoption of *ad hoc* policies for small farmers, the consolidation of the agrarian reform, the expansion

320 of the rights of rural workers, and a more sustainable agricultural model' (Bianchini, 2015, p. 19).
321 Among the former were the Confederation of Farming and Breeding of Brazil (CNA), the Brazilian
322 Association of Agribusiness (ABAG), the Brazilian Rural Society (SRB) and the Organization of Bra-
323 zilian Cooperatives (OCB). These organizations were able to influence Brazilian politics because of
324 their high level of institutionalization, the presence of a political leader within their structures (Zani and
325 da Costa, 2014), and the alliance they had built with urban entrepreneurs and politicians (Paulino, 2014).
326 The organizations supporting family farmers included CONTAG, as well as recently founded groups
327 such as the MST and the National Department of Rural Workers of the Workers' Unified Centre
328 (DNTR/CUT). Despite programme divergences (Grisa, 2012; Picolotto, 2011), these groups amalga-
329 mated with organizations of fishermen, natives, rubber trappers, and other groups damaged by national
330 agricultural policies, to organize the first Brazilian Land's Cry (*I Grito da Terra Brasil*), which took
331 place in the capital in May 1994. These groups put in a series of claims that focused on the need for an
332 *ad hoc* credit policy for small farmers (Grito da Terra Brasil, 1994). In 1995, a second Cry was orga-
333 nized⁴. These mobilizations were at the core of the creation of Pronaf, as they forced the Ministry of
334 Agriculture and the Bank of Brazil to negotiate with the organizations representing family farmers
335 (Vasconcellos and Vasconcellos, 2012) and implement a course of action favoured by them (Wesz Jr.,
336 2010).

337 The so-called political actors consisted of individuals in state institutions. These actors repre-
338 sented different interests (their social basis, their political party, their territory, etc.) and were subject to
339 contrasting pressures (interest groups, desire to achieve re-election, etc.). Between 1995 and 1998, eight
340 main parties were represented in the Brazilian Congress (Chamber of Deputies and Senate): the Brazil-
341 ian Democratic Movement Party (PMDB), the Liberal Front Party (PFL), the Brazilian Social Democ-
342 racy Party (PSDB), the Progressive Party (PP) – which became the Brazilian Progressive Party (PPB)
343 after a number of splits –, the Brazilian Labour Party (PTB), the Workers' Party (PT), and the Demo-
344 cratic Labour Party (PDT). In addition to these parties, we will also consider the smaller National Re-
345 construction Party (PRN) (Braga and Bourdoukan 2010). Only the PT and the PDT opposed the gov-
346 ernment of Cardoso (PSDB), while a coalition of the other six parties 'provided the executive with a
347 parliamentary support close to 75 percent of the seats' (Couto and Abrucio, 2003, p. 276). In Brazil
348 there is no 'agrarian party': the interests of large landlords and agricultural entrepreneurs are advocated
349 by the Parliamentary Front for Agriculture (the so-called '*Bancada Ruralista*'⁵), which played a core
350 role in the debate on Pronaf (Barcelos and Berriel, 2009; Vigna, 2007). The *Bancada Ruralista* includes
351 congressmen from many centre-right parties and is one of the most powerful interest groups in the
352 Brazilian Congress (Ibidem). On the other hand, the interests of peasant movements and rural trade
353 unions were advocated by centre-left congressmen from different parties, but in a less organized manner
354 (Mendes Pereira, 2007).

355 As for international organizations, the most influential during the elaboration of Pronaf were the
356 World Bank (WB) and the Food and Agriculture Organization of the United Nations (FAO) (Flexor and
357 Grisa, 2014). The former, known for its support of free-market policies (Wade, 2010), carried out some
358 studies in collaboration with Brazilian researchers, the findings of which were summarized within re-
359 ports (World Bank, 1994a; 1994b) and divulged to the public in workshops and other events. These
360 reports recognized the predominance of small and medium-sized family farms and their importance for
361 job creation and agro-food production. Furthermore, they diagnosed that these farms had been penalized
362 by the SNCR. Nevertheless, they recommended a reduction of public intervention in agriculture, with
363 a view to stimulate a 'market-oriented' approach within this sector (Vigna, 2001; 2007). Simultane-
364 ously, the FAO – in cooperation with the National Institute for Colonization and Agrarian Reform (IN-
365 CRA), and with the support of Brazilian researchers – worked on the elaboration of an operational def-
366 inition of family farming, while stressing the socio-economic role of this sector for Brazil. FAO's def-
367 inition was then used to design public policy measures targeted at this group (Guanziroli, 1995).

368 The above-mentioned categories of actors shared strong linkages and never operated as totally
369 separate groups. For example, the pressure of civil society organizations on their political representatives

⁴ The I and II Brazilian Land's Cry are a wide range of mobilizations carried out by social movements throughout the country: State Governments and the Federal Government negotiated a series of guidelines with these movements, mainly regarding rural policies (Picolotto, 2011). Such mobilizations continued in later years.

⁵ To know more about the *Bancada Ruralista* in Brazil, see Simionatto and Rodrigues Costa (2012).

370 (deputies and senators) allowed the former to have their interests recognized in the decisional arena.
 371 Some leaders of these organizations were elected to Congress and could thus work as part of the group
 372 of political actors. Another example is represented by multilateral organizations, whose reports were
 373 often mentioned by politicians or cited in advertising messages prepared by civil society organizations.
 374 As already mentioned, FAO's recommendations were elaborated courtesy of the support of public serv-
 375 ants, researchers, trade unionists, and civil society leaders.

376
 377
 378

Table 2. Actors involved in the design proces of Pronaf, whose statements were analysed.

Acronym	English name	Original name	Category	Coalition
ABAG	Brazilian Association of Agribusiness	<i>Associação Brasileira do Agronegócio</i>	civil society organisation	productivity-focused group
CNA	Confederation of Farming and Breeding of Brazil	<i>Confederação da Agricultura e Pecuária do Brasil</i>	civil society organisation	productivity-focused group
CONTAG	National Confederation of Agricultural Workers	<i>Confederação Nacional dos Trabalhadores na Agricultura</i>	civil society organisation	welfare-focused group
DNTR/CUT	National Department of Rural Workers of the Workers' Unified Centre	<i>Departamento Nacional dos Trabalhadores Rurais/Central Única dos Trabalhadores</i>	civil society organisation	welfare-focused group
FAO	Food and Agriculture Organization of the United Nations		international organisation	
MST	Landless Workers' Movement	<i>Movimento Sem Terra</i>	civil society organisation	welfare-focused group
PDT	Democratic Labour Party	<i>Partido Democrático Trabalhista</i>	political party	
PFL	Liberal Front Party	<i>Partido da Frente Liberal</i>	political party	
PMDB	Brazilian Democratic Movement Party	<i>Partido do Movimento Democrático Brasileiro</i>	political party	
PP	Progressive Party	<i>Partido Progressista</i>	political party	
PPB	Brazilian Progressive Party	<i>Partido Progressista Brasileiro</i>	political party	
PRN	National Reconstruction Party	<i>Partido da Reconstrução Nacional</i>	political party	
PT	Workers' Party	<i>Partido dos Trabalhadores</i>	political party	
PTB	Brazilian Labour Party	<i>Partido Trabalhista Brasileiro</i>	political party	
SRB	Brazilian Rural Society	<i>Sociedade Rural Brasileira</i>	civil society organisation	productivity-focused group
WB	World Bank		international organisation	

379

380 Methodology and data

381 Discourse Network Analysis

382 Political discourses are often neglected in the explanation of political processes (Schmidt and Radaelli,
 383 2004), despite their role in shaping the actions of political actors (Schmidt, 2008). The presence of
 384 groups of actors of equal social standing affects political processes because each group tries to impose
 385 its perspective on the others (Hajer, 1993). This is pointed out within the Advocacy Coalition Frame-
 386 work (Sabatier, 1988; Sabatier and Jenkins-Smith, 1993), which states that policymaking is an ongoing
 387 process, and that political groups with similar interests and beliefs collaborate with each other to reach
 388 their goals. Shared beliefs are the basis for coalition formation among actors involved in the political
 389 arena (Fischer et al., 2017; Sabatier and Weible 2007).

390 To influence political processes, group members must show strong ideational congruence among
 391 themselves and dominate the discursive space, and their political practices must reflect this discursive
 392 dominance (Leifeld and Haunss, 2012). This is particularly true in the case of continuously discussed
 393 political conflicts, during which coalitions constantly realign their stances in order to prevail over oth-
 394 ers: coalition members must share the same point of view and be consistent, in terms of common argu-
 395 ments, if they want to become dominant.

396 Discourse Network Analysis (DNA) is a methodology developed by Leifeld (2009) to measure
397 and visualize policy discourses. It uses tools derived from Social Network Analysis (SNA) to map the
398 relationships within a group of actors and analyse the characteristics of their network. By identifying the
399 main arguments discussed and assigning them to each actor, the methodology allows for the measure-
400 ment of similarities among the latter, thus identifying discourse coalitions as well as sub-coalitions
401 within a discourse coalition. Actors are not classified into separate categories but may be connected
402 through various paths. DNA has been used to analyse political or media discourses on environmental
403 (Brugger, 2016; Fisher et al., 2013) as well as economic themes (Leifeld, 2013; Leifeld and Haunss,
404 2012). To our knowledge, this is the first attempt of using it to assess issues related to agricultural
405 policy.

