

## Participation by Tribal farmers from North East Region in Global Value Chain: A Case Study of Ginger in KarbiAnglong<sup>1</sup>

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### Abstract

*In the light of growing integration of agriculture of North East with the global economy, the present paper examines a case study of ginger growers from Karbi Anglong to argue that resource poor smallholders are unlikely to benefit by participating in the global value chain. The paper further argues that if a region lacks in appropriate infrastructure and developments, merely pushing farmers to participate in global value chain can do more harm than good. The evidence collected from the data shows that institutional innovations such as much acclaimed Gin-Fed model has failed to take off. The paper further argues that any effort to link the region with the global economy must not overlook institutional specificities such as community based ownership of resources. The paper concludes with an observation that there is more to look within and resolve many tricky issues before we open up for gainful participation in the global value chain under the new liberalized trade regime.*

### 1. Introduction

Even in 21<sup>st</sup> century, an overwhelming majority of developing countries continue to be marked by persistently high share of population dependent on agriculture for livelihood. Among such population, most are smallholders, who, along with agricultural labour, account for majority of the rural poor in most developing countries. In such context, any policy that affects smallholders has significant implication for mass poverty in rural areas of the developing countries (Lipton, 2006). Invariably, the question of what these smallholders grow in their field, how they grow and who and how they sell become intricately linked with the development interventions of government, International Funding Agency and NGOs. Increasingly, preferred policy option used by these agents of development initiatives focus on making smallholders part of the global agri-food chain as a strategy to reduce rural poverty.

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In this context, North Eastern Region of India presents itself as an interesting case study. Marked by poor infrastructure and lack of industrial development, the region is characterized by over reliance of its population on its agriculture for livelihood. The share of population in the region that is dependent on agriculture for livelihood stands at 70%, which is much higher than the national average of less than 50% of its population. Overwhelmingly dominated by smallholders, much of the agriculture in the region, particularly its mountainous part, is carried out in subsistence mode, with very little surplus generated for commercial transaction. Despite that, the region is being promoted as a 'potential hub' in the global value chain as a supplier of horticultural and cash crops. In fact, donor agencies, NGOs and the government, both at the centre and state level, all have been actively collaborating to insert the region in the global agri-food chain. A detailed account of different bodies presently active in promoting the region as hub for agricultural exports has been noted in a number of recent literature (Ray et al 2017, Das, 2016). Both NE vision 2020 document, drafted by DONER Ministry, and National Agricultural Policy envisioned for the region creation of faster agricultural development, promotion of value addition through acceleration of demand driven agribusiness to cater to the domestic and export market of agricultural produce. Many of these initiatives are likely to be pursued with renewed vigour even as the government at the centre has made a transition in the policy regime towards the region from 'Look East' to 'Act East'. The grand narrative behind pursuing such policies is that linking resource poor smallholders with large corporate buyers from international market will resolve many of the marketing problems that smallholder face in a setting marked by poor infrastructure in mountainous region. It is expected that smallholders in the region would benefit from competitive prices in international market. In this back drop, the present paper critically evaluates a case study of ginger from Karbi Hills region. The paper is organized as follows: the first section focuses on introduction, followed by a case study of ginger grower, where we discuss about production, marketing and institutional innovation in ginger value chain. The last section concludes with policy suggestions.

The insights from the literature on Global Value Chain indicates that mere participation in the global agri-food supply chain does not ensure that values generated in the value chain would accrue to all its participants (Nathan 2018, Joonkoo et al, 2012, Fold, 2001). The question of who gets what share of values generated in the supply chain is linked with the concept of rent. Drawing on insights from Ricardo's theory of rent, Kaplinsky (2005) defined rent in GVC as something that accrues to only someone 'who possess some scarce resource, capability, knowledge which others do not possess' (Kaplinsky 2005, p.62). Typically, it is the powerful actors who can create entry barrier and appropriate rent generated in the supply chain. Most of the powerful actors placed in the global value chain are located in the Global North and metropolitan cities of Global South.

