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Social capital and its role in sustainable dryland agricultural development case study in West Kupang subdistrict - Kupang regency

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Abstract: The Sustainable Dryland Agricultural Development (SDAD) in this study of socio-cultural aspects aims to understand: (1) the application of its main principles in the Kupang Barat sub-district, (2) to identify social elements that have the potential to become social capital in SDAD, and (3) its role in supporting PPKLB. The research that uses a qualitative approach with a case study strategy purposively selects 40% of the total number of villages as the observation object. In addition to farmers whose lands are designated as research subjects, there are also several key informants selected for in-depth interviews. Data analysis was conducted using the interactive model by Miles and Huberman. (1992). The results of this research conclude that (1) the agricultural conditions of PLKB in this area are categorized as "Advanced Agriculture," characterized by the application of SDAD principles that are quite good; (2) there are several elements within the structure that can be identified as social capital, namely: (a) social relationships within the kinship system according to the patterns regulated by the existing ethnic groups in the village; (b) community leaders; (c) land institutions; (d) farmer groups, as well as other social and economic groups; (e) patterns of cooperation and mutual assistance in various agricultural production activities for development; (3) these forms of social capital have significant potential roles and are interconnected to support SDAD programs in the West Kupang region.

Keywords: *Role, Social capital, Sustainable dryland agricultural development.*

1. Introduction

Since the introduction in the 1970s of "Sustainable Development" (Hidayat, 2007) as an alternative development model characterized by some superior principles, many development practitioners in Third World countries have begun to implement this model in various development sectors, including the agricultural sector. Likewise, in the context of agricultural development in areas dominated by dryland potential with a semi-arid climate such as in most areas of East Nusa Tenggara (NTT), the application of the *sustainable development* model in agricultural development is a wise choice. In this regard, sustainable dryland agricultural development in NTT has always been an important issue for many groups, such as development policymakers, development observers, research and development institutions, and universities.

At the level of agricultural development policy makers at the national, provincial and district levels, in the form of the 2020-2024 Agricultural Development Strategic Plan, always prioritizes the sustainable dimension in agricultural development. So at the level of theoretical aspects of the study, sustainable dryland agricultural development (SDAD), always prioritize 3 main principles, which become the benchmark for implementation and achievement, namely: (1) prioritizing the growth of creative initiatives from farming communities so that the continuity of development can be maintained; (2) the existence of adequate supporting tools or institutions to provide great opportunities for farming communities to apply environmentally sound technology; and (3) all activities are aimed at increasing the productivity and income of farming communities, without causing environmental damage, especially land and water resources.

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In all discussions of agricultural development, there is always a lack of or limited capital. In the case of SDAD in Kupang District in general and West Kupang Sub-district in particular, the problem of capital shortage in this case is not only monetary capital to finance the implementation of development but also physical capital, namely in the form of land resources for the development of dry agriculture and the physical environment is also less supportive. At the same time, the condition of existing human resources also does not provide adequate *human capital*. In this regard, attention is increasingly focused on the *social capital* that lies behind the socio-cultural diversity that exists within the development area.

Based on this description, there are at least 3 important questions that need to be addressed in this paper, namely: (1) how is the application of the principles of sustainable dryland agricultural development in West Kupang Sub-district; (2) what are the social elements contained in the social structure of the local community that can be identified as forms of social capital, and (3) what is the role of these forms of social capital in sustainable dryland agricultural development.

2. Literature Review

In this literature review section, it will be stated in the first part about the theoretical review as a conceptual reference, then continued with information on some previous research results, the basis for answering this research problem.

2.1. Sustainable Dryland Agricultural Development

Development is a process of creating changes in the conditions of society in a certain way to realize better welfare". Agricultural development is the *process of creating changes in agricultural conditions in a certain way to improve people's welfare*. The meaning of "**process**" intended here, is a series of activities carried out continuously. The series of activities in the context of development include planning, implementation and evaluation activities.

