

Research Article

The Status and Challenges of Contract Farming Engagement in Gimbo District, Kafa Zone, South West Ethiopia People's Region, Ethiopia

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Abstract

Contract farming has long been used in industrialized nations' agricultural production systems as a system of institutions to help smallholder farmers commercialize their farms in an effort to increase revenue and reduce poverty. This study aimed to assess the state of contract farming and challenges of engagement in Gimbo District, Kafa Zone, South West Ethiopia People's Region, Ethiopia. A focus group discussion, observations, key informant interviews with fifteen experts and authorities, and surveys of 361 farm households were used to collect data. The study revealed that the productivity of coffee improved from 3-4 qt/ha to the average productivity of about 10 qt/ha and the price of coffee improved from 7 birr/kg to 19 birr/kg. This suggests a considerable increase in production and price improvement resulting from the adoption of contract farming. According to the study, the local community benefited from 345 temporary and 44 permanent jobs that were established by contract farming operations in the study area. According to the report, external variables posed challenges to contract farming initiatives in the research area. These external factors included lacking of a legislative instrument that serves as a guide, the lack of infrastructure, the inadequate assistance of governmental organizations, and the failure to integrate the necessary stakeholders to support the sectors. Thus, the study recommended that the government should focus on raising awareness, enhancing extension services and organizational setup, ensuring transparency and accountability in the contract process, and improving financial services.

Keywords

Agriculture, Contract Farming, Smallholder, Challenges, Gimbo District

1. Introduction

Contract farming is a new arrangement in raw material production and procurement that has been brought about by advancements in the fields of marketing, food habits, technology, and agriculture in the present economic environment [1]. In the 1950s and 1960s, contract farming (CF) became a significant phenomenon in the industrialized West. By 1980, contracts were used to generate up to 100% of chicken meat,

milk, and some vegetables, and nearly one-third of all US farm production [2]. From the perspective of developmental intervention, this is a scenario where the agribusiness company and the farmers have a relationship that is related to an expert providing resources, information, and skills to the apprentice, or it is more like agribusiness firms navigating the market to the farmers [3].

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Contract farming has evolved over time to provide fruits, vegetables, and other agricultural commodities. It began in Africa in the 16th century as a means of obtaining spices for European trading companies [4]. According to Ghee and Dorall [5], contract farming has been gradually advanced as an institutional innovation to improve agricultural performance throughout the last three decades in many developing countries, particularly Africa. In developing countries, contract farming has been viewed as an essential component of rural development initiatives [6]. It is often referred to as the practice of producing crops under advance contracts, and smallholder farmers frequently use it as a successful strategy for rural development and the commercialization of their agricultural produce. Contractual agreements can link smallholders to more profitable regional and global markets and make it easier for them to acquire inputs, technology, and extension services [7].

The practice of contract farming has a long history in Ethiopia. The Ethiopian government is aiming to increase the number of CF agreements that companies have with smallholders. Through a coordinated transfer of available agricultural technology, the effort aimed to convert subsistence agriculture into a commercial one [6]. The Federal Democratic Republic of Ethiopia's Agricultural Development Led Industrialization (ADLI) policy acknowledged agriculture as a foundation for the growth of the other economic sectors. Through increased access to and use of improved agricultural technology, investments in irrigation systems, and other means, this approach aimed to increase the productivity of land, labor, and water [8, 9]. The ADLI strategy prioritized contract farming, which can assist in achieving this aim in the mid- and high-altitude areas, and concentrated on the development of high-value export agricultural commodities. It also supported investment in agro-processing companies that add value to primary agricultural commodities.

Several studies have been carried out regarding the effects of contract farming on smallholder farmers' means of subsistence. The majority of them reported that contract farming had beneficial implications on welfare indicators including food security, farm production, and household income. For example, Alemu et al. [10] showed that compared to non-contract others; contract farming increased the annual earnings of contract organic honey producers. Similar findings were reported by Seba [11] and Gemechu et al. [12], who found that contract farming for export vegetables and chickpeas raised annual profits for contract farmers compared to those without contracts. In their thorough meta-analysis, Ton et al. [13] found those contract farmers' incomes increased by 62% higher than those of non-contract farmers. Few studies, nonetheless, make clear that contract farming is a tactic used by agribusiness companies to shift production risks to farmers while abusing unfair negotiating positions. Accordingly, Abdulai and AlHassan [14] and Ragasa et al. [15] noted that contract farming demonstrated limited potential to raise producer incomes. This means that productivity gains from better

input use and advised farm management practices were not high enough to compensate for the substantial labor and cost of inputs for farmers in Ghana, Kenya, and avocado, soybean, and maize, respectively.

The introduction of contract farming in Ethiopia's agri-food sectors is recent. Holtland [16], for example, describes contract farming agreements for sugar cane, green beans, sesame, bamboo, chickpea, malt barley, and passion fruits that are used in this country. Additionally, in Ethiopia, contract farming is growing to include durum wheat [17], vegetables [12], milk [18], and honey [10]. It appears that contract farming has become more popular in the country based on the variety of available techniques. However, yet some farmers engage in contract farming, others do not.

The Kafa Zone within the South West Ethiopia Peoples' Region (SWEPR) is one of the areas where multiple companies operate contract farming. USAID has provided support for contract farming projects in the Kafa Zone. Farmers that have been aligning themselves with CF programs as well as commercial agricultural investors who are involved in CF are given various resources, capacity building, etc. by USAID. This supports the Zone's efforts to boost CF development in several avenues [19]. In this area, the major constraint to increasing the benefit of smallholders is their inability to access markets. Improving market access for poor smallholder farmers and enabling them to engage actively in the market process is, therefore, one of the most pressing development challenges. Although diversified schemes of contract farming are growing and with further growth potentials in the Kafa Zone, only a few empirical studies have been conducted to assess contract farming performance and challenges of engagement in Gimbo District, Kafa Zone, South West Ethiopia People's Region. Therefore, this study was envisaged to assess the state of contract farming and challenges of engagement in Gimbo District, Kafa Zone, South West Ethiopia People's Region, Ethiopia. The study aims to highlight the practices, performances and challenges of CF in the study area.

2. Literature Review

2.1. Definition of Contract Farming

Contract farming (CF): is defined as a system for the production and supply of agricultural and horticultural produce by farmers or primary producers under advance contracts is known as contract farming (CF). The fundamental component of these agreements is a promise to provide an agricultural commodity of a type, to a known buyer at a specified time, price, and quantity [1]. Rehber [20] similarly described CF as a non-transferable contractual agreement, whether oral or written, between farmers and other companies that specifies one or more terms of marketing and production for an agricultural commodity. It was also described as an agreement

between farmers and marketing, processing, and/or processing companies for the production and supply of agricultural goods under advance agreements, typically at fixed prices [21]. Additionally, it refers to a certain type of supply chain governance that companies have implemented to guarantee access to agricultural goods, raw materials, and supplies that fulfil required standards for quality, quantity, location, and time [22].

