



# Debt, Dispossession and Growing Inequality in Shan State

## A Policy Discussion Brief on Maize Contract Farming



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### Livelihoods and Food Security Trust Fund



## Introduction

Industrial agriculture has become prominent in Southeast Asia over the past decade, in part driven by China's global economic rise, and its corresponding rising demand for agricultural commodities. Regional and global corporations investing in large-scale production of food, feed and fuel present new opportunities to smallholders and businessmen, as well as threats to land, resources and livelihoods.

Myanmar is a signatory to the Voluntary Guidelines on the Governance of Tenure (VGGT), which state that investments, including those in agriculture, must be responsible and should do no harm, should safeguard against dispossession of legitimate tenure right holders and environmental damage, and should respect human rights [1]. This is of particular importance in Myanmar where according to government data, half of the 6 million household farms are less than 5 acres, which is at or below minimum subsistence levels. The one-third of households which hold less than 3 acres of farmland exist in an even more precarious state [2].

It is into this vulnerable environment that agricultural investments from multi-national and domestic companies are entering, increasingly seeking to integrate smallholder farmers into global agro-commodity supply chains through various forms of contract farming. This rapid transition away from subsistence production for local markets offers smallholders increased economic opportunities but also exposes them to greater risk of debt, food insecurity and dispossession of their lands. Such impacts do not comply with the VGGTs, which further state:

Investments should strive to further contribute to policy objectives, such as poverty eradication; food security and sustainable use of land, fisheries and forests; ... contribute to rural development; promote and secure local food production systems; enhance social and economic sustainable development; ...and provide benefits to the country and its people, including the poor and most vulnerable.

This policy brief, building on research conducted by the Land Core Group (LCG) [3], describes the maize contract farming scheme being implemented by Chareoun Phokphand (hereafter CP Group for the company, and CP for their maize product) in North and South Shan State. As CP's system is one of the longest contract farming schemes running in Burma, it provides a unique opportunity for longitudinal analysis. The brief discusses both the potential benefits for smallholders and the many negative socio-economic impacts of the program; it also compares how companies grow maize in other countries in the region. The brief concludes with discussion of the measures that must be taken by the Government of Myanmar to ensure company operations investing in smallholder production systems are fair and deliver benefits for, whilst also protecting the rights of, vulnerable smallholders.

## What is Contract Farming?

In this age of market liberalization and rapid globalization, expanding global agribusiness companies are increasingly relying on formal and informal contracts with producers.

Although contract farming has many specific variants, its core concept is relatively simple. FAO defines it as 'an agreement between farmers and processing and/or marketing firms for the production and supply of agricultural products under forward agreements, frequently at predetermined prices. The arrangement also invariably involves the purchaser in providing a degree of production support through, for example, the supply of inputs and the provision of technical advice'[4].

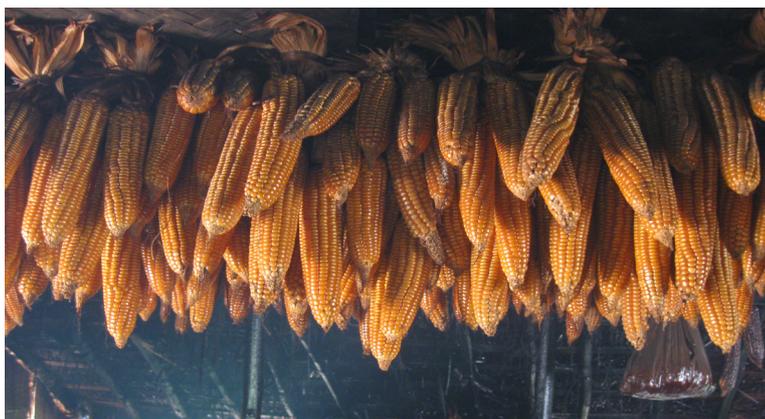
Such arrangements are based on farmers committing to provide specific crops at company-determined quantities and quality standards. The company for its part commits to support the farmer's production and to purchase the crops they grow. The extent of the mutual commitment between farmers and a company varies according to a number of factors: the level of support provided by the company (agro-inputs, technical advice etc.); the specificity of company requirements (size, shape of crop etc.); and the degree of formalization of crop sale and purchase contracts.

At their best, contract farming schemes allow farmers to access protections (in the forms of more affordable de facto terms for credit/input costs and in market access guarantees) not otherwise available in lazier faire market models. However, without effective management and a supportive regulatory environment, contract farming imposes considerable risks and negative impacts on smallholders – as this research in Shan State demonstrates.