406 For any debate studied, the statements of each actor are coded by considering three variables: the
407 organization of membership, the issue addressed, and the position taken (in favour or against). Such a
408 process results in the creation of an actor-by-issue matrix. This matrix is subsequently converted into a
409 square actor-by-actor matrix (a so-called co-occurrence matrix), where each cell represents the number
410 of shared issue stances between pairs of actors (Fischer et al., 2013). Using this matrix, five types of
411 discourse networks can be generated: affiliation, actor congruence, conflict, concept-congruence, and
412 dynamic discourse networks (Leifeld and Haunss, 2012).

413 For our research, we first computed two ‘actor congruence networks’: one displaying the number
414 of statements agreed upon by each pair of actors, and the other indicating the number of statements on
415 which each pair of actors disagreed. In both networks, the strength of a tie (edge weight) between two
416 actors depended on the number of common (positive or negative) statements. From these two networks,
417 it was then possible to draw up the ‘conflict network’ (Leifeld and Haunss, 2012). The ‘conflict network’
418 indicates the number of statements on which each pair of actors had discordant opinions. Within a
419 ‘conflict network’, the thickness of the edge weights is computed by summing up the number of dis-
420 cordances between actors on the same statements.

421 Once the above-mentioned networks have been created, network statistics are used to detect the
422 actors who are most influential based on the nature of their relations (the congruence of their political
423 views with other stakeholders’ political views). Network statistics give a quantitative measure of the
424 power of each actor and an interpretation of his or her centrality. We used ‘betweenness centrality’ to
425 detect actor relevance. This indicator considers the whole network when computing individual scores
426 and identifies where actors are placed within the network. It is computed using the following formula:
427

$$428 \quad BC_k = \sum_{i \neq j \neq k} \frac{\sigma_{ikj}}{\sigma_{ij}}$$

429 where σ_{ikj} is the number of geodesics linking actors i and j through k , and σ_{ij} is the total number of
430 geodesics linking actors i and j (Prell, 2012). This measure identifies within the network the actors who
431 are more strategic due to their brokerage position (based on their political stance). Given that we are
432 interested in analysing the political discourse framework that emerged during the discussion of Brazil’s
433 Pronaf, ‘betweenness centrality’ allows us to identify actors in less conflicting positions: a low level of
434 ‘betweenness centrality’ indicates that an actor was less involved in the conflict, and vice versa.
435

436 **Data collection and coding procedure**

437 The dataset for the analysis was created using the following procedure. First, we selected relevant doc-
438 uments from which we could extrapolate actor statements on every issue. Four types of documents were
439 considered: public declarations, original reports, parliamentary speeches, and newspaper articles, all
440 dating back to the three-year period of 1994–1996. Despite the fact that political documents involve a
441 high likelihood of exaggeration of ideological political perspectives, we assumed that every statement
442 issued by an organization, or by one of its members, was illustrative of the political position of said
443 organization, and that an analysis of its policy beliefs would explain the courses of action taken by the
444 legislator (Fischer et al., 2013; Sabatier and Weible 2007).

445 Overall, we analysed 123 documents containing 222 statements. With regard to international organiza-
446 tions, the reports considered were independently published by the FAO or the WB (Guanziroli, 1995;
447

World Bank, 1994a; 1994b). These reports highlighted the need for Brazilian institutions to correct market failures and strengthen family farming. Trade unions and social movements also produced many documents and reports on agricultural support policies. To assess their role in the process of negotiation of Pronaf, we analysed their official public declarations, institutional reports, and newspaper articles. Finally, to identify the orientation of political parties, we analysed the speeches delivered in the Brazilian Senate during the plenary sessions of the three-year period, 1994-1996. Among the senators whose speeches were analysed, at least two (Jonas Pinheiro and Júlio Campos) belonged to the *Bancada Ruralista*. We decided not to consider the debates that took place in the Chamber of Deputies because, being mainly concerned with local issues, they did not help to reveal the positions of the parties on general agricultural support policies. Due to the large number of declarations available, the search terms ‘Pronaf’ and ‘agricultural policy’ (in Portuguese and English) were used to identify speeches of potential interest within the database of the Senate (Brazil, Federal Senate, 2017).

Table 3. Heatmap: positive statements (green), negative statements (red), and lack of opinion (white).

Statement	MST	CNA	ABAG	SRB	WB	CUT	CONTAG	PP	PFL	FAO	PTB	PMDB	PRN	PDT	PPB	PT
Goal 1: increasing farm incomes	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Goal 2: increasing productivity	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Goal 3: stimulating technical innovation	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Target 1: profit-oriented farmers	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Target 2: family farmers	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Target 3: specific productions	Red	Green	Green	Green	Green	Red	Red	Green	Green	Red	Green	Green	Green	Green	Green	Green
Target 4: small farmers	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Target 5: export productions	Red	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Instrument 1: financial sustainability	Red	Red	Red	Red	Green	Red	Red	Red	Red	Green	Green	Red	Red	Red	Red	Red
Instrument 2: tax concessions	Red	Green	Green	Green	Green	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Instrument 3: fair access to land	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Instrument 4: reduce the power of intermediaries	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
Instrument 5: monitoring	White	White	White	White	White	White	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
Instrument 6: linking farms to research	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Instrument 7: farmers’ training	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Instrument 8: public subsidies	Green	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Institution 1: rural advisory services	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Institution 2: producer cooperatives	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Institution 3: State agricultural banks	Green	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Total	17	16	16	16	9	17	17	15	13	14	10	14	8	8	8	12

We conducted the coding process manually, based on the list of divisive topics identified above. For each of the 19 topics, we registered whether an actor had shown agreement, disagreement, or a lack of an opinion on it. Overall, 26 physical or juridical persons, belonging to 16 different organizations (our actors proper) were considered. We assumed the opinions expressed by all senators to be representative of the positions of their parties. No contradictions were observed amongst the opinions of different senators belonging to the same party, allowing for a straightforward aggregation of their opinions⁶. We did not assign specific weights to the stakeholders – despite the plausible assumption that

⁶ Some examples of the coding procedure are illustrated below.

- a) Actor *alfa* (PP): ‘Então, do meu ponto de vista, se o Governo não quer ou não pode subsidiar a Agricultura, deve, pelo menos, adotar uma política coerente com essa impossibilidade, que é não permitir que produtos produzidos nessas regiões do mundo mais fortes economicamente, que subsidiam a produção e a exportação de produtos agrícolas, não ingressem em nosso País sem as alíquotas de proteção ao produto nacional. Proteger

470 some political actors are more important than others in the legislative process, and that their importance
 471 varies with the number of seats – because we focused solely on the debates preceding the implementa-
 472 tion of Pronaf, during which all actors had equal opportunities to express their views. The outcome of
 473 the coding procedure is illustrated in Table 3. This outcome was analysed using the DNA software
 474 (Leifeld, 2010) and Ucinet (Borgatti et al., 2002).
 475

476 RESULTS AND DISCUSSION

477 *Analysis of the results*

478 To begin, we identified the actors who managed to prevail, i.e. to contribute more to the policy outcome
 479 by avoiding conflicts. Table 4 reports the percentage of actors who mentioned each of the topics identi-
 480 fied, and specifies whether their statements were in favour or against. Three important insights can be
 481 deduced from the table. First, economic goals, such as raising farm incomes, productivity and profits,
 482 were always mentioned, while topics related to socio-political aims, such as reducing the level of cor-
 483 ruption, providing training, developing advisory services, and monitoring the way money was used,
 484 played a minor role. Second, despite being mentioned by many, the topics linked to general financial
 485 issues, such as focusing on export production (target 5) or achieving financial sustainability (instrument
 486 1) were supported only by a few stakeholders. In particular, only eight percent of those who mentioned
 487 the financial sustainability of the policy, and 27 percent of those who mentioned support for export
 488 productions, were in favour. These issues are usually pursued by large farm businesses, who are inter-
 489 ested in market-based financing and are oriented towards external markets. Third, the most divisive top-
 490 ics were the support for specific productions (target 3), the adoption of measures to ensure fair access
 491 to land (instrument 3), and the creation of state agricultural banks (institution 3), suggesting that the
 492 role of the government was a key matter of debate.
 493

494 Table 4. Percentage of actors that mentioned each topic, and percentage who agreed or disagreed.

Statement	Mentioning (%)	Agreeing (%)	Disagreeing (%)
Goal 1: increasing farm incomes/salaries	100	100	0
Goal 2: increasing productivity	100	100	0
Goal 3: stimulating technological innovation	94	93	7
Target 1: profit-oriented farmers	100	94	6
Target 2: family farmers	88	79	21
Target 3: specific productions	56	56	44
Target 4: small farmers	81	77	23
Target 5: export productions	94	27	73
Instrument 1: financial sustainability	75	8	92
Instrument 2: tax concessions	69	73	27
Instrument 3: fair access to land	56	56	44
Instrument 4: reduce power of informal intermediaries	0	NA	NA
Instrument 5: monitoring	13	100	0
Instrument 6: linking farms and researchers	69	100	0
Instrument 7: farmers' training	31	100	0

o produto nacional é proteger exatamente o emprego e o produtor rural brasileiro. É uma política coerente: se quiser subsidiar, será melhor; se não puder, que o ingresso de produtos subsidiados não seja permitido’;

- b) Actor *beta* (PMDB): ‘E o nosso País, ao adotar a postura de abertura de seus mercados, que se impõe a cada passo, ficará, cada vez mais, inviabilizado em termos de sua produção agrícola. É preciso, portanto, uma política mais pragmática nessa matéria ou, melhor dizendo, a adoção de uma verdadeira política agrícola para o País. Uma política que leve em conta as diferenças regionais, por exemplo, porque, se neste momento os agricultores do Sul/Sudeste e Centro-Oeste do País se encontram nessas dificuldades, imaginemos os agricultores do semi-árido nordestino’.