The development process is considered successful when the results of development are able to raise the welfare level of most of its citizens, which, among other things, is characterized by the fulfillment of physical needs, namely clothing, food and shelter. The measure of welfare is very relative and dynamic. The welfare indicators that apply in each community are quite varied, but to measure the progress of the welfare level of the nation's people, several indicators are usually used that are considered to be generally accepted. One of these indicators is the fulfillment of physical needs.

From the point of view of agricultural science, dry land is part of the earth's surface that is not saturated or not inundated by water, in part or all of the growing season. Agricultural land with these and other physical properties, as well as all the chemical and biological properties that exist on it, certainly requires a specific agricultural management system and is different from wetland agricultural systems in general (Abdurrahman, 2009).

The objectives of agricultural development as formulated in the objectives of the development program are to increase agricultural production that produces foodstuffs. create jobs, increase income, preserve natural resources and the environment, and so on.

For various agricultural development purposes, experts have created various agricultural development models. One of these models, which is already popular and practiced in various regions, is the sustainable agricultural development model. In the 1970s an alternative model of development emerged, called "*Sustainable Development*". According to Hidayat, the presence of this development model is basically a correction to the development models that have been used as the basis for development policies in developed countries and several developing countries. Because it turns out that the development process taken so far has had a negative impact on the environment, which according to Redclif (1987) will ultimately threaten the sustainability of development itself.

According to Salim (1991), sustainable development has several characteristics, namely (Hidayat, 2006):

1. The use of natural resources can maintain the integrity of ecosystem functions.
2. The impact of development on the environment is taken into account so that negative impacts are controlled and positive impacts are developed.

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3. Taking generations into account or seeking to achieve *transgenerational equality* so that the quality and quantity of natural resources are preserved for future generations.
4. Long-term insights because environmental changes take place over a long period of time.
5. The results of natural resource management need to take into account the depletion of natural resources due to the development process.
6. Consciously take into account the *nonmarketable component of* the environment.

Furthermore, it is argued that sustainable agricultural development does not mean having to hold back or reduce productivity and income, but in increasing productivity the accompanying negative impacts are always taken into consideration. Similarly, the skills and resilience (creative initiative) of farmers are determining factors in sustainable and environmentally sound development, so that they have the ability to maintain the continuity of development itself. In addition to this, the existence of supporting tools or institutions also plays an important role as a facility for sustainable development.

In brief, it can be stated that sustainable agricultural development contains three important aspects, namely: (1) prioritizing the growth of creative initiatives from farming communities so that the continuity of development can be maintained; (2) the existence of adequate supporting tools or institutions so as to provide great opportunities for farming communities to apply environmentally sound technology; and (3) all activities are shown to increase the productivity and income of farming communities, without causing environmental damage, especially land and water resources.

2.2. Social Capital and its Role in Development

The term *social capital* was first introduced by Pierre Bourdieu in 1970, through his paper *`Le Capital Social: Provisoires'*, and was popularized among scientists by sociologist Coleman in 1988 (Yustika, 2006; Bur, 2000; Halpern, 2005). Although the term only became popular after the Social Development Summit on March 12, 1995 in Copenhagen (Hermawanti and Rinandari, 2006), its substance as an important part of social reality is not new in the study of social sciences. In every community or social system, there are always a number of social elements among them, which from the perspective of certain development strategies can be valued as development capital. This capital is very dynamic conceptually, when compared to other types of development capital, such as physical capital and economic or financial capital, or human capital.

The definitions of social capital expressed by a number of experts in this field, such as Hermawanti and Rinandari (2006); El Mahdi ed, (2006); Yustika (2006), and Suharto (2008) vary widely from one another. The same applies to the substance and components. On the basis of this thinking, a concept is put forward as a reference for examining the problems of this research. Social capital is the *main elements of the social structure that have the potential to facilitate productive activities that benefit the lives of local people*.