Smallholder farmers: are a group of socially engaged residents in the Gimbo district who operate in formal agreement with CF projects.

CF projects: are projects which have been with formal agreement with smallholder farmers.

2.2. Practice and Implications of Contract Farming

Many project evaluation type studies show that CF helped farmers become better farmers, gave more reliable incomes, generated employment, especially for women, provided new skills in farming, did away with patron-client relationships between large and small producers, and farmers got better help in farming than that without the contract [23-28]. Farmers were also found to switch between companies for deliveries under contract as well as to default on the produce delivery and the relevant use of inputs supplied by the firm [3, 24, 28]. However, farmers generally found that the contract firms provided poor extension service, overpriced their services, passed on the risk to the producers, offered low prices of produce, delayed payments, and did not explain the pricing method [23, 28-30].

In other contexts, such as Africa, farmers had issues with business leaders offering bribes, manipulating inspection standards, linking contracts together, and simply deceiving them about their finances [2, 23]. Generally speaking, farmers believed that the company had greater bargaining power than they did and that they had become dependent on the companies for credit and other inputs. Farmers also believed that the company benefited more from the contracting process than the farmers received [23, 27, 31].

2.3. Contract Farming Practices in Ethiopia

Contract farming has had a long history in Ethiopia. The Ethiopian government recognized it as a state farm in 1949 at "Shewa robite" and "Welayeta" with the specific crop of tobacco. Under the name National Tobacco Enterprise, this company continued to operate as a joint venture between the governments of Ethiopia and Japan [32]. Ethiopian agrifood systems have been witnessing the emergence of contract farming. Holtland [16], for example, includes contract farming agreements for sugar cane, green beans, sesame, bamboo, chickpea, malt barley, and passion fruits that are used in the country. Additionally, in Ethiopia, contract farming is growing to include durum wheat [17], vegetables [12], milk [18],

and honey [10]. It appears that contract farming has become more popular in the country based on the variety of available techniques. Despite the long history of contract farming in Ethiopia, the sector has not benefitted the entire country; its value to farmers, companies, and the economy at large was unidentified, and the Ethiopian government was unable to give it the attention it required [19]. According to data compiled by [32], there are several CF initiatives in Ethiopia; however, their exact national contribution is unknown since no accountable institution monitors and assesses these areas.

2.4. Studies Examining the Impact of Contract Farming on Income or Revenue

At a more macro-economic level, contract farming can help eliminate market imperfections in the markets for produce, capital (credit), land, labor, information, and insurance; it can also help lower transaction costs and enable better coordination of local production activities, which frequently require initial investments in processing, extension, etc. [29, 33]. Furthermore, it has been regularly used by the state as a policy tool to diversify crop outputs in an effort to boost agricultural incomes and jobs [34, 35]. Because contract farming may give access to better inputs and more effective production techniques, it is also seen to be a means of lowering cultivation expenses. Contract farming emerged in the 1950s in Spain and Japan [36] and in the early 1990s in the Indian Punjab due to the rising expense of agriculture [35]. If agribusiness companies are more successful at creating positive externalities than the government or the free market, such as jobs, market expansion, or infrastructure, then this might also provide support for contract farming from an institutional economic perspective [33].

In a research on Senegalese groundnuts, Warning and Key [37] estimated enhanced income by applying the Heckman selection model. Compared to average non-contacting farmers, increases in gross agricultural revenues are 55% higher. A 39% increase in gross agricultural revenue over non-contract farmers is linked to contract farming participation.

In a research on poultry, maize, and rice conducted in Indonesia, Simmons, Winter et al. [38] found that while contracting increases returns to capital for maize and poultry seed, it does not boost returns for rice seed. In a comparable way, estimates of palm oil contract participation by Cahyadi and Waibel [39] showed a 60% rise in net family income in Indonesia. The findings indicate that whereas contract farming generally increases smallholder income in a meaningful ($p < 0.1$) way, less fortunate smallholders are less likely to gain from it.

Using the treatment effects model, Birthal et al. [40] found in another Indian study that contract farming for dairy, poultry, and vegetables improves net revenue by more than 80% when compared to the average. According to Ramaswami et al. [41], who also employed regression analysis, contract chicken producers in India make 36% more money per kilogram

throughout a production cycle than independent growers. In the poultry industry, they also found less variation in gross margins across production cycles.

When compared to a control group of non-contracting farmers, Bolwig et al. [42] also found that contract farming for coffee had a favorable revenue impact for contract farmers in Uganda. Using full information maximum likelihood (FIML) estimate, the authors revealed that, in comparison to non-contract participation, there was an average revenue gain effect of 75% in net coffee revenue.

On the other hand, using the treatment effects model, Chinese contract farmers of green onions and apples discovered a 38% increase in income from their crops. greater yields are thought to bring in more money for apples; for green onions, contract farmers obtained greater prices than non-contract producers [43]. Propensity score matching (PSM) was also employed by Saigenji and Zeller [44] in Vietnam, where they found that contract tea production increases household income by 40% compared to comparable non-contract producers. Depending on the econometric model employed, contract participation raised real net cocoa income in Uganda from 58% to 168% [45].

According to Bellemare [46], contract farming of grain, fruit, and vegetables in Madagascar shows that there is a 0.5% rise in household income for every 1% increase in the chance of engaging in contract farming. This suggests that the average effect can only exceed 50% of revenue. According to the report, involvement also boosts the revenue from livestock and noncontract crop production. Comparably, Ferguin et al. [47] noted that South African contract farmers of fruits, vegetables, and poultry profited from a seven-fold rise in revenue, statistically significant at a 5% level, improved access to resources and services, and chances to enter new markets.

2.5. Challenges of Contract Forms

Numerous studies attest to the benefits of involvement for contract farmers, but they also frequently point to issues with these programs. In developing countries, the failure rate of contract farming systems is comparatively high. This is especially true in Kenya, where contract farming has existed since the country's colonial past. Analyses of the development of contract farming initiatives in Kenya show a high turnover rate due to the failure of existing schemes and the introduction of new ones [48]. Similar to this, Sartorius et al. [49] point out that small-scale farmer contract farming initiatives in developing countries have a high failure rate.

Laws that prohibit direct communication between farmers and agribusiness companies, such processors and exporters, are one legislative barrier to contract farming [50]. These rules are meant to shield farmers from being taken advantage of by large companies. But in the end, it forces processors to create their own raw materials through vertical integration, buy from large-scale commercial farms, or buy from cooperatives [50].