The first statement, pronounced by a senator of the PP (called ‘Actor *alfa*’), reveals a preference for a protectionist strategy, in contrast with target 5. For this reason, within our actor-by-statement matrix, a negative score was associated to this issue (target 5) for the PP. The second speech comes from a senator of the PMDB (called ‘Actor *beta*’), who highlights the differences between small farmers from the North-East and large farmers from the South, thus asking for a policy differentiation. Hence, the PMDB got a positive score for Target 4.

Instrument 8: public subsidies	94	73	27
Institution 1: rural advisory services	38	100	0
Institution 2: producer cooperatives	69	100	0
Institution 3: State agricultural banks	81	69	31

495

496 Figure 1 presents the ‘conflict network’⁷. The presence of a large number of linkages is consistent
 497 with the remark of Leifeld and Haunss (2012) that strong polarisations are not generally found in policy
 498 networks. Nevertheless, the stakeholders are grouped into two distinct coalitions: one includes the SRB,
 499 ABAG and the CNA, and the other includes the MST, CUT and CONTAG. This reflects the historical
 500 polarization of the Brazilian rural system and its representative organizations. The presence of some
 501 thick lines despite the usual low polarisation indicates that some conflicts were quite intense. Indeed,
 502 the rural conflict has a significant socio-political relevance in Brazil: agricultural support policies have
 503 been used by the government to create consensus on several occasions, and so are a matter of intense
 504 debates within the political arena (Garcias and Kassouf, 2016).

505 The group that includes the SRB, ABAG and the CNA (hereafter, the ‘productivity-focused
 506 group’), which was more in line with the WB’s desiderata, supported market-oriented reforms, while
 507 the group that includes the MST, CUT, and CONTAG (hereafter, the ‘welfare-focused group’) was
 508 more consistent with the FAO’s beliefs (see Table 2). In the beginning of the 90s, the SRB, ABAG and
 509 the CNA worked together through the Front of Brazilian Agriculture (*Frente Ampla da Agropecuária
 510 Brasileira*, FAAB) to establish a relationship with the federal government in order to obtain political
 511 concessions for the actors they represented (Sauer, 2008). The conflict between the two groups stems
 512 from socio-economic cleavages: the former group defended the interests of business farming, while the
 513 latter represented the interests of small producers. Santos (2011, p. 123) refers to the presence of ‘two
 514 coalitions in dispute’ (*duas coalizões em disputa*) on agricultural policies⁸. While the MST, CUT and
 515 CONTAG, along with other actors involved in the Brazilian Land’s Cry, were on the frontline in re-
 516 questing specific channels of support for family farms, the SRB, ABAG and the CNA supported the
 517 expansion of SNCR without any exclusive policy for family farms.

518 The official documents on small producers and family farmers elaborated by the CNA present
 519 these groups – implicitly or explicitly – as having aspirations and claims similar to large producers
 520 (Moruzzi Marques, 2004). The CNA, the SRB and ABAG opposed the creation of *ad hoc* measures to
 521 support family farmers mainly because they did not agree with the idea that family and business agri-
 522 culture experienced different working conditions. Nevertheless, after the launch of the debate on agri-
 523 cultural policy which then resulted in the introduction of Pronaf, these organizations pushed for more
 524 flexible eligibility criteria for funding in order to satisfy their social base⁹.

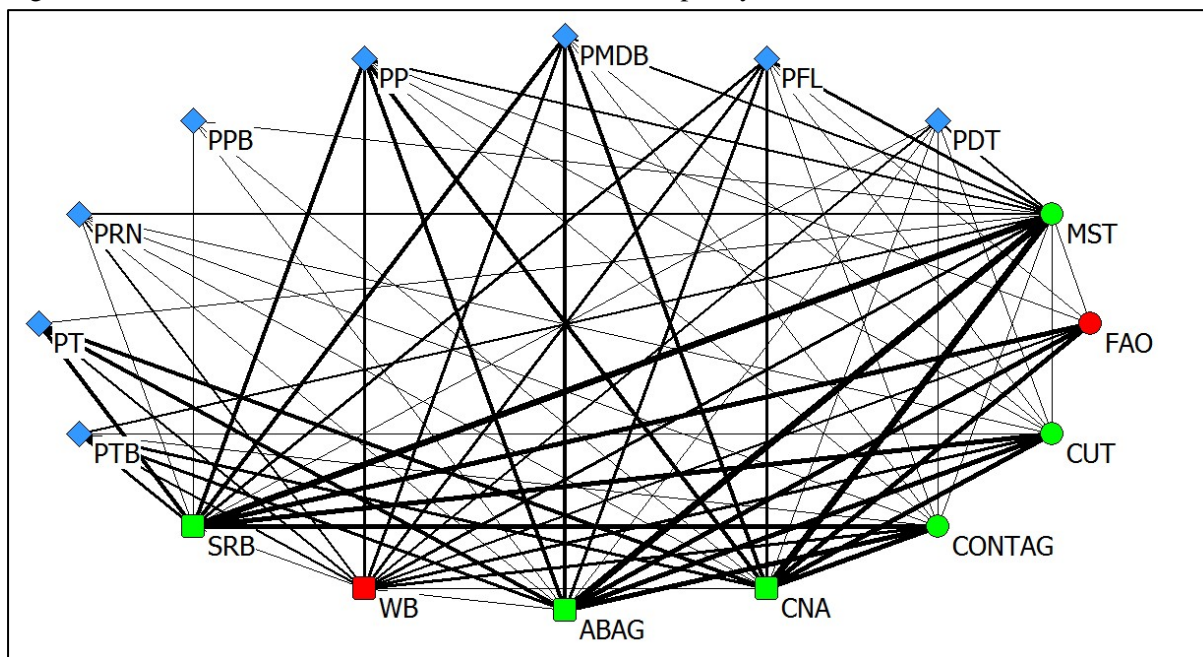
525

⁷ The two ‘actor congruence networks’ can be found in the Appendix.

⁸ This dispute resulted in the creation, in 1999, of two Ministries dedicated to agricultural themes: the Ministry of Agrarian Development (*Ministério do Desenvolvimento Agrário*), dealing with family farming, local development and agricultural planning, and the Ministry of Agriculture, Livestock and Supply (*Ministério da Agricultura, Pecuária e Abastecimento*), focused on large farm businesses and public policies for entrepreneurship.

⁹ For example, the productivity-focused group argued that family management should be the only criterion for classifying the farms, thus excluding property size, income, and the hiring of employees. The CNA put pressure on the government to include, as an eligibility criterion, the presence of two permanent employees (which, indeed, became a rule of Pronaf), while CONTAG believed that the presence of temporary employees would have been enough (Grisa, 2012; Santos, 2011).

526 Figure 1. ‘Conflict network’ of the actors involved in the policy debate on Pronaf.



527 Note: Squares indicate the actors belonging to the productivity-focused group, circles the actors belonging to the
 528 welfare-focused group, and diamonds other actors. Political organizations are marked in blue, civil society organ-
 529 izations in green, and international organizations in red.
 530

531 Looking at Figure 1, three political actors appear to conflict mainly with the productivity-focused
 532 group: the PP, the PMDB, and the PT. Although the intensity of their conflict is higher toward the produc-
 533 tivity-focused group, the PP and the PMDB also disagree with a (smaller) number of views supported
 534 by the welfare-focused group. The PT, however, disagrees only with the productivity-focused group¹⁰.
 535 The PT and the PPB are the actors with the lowest level of conflict within the network, despite the
 536 former expressing an opinion on twelve topics, and the latter only on eight (Table 3). Their low levels
 537 of conflict is confirmed also by network statistics: as shown in Table 5, these parties have the same
 538 lowest value of ‘betweenness centrality’ (0.231), while the members of the productivity-focused group
 539 have the highest.

540 The MST obtains the highest score in Table 5 because, in addition to opposing the interests of
 541 business agriculture organizations (the CNA, ABAG and the SRB), it also dissents from CONTAG and
 542 CUT on some issues (Picolotto, 2011). Although the MST recognized the need of *ad hoc* instruments
 543 of agricultural support for family farmers, its priority was represented by the push for an agrarian reform
 544 to achieve more equitable access to land. Moreover, the group took a negative stance on technological
 545 innovation, with the complaint that some innovations are used mainly to increase profits by means of
 546 economies of scale (i.e., through land concentration), which is the logic of capitalist business agricul-
 547 ture. On the contrary, they supported traditional production methods and the adoption of technologies
 548 adequate for the needs of smallholders.

549
 550
 551
 552
 553
 554
 555
 556

¹⁰ The PT conflicts with the MST on two topics on which the latter expressed disagreement, contrary to all other actors. For this reason, the MST has at least one conflict edge with every actor, i.e. it has the highest value of *betweenness centrality* (Table 5).