In a sociological perspective, the study of roles is always related to the status or position of an individual, group, or other element in the social structure. If a person carries out his rights and obligations in accordance with his position, he carries out a role. Likewise, groups, or other elements. The existence of these elements in society can have more than one role. Role refers more to function, self-adjustment and as a process. So, a person occupies a position in society and performs a role. The role may include three things, namely:

In a broader sense, as covered in this study, role refers to what can be expected from an individual or group, or something else in connection with their existence in a social structure. From this point of view, the concept of role becomes very broad and complex. It does not only concern what behavior or actions are expected of an individual/group, but also concerns other "things" contained in the social structure, such as social values and norms, social stratification, power, honor and others.

Conceptually, roles are usually divided into: (a) expected role (ideal role), interpreted role, (c) and implemented role or actual role. It is also stated that the concept of role refers more to function (Soekanto, 1984).

From various research results, including Coleman (1994), Hermawanti and Rinandari (2006), Isnainy (2008) in different approaches and objects of study, it can be concluded that the forms of social capital are very diverse, including social values and norms, institutions, networks, social relationships, *trust*, obligations and expectations, effective norms and sanctions, information potential, authority relations, leadership, and organization, honesty, and others.

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From the implicit description of the role of social capital according to Coleman's thinking as above, it can be formulated "the role of social capital in this case is to *create ease of action, which can affect efficiency and effectiveness in a productive activity"*. As with the role of other forms of development capital, the role of social capital will be known by comparing the results obtained from the process of productive activities without social capital, or with social capital conditions that are less than needed for these activities.

According to Coleman (2006), the existence of social capital in social structures is also always evolving. Social capital can be created, maintained and developed, and can also be damaged for certain reasons. Factors that influence the creation, maintenance and destruction of social capital include the stability of the social structure, ideology, and renewal efforts.

Other factors include those that can make people less dependent on each other. In this category, Coleman mentions two important factors, namely wealth and government assistance (subsidies) in times of need.

3. Research Methods

3.1. Time and Place of Research

This research activity is planned to be carried out from February to August 2024. The research locations are four (4) villages in the West Kupang Sub-district - Kupang Regency. The villages deliberately chosen as case villages in this sub-district are those with more heterogeneous populations in terms of ethnic diversity.

3.2. Determination of Research Subjects

The subjects of this research consisted of farmers or heads of farming families (KKT). In addition, they can represent the views of each of these groups. The individuals who will be selected as research subjects also meet the criteria of knowing the social and cultural conditions, as well as those related to the SDAD...

The first subjects were determined *purposively*. Subsequent research subjects were then determined using the *snowballing* technique. To overcome technical difficulties in the field due to limited research time, *accidental sampling* was also used. Other informants who also needed information were *stakeholders of* the SDAD programs. These informants consisted of: West Kupang Sub-District Head, Field Agricultural Extension Workers (PPL) and PPL Coordinators in their working areas.

3.3. Types of Data, Collection Techniques, and Validity Tests

Primary data and secondary data, collected from research subjects and related agencies, were obtained through techniques: in-depth interviews, observations, and document studies, especially in the form of research reports, development reports and so on. The data collected includes:

a. Data on social elements that function as social capital, or are categorized as forms of social capital and their role in sustainable dryland agricultural development.
b. Data on the general socio-economic situation of agriculture,

Data validity testing was conducted using a saturated data approach (Idris, 2007).

3.4. Data Analysis

Data analysis techniques were carried out using an interactive model as proposed by Miles and Huberman (1992). This model consists of three main things, namely data reduction, data presentation, and conclusion drawing/verification. These three things are intertwined during and after data collection is carried out, so that it is an interactive cycle, as described below:

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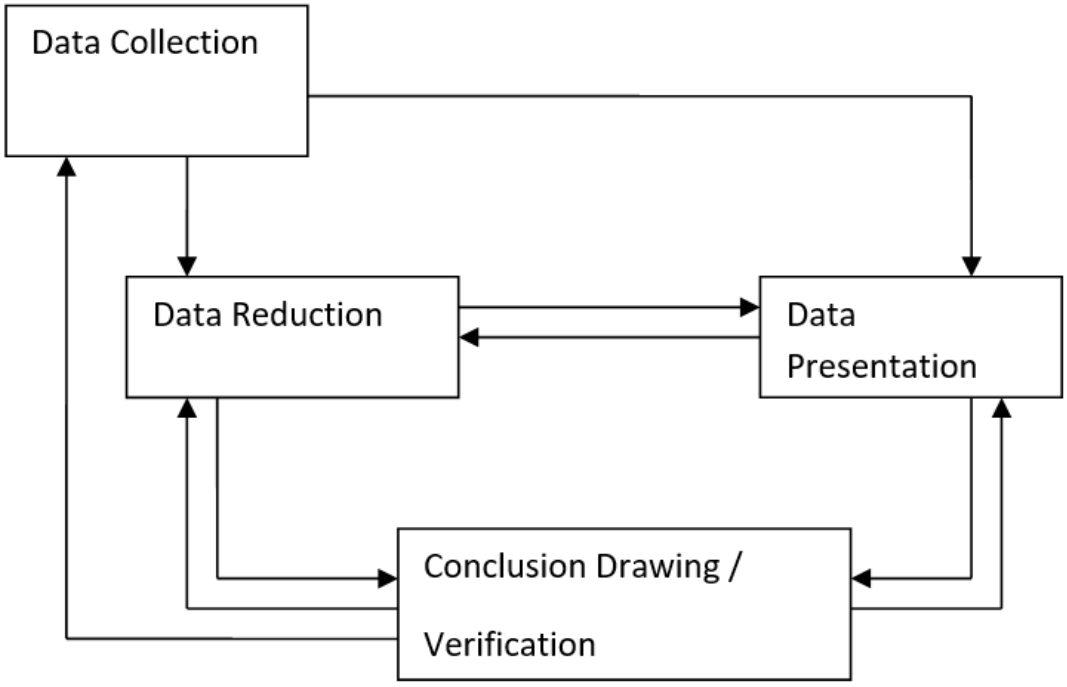

Figure 1.
Interactive data analysis model.
Source: Miles and Huberman (1992:20).

The results or findings of this research will be presented, in addition to propositions about elements in the social structure that have the potential as social capital in agricultural development, the role of each social capital in sustainable dryland agricultural development.

4. Research Results and Discussion

4.1. Implementation of the General Principles of Dryland Agricultural Development in West Kupang District - Kupang Regency

As is known, that in the Strategic Plan (Renstra) for Agricultural Development nationally in 2020 - 2024, in general, sets the direction of agricultural development that must be achieved gradually through various agricultural development programs. In the long term, the type of agriculture that will be achieved and realized through all series of agricultural development program activities, is Advanced Agriculture, Independent Agriculture, and Modern Agriculture.

The development of agricultural conditions in Kecamatan Kupang Barat today is beginning to lead to the stage of advanced agriculture**.** The type of advanced agriculture in this area is characterized by the increasing quality of agricultural human resources that are able to increase work productivity and welfare. However, several other characteristics, in terms of economic indicators, do not yet fully characterize ideal conditions. Towards the stage of Advanced Agriculture, another sign is that community participation is becoming more visible and effective in agricultural development.

The results of general observations and interviews with several key informants illustrate that the implementation and results achieved from agricultural development today are in line with the policy direction as set out in the Strategic Plan for Agricultural Development. This is indicated, among others, by the efforts of the farming community in realizing the sustainability of agricultural resources and the availability of agricultural infrastructure and facilities, increasing the added value and competitiveness of agriculture, increasing the use of agricultural technology and innovation, improving the quality of human resources and agricultural institutions.

Especially regarding the application of the three main principles in sustainable dryland agricultural development, in general, it has shown increasingly suitable conditions, namely :

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First principle. Prioritizing the growth of creative initiatives from farming communities to sustain Sustainable Dryland Agricultural Development. The results of the qualitative analysis show that:

(a) Although the farmers do not know clearly the written formulation of the purpose of each activity of the implementation of development programs in agriculture or in other fields, they are fully aware that the ultimate goal to be achieved is to raise awareness of the initiative of the community itself in order to maintain the continuity of dryland agriculture. For example, some types of agricultural production facilities assistance from the government, in the form of subsidized fertilizers, which are distributed through farmer groups in all villages, are actually temporary in the process of fostering farmers' independence.