## How Does Maize Cultivation Operate in Shan State?

The scale of smallholder production of high-yielding maize in Shan State is vast. Myanmar government figures show over 500,000 acres of maize was planted in 2013, with more grown in northern parts of Shan state; maize is now the 2<sup>nd</sup> largest crop planted after paddy rice, with 1.5 million tons of maize harvested. The most common maize variety planted is 888, a seed produced and sold by the CP Group of Thailand. This growth is reflected in a local NGO worker's comment: "If maize is there, a road will come; maize is the new gold here". The majority of this high-yielding maize is destined for export, with up to 75% imported by China. Officially, maize exports earned over USD 200 million in 2011/12, a likely underestimate as unofficial exports across the borders with Thailand and China are not included.

CP Groups' contract farming arrangements are unconventional, notably because there are no formal contracts directly between smallholder producers and the CP Group. What allows this scheme to be considered contract farming at all is the fact that farmers are de facto compelled to concentrate in CP Group both their investment decisions (from where they get financing, inputs) and their production decisions (to whom they sell their product). Such concentration is effected by CP's local brokers, who by providing credit (cash) and inputs (seeds and agro-chemicals) to smallholders and then marketing the harvested maize, connect producers with the CP Group at both ends of the production cycle. Brokers buy inputs wholesale in cash either directly from the CP Group or on the open market before advancing them to smallholders; later, smallholders sell their maize harvest to the brokers under a range of informal agreements. Brokers then sell maize to agents further up the commodity chain who in turn transport it, mainly across the Chinese border into Yunnan, for use in China's chicken feed market. Under this arrangement, CP Group has eliminated its own direct liability and responsibility for cultivation and procurement of maize, shifting all risks to smallholders, and to a lesser extent to brokers.



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## Who are the Main Actors in the CP Maize System?

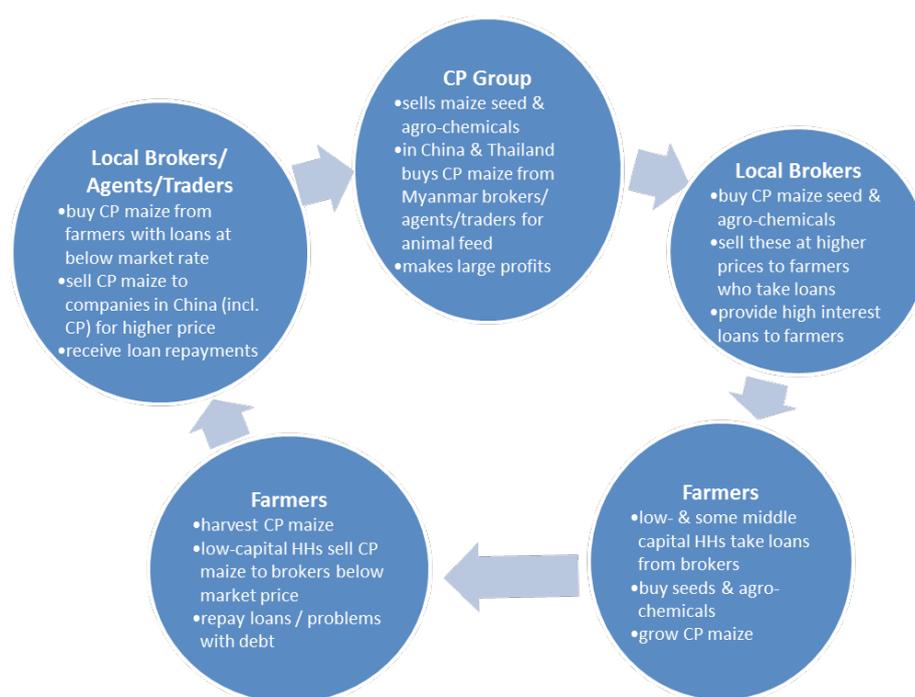
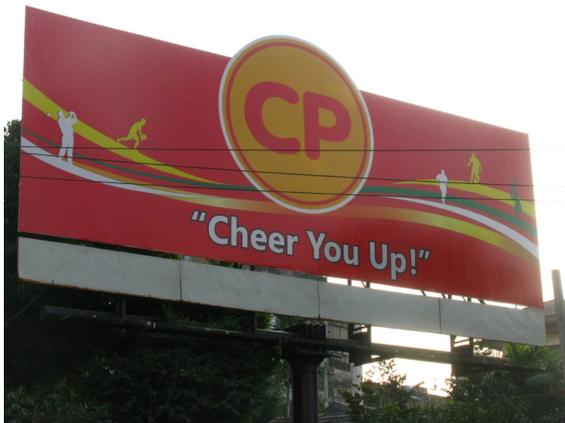