A related literature suggests that participation in global value chain has differentiated effect on different geographies as global production network cuts through national and regional boundaries, inserting its supply chain (Hess and Yeung, 2005, Coe et al.,

2004). Such differentiated effect on geographies depend on the institutional arrangement of the local economies, specifically the roles performed by various state and non state actors in capturing the values generated within the local economy. In Global Value Chain, local and non local actors are differentiated by their territorial embeddedness. With increasing devolution of power from nation state to local and regional institutions, such configuration of institutions in turn shape how and with what effects these regions are inserted into global production network.

## 2. Case Study of Karbi Anglong

In the light of the above discussion, the present paper focuses on the case of Karbi Hill Region of Assam, which finds frequent mention as producer of world's best quality ginger (The Indian Express, 2007)<sup>2</sup>. Overwhelmingly dominated by tribal people, the district of Karbi Anglong in Assam was identified by National Agricultural Innovation project (NAIP) as one of the 250 most backward districts in India. In most sense, the region is a microcosm of any hill region in North East. Different ethnic communities such as Karbi, Kuki, Dimasa, Garo, Nepali and Harijan live in close proximity with each other. In a typical village in the region, authority centres on *gaonburah* or village head, who is custodian of village land and other community resources. Village head man is decided based on hereditary, subject to specification that the heir is familiar with traditional customs and rituals. All the households in the village approach the *gaonburah* for allotment of land for cultivation on which they have only user rights. Such arrangements are not surprising given that social organization in the tribal village revolves around shifting cultivation, with community based ownership of resources being the dominant norm.

While tribal farmers in the region has been growing ginger for long, more recently, its cultivation and trading has been promoted by development agencies and district administration as a pathway out of poverty for farmer households living a largely subsistence livelihood. A number of players are active in the ginger economy of the region. Marwari traders and their agents are ubiquitous in the region, sourcing from farmers for long. Gin-Fed, a farmer co-operative set up by the district administration, is a relatively more recent player. In mid 2000, GI Registry of India has accorded Geographical Indication (GI) rights to the ginger grown in the region. Given high premium for organic produce in the international market, the district administration has also been keen to promote the crop grown in the region as organic crop. Within short time, the district has emerged as one of the important hub of ginger production in the country, with reported production increasing from 17,312 metric tons in 2007 to 32,033 metric tons in 2012<sup>3</sup>. While there is no reliable data on how much of the ginger produced in the region is exported, Gin-fed alone has also reported export of more than 50 metric tons of dry ginger to Europe in 2015. There is some literature such as Das 2016 which noted differences in prices received by different agents of supply chain

<sup>2</sup> <http://archive.indianexpress.com/news/with-ginfed-karbi-anglong-farmers-strike-gold-in-ginger/249297/>

<sup>3</sup> <https://www.ruralmarketing.in/industry/agriculture/landless-ginger-farmers-of-assam>

of ginger in the Karbi Hill region, but an in depth study of likely implication for ginger growers of such large scale expansion of ginger cultivation in the region is conspicuously absent. The present paper aims to document a critical evaluation of welfare implication for resource poor farmers from expansion of commercial crops in the present institutional setting.

The present paper draws upon divergent database, comprising of primary survey, key informant interviews and case studies, all collected from key ginger producing region in Karbi hills. The paper further relies on secondary sources to add to the insights gathered from the primary data. Primary data was collected from household survey in Karbi Hill region during the months of February and March 2018. The detailed household survey was preceded by pilot survey and key informant interview in January 2018 to identify villages inhabited by different ethnic communities that might be considered as key ginger producing belt. Apart from local key informants, officials of Gin-Fed were also consulted to shortlist villages for taking upper primary survey at the village and household level. The villages shortlisted for the survey are Julian, Gangjan, Katlen, Phaifengjal, Nailalung, Dilangi, Lang Soliet and Khuti Colony. The survey covered a total of 290 ginger growing farmer households.