(b) Based on the strong motivation that agriculture is an inseparable part of their way of life, inherited from their predecessors, which they must always carry out regularly in every season, so that under any and all conditions, they continue to carry it out properly.

(c) The dryland farming environment, with its unfriendly climate, appears to be a factor in shaping the character of farmers in the West Kupang region who are resilient in their farming endeavors. There is a strong willingness to increase the production of food crops and horticulture in this region, with the main objective of meeting food consumption needs. When crop failure occurs with such causal factors, of course it is still difficult to overcome with limited technological capabilities and creativity. For this reason, they took the initiative to find an alternative way out by selling their services as manual laborers in Kupang City.

The *second principle*; The realization of adequate supporting tools or institutions so as to provide great opportunities for the farming community to apply environmentally sound technology. The supporting tools or institutions referred to, are in addition to the rules and regulations made by the government, and the system of norms derived from local culture, also in the form of farmer groups.

The *third principle* is that all development program activities are aimed at increasing the productivity and income of farming communities, without causing damage to the environment, especially land and water resources. The results show that this principle has been applied evenly in almost all sample villages. Development program activities related to efforts to increase agricultural production always consider the possibility of impacts on the sustainability of land and water resources. Field management by slash-and-burn is gradually being abandoned.

4.2. Identification of Potential Social Elements as Social Capital in Sustainable Dryland Agricultural Development in West Kupang Sub-District.

Based on the analysis of field data, and supported by information from other related research, the following elements of the social structure were identified as having the potential to be social capital to support the SDAD.

4.2.1. Kingship Social Relationship

The farming community, which is spread across all villages and kelurahan in this kecamatan, is organized into various ethnic groups. In general, the ethnic groups in the research area consist of: Helong, Timor (*Atoni Pah Meto*) Rote, and Sabu. In addition, there are also a number of farming households and others, who come from other ethnicities such as Flores, Alor, Sumba, and even some from ethnicities outside NTT.

In certain villages, the majority of the community members are of a particular ethnic group, such as in Bolok Village, where the majority of the population is of Helong ethnicity. While in other villages, for example in Sunlili Village, the majority of the population is of Rote ethnicity. The same applies to other villages. The pattern of ethnic distribution is uneven.

In their daily lives, they show a pattern of internal *social relationships*, namely between fellow citizens within an ethnic group, which is very intimate, and different from external social relationships, namely relationships with citizens from other ethnic groups.

Today, the pattern of social relations is increasingly complex through intermarriage between people of different ethnicities. The offspring of families formed from different ethnicities (inter-ethnic intermarriage), are more inclined to present themselves as people who are not of a particular ethnicity.

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Such individuals prefer to introduce themselves as residents of Lifuleo Village, Nitneo Village, or other villages rather than mentioning or introducing their ethnic group.

The pattern of kinship relationships (Om - aunt, uncle - aunt, oma-opa, and the like) either within an ethnicity or between ethnicities formed in a plural society, has the potential to foster effective communication in establishing good relationships for certain purposes in the development process. For the local community, the intimacy that exists between one party and another through kinship relations is of higher value than other factors, such as business and economic relations, politics, and so on. This is because social interaction among local communities based on kinship patterns is often considered to have an impact on the harmony of the extended family (ethnic group).

Another important aspect of kinship relations that can function as a form of social capital is ***trust***. In addition to already knowing each other, rural communities in general, such as those in West Kupang Sub-district, are more effective in cooperating with other parties if they are formed through a kinship approach. From this aspect, it can be stated that kinship patterns in the West Kupang area, both internal (within ethnicities) and external (between ethnicities), are a potential form of social capital to support agricultural development.

4.2.2. Land Institutionalization

In an agrarian society, agricultural land is one of the main elements in the institutional structure that shapes and characterizes the social system. This is closely related to the view from an economic aspect, that land is the primary element or factor of production in the farm production process.