557 Table 5. ‘Betweenness centrality’ indicator (actors listed in decreasing order).

Actor	‘Betweenness centrality’	Actor	‘Betweenness centrality’
MST	8.082	PFL	0.607
CNA	7.852	FAO	0.356
ABAG	7.852	PTB	0.322
SRB	7.852	PMDB	0.322
WB	5.332	PRN	0.322
CUT	2.356	PDT	0.322
CONTAG	2.356	PPB	0.231
PP	0.607	PT	0.231

558
 559 A possible explanation for the network position of the PT and the PPB relates to the topics they
 560 opposed. The PPB is the only actor that did not express a negative opinion on any topic, while the PT
 561 opposed only one topic: like most actors outside the productivity-focused group, it disagreed with the
 562 idea of giving priority to export crops over subsistence production. The larger centrality values obtained
 563 by the actors belonging either to the productivity-focused or the welfare-focused group point to their
 564 involvement in more conflict situations. Nevertheless, the members of the latter group displayed lower
 565 levels of ‘betweenness centrality’, which probably favoured the final approval of Pronaf.

566
 567 **Discussion**

568 Results suggest that two conflicting coalitions (what we call the “productivity-focused group” and the
 569 “welfare-focused group”, respectively) encountered each other during the debates preceding Pronaf.
 570 Given the multiple and complex linkages among the stakeholders, including across the two groups, the
 571 final policy package must have been the result of political negotiations. To assess the relative success
 572 of each group, it is necessary to identify the elements included or excluded from the decree approved
 573 in 1996¹¹. Table 6 provides an overview of the policy outcome.

574 Pronaf established specific funding for raising farm incomes (goal 1), raising productivity (goal
 575 2), stimulating the adoption of new technologies (goal 3), and aiding profit-oriented farmers (target 1),
 576 given that all actors (apart from the MST) agreed on these elements. The decree establishing Pronaf
 577 states that the actions of the programme are oriented towards ‘increasing the productive capacity [of the
 578 farms] and opening up new employment and income opportunities’, as well as ‘providing improvement
 579 of technologies [...] with a view to increasing the productivity of agricultural labour’ (article 2).

580 The financial sustainability of the programme (instrument 1) was not enforced, as credit was pro-
 581 vided at a fixed interest rate (Bianchini, 2015). Evidently, Pronaf was created with a primary focus on
 582 family businesses (target 2), and the funds targeted specific productions (target 3) rather than offering
 583 single farm payments. Although the decision to support a specific category of producers managed to
 584 prevail (interest rates, payment deadlines and administrative procedures were targeted at family farms),
 585 the measures also targeted specific crops or breeding (Chaddad and Jank, 2006). Thus, although Pronaf
 586 represented an agricultural support program targeted at family farms (differently from the SNCR), it
 587 maintained an operating logic similar to the SNCR by targeting specific productions, in as much as it
 588 adopted a sectorial perspective, i.e. by product and not by farm (Grisa et al., 2014).

589 Interventions on land ownership (instrument 3) were not secured, given that this issue was under
 590 the jurisdiction of other programmes¹². The decision to support primarily small farms (target 4), as well
 591 as the establishment of local producer groups (institution 2), are related to the emphasis on family farms.
 592 Their introduction within Pronaf is illustrative of the ‘defeat’ of the productivity-focused group. Many
 593 stakeholders supported the development of an integrated system tying research to family farming (in-
 594 strument 6), while some (i.e., family farm organizations and the FAO) were in favour of organizing
 595 farmer training activities (instrument 7). Thus, the decree establishing Pronaf had the stated goal of
 596 favouring research activities, diffusing agricultural innovation and knowledge, and ‘stimulat[ing] and

¹¹ Pronaf was established by the 1946 Decree of the President of the Republic of June 28th, 1996.

¹² Pronaf does not intervene in the subject of land ownership. This issue was handled by the National Institute of Agrarian Reform (*Instituto Nacional de Colonização e Reforma Agrária*, INCRA) with the creation of dedicated rural settlements and the ‘market-assisted land reform’ (Heredia et al., 2013; Mendes Pereira, 2007).

597 enhanc[ing] the development of experiences for family farmers and their representative organizations
 598 in the areas of education, training, research and production’ (article 2).

599 Pronaf introduced rural advisory services (institution 1) for the first time in Brazil. These institu-
 600 tions were organized into local (County Councils for Rural Development, *Conselhos Municipais de*
 601 *Desenvolvimento Rural*), state (State Council for Pronaf, *Conselho Estadual do Pronaf*), and federal
 602 boards (National Council for Pronaf, *Conselho Nacional do Pronaf*), with the participation of civil so-
 603 ciety organizations and public servants. These services aimed to serve as channels for community par-
 604 ticipation in the identification of priorities and the coordination of technical actions to promote the de-
 605 velopment of the rural environment (Ferreira and Cardoso, 2004; Vaz de Moura, 2007).

606 The role of the public sector emerged clearly. Indeed, the decree created public banks (institution
 607 3), and public subsidies were preferred to private loans (instrument 8). Furthermore, the preferential
 608 support for export crops that had characterized Brazilian agricultural policy during the 60s, 70s and 80s,
 609 was not included in Pronaf in order to stimulate family farm production (which involves self-consump-
 610 tion and a focus on domestic markets). Nevertheless, this principle was maintained in the SNCR. Fi-
 611 nally, three of the instruments identified at the start were not mentioned in the discussion, and, therefore,
 612 were not included in the law: tax concessions for agricultural producers (instrument 2), norms to reduce
 613 the power of informal intermediaries (instrument 4), and monitoring schemes to avoid the misuse of
 614 public funds (instrument 5). While anti-corruption measures and policy evaluation tools were (almost)
 615 never mentioned by the actors considered, the introduction of tax concessions was supported by mem-
 616 bers of the productivity-focused group. Interestingly, the PT, the least conflicting actor in the network,
 617 never mentioned these instruments.

618
 619 Table 6. Final policy outcome: topics included (green), excluded (red), or not discussed (white).

Statement	Inclusion
Goal 1: increasing farm incomes/salaries	
Goal 2: increasing productivity	
Goal 3: stimulating technological innovation	
Target 1: profit-oriented farmers	
Target 2: family farmers	
Target 3: specific productions	
Target 4: small farmers	
Target 5: export productions	
Instrument 1: financial sustainability	
Instrument 2: tax concessions	
Instrument 3: fair access to land	
Instrument 4: reduce power of intermediaries	
Instrument 5: monitoring	
Instrument 6: linking farms and researchers	
Instrument 7: farmers’ training	
Instrument 8: public subsidies	
Institution 1: rural advisory services	
Institution 2: producer cooperatives	
Institution 3: State agricultural banks	

620
 621 The final shape of Pronaf was, thus, the outcome of negotiations between two groups diverging
 622 on several issues. The conformation of the groups is based on the polarization of Brazilian society that
 623 stems from the dualism between large-scale landowners (the CNA, ABAG and the SRB) and small
 624 producers (CONTAG, CUT and the MST) (Paulino, 2014). This cleavage was strengthened by a split
 625 in the alignment of Brazilian political parties, and by dissenting views between social movements –
 626 which were able to keep their autonomy with respect to political parties – and other organizations. In
 627 1995, during the government of Cardoso (PSDB), most of the parties with senators belonging to the
 628 *Bancada Ruralista* (the PP, the PFL, the PMDB, the PRN, and the PTB) were part of the ruling majority
 629 (Vigna, 2007). Therefore, their conflict with the productivity-focused group may have been due to con-
 630 tingent political strategies rather than enduring diverging interests. This was the case with the PP and
 631 the PMDB, who were close to the agri-business.

632 Contrarily, the PT and the PDT expressed more affinity to the FAO's proposals and the associa-
633 tions supporting family farmers (although they adopted a non-conflicting stance on most issues). Over-
634 all, only one of the positions of the PT (the need for an agrarian reform) was not reflected in Pronaf.
635 The options favoured by both the welfare-focused group and the PT were approved without the need for
636 the latter to enter into an open conflict with the productivity-focused group.

637 We can thus conclude that the welfare-focused group managed to shape Pronaf in line with its
638 political positions, although some of the issues backed by its members were not included in the final
639 policy package, probably due to a political agreement between the PT and the influential centre-right
640 parties or to the strong opposition from the productivity-focused group. In any case, the mobilization
641 of the social movements representing family farmers (mainly in the framework of the Brazilian Land's
642 Cry) was key to the approval of Pronaf, as it gave them visibility and allowed them to enter the public
643 agenda (Bianchini, 2015; Grisa, 2014; Moruzzi Marques, 2004; Picolotto, 2011; Schneider et al., 2004).

645 **Conclusions**

646 The analysis of competing coalitions in political debates is becoming increasingly popular in policy
647 studies. However, empirical findings concerning agricultural policies are lacking. Our study aimed at
648 filling this gap by focusing on the Brazilian National Program for Strengthening Family Agriculture
649 (Pronaf), created to provide support to family farmers at favourable rates (Petrini et al., 2016). Since
650 the latter half of the 90s, Pronaf has been the main Brazilian public policy for family farmers in terms
651 of resources available and population coverage (Bianchini, 2015; Grisa et al., 2014; Grisa and Schnei-
652 der, 2014). We analysed the relationships that emerged in the discourse among the several actors in-
653 volved in this process, as well as the actors' positions on potential changes in Brazilian agricultural
654 policy. A prominent role was played by international organizations (the World Bank and the FAO), as
655 is often the case in developing and emerging countries where structural reforms are shaped on their
656 guidelines (Dixon et al., 2004). The conflict between a few large farm businesses and a multitude of
657 small family farms, particularly significant in Brazil, was a matter of debate for the above international
658 institutions, who were interested in promoting their own visions of Brazilian agriculture. Their partially
659 contrasting visions were in turn used by Brazilian parties, unions and business associations to legitimize
660 their positions on specific issues.