The high expense of managing a large number of scattered contract farmers is another persistent problem with contract farming arrangements. This is especially true when the company arranges for harvest collection, assigns credit, and distributes inputs. This is one of the primary reasons why businesses frequently choose to collaborate with larger-scale farms (Sartorius and Kirsten, 2004). Having a different entity serve as a middleman between the business and the farmers is one way to resolve this issue. A farmer cooperative, on the other hand, might act as a middleman, easing the distribution of inputs and technical support in addition to crop collection [51, 52].

For instance, in China, village elders would sometimes function as an intermediary for the company and contract farmers. According to Miyata et al. [43], they hire contract farmers, clarify the conditions, and assist in enforcing loan payback and product delivery.

3. Methodology

3.1. Description of the Study Area

This study was conducted in the South West Ethiopia People's Region (SWEPR), Kafa Zone, Gimbo District. The district is situated 496 miles from Addis Ababa and 18 km west of Bonga, and it is one of the ten districts that make up the Kafa Zone of SWEPR. Shebe Woreda borders Gimbo district on the southwest; Decha Woreda borders Gimbo on the north; Addiyo Woreda borders Gimbo on the northwest; and Gawata Woreda borders it on the southeast. Ufa, Diri, Gojeb, and Wushwush are four urban kebeles that are developing towns, and there are 31 rural kebeles [53].

The District has a total population of 121,682 in 2019, with 59,964 men and 61,718 women, according to Ethiopia's projected population [54]. Agriculture is their primary source of income for most of the area's rural residents. The area's average annual temperature is 25 °C, and its mean yearly rainfall falls between 900 and 1150 mm. Roads, power, and water are among the several agricultural production and marketing facilities that are more difficult to access in the district [53].

3.2. Sampling Technique and Sample Size Determination

The Ministry of Agriculture [19], reports that there are seven CF projects in the Kafa Zone, four of which are in the Gimbo district. It suggested that 57% of the CF projects in Kafa Zone were situated in the Gimbo area. A total of 3671 farmers signed agreements with these four CF initiatives.

Multi-stage sampling techniques were used for selecting the study's research area and sample. In the first stage, 10 districts in the Kafa Zone were selected, with Gimbo District being picked based on the availability of contract farming participants. Second, four contract farming projects—Tegatul

PLC, Matapa Michite, Habtamu Abebe, and Zate PLC—were specifically selected from a pool of 7 based on production volume and size. A probability proportionate to the total number of smallholder farmer households was used to randomly select 361 of these individuals in the third step. Using Yemane's [55] assumptions of a 95% confidence interval and a 5% maximum acceptable margin of error, a representative sample size for the cross-sectional household survey was determined. This presumption led to the following calculation of the sample size:

$$n = \frac{N}{1 + N(e)^2}$$

Where N- stands for total smallholder farmers who engaged in contract farming in Gimbo district, n- stands for sample size, and e - stands for margin of error. Based on the above formula the sample size for the study was: $n = (3671) / ((1 + 3671(0.05)^2) = (3671) / (10.1775) = 360.69 \approx 361$. In general, this study was conducted within four CF projects, using the total sample size of 361 smallholder farmers in four kebeles and 15 stakeholders from district governmental offices (4 from the agriculture office, 2 from the district Tea and coffee office, 1 NGO (USAID) and 8 from experts of CF projects (two from each CF projects)). This investigation was carefully planned to reduce the risk of information disclosure.

An informed consent statement was applied to protect the privacy of the study participants. The study's conclusions exclude any data that could possibly reveal the identity of a person or an organization. An informed consent statement has been provided to each participant in the interviews along with an offer to participate. Participants were able to observe the extent of the study being undertaken as a result. They received information on their access to the interview questions and their ability to withdraw from participation at any time.

3.3. Data Source

The study made use of both primary and secondary data sources. The key sources of data were CF projects, smallholder farmers involved in contract farming, and district-level government offices such as the agricultural office and the tea and coffee department. Studies by several scholars regarding contract farming in Ethiopia and other countries were also taken into consideration. Secondary data was gathered from various published and unpublished materials, including books, the internet, yearly plans, and reports of contract farming.

3.4. Data Collection Method

The primary sources of the data were collected through open and close-ended questionnaires. To answer the research questions, questionnaires were prepared and managed by enumerators to collect data from smallholder farmers. This study included the district of agricultural office and CF projects experts and officials to collect primary data. A prede-

signed interview guide was prepared and an interview was conducted with CF project officials, officials/experts of the district agriculture office, tea and coffee departments and NGO workers.

Focus Group Discussion (FGD) was held with selected experts, local and community leaders and representatives of smallholder farmers. A total of 6 FGD was held in the study areas. The experts, local and community leaders and concerned individuals were selected randomly for the FGD. The FGD was designed to stimulate ideas and thoughts through the dynamic interaction of participants having different knowledge, interests and concerns about the socio-economic perspective of CF projects and smallholder farmers were taken into consideration.

Field observation of the CF projects in the targeted areas was also conducted to further enrich the data collected through FGDs and KIIs. In this study, observation was carried out by the researcher to obtain information regarding the current CF practices. And it was carried out by walking across the farm fields and homesteads. In the process, field notes and pictures were taken concerning the physical landscape, farmers, development interventions and the adaptation practices employed by CF Projects, their workers and the local community in response to CF.

3.5. Methods of Data Analysis

The data entry was carried into SPSS and checked for completeness, consistency and validity. Data analysis was done through qualitative and quantitative means. Quantitative data were analyzed using descriptive statistics and presented in the form of table and percentages. Qualitative data were analyzed using content analysis, descriptions, and narrative stories as major tools.

4. Result and Discussion

4.1. Practices of Contract Farming at Gimbo District

Table 1 showed that there were 7 CF projects in Kafa zone. The engagements of the companies in CF were in two sectors namely coffee and tea. Among the list of the CF projects indicated on the Table, Wush Wush Tea Development Project was the oldest company. It started CF in 1981. It implied that CF practices have long history in Kafa zone. Since 1981 it has been implemented in the Zone. Among the CF projects majority of them (57%) of them were found in the study area (Gimbo district). This shows that Gimbo district is suitable for coffee production and the area was preferred to utilize the area's production potential. Data from MoA [32] showed that 30 cooperatives are harvesting and marketing specialty coffee and contributed to reducing unemployment in the study area where 40,000 individuals able to earn income from the activ-

ity. Besides commercial coffee producers, study by Berhanu [56] revealed that there are total of 10,444 smallholder coffee producers in Gimbo district those who produce coffee primarily for earning cash and household consumption. Bekele

[57] also reported that Gimbo district has a potential of produce all varieties of crops and livestock with both rain-fed and irrigation farming.