Figure 1. Flow Chart of the Specific Roles of the Different Actors Embedded in the Supply Chain within Myanmar

## Who Are the CP Group?

The Chareoun Phokphand Group is a Sino-Thai company and Thailand's largest business conglomerate, investing in over 20 countries, with agribusiness and food production a core area of operations. In the agri-business sector CP Group is a regional powerhouse, and the largest independent producer of animal feed in the world. During the 1990s the CP Group made deals with the Myanmar military-government for production of high-yielding CP maize by smallholder farmers for export to China and Thailand. It focused on Shan State for a number of reasons, including proximity to the Chinese border, the right growing conditions for maize, plentiful smallholders, abundant farm labour, and plenty of agricultural land. The chief concerns for the CP Group are: the continuity of maize supplies; the lowest possible production costs; and the maximization of profits.

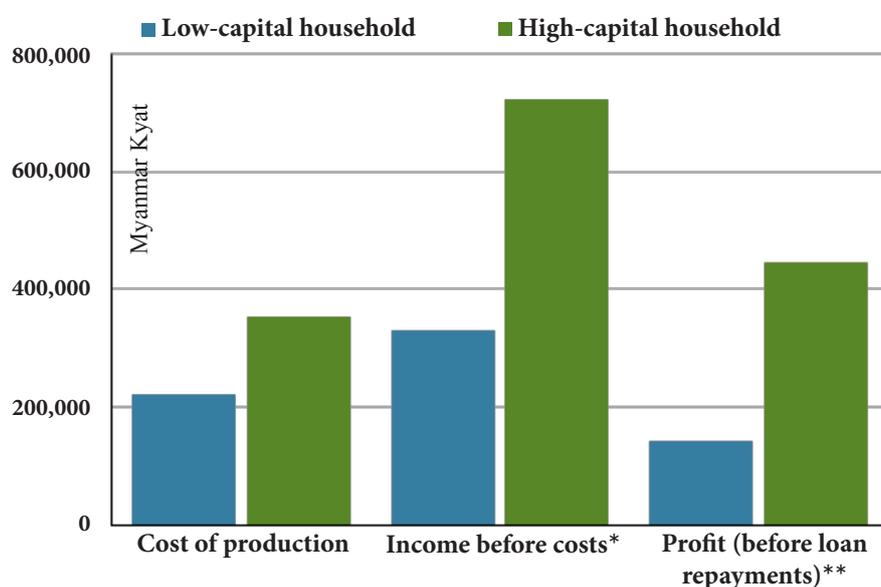


## Who Benefits and Who Loses?

In Myanmar local brokers and government extension officers make outsized promises to smallholder farmers about CP maize: farmers will reap bountiful profits, maize is the new gold, and everyone can grow and prosper. However, many of the farmers who actually come to cultivate CP maize experience a different reality. In truth poor farmers are experiencing severe problems from growing CP maize, which are mostly not due to technical obstacles but to socio-economic and other political factors.

Research in Shan State shows that lower capital farmers can only obtain enough credit to invest an average of USD 225 per acre to grow maize, compared to higher capital farmers who invest USD 350 per acre. Farmers with lower capital are therefore not able to buy optimum quantities of inputs such as fertilizers and pesticides, leading to dramatically lower yields than promised. Average yields of CP maize for higher capital farmers are 1,775 viss per acre, nearly 120% higher than farmers with lower capital (who only harvest 813 viss per acre).

Figure 2. Low- versus High-Capital Household CP Maize Average Benefit Analysis (per acre), across Four North Shan State villages, 2013



\*Gross income is total income from sale of maize harvest before deduction of production costs

\*Net income is income after deduction of production costs but before loan repayments

\*Loan repayments only apply to low-capital HHs

Our research shows that lower capital farmers in North Shan State have an average income of only US\$ 145 per acre. Because loans must still be repaid from this gross, the poorer of these farmers often end up in debt at the end of the cycle. In contrast, higher capital farmers, with no loans to repay, make an average profit per acre of US\$ 450. The most vulnerable farmers are being driven deeper into poverty through their cultivation of CP maize. The current model of smallholder CP maize production is further exacerbating poverty, standing at odds with one of the key goals of Myanmar’s national development strategies.