661 The brokerage role played by the PT during the negotiation of Pronaf deserves specific focus. In
662 2002, this party, represented by Lula, managed to win the presidential elections, courtesy of a broad
663 alliance that included both centre and right-wing political parties (Sauer and Meszaros, 2017, 397).
664 Despite the connections of the PT with social movements, this alliance was possible because its pro-
665 gramme lacked elements likely to generate harsh contrast with right-wing forces, such as a redistributive
666 agrarian reform or 'a programme of reforms to place peasant and family farming firmly at the centre of
667 a sustainable and egalitarian model of agricultural development' (Vergara-Camus and Kay, 2017, p.
668 433). The PT expanded the programmes for supporting the rural poor without attempting to undermine
669 the power of the rural *élite*. Our analysis shows that this conciliating attitude could already be observed
670 in the mid-90s.

671 One of the limitations of this study lies in the small number of declarations reviewed to extract
672 the statements of the considered actors. Given that Pronaf was created in 1996, a time when press and
673 institutional documents were rarely digitalized, the documents available were limited. For this reason,
674 we assumed that a given person followed the guidelines of his or her affiliated organization (e.g., a
675 political party, a union, a business association) and thus represented the organization's position. The
676 validity of our choice is confirmed by the fact that we found no discordant opinions in the few cases in
677 which we had multiple individual declarations for a given organization. Another related limitation was
678 the inability to attribute weights to the actors. We decided to consider all stakeholders to be *on par* with
679 each other due to our focus on the political debate prior to the establishment of Pronaf. As all stake-
680 holders had the opportunity to express their own views on the issues identified, no clear power relations
681 could be mapped.

682 Although Pronaf has evolved and continues to do so since the 90s, we focus on the years of its
683 creation. A longitudinal study would allow for a better understanding of how changes in the political
684 discourse have been reflected in the programme since then, especially after the PT came into power in

685 2003. For example, rather than observing a progressive inclination to more radical stances presented by
686 social movements like the MST, what has been noticed instead is a gradual abandonment of the provi-
687 sions of Pronaf, culminating in the abolition of the Ministry of Agrarian Development after the impeach-
688 ment of Dilma Rousseff in 2016. Further research could thus analyse the evolution of Pronaf along the
689 years, with a focus on the changes introduced by the PT's government. This would allow for an assess-
690 ment of whether there was any real attempt to pursue the goals of the organisations belonging to the
691 welfare-focused group (the MST, CUT, and CONTAG) or whether the PT gradually dismissed their
692 requests.

693
694

695 **References**

- 696 Abramovay, R.; Veiga, J. E., 1999. *Novas instituições para o desenvolvimento rural: o caso do*
697 *Programa Nacional de Fortalecimento da Agricultura Familiar (PRONAF)*. Texto para
698 discussão, n. 641. Brasília: FIPE / IPEA.
- 699 Aksoy, M. A., Beghin, J. C., 2005. *Global Agricultural Trade and Developing Countries*. Washington,
700 DC: The World Bank.
- 701 Barcelos, E. A. S., Berriel, M. C., 2009. *Práticas institucionais e grupos de interesse: a geofricidade*
702 *da Bancada Ruralista e as estratégias hegemônicas no parlamento brasileiro*. XIX Encontro
703 Nacional de Geografia Agrária, São Paulo.
- 704 Bianchini, V. 2015. *Vinte anos do PRONAF, 1995-2015. Avanços e desafios*. Brasília: SAF/MDA.
- 705 Bianchini, V., 2018. *Pronaf safra 2017/2018 de julho a fevereiro*. FAO - Comunicação e Informação,
706 228, 3-4.
- 707 Bittencourt, G., Magalhães, R., Abramovay, R., 2005. Informação de crédito: um meio para ampliar o
708 acesso dos mais pobres ao sistema financeiro. *Pesquisa & Debate* 16(2), 203-248.
- 709 Borgatti, S. P., Everett, M. G., Freeman, L. C., 2002. *Ucinet for Windows: Software for Social Network*
710 *Analysis*. Harvard, MA: Analytic Technologies.
- 711 Braga, M. D. S. S., Bourdoukan, A., 2010. Partidos políticos no Brasil: organização partidária, com-
712 petição eleitoral e financiamento público. *Perspectivas* 35, 117-148.
- 713 Brazil, Federal Senate, 2017. *Atividade Legislativa. Pronunciamentos*. Available online at:
714 <http://www25.senado.leg.br/web/atividade/pronunciamentos> [accessed on 20 May 2017].
- 715 Brazil, Presidency of the Republic, 1996. *Decreto Lei nº 1946 de 28 de junho 1996. Cria o Programa*
716 *Nacional de Fortalecimento da Agricultura Familiar – PRONAF, e dá outras providências*.
717 Diário Oficial da União – Seção 1 – 1/7/1996, Página 11854.
- 718 Braverman A., Guasch J. L., 1986. Rural Credit Markets and Institutions in Developing Countries:
719 Lessons for Policy Analysis from Practice and Modern Theory. *World Development* 14(10/11),
720 1253-1267.
- 721 Brugger, H., 2016. *The German Energy transition at the local level – A Discourse Network Analysis*
722 *for identifying fostering and hindering discourse patterns and network structures*. Research Pa-
723 per Submitted to the Berlin Conference 2016 Department of Politics and Public Administration,
724 University of Konstanz, Germany.
- 725 Búrigo, F. L., Capellesso, A. J., Cazella, A. A., 2015. A. Evolução do Pronaf crédito no período 1996-
726 2013: redimensionando o acesso pelos cadastros de pessoa física. In: *Anais do 53 Congresso da*
727 *Sociedade Brasileira de Economia, Administração e Sociologia Rural*. João Pessoa..
- 728 Castro, E., 2010. Políticas de Ordenamento territorial, desmatamento e dinâmicas de fronteira. In:
729 Delgado, N. G. (Ed.), *Brasil rural em debate: coletânea de artigos*. Brasília (DF):
730 CONDRAF/NEAD, pp. 271-304.

- 731 Central Bank of Brazil, 2018. *Matriz de dados do crédito rural*. Available online at:
732 <http://www.bcb.gov.br/pt-br/#!/c/micrrural/> [accessed on 29 April 2018].
- 733 Chaddad, F. R., Jank, M. S., 2006. The Evolution of Agricultural Policies and Agribusiness Develop-
734 ment in Brazil. *Choices* 21(2), 85-90.
- 735 Copetti, L. D., 2008. *Fatores que dificultam o acesso dos agricultores familiares às políticas de crédito*
736 *rural: o caso do Pronaf-Crédito no município de Alegria-RS*. Master Thesis Rural Development
737 Graduate Program, Federal University of Rio Grande do Sul. Porto Alegre.
- 738 Couto, C. G., Abrucio, F., 2003. O segundo governo FHC: coalizões, agendas e instituições. *Tempo*
739 *social* 15(2), 269-301.
- 740 De Souza, P. M. Ponciano, N. J., Ney, M. G., Fornazier A., 2013. Análise da Evolução do Valor dos
741 Financiamentos do Pronaf-Crédito (1999 a 2010): número, valor médio e localização geográfica
742 dos contratos. *Revista de Economia e Sociologia Rural* 51(2), 237-254.
- 743 De Souza Filho, H. M., Young, T. Burton, M. P., 1999. Factors Influencing the Adoption of Sustainable
744 Agricultural Technologies: Evidence from the State of Espírito Santo, Brazil. *Technological*
745 *Forecasting and Social Change* 60(2), 97-112.
- 746 Delgado, G. C., 2004. *O setor de subsistência na economia e na sociedade brasileira: gênese histórica,*
747 *reprodução e configuração contemporânea*. Texto para Discussão n. 1025. Brasília:
748 IPEA. Delgado, G. C., 2012. *Do capital financeiro na agricultura à economia do agronegócio:*
749 *mudanças cíclicas em meio século (1965-2012)*. Porto Alegre: Ed. UFRGS.
- 750 Delgado, N. G., 2001. Política econômica, ajuste externo e agricultura. In: S. Leite (Ed.), *Políticas*
751 *públicas e agricultura no Brasil*. Porto Alegre (RS), Editora da UFRGS, pp. 15-52.
- 752 Delgado, N. G., 2010. O papel do rural no desenvolvimento nacional: da modernização conservadora
753 dos anos 1970 ao Governo Lula. In: Delgado, N. G. (Ed.), *Brasil rural em debate: coletânea de*
754 *artigos*. Brasília (DF): CONDRAF/NEAD, pp. 28-78.
- 755 Dethier, J.-J., Effenberger, A., 2012. Agriculture and development: A brief review of the literature.
756 *Economic Systems* 36(2), 175-205.
- 757 Diaz Osorio, J., 2007. *Family Farm Agriculture: Factors Limiting its Competitiveness and Policy Sugges-*
758 *tions*. OECD Review of agricultural policy in Chile. University of Talca, Chile.
- 759 Dixon, J., Taniguchi, K., Wattenbach, H., Tanyeri-Arbur, A., 2004. *Smallholders, globalization and*
760 *policy analysis*. AGSF Occasional Paper 5. Rome: Agricultural Management, Marketing and Fi-
761 nance Service (AGSF), Agricultural Support Systems Division, Food and Agriculture organiza-
762 tion of the United Nations.
- 763 Ellis, F., 1992. *Agricultural Policies in Developing Countries*. New York: Cambridge University Press.
- 764 Evenson, R. E., 2001. Economic impacts of agricultural research and extension. In: B. L. Gardner, G.
765 C. Rausser (Eds.), *Handbook of Agricultural Economics*, Volume 1, Part A. Elsevier, pp. 573-
766 628.
- 767 Favareto, A., 2007. *Paradigmas do desenvolvimento rural em questão*. São Paulo: Iglu/Fapesp.
- 768 Ferreira, J. A., Cardoso, J. L., 2004. Papel do conselho municipal de desenvolvimento rural: a
769 experiência de Espírito Santo do Pinhal, Estado de São Paulo. *Informações Econômicas* 34(1),
770 18-27.
- 771 Feder, G., Birner, R., Anderson, J. R., 2011. The private sector's role in agricultural extension systems:
772 potential and limitations. *Journal of Agribusiness in Developing and Emerging Economies* 1(1),
773 31-54.
- 774 Fisher, D. R., Leifeld, P., Iwaki, Y., 2013. Mapping the ideological networks of American climate pol-
775 itics. *Climatic Change* 116(3), 523-45.
- 776 Fischer, M., Ingold, K., Ivanova, S., 2017. Information exchange under uncertainty: The case of uncon-
777 ventional gas development in the United Kingdom. *Land Use Policy* 67, 200-211.