Table 1. The practices of CF project in Kafa Zone across different period.

No	Company name	Types of sectors	Address		Year of establishment
			Zone	Woreda	
1	Wush Wush Tea Development	Tea	Kafa	Wushwush	1981
2	Taga Tula Coffe farm	Coffee Commercial Farm	Kafa	Gimbo	1999
3	Zat Plc	Coffee Commercial Farm	Kafa	Gimbo	1999
4	Habtamu	Coffee Commercial Farm	Kafa	Gimbo	2008
5	Matapa Michiti Plc	Coffee Commercial Farm	Kafa	Gimbo	2005
6	DemekeWanna	Coffee Processing	Kafa	Bench	2018
7	Zehra Deliwana	Coffee Processing	Kafa	Bench	2010

Sources: - MoA and SWEPR (2021)

4.2. Organizational Support to Contract Farming Projects

The results of focus group discussion (FGD) and key informant interview (KII) revealed that there was weak support from district level governmental structure for CF projects and higher officials, experts and director of agricultural office have poor understanding on the concepts of contract farming. The response of CF projects expert regarding support from government is presented as follows:

....Gimbo district is suitable for producing high-value cash crop crops like coffee and tea and there are different PLCs and cooperatives involved in coffee and tea production. As a result, contract farming projects are under practice in the area and these projects have been practicing it with their effort. The sector lacked support from the organizational structure at the district level and hence CF projects failed to expand their practices throughout the district (20 December, 2021). In many countries with a well-developed private sector, governmental intervention is limited to approving policies and actions encouraging the development of market-driven and financially sustainable contracts between well-informed parties, without overly regulating their content [7]. However, a report by Viinikainen and Caro [58] affirmed that governments are responsible for a variety of other actions with relevance to the contract farming enabling environment, such as ensuring sufficient infrastructure (roads, warehouses etc.), promoting corporate social responsibility and ensuring the availability of

high-quality inputs, all being features that can support contract farming. The report further described when the government provides technical support, inputs and training through its extension services, smallholders are likely to hold a stronger negotiation position, as the contractor would not be the sole source of inputs and support [58].

4.3. Types of Support That CF Projects Provide to Farmers

The study result showed that smallholder farmers assured that they were receiving a lot of support from the contract farming projects. The response from whole respondents confirmed that the main support provided by CF projects was inputs and production services. It was already mentioned in the agreement document that CF projects provided support like a supply of basic inputs such as seedlings and fertilizer, advisory services like land preparation, field cultivation and harvesting through theoretical and practical training and the like. This was done primarily to ensure proper crop husbandry practices. It helped smallholders and project owners to achieve expected yields and the required qualities.

The other important support was technical assistance. Smallholder farmers needed to apply good agricultural practices, to strengthen these, projects hired experts who were responsible for supporting smallholder farmers full time and hence smallholder farmers trained at the farm level on the key issues of crop protection and post harvest handling.

On the other hand, CF projects improved smallholder farmers' access to credit to finance production. The credit

which was facilitated by CF projects was free from interest. Responses from smallholder farmers confirmed that they got credit from CF projects for their farm operations. Besides, the study results revealed that some CF projects (Tega Tula and Habtamu Abebe) got loans from Awash Bank with the help of USAID (Feed the Future). USAID (Feed the Future) gave a guarantee for the projects to get loans from Awash Bank and the loan that CF projects got from Awash Bank was used as a source of funds for smallholder farmers. This magnified the role of contract farming projects to solve the financial constraints of smallholder farmers.

The other support of CF projects to the smallholder farmers was the introduction of appropriate technology. In this regard, the finding of this study revealed that all CF projects at Gimbo district were offering technology for the farmers like improved and approved varieties of coffee (the varieties were collected from the Research center), sheets which helped to dry coffee and the like. However, smallholder farmers were reluctant to adopt new technologies because of the possible risks and costs involved. To increase the awareness and willingness of smallholder farmers in the project areas, different training at the field level was organized by the project owners. The study by Dicken, [58] found that smallholder farmers are more likely to accept new practices when they rely on external resources for material and technological inputs. It was pointed out that contractual arrangements can facilitate smallholder access to inputs, technology, and extension services and connect smallholders to more lucrative regional and international markets [7]. Similarly, Eaton and Shepherd [21] reported that CF can be comprehended as a company giving/lending agricultural “inputs” such as planting seed, fertiliser, pesticides, and credit or extension services to a farmer in trade for exclusive buying rights over the specified agricultural produce.

Overall, the study results revealed that project experts supported smallholder farmers by monitoring the agronomic practices of the farmers and checking the quality of the seedlings and their overall production performances. The response of one of the project experts is presented as follows:

.....As a project expert, I give technical support to smallholder farmers like when to harvest, how to harvest, how to manage their farms etc. at field level. It is my responsibility to provide logistics for smallholder farmers for transportation purpose like transporting the seedling of coffee from the site of the projects to smallholder farmers, and collecting coffee from the collection center of smallholder farmers' areas. In addition, collection (harvesting) materials were also provided by CF projects. These helped to develop trust between the CF projects with that of the smallholder farmers. It is also my responsibility to provide training such as pruning, distance among the seedlings, hoeing, recordkeeping etc. to help smallholder farmers maintain the quality of yields in the project areas (3 November, 2021).



Figure 1. Transport service for seedling to farmers' area; Source: - Field observation (Matapa Michite).

4.4. Process and Content of Contract Farming Agreement

The finding of this study discovered that in the process of the CF agreement, there was involvement of different bodies for the success of the contract agreement. The response of the agricultural office expert is reflected as follows:

....Governmental organizations at the district level especially agriculture, cooperative and law offices expected to participate to observe the overall situation of the agreement and also give technical advice to the parties. After the agreement one copy of the document was put in the agriculture office (district level) and the other two copies for farmers' association/individual farmer and CF projects. The content of the agreed document has many issues and it consisted of the following main points. These were the names and addresses of the Producer and the Contractor; rights and obligations of the Producer and the Contractor; quality and quantity specifications, pricing mechanism of input and Agriculture Produce, type of technical assistance to be provided by the Contractor; the duration of the Contract as well as the conditions and procedures for the renewal, amendment or alteration or termination of the Contract, dispute resolution mechanisms, the date, place, and signatures of the parties to the Contract were the main points which encompasses the agreement document. Although there are different government offices participation in the initial stage of the contract farming, their role in supporting and enhancing the contract farming is insignificant.

Rehber [20] found that a legal agreement between farmers and other companies, can either be written or oral detailing one or more requirements for the production and marketing, of agricultural products which is not transferrable. Similarly, Glover and Kusterer [23] farming production contract is carried out according to a prior agreement in which the farmer committed to producing a given product in a given manner and the buyer pledged to purchase it at an agreed price.