### Grow Maize, Borrow Money, Lose Your Land?

The recurring capital needs of poor farmers is one of the main limiting factors keeping them indebted to creditors and brokers, a phenomenon that holds equally for farmers in other parts of Myanmar, as well as other places in the region (including Laos and Cambodia) [5-7]. In Myanmar farmers with low levels of capital have to borrow money from brokers to pay for all inputs needed to grow CP maize. Interest rates are often 5% per month, and as yields (and thus profits) are lower than promised, farmers fall into debt.

There is a growing trend amongst brokers in the region and especially in North Shan State to require land as collateral for loans. In Myanmar this has increased since creation of a le-

gal land market, where farmers can now obtain, buy and sell Land Use Certificates (LUCs) for the land they farm. Some brokers are keen to obtain valuable – and often rapidly appreciating – land through loan default. Indeed, once debts become too large, farmers are forced to sell land to brokers. As land is farmers’ primary productive asset, their standard of living often never recovers. The number of farmers losing land is increasing and this dispossession is of grave concern as it destroys their main source of livelihood [3].

The need for farmers to rely upon this system of credit is perpetuated through CP Groups’ use of contracted brokers rather than direct contracting with the producers themselves. This is because the CP Group is not equipped to effectively regulate hundreds of local brokers, each with his or her own methods of engaging farmers and incentives for diverging from any official policy. Instead, CP Group abdicates this role, all while retaining market leverage.





## Is Food Security Improved?

Farmers in Shan State with lower capital find it more difficult to feed their families after growing CP maize. How is it possible that farmers grow so much maize but experience increased food insecurity? Farmers are switching from growing traditional subsistence foods (and some cash crops), to growing maize for cash, which is then used to buy food in the market. As profits from CP maize are less than promised, and as yields fall each year, farmers with lower levels of capital have less cash to buy food. Consequently, our findings show that they are increasingly borrowing money to buy poorer quality food. Farmers with lower levels of capital stated that growing CP maize was a bad decision for them and only good for brokers and the CP Group. For many smallholders growing CP maize does not 'promote and secure local food production systems' as required in the VGGTs.

## What are the Environmental Impacts?

In general CP maize is planted on the same plots of land every year, very different from traditional rotational agriculture, or taungya systems. With CP maize there is no crop rotation and no fallow periods for the soil to recover its natural fertility. Farmers expressed concern that several years of planting CP maize led to severe reductions in soil fertility. CP maize growers in northern Cambodia have observed 50% yield decreases over time [5]. To counteract loss of soil fertility, CP Group brokers advise farmers to apply ever-higher levels of fertilizer. As their lands' soil has become highly depleted, farmers hence find it difficult to switch back to their previous methods of cultivation; they become dependent on input-intensive techniques even though they do not benefit from them.

What's more, as CP maize is a hybrid variety, it has very specific requirements for agro-chemical inputs. The crop requires large doses of NPK and urea fertilisers as well as use of pesticides. These chemicals are taken by rain-water into local streams and rivers causing pollution, which in high enough concentrations can kill aquatic life and damage human health.

## How is Maize Contracting Done in Other Countries?

The current small-farmer maize system used by CP Group is not delivering poverty reduction, food security and rural development and is in fact driving debt and land dispossession. However contract growing of maize does not have to result in such negative impacts for farmers with lower levels of capital. This section

explores case studies from neighbouring countries where hybrid maize is grown and where there have been some more positive impacts.

## CASE STUDY: Cambodia – CP Group Maize in the North-West [5]:

CP Group produces maize through smallholder farmers in northwest Cambodia along the Thailand border using a similar system to that in Shan State. Most farmers in the area have low levels of capital, infrastructure is poor and they are not organised into producers' groups. Just as in Shan State, local middlemen link the company with the farmers and provide credit and inputs (seeds, agro-chemicals). There are no formal contracts, with all agreements being verbal. Farmers sell maize harvest to brokers who then sell it to CP Group in Thailand where the maize is used mostly for animal feed. Loans are often secured against land (although it is not common for farmers to be dispossessed).

Case study results from 2011 showed average incomes for these low-capital farmers were USD 200 per acre from growing CP maize, before repayment of loans. Of course this average figure hides internal variation, wherein some farmers made significant losses, due to adverse weather and pest infestations. Nevertheless these figures demonstrate the potential for low-capital smallholder farmers to at least make some profits from growing CP maize.

What factors contributed to this greater relative success when growing CP maize? In Cambodia in 2011 there were: 1) relatively high global maize prices: farmers had good economic returns on their harvests; 2) company extension services: middlemen/traders were trained by CP Group to provide technical information to local farmers which reduced crop loss; 3) more affordable credit – farmers had a choice of credit providers including local brokers, NGO village agriculture co-operatives, micro-finance institutes and the government Rural Development Bank. This competition between providers reduced interest rates, making loans more affordable.