### 3. Profile of Ginger growers

The economic profiles of the sample households confirm the subsistence nature of livelihoods which is typical of those living in the mountainous area in North East region. While one fourth of the households do not have any ration cards, most others that have cards report having only BPL cards, which are specified for those living below poverty line. Most farmer households are also poorly educated, with 40% of the household heads of the respondent families with educational attainment below primary. Approximately 40 % of the households do not have mobile phone, those that have them can hardly access its services because of extremely poor network. Needless to mention, almost all households (97%) live in *kachha* house.

The lack of industrial development in the region has left little employment opportunity outside farm, with most households sustaining their livelihood as shifting cultivators. More than 85% of the sample households take up petty jobs outside their farms to support their fragile livelihoods, which mainly include driving, construction works and wage labour. Such jobs account for one fourth of the total jobs reported by the sample households. In Gangjan village, a cohort of 25 to 30 youths regularly travel to Kerala during lean season every year as migrant labour to support the livelihood of their families. Case studies documented during our field visits to other locations in the region indicate that such trends are at incipient stage but are slowly becoming more common than earlier. Making the matter worse is the delivery of public services, which is almost nonexistent in most places. For example, fair price shops that operate under public distribution system are conspicuous by its absence in many of the selected villages. In Singhasan region, none of the sample households that we interviewed report having ration cards. Even in other regions, households having cards hardly manage to access subsidized food grains available under the PDS program. Despite

slowly diversifying their livelihoods away from agriculture towards other petty jobs, the limited cash income they earn have failed to keep pace with the rise in prices of essential goods they consume.

Lack of development in the region is further compounded by type of decentralized governance arranged within the provision of Sixth Schedule in the Constitution of India, which was ostensibly introduced to safeguard the culture and identity of tribal people in the North East region. Ironically, several clauses within the schedule undermined the very purpose, with adverse implication for the development of the region. For example, the Autonomous District Council (ADC) was created with substantial autonomous power, but it does not have much say regarding developmental activities of very basic nature such as rural electrification or functioning of public distribution system (Ingti, 2014). Moreover, ADC has no control over the substantial amount of finance meant for Sixth Schedule area, which is still handled by the state government. Most crucial aspect is the undermining of traditional village institution as ADC usurped whatever limited power that is passed down from the state, without delegating the same to the village level institutions. The ADC on the contrary appoints a *sarkari gaonburah*, who has jurisdiction over several villages, often undermining the authority of *traditional gaonburah*. Such pattern of decentralization means that most developmental problems remain unattended, with severe implication for the quality of livelihood of its natives.

#### **4. Production of ginger**

The cultivation of ginger in the region has a long history that dates back to 1950s. The agro-climatic condition of the region is favourable for growing specific variety of ginger that is in high demand in national and international market. Among major varieties of ginger grown in the region, two prominent ones include Nadia, which is high in fibre content and Aizol that has less or no fibre content. The latter is demanded because of low fibre content.

The production season starts with sowing in April and ends in the month of January. Typically, farmers accompanied by their family members, go upland in hordes during peak season as they work in each other's field during sowing and harvesting season, often settling wage payment in kind. Method of cultivation is organic by default as farmers use part of the harvest from the previous year as seeds for the present season. The cultivation does not use any chemical or fertilizer. A typical family grows ginger in a plot of 2.50 bighas of land. Mostly concentrated in Singhasan belt in the region, Kukis grow ginger in relatively larger plot, measuring 3.63 bighas of land.