4.5. Production, and Productivity Performance of CF Projects at Gimbo District

The study revealed that each CF project in the study area had its land but the amount of production that they collected from their land so far was not enough because of this they agreed to contract farming with smallholder farmers to harvest more products. Their purpose of production was for export and, as a result, to get foreign currency. As indicated in Table 5, the total land developed by smallholder farmers as a contract agreement with the CF project was 1207.12 ha and the amount of production was 2089 tones. Focus group discussions with smallholder farmers verified that the smallholder farmers were interested in working with CF projects. It was because the smallholder farmers agreed with CF projects without the interference of any governmental body but rather with their interest. Because farmers were suffering from middlemen as a result of these they were on the way to shift from coffee to other crops. A predetermined arrangement between farmers and other (buying) companies indicating one or more settings of production and/or marketing of an agricultural product [59]. The definition by [28] refers to CF as an arrangement when growers and buyers/processors engage in vertical coordination thereby directly shaping production decisions due to contractual specifications of market commitments (by quality, volume and, at times advanced price determinations); provide specific agricultural inputs; and, at times advanced price production (*i.e.* a partition of management functions between contractor and contracted) appears to be more elaborative.

According to data obtained through FGD, interviews with project experts, and smallholder farmers, the average productivity of Coffee is about 10 qt/ha. Before CF implementation, the productivity of coffee was 3-4 qt/ha. After the implementation of CF, the yield tripled and the price of red rip cherry coffee increased from 7 birr/kg to 19 birr/kg within a short time. The prices of coffee increased because CF projects gave payment by adding 20% of the local market, these created smallholder farmers' sense of ownership with CF investment which has been going on in their surrounding area and they were happy with their involvement in CF. It implied that the practices of CF at Gimbo district increased the production and productivity of coffee and also it created good opportunities to minimize the interferences of middlemen in the coffee market that the smallholder farmers sold their product directly to the CF projects therefore CF practices benefited more the smallholder farmers in that particular study area. Amongst studies on CF in Southern Africa [60] concluded that most CF arrangements seem to contribute to smallholder farmers success by improving farmers' income, though in the short term. Silva [22] suggested that farmers benefit from CF because it provides them with agricultural inputs on credit, technical and extension assistance and often a definite price, allowing them to produce a higher-value commodity which otherwise would not be possible. In a re-

view of the experience of CF in Africa in the early 1990s, Glover and Ghee [61] concluded that farmers were generally better off as a result of their participation in CF, in spite of numerous social problems arising in the communities.



Figure 2. Seedling site of CF project for its members; Sources: Photo from Tega tula farm sight, 2021.

4.6. Employment Opportunity and the Alignment Status

The data from smallholder farmers, FGD, site observation, and interviews with experts of CF projects, it was confirmed that all CF projects in the study area created permanent and temporary job opportunities for the local community as well as for the neighbouring regions. Temporary refers to job opportunities for a short period, especially at harvesting and farming time. It is a short period; that is for four months when the companies create job opportunities for employers. All of them created job opportunities for the local community. Four CF projects were created for 44 permanent and 345 temporary job opportunities for the local community (Table 2). It means that CF practices have played a role in minimizing the unemployment rate where it has been exercised. According to MoA [19] the total number of farmers who engaged in agreement with these four CF projects was 3671. However, this finding of the research assured that the total number of smallholder farmers who worked with CF projects was 3145 in number among them 1972 were female and the remaining

were male. This implied that the practices of CF at Gimbo district benefited both sexes. In literature, the possibility of employment generation with contract farming usually hypothesized due to the labour-intensive nature of crop produc-

tion under contracts and for post-harvest operations such as sorting, grading, packing, etc., and higher cropping intensities [23, 62-64, 1].

Table 2. Employments opportunity created by CF projects.

S.N	Name of Zone	No. of Visited CF Projects	Job opportunity				Developed land (ha)	Amount of Production (in Q)
			M	F	M	F		
1	Kafa	4	37	7	200	145	1207.12	20,887.88

Sources: Authors constructed from survey data, 2021

4.7. Dispute Resolution Mechanisms

Data was collected in order to evaluate the potential of conflict throughout the contract farming procedure. The findings of focus groups discussions with smallholder farmers and interviews with project specialists revealed that disagreements between the farmers occasionally occurred. The respondents from smallholder farmers and CF projects stated that the primary reasons for disagreement were smallholder farmers' inability to produce high-quality goods, late payments for those goods, side sales by smallholder farmers, inability to deliver inputs to smallholder farmers on schedule, and similar issues.

Conventional ways to dispute resolution, including negotiation, arbitration, and litigation, have been proposed as the most widely recognized techniques [65-68]. As per responses

provided by FGD participants, these kinds of issues are resolved by using the three methods that were previously listed in the agreement document. Negotiation is the first approach, when two sides take the stage and have a debate without the involvement of a third party. This was one of the suggested methods for resolving conflicts that the study area frequently employed to address their shared issues. However, if a dispute cannot be resolved by dialogue between the two parties, mediation is utilized, and efforts are made to resolve problems with the assistance and involvement of third parties.

4.8. Challenges of Contract Farming

The study identified different factors that determine the success and expansion of contract farming in the study area. Accordingly, the challenges associated with contract farming in the Gibo districts are described in Table 3.

Table 3. Challenge of contract farming practices in Gimbo district.

Challenges identified	Indicators
Poor support from the government body	<ol style="list-style-type: none"> 1. No specific structure (department) which support CF projects as result. 2. There were no incentives which encourage the sectors; 3. No experts' assigned permanently at all governmental organization to support the sector etc.
Infrastructures problem	<ol style="list-style-type: none"> 1. 20% of the respondents reported that road infrastructure was a major problem to the practices of CF. 2. Smallholders travel to travel from 5 to 10 km on foot to deliver their product for CF project. 3. The experts of CF projects were travel up to 10 km to give different support for the farmers.
Poor involvement of financial institution on the sectors:	<ol style="list-style-type: none"> 1. Financial institutions are not engaged in giving loan for CF projects. 2. No adequate credit services to smallholders and CF projects. 3. Rather non-governmental organization (USAID Feed the Future) participated to facilitate loans for CF projects from private Banks. 4. This prohibited the expansion of CF in the area and the majority of smallholder farmers failed to participate and benefit from CF.
No integration to support the sector from governmental body:-	There was limited evidence of collaboration documents regarding contract farming projects.

Challenges identified	Indicators
Poor understanding of the concepts of contract farming:	District government officials and experts had poor understanding of the concepts of contract farming. This made them unable to provide technical support for CF projects as well as for small holder farmers.