Specifically regarding land institutions in West Kupang Sub-district, there are two sources of regulatory norms, namely the prevailing laws and regulations based on positive law, and customary norms regarding agricultural land. The main focus of attention in this research is the customary norms governing land ownership and use, as well as the inheritance land distribution system.

Almost all farmer respondents stated that the agricultural land they own and are currently working on was inherited from their parents. In addition, they have never been involved in buying and selling agricultural land within their respective villages. However, there is written information in several places, in the form of billboards that read: "this land is for sale".

In general, in terms of the distribution of inherited land, almost all ethnic groups have similarities, namely that all children in a family are entitled to receive a share of inherited land, although boysare prioritized. The general reason is that after marriage, the daughter will move to follow her husband. If the husband is from outside the local village, but the new household wishes to settle in the wife's village of origin, then the daughter (the wife) will also be considered for the right to inherit family land.

4.2.3. Farmer Groups and other Social and Economic Groups in the Village

Social groups are the univesal constituent elements of social structure. One form of social group deliberately formed to support agricultural development is the "farmer group".

According to Indonesian Law No. 19/2003, a farmer group is a combination of farmers created based on common interests, familiarity, harmony in using agricultural resources and agroecosystems to participate in developing farm productivity and the welfare of its members.

Based on interviews with a number of farmer respondents and the Field Agricultural Extension Coordinator and his team members, all villages in the West Kupang sub-district have established Farmer Groups. In addition to farmer groups, some villages also have other social and economic groups. These include working groups that mobilize labor from outside the family for farm production activities. Cooperatives are also a potential form of social capital for agricultural development.

4.2.4. Community Leaders

Included in this concept is a personal figure who has a number of aspects of excellence according to the recognition of certain groups or groups in society so that he is often put forward in carrying out certain social roles. Included in the category of community leaders according to this research are formal and non-formal leaders, who are recognized by community members with various designations, such as

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landlords, traditional leaders, clergy or religious leaders, teachers and educators, village government officials, and so on.

With their superiority in some ways, they are more trusted, recognized and accepted to do certain things in community affairs. Even in agriculture, it is not uncommon for them to be given *trust in* the form of power and authority to lead, organize, and control the success of an agricultural activity.

4.2.5. Cooperation and Mutual Aid

The potential for social capital in the form of cooperation and mutual cooperation is almost always present in all rural communities in Indonesia. In many cases, activities in the field of sustainable dryland agricultural development in the West Kupang sub-district also rely on cooperation between community members and mutual cooperation as a more effective and successful way. Cooperation and mutual aid are the most common methods used by farmers, especially in relation to work that requires a lot of labor, must be done in a relatively short period of time, and is pressured by a relatively short period of rainfall. The types of dryland farming activities in which it is more common to mobilize labour in the form of cooperation and mutual assistance are the preparation of farmland before the rainy season arrives, planting, and harvesting.

4.3. The Role of Each Type of Social Capital in Sustainable Dryland Agricultural Development Activities in West Kupang Sub-District

The role of social capital, when understood from a sociological point of view, with the concept of "social role" as proposed by Soekanto (2003), the role of social capital intended in this case is about "what is expected to be done or obtained from the existence of a social capital in the structure of society, associated with SDAD" (Abdurrahman, 2009).

From the implicit description of the role of social capital according to Coleman (1998) as above, in general "*the role of social capital in this case is to create ease of action, which can affect efficiency and effectiveness in a productive activity"*. As with the role of other forms of capital, the role of social capital as such will be known by comparing the results obtained from the process of productive activities without social capital, or with social capital conditions that are less than needed for these activities (Abdurrahman, 2009).

The following outlines the role of the five forms of social capital as mentioned above.

4.3.1. The Role of Social Capital: Social Relationships in Kinship Groups to Support Sustainable Dryland Agricultural Development.

Kinship institutions play a role in terms of: (1) as a medium for inheritance, both in terms of cultural values and agricultural land and other assets; (2) as a source of labor and management; and (3) as a source of support for alternative means of production, etc..