#### **5. Marketing of ginger**

The production of ginger is only part of the story as farmers are merely responding to its growing demand for the crop by the outsiders. Though the Sixth Schedule, as noted already, has provisions that give special protection to the tribal living in the region, it is the agents from the outside such as traders who control the local economy. The physical infrastructure connecting most tribal villages with urban centres such as

Manja and Diphu are abysmal if not completely missing. In the absence of appropriate road infrastructure, it takes more than 3 hours to reach some of the tribal villages, located some 20 km away from the urban centre. Traders selling essential goods in both weekly market and elsewhere are mostly non tribal. Our observation during the course of field survey indicate that prices charged by the traders are much higher than those available in the nearest urban centres. Despite higher prices, the buyers still purchase their essential requirement from these traders from outside as the travel cost required to purchase them from the nearby urban centre is prohibitively expensive. Similar price differential of basic essentials in the interior of hill region has also been documented in Dima Hasao District (Barbora, 2002).

As discussed earlier, lack of employment opportunities and absence of basic facilities in the region mean that the allure of cash is always very strong among the locals. Growing popularity of ginger as cash crop is not very surprising in such setting. Given high demand for the crop in national and international market, such setting perfectly suits traders operating from outside the region. These traders have gradually made their headway in the region, and they advance cash and other basic entitlements required by farmers well in advance with support from the local youths acting as their agents. Over 35% of the sample households report taking loans and cash advances from the traders within past one year. The average value of such loan taken from the traders varies from Rs 5000 to Rs 6000. Another 15% of the sample household also received loan in kind or food ration in advance. Such interlocking arrangements suit traders perfectly. They can not only procure ginger from the farmers at very low prices, but can also earn additional income as interest payment. The farmers are charged at 3% monthly rate of interest, which amounts to 36% annual interest income, more than twice the interest rate charged from the formal banking system. Over the years, Karbi Hill region has witnessed steady expansion of ginger cultivation. In such circumstances, it is, however, not very clear as to how much farmers benefit by selling their ginger harvest to the traders. Such informal contract works to the disadvantage of the farmers who lose their freedom to sell to buyers of their choice. Worse, they also end up losing a sizeable chunk of their proceeds from crop sale at the end of the harvest in the form of payment to settle loans and interest.

#### **6. Ginger farm as sites for ethnic clashes**

Karbi Hill region has, for long, been witness to ethnic violence among different ethnic communities, living in close proximity with each other. With growing ginger cultivation in Karbi Hills, ginger fields have become sites for manifestation of already simmering ethnic tension between different communities. The ethnic clashes that broke out between Karbi and Kuki communities in early 2000 in Singhasan region were symptomatic of such growing ethnic tension between the communities. Two militant groups United People Democratic Solidarity (UPDS) and Kuki Revolutionary Army (KRA) representing the cause of Karbi and Kuki communities respectively were frequently engaged in ethnic clashes that claimed the lives of more than 50 people within a period of two months in early 2000s (Talukdar, 2008). The two militants groups were also engaged in extortion on truck loads of ginger, which varies from Rs. 5000 to Rs. 20000 per

truck. As Oinam (2003) has noted elsewhere, the nature of such conflict between different communities has changed over the years. Earlier, the conflict was about relationship between dominance or subservience, with migration and settlement not being much of an issue. A closer scrutiny of increasing number of clashes in the Karbi Region suggests that at the heart of such intensified clashes is perhaps land question. As agriculture in the Karbi hill has moved beyond subsistence agriculture, possession of cultivable land became increasingly important among the communities. It might be possible that one tribe sees the other expanding its territories for commercial cultivation of ginger as threat to their dominance in the region.