5. Conclusion and Recommendation

5.1. Conclusion

The practices of contract farming has long been part of the agricultural production system in developed economies, it is increasingly used in developing countries as an institutional arrangement for facilitating the commercialization of smallholder farmers as a strategy that leads to income growth and poverty alleviation. In Kafa Zone, there were 7 contract farming projects where the majority of contract farming projects (57%) were found in the study area (Gimbo district). The engagements of the companies in CF were in two sectors namely coffee and tea. Gimbo district is suitable for producing high-value cash crop crops like coffee and tea and there are different PLCs and cooperatives involved in coffee and tea production. Contract farming projects are under practice in the area and these projects have been practicing it with their effort.

The total land developed by smallholder farmers as a contract agreement with the contract farming project was 1207.12 ha and the amount of production was 2089 tones. The average productivity of Coffee was about 10 qt/ha. Before contract farming implementation, the productivity of coffee was 3-4 qt/ha. After the implementation of contract farming, the yield tripled and the price of red rip cherry coffee increased from 7 birr/kg to 19 birr/kg within a short time. The practices of contract farming at Gimbo district increased the production and productivity of coffee and also it created good opportunities to minimize the interferences of middlemen in the coffee market that the smallholder farmers sold their product directly to the contract farming projects. Contract farming projects in the study area created permanent and temporary job opportunities for the local community. The contract farming projects were created for 44 permanent and 345 temporary job opportunities for the local community.

The smallholder farmers were receiving a lot of support from the contract farming projects. The main support provided by CF projects was inputs and production services. Contract farming projects provided support like a supply of basic inputs such as seedlings and fertilizer, advisory services like land preparation, field cultivation and harvesting through theoretical and practical training and the like. Smallholder producers received and provided credit services to finance their production.

The study concluded that factors that influenced the con-

tract farming were in the study area are external. These external factors included; lack of availability of infrastructure, poor support from governmental organization, lack of integration of appropriate stake holders to support the sectors, lack of legal document the likes. Furthermore, the results made it clear that at district level the government body failed to consider contract farming as a development strategy to link smallholder farmers to profitable agricultural markets. Unless there were interventions and the conditions and incentives related to contract farming projects, it would be so challenging to expand contract farming in the study area.

5.2. Recommendations

This study identified the possible challenges of contract farming practices at gibio district. Based on the findings and conclusion, the study forwarded the following possible recommendations.

Government can enhance contract farming by playing the following roles. The first role is awareness creation and capacity building. Organizing experience sharing programs among farmers, preparing field visits for farmers and workshops for concerned governmental officials and NGOs can help to increase the awareness about contract farming. It is also strongly recommended that experts and government officials at district level should get capacity building training and participate in workshops to well understand of the concepts of contract farming. This may help them to get about the initiatives by governmental in supporting and expanding contract farming projects and get international experiences how contract farming was implemented in other countries of the world.

The second role is strengthening Extension services. Proper implementation of the contractual schemes could not be realized without responsible, well integrated, and long-term institutional support given to it. Thus, strengthening the extension service can facilitate the easy dissemination of the required knowledge to increase production and productivity in the study area.

The third role is strengthening organizational setup. Contract farming needed to have a principal institute that spearheads overall promotion and support it needs. So, government should evaluate and arrange organizational structure which would support contract farming practices at national and regional, Zonal, and district level. Work with the private sector and CSOs in developing SOPs or concession programs to protect larger investments and/or create a business enabling

environment.

The fourth role is developing delivery unit. Since contract farming implementation was not carried out by a single department of governmental organization, delivery unit should be established at different level. At district level in particular, the delivery unit have to be accountable to head of the district. This delivery unit should be composed of appropriate stakeholders at district level like law, cooperative, agriculture, NGO the likes. It should have defined roles and responsibilities and it should be accountable for its role, duties and responsibilities.

The fifth role is assuring accountability and transparency. Transparency is vital for the success of any developmental and business projects. Therefore, it important to assure transparency to avoid mistrust by involving farmers into decision-making on possibly necessary adjustments of the contract farming project model and plan and ensure that corruption in any form does not occur. It is also encouraging if government can purchase producers' outputs where possible.

The sixth role is enhancing financial services. It is important to directly provide or facilitate access to funding/credit access for producers and buyers, such as loans to farmers or grants to buyers committed to investing in lifting smallholders' capacity.

Companies that are involved in contract farming can create conducive contract implementation conditions by playing their roles in the processes. The roles that the companies can play are engaging smallholder producers in the project design and implementation, ensure prompt payments to smallholder farmers, provide support services to smallholders by facilitating training, organizing technology transfer programs, arrange insurance and supply inputs to them to build trust. Besides, helping smallholders to understand terms of contractual agreements, signing contracts with farmers' cooperatives rather than with individual farmers, can reduce uncertainties in the contract farming.

Smallholder producers can also get maximum benefit from contract farming when they consider forming cooperatives or associations or joining existing one which will facilitate the communication of grievances. Smallholder farmers are also expected to ensure their understanding about the terms of the contract, including the product requirements. The forming of associations or cooperatives can aid them to increase their bargaining power and reduce the chance of being exploited in the process.

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Author Contributions

Dereje Abebe Wubie is the sole author. The author read and approved the final manuscript.

Data Availability Statement

Data can be made available based on reasonable request.

Conflicts of Interest

The author declares no conflicts of interest.

References

- [1] Singh, S. (2005). Role of the State in Contract Farming in Thailand, Experience and Lessons, ASEAN Economic Bulletin, No 22-2 p. 217-228.
- [2] Little, P. D., Watts, M. J. (1994). Living Under Contract. University of Wisconsin Press, Madison.
- [3] Christensen S. R. (1992). 'Between the Farmer and the State: Towards a Policy Analysis of the Role of Agribusiness in Thai Agriculture', Thailand Development Research Institute (TDRI).
- [4] Rottger, A. (2004). Strengthening Farm-Agribusiness linkage in Africa. Summary Results of five country Studies. AGSF Occasional Paper No 6, FAO, Rome.
- [5] Ghee, L. T. & Dorall R. (1992). Contract Farming in Malaysia: With Special Reference to FELDA Land Schemes. In Glover, D. and L. T. Ghee (eds.) Contract Farming in Asia. PP. 71-119. Institute for Advanced Studies, University of Malaysia, Kuala Lumpur.
- [6] Abate E. & Teshome A. (2009). Contract Farming: Theoretical Concepts, Opportunities and Challenges in Mid and High Altitude Areas of Northwestern Ethiopia. Proceedings of the First National Conference of the Bahir Dar, Ethiopia.
- [7] USAID. (2015). Building an enabling environment for contract farming success. Policy Brief No. 6.
- [8] Cramer, C., Mulat, D., Alemayehu, G., Weeks, J., Amin, A., and Demerew, G. (2004). Concretization of ADLI and Analysis of Policy and Institutional Challenges for an Ethiopian Diversification Strategy, University of London, Center for Development Policy Research (Working paper).
- [9] FDRE (Federal Democratic Republic of Ethiopia) (2001). Rural Development Policy and Strategies document of FDRE, Ministry of Information, Addis Ababa, Ethiopia.
- [10] Alemu, A., Maertens, M., Deckers, J., Bauer, H., & Mathijs, E. (2016). Impact of supply chain coordination on honey farmers' income in Tigray, Northern Ethiopia. Agricultural and Food Economics, 4: 9.
<https://doi.org/10.1186/s40100-016-0053-x>