- 778 Flexor, G., Grisa, C., 2014. The Institutionalization of Family Farming Policy in Brazil: Ideas, Institu-
779 tions and Actors. In: M. Rocha Lukic, C. Tomazini (Eds.), *Analyzing Public Policies in Latin*
780 *America: A Cognitive Approach*. Newcastle upon Tyne, Cambridge Scholars Publishing, pp. 63-
781 82.
- 782 Flexor, G., Grisa, C., 2016. Contention, ideas, and rules: the institutionalization of family farm policy
783 in Brazil. *Canadian Journal of Latin American and Caribbean Studies* 41(1), 1-15.
- 784 Food and Agriculture Organization of the United Nations-FAO, 2001. *Reform and Decentralization of*
785 *Agricultural Services: A Policy Framework*. FAO Agricultural Policy and Economic Develop-
786 ment Series No. 7. Rome: FAO.
- 787 Food and Agriculture Organization of the United Nations-FAO, 2014. *The state of food and agriculture*
788 *2014: Innovation in family farming*. Rome: FAO
- 789 Food and Agriculture Organization of the United Nations-FAO, 2017. *FaoStat Data*. Available online
790 at: <http://www.fao.org/faostat/en/#data> [accessed on 30 July 2017].
- 791 Fuglie, K. O., Wang, S. L., Ball, V. E., 2012. *Productivity growth in agriculture: an international per-*
792 *spective*. UK: CABI.
- 793 Gagliardi, F., 2008. Institutions and economic change: A critical survey of the new institutional ap-
794 proaches and empirical evidence. *The Journal of Socio-Economics* 37, 416-443.
- 795 Garcias, M. O., Kassouf, A. L., 2016. Assessment of rural credit impact on land and labor productivity
796 for Brazilian family farmers. *Nova Economia* 26(3), 721-746.
- 797 Garner, E., de la O Campos, A. P., 2014. *Identifying the “family farm”: an informal discussion of the*
798 *concepts and definitions*. ESA Working Paper No. 14-10. FAO: Rome.
- 799 Gasques, J. C., Bastos, E. T., Valdes, C., Bacchi, M. R. P., 2012. Produtividade da agricultura brasileira
800 e os efeitos de algumas políticas. *Revista de Política Agrícola* 21(3), 83-92.
- 801 Gazolla, M., Schneider, S., 2013. Qual ‘fortalecimento’ da agricultura familiar? Uma análise do Pronaf
802 crédito de custeio e investimento no Rio Grande do Sul. *Revista de Economia e Sociologia Rural*
803 51(1), 45-68.
- 804 Gonçalves Neto, W., 1997. *Estado e agricultura no Brasil: política agrícola e modernização econômica*
805 *brasileira, 1960-1980*. São Paulo (SP): Hucitec.
- 806 Graeub, B. E., Chappell, M. J., Wittman, H., Ledermann, S., Bezner Kerr, R., Gemmill-Herren, B.,
807 2016. The State of Family Farms in the World. *World Development* 87, 1-15.
- 808 Graziano da Silva, J., 2003. *Agricultura familiar e tecnologia*. Porto Alegre: Editora da UFRGS.
- 809 Grisa, C., 2012. Políticas públicas para a agricultura familiar no Brasil: produção e institucionalização
810 das ideias. PhD Thesis Social Sciences Graduate Program – Development, Agriculture and So-
811 ciety, Federal Rural University of Rio de Janeiro. Rio de Janeiro.
- 812 Grisa, C., Schneider, S., 2014. Três gerações de políticas públicas para a agricultura familiar e formas
813 de interação entre sociedade e Estado no Brasil. *Revista de Economia e Sociologia Rural* 52(1),
814 125-146.
- 815 Grisa, C., Wesz Jr, V. J., Buchweitz, V. D., 2014. Revisitando o Pronaf: velhos questionamentos, novas
816 interpretações. *Revista de Economia e Sociologia Rural* 52(2), 323-346.
- 817 Grito da Terra Brasil, 1994. *Pauta nacional de reivindicações*. Brasília (DF): CUT/DNTR, CONTAG,
818 MST, MAB, MONAPE, CNS, CAPOIB.
- 819 Guanziroli, C. E., 1995. *Diretrizes de política agrária e de desenvolvimento sustentável, Relatório final*
820 *do projeto UTF/BRA/036*. Brasília: FAO/INCRA.
- 821 Guanziroli, C. E., 2001. *Agricultura familiar e reforma agrária no século XXI*. Rio de Janeiro:
822 Garamond.
- 823 Guanziroli, C. E., Buainain, A. M., Di Sabbato, A., 2012. Dez anos de evolução da agricultura familiar
824 no Brasil: (1996 e 2006). *Revista de Economia e Sociologia Rural* 50(2), 351-370.

- 825 Gunes, E., Movassaghi, H., 2017. Comparative Analysis of Agricultural Credit System and Organiza-
826 tion in Selected Countries. *International Journal of Applied Agricultural Sciences* 3(5), 123-135.
- 827 Guyomard, H., Le Mouël, C., Gohin, A., 2004. Impacts of alternative agricultural income support
828 schemes on multiple policy goals. *European Review of Agricultural Economics* 31(2), 125-148.
- 829 Hajer, M. A., 1993. Discourse coalitions and the institutionalization of practice: The case of acid rain
830 in Britain. In: F. Fischer, J. Forester (Eds.), *The argumentative turn in policy analysis and plan-*
831 *ning*. Durham, NC, Duke University Press, pp. 43-76.
- 832 Hazell, P., Poulton, C., Wiggins, S., Dorward, A., 2007. *The Future of small farms for poverty reduction*
833 *and growth*. International Food Policy Research Institute (IFPRI) 2020 Discussion Paper No. 42.
834 Washington D.C.: IFPRI.
- 835
- 836 Heredia, B. M. A., Palmeira, M., Leite, S. P., 2010. Sociedade e Economia do Agronegócio. *Revista*
837 *Brasileira de Ciências Sociais* 25(74), 159-76.
- 838 Heredia, B., Medeiros, L., Palmeira, M., Cintrão, R., Leite, S. P., 2013. Análise dos impactos regionais
839 da reforma agrária no Brasil. *Estudos Sociedade e Agricultura* 18(1), 73-111.
- 840 Helfand, S. M., 2001. The distribution of subsidized agricultural credit in Brazil: Do interest groups
841 matter? *Development and Change* 32, 465-490.
- 842 Helfand, S. M., de Rezende, G. C., 2004. The impact of sector-specific and economy-wide policy re-
843 forms on the agricultural sector in Brazil: 1980-98. *Contemporary Economic Policy* 22(2), 194-
844 212.
- 845 Kumar, A., 2005. *Access to Financial Services in Brazil*. Washington D. C.: World Bank.
- 846 Leifeld, P., 2009. Die Untersuchung von Diskursnetzwerken mit dem Discourse Network Analyzer
847 (DNA). In: V. Schneider, F. Janning, P. Leifeld, Th. Malang (Eds.), *Politiknetzwerke. Modelle,*
848 *Anwendungen und Visualisierungen*. Wiesbaden, VS Verlag, pp. 391-404.
- 849 Leifeld, P., 2010. Software. Discourse Network Analyzer (DNA). Available online at:
850 <http://www.philipleifeld.com/software/software.html> [accessed on 10 June 2017].
- 851 Leifeld, P., 2012. *Discourse Network Analyzer (DNA)*. Bonn: Max Planck Institute for Research on
852 Collective Goods.
- 853 Leifeld, P., 2013. Reconceptualizing Major Policy Change in the Advocacy Coalition Framework: A
854 Discourse Network Analysis of German Pension Politics. *Policy Studies Journal* 41(1), 169-198.
- 855 Liefeld, P., Haunss, S., 2012. Political discourse networks and the conflict over software patents in
856 Europe. *European Journal of Political Research* 51(3), 382-409.
- 857 Leite, S. P., 2001. Análise do financiamento da política de crédito rural no Brasil (1980-1996). *Estudos*
858 *Sociedade e Agricultura* 16, 129-63.
- 859 Leite, S. P., 2015. Politiques publiques et agribusiness: Une analyse de la politique de financement
860 agricole actuelle du Brésil. *Géographie Économie Société* 17(4), 433-458.
- 861 Leite, S. P., Wesz Jr., V. J., 2014. Estado, políticas públicas e agronegócio no Brasil: revisitando o papel
862 do crédito rural. *Revista Pós Ciências Sociais* 11(22), 83-108.
- 863 Markelova, H., Meinzen-Dick, R., Hellin, J., Dohrn, S., 2009. Collective action for smallholder market
864 access. *Food Policy* 34, 1-7.
- 865 Mattei, L., 2006. *PRONAF 10 anos: mapa da produção acadêmica*. Brasília: MDA.
- 866 Mattei, L., 2010. Análise da produção acadêmica sobre o Programa Nacional de Fortalecimento da
867 Agricultura Familiar (PRONAF) entre 1996 e 2006. *Estudos Sociedade e Agricultura* 18(1), 56-
868 97.
- 869 Mattei, L., 2012. A reforma agrária brasileira: evolução do número de famílias assentadas no período
870 pós-redemocratização do país. *Estudos Sociedade e Agricultura* 20(1), 301-325.