4.3.2. The Role of Social Capital: Land Institutions to Support Sustainable Agricultural Land Development.

Customary land institutions play a role in: (1) recognizing property rights over agricultural land, and others. Particularly among the Timorese (*Atoni Pah Meto)*, these institutions also provide guidance on choosing the type of land suitable for opening new farming areas; (2) provide customary legal legitimization of tenure rights over land and its cultivation.

4.3.3. The Role of Social Capital: Farmer Groups and Other Social, Economic, and Other Groups to Support Sustainable Dryland Agricultural Development.

Farmer Groups, act as: (1) a learning platform for farmers in improving their knowledge and skills in managing their farms, (2) a platform for socialization of agricultural development programs, (3) a platform for channeling assistance from the government, as well as (4) a forum for communication and cooperation among farmer members, and (5) as a platform that strengthens *social bonding*, and *social bridging*.

Similar to the role of farmer groups, in certain villages in Kecamatan Kupang Barat, there are also other groups related to economic activities or benefits, such as arisan groups, cooperatives, Joint

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Business Groups (KUB), and others. These groups play a role in: (1) providing loan funds to finance productive enterprises in dryland farming; (2) serving as a forum for socialization and information dissemination; and (3) a communication forum for farmers. There are also other groups that can be called rotating working groups (KKB).

4.4. The Role of Social Capital: Community Leaders to Support Sustainable Dryland Agriculture Development.

The role of community leaders, especially leaders of formal institutions such as the Village Head, plays a role in terms of: (a) as a *bridging* intermediary between the village's farming community and external parties competent with development programs in general and sustainable dryland agricultural development in particular; (b) as a mobilizer of community members in the implementation of development programs in the village; (c) as a mediator in resolving conflicts between villagers.

Oher community leaders such as traditional and religious leaders also have extensive networks with strong influence over the people they lead or people from their ethnic groups. They also play a role in providing advice in relation to problems faced by those who are included in their network of power and authority. Because there is "trust" in these networks, they can play a role in building effective communication to voice development messages entrusted to them.

4.4.1. The Role of Social Capital: Cooperation and Mutual Aid to Support Sustainable Dryland Agricultural Development.

The tradition of cooperation and the spirit of mutual cooperation of local rural communities can play certain roles in supporting sustainable dryland agricultural development. This social capital plays a role in terms of raising the awareness of the farming community in handling public works and or addressing problems that have an impact on the socio-economic conditions of local agriculture.

5. Conclusions

Based on the presentation of the research results and discussion, especially regarding the three research objectives, it can be concluded:

1. The implementation of the principle of sustainable dryland agricultural development in the West Sub-district area is increasingly leading to agricultural conditions that are characterized as advanced agriculture.
2. The implementation of sustainable dryland agricultural development is supported by various forms of social capital. There are 5 forms of social capital including: (a) social relations in the kinship system according to the pattern regulated in the existing ethnicity in the village; (b) village community leaders; (c) land institutions; (d) farmer groups, as well as other social and economic groups; (e) patterns of cooperation and mutual cooperation in a number of farm production activities.
3. All forms of social capital each have a certain role and are interrelated in supporting sustainable dryland agricultural development. Overall, the role of the five forms of social capital is not yet optimal in order to support the implementation of the principles of sustainable dryland agricultural development.

6. Suggestion

Based on the conclusions of the results of this study, and associated with the parties who are expected to receive the benefits of the results of this study, it is necessary to suggest, especially to:

1. Research institutions, or other researchers interested in the social and economic development of sustainable dryland agriculture, are expected to continue or deepen this research with quantitative methods or combined methods (qualitative and quantitative).
2. The government of West Kupang Sub-district / Kupang District should: (a) be more active in socializing the Strategic Plan for Agricultural Development to all parties, and use research results in making policies for the SDAD.