- [11] Seba, S. (2016). Impact of Contract Farming on smallholders in Ethiopia: The case of chickpea growers A thesis submitted in partial fulfillment of the requirements for the Degree of Master of Commerce (Agricultural) at Lincoln University.
- [12] Gemechu, M., Jema, H., Belaineh, L., & Mengistu, K. (2017). Impact of participation in vegetables' contract farming on household's income in the central rift valley of Ethiopia. *American Journal of Rural Development*, 5(4), 90–96. <http://doi.org/10.12691/ajrd-5-4-1>
- [13] Ton, G., Vellema, W., Desiere, S., Weituschat, S., & D'Haese, M. (2016). Effectiveness of contract farming for improving income of smallholder farmers-preliminary results of a systematic review. <http://ageconsearch.umn.edu/bitstream/244792/1/>
- [14] Abdulai, Y., & Al-hassan, S. (2016). Effects of contract farming on smallholder soybean farmers' income in the eastern corridor of the northern region, Ghana. *Journal of Economics and Sustainable Development*, 7(2), 103–113.
- [15] Ragasa, C., Lambrecht, I., & Kufoalor, D. (2018). Limitations of contract farming as a pro-poor strategy: The case of maize out grower schemes in Upper West Ghana. *World Development*, 102(2018), 30–56. <https://doi.org/10.1016/j.worlddev.2017.09.008>
- [16] Holtland, G. (2017). Contract farming in Ethiopia: Concept and practice (1st ed.). AgriProFocus.
- [17] Biggeri, M., Burchi, F., Ciani, F., & Herrmann, R. (2018). Linking small-scale farmers to the durum wheat value chain in Ethiopia: Assessing the effects on production and wellbeing. *Food Policy*, 79, 77–91.
- [18] Lenjiso, B. M., Smits, J., & Ruben, R. (2016). Smallholder milk market participation, dietary diversity and nutritional status among young children in Ethiopia. *Journal of Gender, Agriculture and Food Security*, 1(2), 129–147.
- [19] MoA, (2020). Case Study on contract farming in Oromia, SNNP, Amhara and Tigray Regional States (unpubl. Report), Ethiopia.
- [20] Rehber, E. (2007). A Global Overview of Contract Farming, (B. V. S. Prasad, S. Mohanty; Editors), ICFAI University Press, pp. 3–38.
- [21] Eaton C., Shepherd A. W. (2001). Contract Farming: Partnership for Growth. FAO Agricultural Services Bulletin 145: Rome, Italy.
- [22] Silva, C. D. (2005). The growing role of contract farming in agri-food systems development: drivers, theory and practice.
- [23] Glover, D. and K. Kusterer (1990), Small Farmers, Big Business: Contract Farming and Rural Development, Macmillan, London.
- [24] USAID. (1994). Assessment of Contract Farming in Lam Nam Oon, Thailand, Centre for Development Information and Evaluation, USAID working paper No. 193, USAID and the Royal Thai Government.
- [25] Dunham, D. (1995). Contract farming and export horticulture: can agribusiness revitalise the peasant sector in Sri Lanka? Research Studies Agricultural Policy Series No. 3, Institute of Policy Studies, Colombo.
- [26] Porter G., Phillips-Howard K. (1997). Comparing contracts: An evaluation of contract farming schemes in Africa *World Development*, 25(2), 227–238.
- [27] Fulton A. L. A., & Clark R. J. (1996). 'Farmer Decision-making under Contract Farming in Northern Tasmania' in Burch D., Rickson R. E. and Lawrence G. (eds.): *ibid*, (1996), 219–237.
- [28] Singh, S. (2002). Contracting out solutions: Political economy of contract farming in the Indian Punjab. *World Development*, 30(9), 1621–1638.
- [29] Grosh, B. (1994). "Contract Farming in Africa: An Application of the New Institutional Economics." *Journal of African Economies* 3 (2): 231–261.
- [30] White, B. (1997). Agroindustry and contract farmers in upland West Java. *The Journal of Peasant Studies*, 24(3), 100–136.
- [31] Burch, D. (1994). Agribusiness, Peasant Agriculture and the State: The Case of Contract Farming in Thailand. In: Lloyd, T., Morrissey, O. (eds) *Poverty, Inequality and Rural Development. Case-Studies in Economic Development*. Palgrave Macmillan, London. https://doi.org/10.1007/978-1-349-23446-2_9
- [32] MoA (Ministry of Agriculture) (2021). Annual report document, Addis Ababa, Ethiopia, Unpublished report.
- [33] Key, N., & Runsten, D. (1999). Contract farming, smallholders, and rural development in Latin America: the organization of agroprocessing firms and the scale of out grower production. *World Development*, 27, 381–401.
- [34] Benziger, V. (1996). Small fields, big money: Two successful programs in helping small farmers make the transition to high value-added crops. *World Development*, 24(11), 1681–1693.
- [35] Singh, S. (2000). Contract farming for agricultural diversification in the Indian Punjab: A study of performance and problems. *Indian Journal of Agricultural Economics*, 55(3), 283–294.
- [36] Asano-Tamanoi, M. (1988). Farmers, industries, and the state: the culture of contract farming in Spain and Japan. *Comparative Studies in Society and History*, 30(3), 432–452.
- [37] Warning, M., & Key, N. (2002). The social performance and distributional consequences of contract farming: An equilibrium analysis of the Arachide de Bouche program in Senegal. *World development*, 30(2), 255–263.
- [38] Winters, P., Simmons, P., and Patrick, I. (2005). Evaluation of a hybrid seed contract between smallholders and a multinational company in East Java, Indonesia. *Journal of Development Studies*, Vol. 41(1): 62–89.
- [39] Cahyadi, E. R., & Waibel H. (2013). "Is Contract Farming in the Indonesian Oil Palm Industry Pro-Poor?" *ASEAN Economic Bulletin* 30 (1): 62. <http://dx.doi.org/10.1355/ae30-1d>