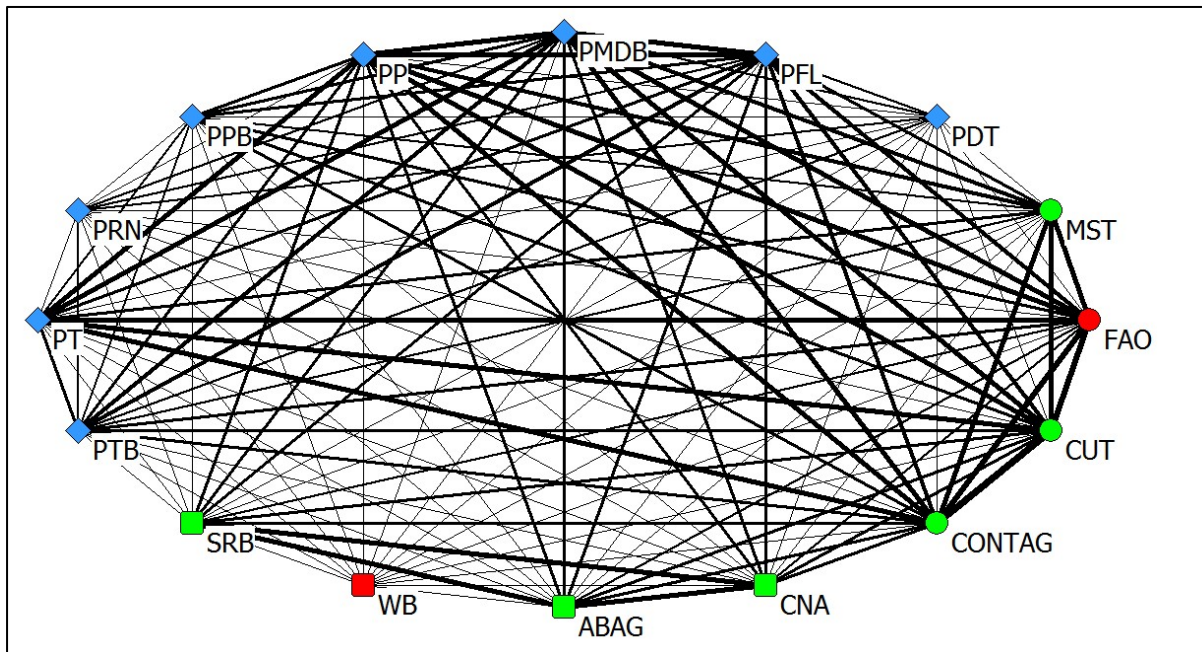
- 871 McMahon, M., 2012. Latin America: Public agricultural advisory services. In: OECD (Ed.), *Improving*
872 *Agricultural Knowledge and Innovation Systems*. OECD Conference Proceedings. doi:
873 10.1787/9789264167445
- 874 Medeiros, L. S., 2001. Sem terra, assentados, agricultores familiares: considerações sobre os conflitos
875 sociais e as formas de organização dos trabalhadores rurais brasileiros. In: Giarracca, N. (Org.).
876 *¿Una nueva ruralidad en América Latina?* Buenos Aires: Clacso, 2001, p. 103-128.
- 877 Mendes Pereira, J. M., 2007. The World Bank's 'Market-Assisted' Land Reform as a Political Issue:
878 Evidence from Brazil (1997-2006). *European Review of Latin American and Caribbean Studies*
879 82, 21-49.
- 880 Meyer, R. L., 2011. *Subsidies as an Instrument in Agricultural Development Finance: Review*. Joint
881 Discussion Paper of the Joint Donor CABFIN Initiative. Washington D.C.: World Bank.
- 882 Moruzzi Marques, P. E., 2004. *Concepções concorrentes em torno das políticas públicas de apoio à*
883 *agricultura familiar: uma releitura sobre a construção do PRONAF*. In: Anais do XLII Congresso
884 Brasileiro de Economia e Sociologia Rural. Cuiabá/MT.
- 885 Niederle, P. A. et al. 2017. *Narrative disputes on family farming public policies in Brazil: conservative*
886 *attacks and restricted countermovements*. The 5th International Conference of the BRICS Ini-
887 tiative for Critical Agrarian Studies. Moscow, Russia.
- 888 Norder, L. A., 2014. Políticas agrárias e diversidade socioambiental. *Revista Brasileira de Gestão e*
889 *Desenvolvimento Regional* 10(2), 317-337.
- 890 Organisation for Economic Co-operation and Development-OECD, 2017. *Agricultural Policy Monitor-*
891 *ing and Evaluation 2017*. Paris: OECD Publishing. http://dx.doi.org/10.1787/agr_pol-2017-en
- 892 Organisation for Economic Co-operation and Development-OECD, 2018. *Agricultural support (indi-*
893 *cator)*. doi:10.1787/6ea85c58-en [accessed on 23 January 2018].
- 894 Ondetti, G., 2016. The social function of property, land rights and social welfare in Brazil. *Land Use*
895 *Policy* 50, 29-37.
- 896 Paarlberg, R., 2013. *Food politics: What everyone needs to know*. New York: Oxford University Press.
- 897 Paulino, E. T., 2014. The agricultural, environmental and socio-political repercussions of Brazil's land
898 governance system. *Land Use Policy* 36, 134-144.
- 899 Petrini, M. A., Rocha, J. V., Brown, J. C., Bispo, R. C., 2016. Using an analytic hierarchy process
900 approach to prioritize public policies addressing family farming in Brazil. *Land Use Policy*, 51,
901 85-94.
- 902 Picolotto, E. L., 2011. *As mãos que alimentam a nação: agricultura familiar, sindicalismo e política*.
903 PhD Thesis Social Sciences Graduate Program – Development, Agriculture and Society, Federal
904 Rural University of Rio de Janeiro. Rio de Janeiro.
- 905 Picolotto, E. L., 2014. Os atores da construção da categoria agricultura familiar no Brasil. *Revista de*
906 *Economia e Sociologia Rural* 52 (1), 63-84.
- 907 Prell, C., 2012. *Social Network Analysis. History, theory and methodology*. Los Angeles: SAGE. Pretty,
908 J., Sutherland, W. J., Ashby, J., (...), Wilson, J., Pilgrim, S., 2010. The top 100 questions of im-
909 portance to the future of global agriculture. *International Journal of Agricultural Sustainability*
910 8(4), 219-236.
- 911 Queiroz, M. I. P., 2009. Uma categoria rural esquecida. In: Welch, C. et al. (Org.). *Camponeses*
912 *brasileiros: leituras e interpretações clássicas*. São Paulo: Ed. UNESP.
- 913 Resende, C. M., Martins Mafra, R. L., 2016. Desenvolvimento Rural e Reconhecimento: tensões e
914 dilemas envolvendo o Pronaf. *Revista de Economia e Sociologia Rural* 54(2), 261-280.
- 915 Rivera, W. M., Sulaiman, V. R., 2009. Extension: Object of reform, engine for innovation. *Outlook*
916 *on Agriculture* 38(3), 267-273.