Despite these positive findings, many farmers remained in overall debt from growing CP maize in previous years. The main reasons were 1) fluctuating global commodity prices: as farmers cannot control maize prices, if they lack consumption smoothing institutions (which would allow them to save one year when prices are high to then borrow if prices slump in the next year) they can end up taking on a disastrous debt burden; 2) lack of market information – farmers do not know end sale prices for maize and so have little bargaining power; 3) informal contracts – CP Group and their brokers do not offer guarantees to farmers and so farmer incomes fluctuate. This case displays some opportunities for improvement while also the need for further reform.

## CASE STUDY: Indonesia – Pioneer Hybrid Maize Seeds [9]:

Pioneer is a multinational corporation growing a range of agricultural products in numerous countries. In East Java, they contract with 10,000 smallholder farmers through 50 grower groups to grow hybrid maize seed for sale to other farmers. The average acreage planted is small at only 0.5 acres. Yet growing maize for Pioneer was profitable for smallholders as the system was designed so as to reduce their risks.



The system has important components that support smallholders, including:

- Farmer organization – Farmer grower groups negotiate contracts, increasing the farmers' collective bargaining power;
- Written contracts – Contracts are signed between grower groups and the company and overseen by government extension workers to ensure fairness.
- Pioneer guarantees – The company pledges to purchase all maize seed produced, regardless of quality. While Pioneer initially bears this costs to reduce the risk to farmers and provide time to improve their mastery of a new technology, if farmers repeatedly fail to follow growing instructions they are excluded from future contracts.
- Credit – Pioneer organizes affordable credit through a commercial bank, costs of inputs (except extension) are deducted from post-harvest crop payment, collateral is future crop not land and rates are lower than commercial banks
- Provision of inputs – Pioneer provides foundation seed, money for land preparation, chemicals and extension services;

- Extension services - Pioneer provides one extension officer for every two villages; these workers advise growers, monitor crops and provide feedback to the company

From the smallholder perspective Pioneer contracts provide a low-cost way to access maize seed markets; provide credit (which overcomes smallholder constraints); reduce risk of high cost inputs; and ensure a guaranteed price. While the system is different from how CP Group grows maize in Shan State (as Pioneer's is designed for a low-volume high-quality crop), it does demonstrate how fair contracting from a responsible company is possible, and can provide substantial benefit to smallholder farmers.

## Policy Recommendations

Elements of contract farming, such as a pre-agreed supply contract between farmers and buyers, have the potential to alleviate poverty and provide new sources of rural economic growth, while respecting customary and/or statutory land rights. To ensure that contract farming delivers better access to markets, improved market information, affordable credit, inputs and technologies, reduced market risk and increased household capital assets, an enabling environment must be present. The enabling environment needs to include good governance, consensual agreements between producers and buyers, and well-organized, state-protected farming communities. This section draws on the evidence from research in Shan State and from experience in other countries, especially the review of success factors in 35 contract farming systems across the globe [10]. The aim is to mitigate the negative impacts from contract farming of CP maize which smallholders currently experience, especially debt and loss of land.

**Stop Use of Land as Collateral** – Cultivation of CP maize can result in dispossession of land, which in turn leaves smallholder farmers destitute. Regulations should be implemented to forbid contract farming companies or their brokers from using land as collateral for loans.

**Provide Affordable Credit** – Lack of access to affordable credit and consequent indebtedness are the largest constraints on smallholders. Volumes of credit available need to increase and interest rates charged need to be reduced. For this to happen farmers must be provided with increased choice of credit providers, and that credit system must be appropriately regulated.

**Support Farmers Organisations** – The current CP Group production system forces smallholder farmers and especially those with low levels of capital to take on the most risk. Farmer-led co-operatives and unions increase farmers' bargaining power, reduce transaction costs for firms, and act as a forum for complaint resolution.

**Obligatory Formal Contracts** – A lack of formal contracts provides little security for growers, whereas formal contracts can reduce risks and maximise profits. Such contracts must guarantee stable prices so as to insulate farmers from price drops that often occur in volatile international commodity markets [11].

**Regulate Companies** – To ensure contract farming provides fair distribution of benefits to both smallholder farmers and companies, commodities produced and traded must be made to do no harm to anyone involved in the supply chain, and must meet international environmental and social standards.

**Improve Extension Services** – For smallholders to maximize yields, they need to have good technical information and training. They also need to understand the advantages and disadvantages of engaging in export oriented agricultural markets – such as cash-crop price volatility. Effective extension should be provided by State agencies and by agriculture company employees.



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