### **7. Emergence of Gin-Fed as institutional innovation**

In a setting marked by a series of ethnic clashes among different ethnic communities, the district administration set up a collective body known as Ginger Grower Co-operative Federation (Gin-Fed) in 2007. Funded with an initial endowment of Rs 2 core from Rashtriya Shramya Vikas Yojana (RSVY), the set up of Gin-Fed comprises of 15 procurement centres in key production zones, each centre managed by a local NGO and an assistant from Gin-Fed to offer procurement facilities to the farmers living in inaccessible areas. An initiative that was much hailed when announced, Gin-Fed introduced for the first time a credit linked smart card called Gin-card that would give its member farmers credit of Rs 5000 per bigha with a cap on maximum of Rs 10,000 for two bighas. The access to loan was facilitated by an MoU signed by Gin-Fed with State Bank of India (SBI) and Longpi Dehangi Rural Bank (LDRB), the latter a regional bank head quartered in Diphu that operates in Karbi Hill area. As the community based land ownership is not recognized in the formal banking system, Gin-Fed countersigned the *dak* issued by *gaonburah* (village head) to certify the holder as genuine farmers to facilitate their access to formal banking system. The apparent rationale behind the introduction of Gin card is to reduce the dependence of the farmers on informal sources of credit such as traders. Of the 3000 member farmers who were registered with the co-operative in the first year (2007), credit was disbursed to half of them through Gin card. According to its CEO, Gin-Fed has tie up with a number of national firms with presence in the export market that include, among others, Kishan Network, Sheel Biotech and Sreshta Natural Products.

The rationale behind the formation of Gin-Fed was many folds: *First*, to bring different ethnic communities under one umbrella organization which would help diffuse tension that exist among different communities. *Second*, organizing farmers into a collective body would be linked with large corporate buyers in the national and international market. Such aggregation of smallholders would reduce transaction costs incurred by both farmers and buyers alike. It was further expected that such collective body would give the farmers a platform to deal with traders and buyers on better terms and conditions. *Third*, set up processing and drying facilities within the premises of Gin-Fed so that ginger growers could move up the ladder of the value chain instead of remaining just the supplier of raw materials, competing at the bottom. *Finally*, Gin-Fed further planned to engage in organic certification for ginger produced by its members so that they could claim higher prices, given the premium that exists for organically

certified produce in the international market. In the growing market for organically certified produce, rent is mostly appropriated by certifying bodies and buyers who are placed at the top of the value chain (Courtois et al, 2011). The design laid out by Gin-Fed for organic certification runs as follows: Assisted with 95% subsidy from NABARD, Gin-Fed would apply for three types of certification C1 for local/ regional market, C2 for national market and C3 for international market.

The state government also got GI (Geographical Indication) tag assigned to ginger produced in the region so that ginger produce in the region could get higher prices in the international market. International funding organization such as IFAD (International Funding for Agricultural Development) also joined hands with the state government as it helped Gin-Fed set up collection centre. The involvement of multiple bodies like district administration, NGOs, Banks and International Organization in the ginger supply chain provided a big push to the ginger cultivation in the region, with its production increasing from 17,312 metric tons in 2007 to 32,000 metric tons in 2012. In the first year after its formation i.e. 2007, Gin-Fed achieved significant coverage in the media. In the beginning of the season, Gin-Fed set for its member farmers prices of Rs 8 per kg, which was much higher than Rs 2 to Rs 3 per kg that farmers received from the traders until then. The case studies documented during the course of the survey indicated that its emergence also benefitted other farmers who were not members of Gin-Fed as the traders, fearing competition, started offering them higher prices than before.

### **8. Failure of Gin-Fed**

A decade later since its inception, Gin-Fed appeared to be a mere shadow of its former self as revealed from survey of households. The various credit instruments like Gin-card, the credit linked smart card, led to high default rate among the members in the very first year, leading to the withdrawal of the credit program. The failure of the program, more than anything, displays lack of understanding on the part of the district administration of the institutional setting in which Gin-Fed was inserted. The composition of the Management Committee of Gin-Fed is hardly representative of the farming community. Only 5 out of the 20 members of Gin-Fed are farmers, the rest comprises of 9 bank managers, district level officers from different departments and 5 managers/ presidents working as representatives of non-governmental organization. Shifting cultivation practiced by farmers does not require credit for farming activities. In fact, farmer's need for cash stem from lack of employment opportunities outside agriculture, which is further accentuated by dysfunctional public delivery system. Instead of solving these basic problems, the district administration pushing credit through Gin-card program signifies its top down approach with an attitude of 'we know what works for you'.