- 917 Sabatier, P. A., 1988. An advocacy coalition framework of policy change and the role of policy-oriented
918 learning therein. *Policy Sciences* 21(2), 129-168.
- 919 Sabatier, P. A., Jenkins-Smith, H. C., 1993. *Policy change and learning: An advocacy coalition ap-*
920 *proach*. Boulder, CO: Westview Press.
- 921 Sabatier, P. A., Weible, C. M., 2007. The advocacy coalition framework. In Sabatier P. A. (Ed.), *The-*
922 *ories of the policy process*. Boulder, CO: Westview Press.
- 923 Sanches Peraci, A., 2011. *Family Agriculture Conceptual Evolution, Challenges and Institutional*
924 *Framework*. V Working Group Meeting (GT2025), Hunger Free Latin America and the Carib-
925 bean 2025. Rome: FAO.
- 926 Santos, F. P., 2011. *Coalizões de interesses e a configuração política da agricultura familiar no Brasil*.
927 PhD Thesis (Doutorado em Administração Pública e Governo) – Escola de Administração de
928 Empresas de São Paulo (FGV-SP). São Paulo (SP).
- 929 Sauer, S., 2008. *Agricultura familiar versus agronegócio: a dinâmica sociopolítica do campo*
930 *brasileiro*. Brasília: Embrapa.
- 931 Sauer, S., Mészáros, G., 2017. The political economy of land struggle in Brazil under Workers' Party
932 governments. *Journal of Agrarian Change* 17(2), 397-414.
- 933 Schiff, M., Valdes, A., 1992. *The political economy of agricultural pricing policy: volume 4 - a synthe-*
934 *sis of the economics in developing countries. A World Bank comparative study*. Baltimore, MD:
935 The Johns Hopkins University Press.
- 936 Schmidt, V. A., 2008. Discursive Institutionalism: The Explanatory Power of Ideas and Discourse. *An-*
937 *ual Review of Political Science* 11, 303-326.
- 938 Schmidt, V. A., Radaelli, C. M., 2004. Policy change and discourse in Europe: Conceptual and meth-
939 odological issues. *West European Politics* 27(2), 183-210.
- 940 Schneider, S., Cazella, A., Mattei, L., 2004. Histórico, caracterização e dinâmica recente do Pronaf-
941 Programa Nacional de Fortalecimento da Agricultura Familiar. In: Schneider, S., Silva M. K.,
942 Marques, P. E. M. (Eds.), *Políticas públicas e participação social no Brasil rural*. Porto Alegre
943 (RS): Editora da UFRGS, pp. 21-49.
- 944 Schneider, S., 2006. *A diversidade da agricultura familiar*. Porto Alegre: Editora da UFRGS.
- 945 Schultz, C., Ahlert, A., 2016. O Pronaf como política pública de apoio à agricultura familiar: um estudo
946 de caso do município de Maripá – PR. *Ciências Sociais Aplicadas em Revista* 16(30), 77-94.
- 947 Simionatto, I., Rodrigues Costa, C., 2012. Como os dominantes dominam: o caso da bancada ruralista.
948 *Temporalis* 12(24), 215-37.
- 949 Smith, S. C., Rothbaum, J., 2013. *Cooperatives in a Global Economy: Key Economic Issues, Recent*
950 *Trends, and Potential for Development*. Institute for International Economic Policy Working Pa-
951 per Series, 2013-6.
- 952 Sumberg, J., Thompson, J., Woodhouse, P., 2012. Why agronomy in the developing world has become
953 contentious. *Agriculture and Human Values* 30 (1), 71-83.
- 954 Teixeira, J. C., 2005. Modernização da agricultura no Brasil: impactos econômicos, sociais e ambien-
955 tais. *Revista Eletrônica da Associação dos Geógrafos Brasileiros* 2(2): 21-42.
- 956 Turvey, C. G., 2013. Policy rationing in rural credit markets. *Agricultural Finance Review* 73(2), 209-
957 232.
- 958 Vaz de Moura, J. T., 2007. Os Conselhos Municipais de Desenvolvimento Rural (CMDRS) e a
959 construção democrática: esfera pública de debate entre agricultores familiares e o Estado? *Or-*
960 *ganizações Rurais & Agroindustriais* 9(2), 241-255.
- 961 Vasconcellos, M., Vasconcellos, A. M., 2012. Social movement, public policy changes and partnerships
962 building for local development. *Interações* 13(2), 243-258.

- 963 Vergara-Camus, L., Kay, C., 2017. The agrarian political economy of left-wing governments in Latin
964 America: Agribusiness, peasants, and the limits of neo-developmentalism. *Journal of Agrarian*
965 *Change* 17(2), 415-437.
- 966 Vicente, J. R., Vosti, S. A., 1995. An IEA-CATI objective survey data test at rural holding level for
967 technology adoption. *Agricultura em Sao Paulo* 42(2), 129-148.
- 968 Vieira Filho, J. E. R., da Silveira, J. M. F. J., 2012. Mudança Tecnológica na Agricultura: uma revisão
969 crítica da literatura e o papel das economias de aprendizado. *Revista de Economia e Sociologia*
970 *Rural* 50(4), 721-742.
- 971 Vigna, E., 2001. *Bancada ruralista: um grupo de interesse*. Argumento n. 8 INESC.
- 972 Vigna, E., 2007. *Bancada ruralista: maior grupo de interesse do congresso nacional*. INESC, Ano VII
973 – n. 12.
- 974 Wade, R., 2010. After the Crisis: Industrial Policy and the Developmental State in Low-Income Coun-
975 tries. *Global Policy* 1(2), 150-161.
- 976 Welch, C. A., Sauer, S., 2015. Rural unions and the struggle for land in Brazil. *Journal of Peasant*
977 *Studies* 42(6), 1109-1135.
- 978 Westercamp, C., Nouri, M., Oertel, A., 2015. *Agricultural Credit: Assessing the Use of Interest Rate*
979 *Subsidies*. Collection: A Savoir Collection n. 29: AFD Publishing.
- 980 Wesz Jr, V. J., 2010. Política pública de agroindustrialização na agricultura familiar: uma análise do
981 Pronaf-Agroindústria. *Revista de Economia e Sociologia Rural* 48(4), 567-596.
- 982 Wolford, W., 2005. Agrarian Moral Economies and Neoliberalism in Brazil: Competing Worldviews
983 and the State in the Struggle for Land. *Environment and Planning A: Economy and Space* 37(2),
984 241-261.
- 985 World Bank, 1994a. *Brazil: the management of agriculture, rural development and natural resources*.
986 Report n°. 11783-BR, v. I.
- 987 World Bank, 1994b. *Brazil: the management of agriculture, rural development and natural resources*.
988 Report n°. 11783-BR, v. II.
- 989 Zani, F. B., da Costa, F. L., 2014. Evaluation of programa nacional de fortalecimento da agricultura
990 familiar implementation - New perspectives of analysis. *Revista de Administração Pública* 48(4),
991 889-912.

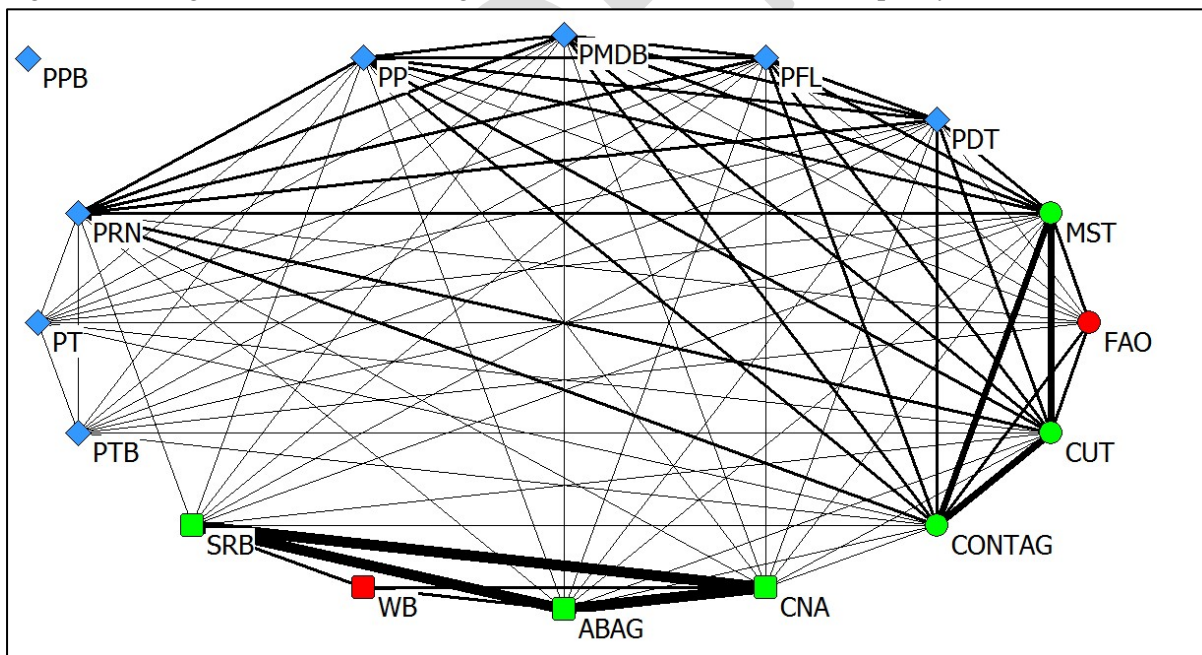
992 **Appendix**

993 Figure 1A. Congruence network: agreements of the actors involved in policy debate on Pronaf.



994
995 Note: See Note to Figure 1.

996
997 Figure 2A. Congruence network: not agreements of the actors involved in policy debate on Pronaf.



998
999 Note: See Note to Figure 1.