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References

[1] Abdurrahman, M; Wiendiyati, dan Sinu, I. 1999. *Pola Kerjasama Rumah Tangga Petani Dalam Mengatasi Masalah Krisis Pangan (Studi Kasus di Kecamatan Kupang Barat)*. Lembaga Penelitian Universitas Nusa Cendana.

[2] ----------, 2009. *Dinamika Rasionalitas Petani dan Peran Modal Sosial dalam Pembangunan Pedesaan. Studi Kasus Pengelolaan Agroekosistem Lahan Kering oleh Komunitas etnis Atoni Pah Meto Di Desa Nunmafo Kabupaten Kupang*. Disertasi Program Pasca Sarjana Fakultas Pertanian Universitas Brawijaya, Malang.

[3] Barth, F (Ed). 1988. Ethnic Groupd and Boundaries. Terjemahan Soesilo, N.I (1988). *Kelompok Etnik dan Batasannya*. Penerbit Universitas Indonesia, Jakarta.

[4] Bourdieu, P. 1983. *The Forms of Capital*. Dalam El Mahdi, Haris editor: *Social Capital Review*. Universitas Brawijaya, Malang.

[5] Burt, R.S. 2000. The Network Structure of Social Capital. *Ron.burt@gsb.uchicago.edu*

[6] Coleman, J.S. 1994. Foundations of Social Theory. Terjemahan Muttaqien, I; Widowatie, S.R dan Purwandari, S (2008). *Dasar- Dasar Teori Sosial*. Penerbit Nusa Media, Bandung.

[7] Creswell, J.W. 1994. *Research Design: Qualitative & Quantitative Approach*. SAGE Publications.

[8] Foni, W. 2003. *Budaya Bertani Atoni Pah Meto : Siklus Ritus Bertani Lahan Kering Atoni Pah Meto Tunbaba Timor Nusa Tenggara Timur*. Program Pascasarjana Universitas Kristen Satya Wacana, Salatiga.

[9] Fukuyama, F. 2000. Modal Sosial. *Dalam* Harrison, L.E dan Huntington, S. P. (Ed.) 2006. *Kebangkitan Peran Budaya*. Hal. 153-173. Penerbit LP3ES, Jakarta.

[10] Hasbullah, J. 2006. *Social Capital (Menuju Keunggulan Budaya Manusia Indonesia)*. Penerbit MR-United Press Jakarta.

[11] Hidayat, Kliwon,2007. *Respon Masyarakat Desa Terhadap Pembangunan Pertanian Berkelanjutan (Kasus di Daerah Aliran Sungai Brantas Hulu, Jawa Timur)*. Penerbit Program Pascasarjana Universitas Brawijaya, Malang.

[12] Mahdi, E.H (ed). 2006. *Social Capital Review*. Universitas Brawijaya, Malang.

[13] Miles, M. B. dan Huberman, A. M. 1992. *Qualitative Data Analysis*. Terjemahan Rohidi, T. R. (1992). Penerbit Universitas Indonesia, Jakarta.

[14] Pranaji, Tri. 2006. Penguatan Modal Sosial Untuk Pemberdayaan Masyarakat Pedesaan Dalam Pengelolan Agroeksistem Lahan Kering. Studi Kasus di Desa-desa (hulu DAS) Ex Proyek Bangun Desa, Kabupaten Gunung Kidul dan Ex Proyek Pertanian Lahan Kering, Kabupaten Boyolali. *Jurnal Agro-Ekonomi, Volume 24 No. 2 Oktober 2006 (p.178-206)*..

[15] Rajab, B. 2006. *Membincangkan Modal Sosia*l. Dalam El Mahdi, Haris Editor : Social Capital Review. Universitas Brawijaya, Malang

[16] Soekanto, S. (1983). *Beberapa Teori Sosiologi tentang Struktur Masyarakat*. Penerbit Rajawali, Jakarta.

[17] Suharto, E. 2008a. *Modal Sosial dan Kebijakan Publik*. http: //www.policy.hu/suharto/naskah

[18] Yustika, E.A. 2006. *Ekonomi Kelembagaan (Definisi, Teori, dan Strategi)*. Bayu Media Publishing. Malang

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