- [40] BIRTHAL, P., GULATI A., & JOSHI P. K. (2005). Vertical Coordination in High-Value Food Commodities: Implications for Smallholders. Markets, Trade, and Institutions Division Discussion Paper No. 85. Washington, DC: International Food Policy Research Institute.
- [41] Ramaswami, B., BIRTHAL P. S., & JOSHI P. K. (2006). Efficiency and Distribution in Contract Farming: The Case of Indian Poultry Growers. Markets, Trade, and Institutions Division Discussion Paper 91. Washington, DC: International Food Policy Research Institute.
- [42] Bolwig, S., Gibbon P. & Jones S. (2009). "The Economics of Smallholder Organic Contract Farming in Tropical Africa." *World Development* 37 (6): 1094–1104.
<http://dx.doi.org/10.1016/j.worlddev.2008.09.012>
- [43] Miyata, S., Minot N., & Hu D. (2009). "Impact of Contract Farming on Income: Linking Small Farmers, Packers, and Supermarkets in China." *World Development* 37 (11): 1781–1790.
- [44] Sanimu Y. B. (2019). Determinants of Farmers' Adoption on Sustainable Agricultural Practices; The Case of Kafa Zone, Gimbo District, Ethiopia. M.Sc. Thesis, St. Mary's University, Addis Ababa, Ethiopia.
- [45] Jones, S., and Gibbon P. (2011). "Developing Agricultural Markets in Sub-Saharan Africa: Organic Cocoa in Rural Uganda." *Journal of Development Studies* 47 (10): 1595–1618.
- [46] Bellemare, M. F. (2012). As you sow, so shall you reap: The welfare impacts of contract farming, *World Development*, 40(7), 1418–1434.
- [47] Freguin-Gresh, S., Anseeuw W., and D'Haese M. (2012). "Demythifying Contract Farming: Evidence from Rural South Africa." Paper presented at the International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil, August 18–24.
- [48] Jaffee, S. M. (1994). Contract farming in the shadow of competitive markets: the experience of Kenyan horticulture. In P.D. Little & Watts, M. J., eds. *Living under contract: contract farming and agrarian transformation in sub-Saharan Africa*, p. 97-139. Madison, University of Wisconsin Press.
- [49] Sartorius, K., Kirsten J., & M. Masuku. (2004). "A New Institutional Economic Analysis of Small-Scale Farmer Contracts and Relations in the Sugar Supply Chains of South Africa and Swaziland." Mimeo, Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa.
- [50] Minot, N. (2011). Contract Farming in sub-Saharan Africa: Opportunities and Challenges. Prepared for the policy seminar organized by ACTESA-MSU-IFPRI African Agricultural Markets Programme. Kigali, Rwanda, April.
- [51] Narrod, C., Roy D., Okello J., Avendaño B., Rich K., & Thorat A. (2009). "Public-Private Partnerships and Collective Action in High Value Fruit and Vegetable Supply Chains." *Food Policy* 34 (1): 8–15.
<http://dx.doi.org/10.1016/j.foodpol.2008.10.005>
- [52] Coulter, J., Goodland, A., Tallontire, A., and Stringfellow, R. (1999). Marrying Farmers Cooperation and Contract Farming for Service Provision in a Liberalizing SubSaharan Africa. Overseas Development Institute, Natural Resource Perspective No. 48.
- [53] GDOA (Gimbo District Office of Agriculture), (2021). Annual report document, Gimbo District Office of Agriculture, Kaffa Zone, Ethiopia. Unpublished report.
- [54] Poppulation projection Ethiopia (2019).
- [55] Yamane, T. (1967). *Statistics: An Introductory Analysis*, 2nd edition, New York: Harper and Row.
- [56] Birhanu A. (2018). Coffee Value Chain Analysis; The Case of Gimbo District of Kafa Zone, Southwest Ethiopia, Msc Thesis, Jimma Univesrsity, Jima, Ethiopia.
- [57] Bekele, Y. (2019). *Determinants of Farmers' adoption on Sustainable Agricultural Practices; The Case of Kafa Zone, Gimbo District, Ethiopia* (Doctoral Dissertation, St. Mary's University).
- [58] Dicken, P. (1986). *Global shift: industrial change in a turbulent world*. University of Manchester, London, Paul Chapman.
- [59] Baumann, P. (2000). Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural Tree Crops. Working Paper 139. London: Overseas Development Institute.
- [60] Kirsten, J., & Sartorius K. (2002). "Linking Agribusiness and Small-Scale Farmers in Developing Countries: Is There a New Role for Contract Farming?" *Development Southern Africa* 19 (4): 503–529.
<http://dx.doi.org/10.1080/0376835022000019428>
- [61] Glover D., Ghee L. (1992). Contract Farming T. South East Asia: Three Country Case Studies. Kuala Lumpur: University of Malaysia.
- [62] Glover, D. (1994). Contract farming and commercialization of agriculture in developing countries. In Braun, J. V., & Kennedy, E. (Eds.), *Agricultural commercialization, economic development and nutrition* (pp. 166–175). Johns Hopkins University Press.
- [63] Kumar, J., & Kumar, K. P. (2008). Contract farming: Problems, prospects and its effect on income and employment. *Agricultural Economics Research Review*, 21(2), 243-250.
- [64] Aibinu, A. A. (2009). Avoiding and mitigating delay and disruption claims conflict: Role of precontract negotiation. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 1(1), 47–58.
[http://dx.doi.org/10.1061/\(ASCE\)1943-4162\(2009\)1:1\(47\)](http://dx.doi.org/10.1061/(ASCE)1943-4162(2009)1:1(47))
- [65] Chong, H., & Zin, R. M. (2012). Selection of dispute resolution methods: Factor analysis approach. *Engineering Construction & Architectural Management*, 19(4), 428–443.
<http://dx.doi.org/10.1108/09699981211237120>
- [66] Harmon, K. M. (2003). Resolution of construction disputes: A review of current methodologies. *Leadership and Management in Engineering*, 3(4), 187–201.
[http://doi.org/10.1061/\(ASCE\)1532-6748\(2003\)3:4\(187\)](http://doi.org/10.1061/(ASCE)1532-6748(2003)3:4(187))

- [67] Lu, W., & Liu, J. (2014). Research into the moderating effects of progress and quality performance in project dispute negotiation. *International Journal of Project Management*, 32(4), 654–662. <https://doi.org/10.1016/j.ijproman.2013.09.008>
- [68] Moza, A., & Paul, V. K. (2016). Review of the effectiveness of arbitration. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 9(1), 03716002. [http://doi.org/10.1061/\(ASCE\)LA.1943-4170.0000204](http://doi.org/10.1061/(ASCE)LA.1943-4170.0000204)