Gin-Fed operates more like a government department. The district agriculture department funds the administrative cost of Gin-Fed, which include, among others, the salaries of contractual employees who look after day to day affairs of the co-operative. In such set up, Gin-Fed has very little incentive to engage directly with the farmers. List of 7011 farmers that figured in the register maintained by Gin-Fed represents only 'ghost

farmers' who have hardly visited Gin-Fed or has any association with the organization. Only 2% of the sample households reported being member of Gin-Fed, but even fewer among them reported being registered with the co-operative. Half of the sample households have not heard about Gin-Fed. Those familiar with Gin-Fed reported that it does not operate in their area. Many even reported that they had no desire to be part of Gin-Fed. Very few sample farmers reported attending any meeting organized by Gin-Fed. Needless to mention, majority of the officials do not have much knowledge about problems and challenges facing tribal farmers in the region nor do they have any stake on how the organization is run.

Much publicized program on organic certification remains only on paper despite plans by the government at the centre to make the region 'organic capital of the country'. Ginger is produced in the region using shifting cultivation that makes the produce grown in it organic by default. In the light of mass publication of food scares associated with consumption of food produced using heavy use of chemicals and pesticide, there is high demand for produce certified as organic (Reynolds, 2004). Gin-Fed's plan to introduce organic certification is precisely to counter such trend so that rent is protected on behalf of the farmers. However, in the absence of any organic certification, there is hardly any entry barrier for rent to accrue to the member farmers, especially when ginger produced from the neighbouring hill states such as Arunachal Pradesh and other north eastern states with similar attributes are also flooding the market. Similarly, Gin-Fed's plan for processing and value addition of ginger produce did not make much headway. Drying and processing facilities that was installed in the 1<sup>st</sup> year is used less than its full capacity. Moreover, farmers have little stake in any value that is added by the co-operative as the co-operative management takes complete control over the produce before being put into processing.

Even with its reported procurement of 600 tones of ginger produce, Gin-Fed, after a decade of its formation, still remains a peripheral player in the region. Worse, much of the procurement by Gin-Fed is done through traders, the very agent it is supposed to compete against. Farmers continue to get exploited in the hands of traders. The average prices received by the farmers are Rs 11 per kg that compares poorly with Rs 70 to Rs 80 per kg at the retail market in Guwahati. Thus in a setting, marked by poor infrastructure and very limited income earning opportunities beyond subsistence agriculture, farmer households finds themselves in a very weak bargaining power vis a vis traders, who appropriate much of the values created in the region. Prices that farmers received for their ginger harvest compare with retail prices in urban market such as Guwahati in the ratio of 8:1 to 10:1. It is not uncommon to see ginger prices soaring to Rs 200 per kg even in nearby Assam, with middlemen and syndicate appropriating much of the benefits (The Telegraph, 2014).

## 9. Conclusion

Our case studies of ginger growers in Karbi Hill Region highlight the perils of participation in the global value chain if the institutions are not aligned with the needs of the local people. The top down approach of the district administration also failed

to address the local needs and aspirations. Though designed with an objective to safeguard tribal culture and identity, provisions in the Sixth Schedule have failed to reflect on the aspirations of the local people. The failure of local governance indicates that most of the developmental activities such as basic infrastructure and public delivery services are ignored, which reduces the bargaining power of the ginger growers as participants in the global value chain. It is the middlemen and traders who take advantage of the situation as they tie the growers to sell the produce at a price fixed much before harvesting season begins. Institutional innovation such as Gin-Fed failed because of lack of local participation in the institutions of local governance. In such context, ginger growers are more likely to remain the supplier of raw materials, with very little spillover effects on the local economy.

Provisions in the Sixth schedule have also failed to address the ethnic relation on the ground. In particular, land question remains unresolved in the changing context. While land used for subsistence cultivation was compatible with the existing traditional village institutions, expansion of commercial cultivation has the effect of flaring up already fragile ethnic ties in the region. How such ethnic issues would be resolved in the changing context will go a long way in determining the outcome of participation in the global value chain. As we brace up for a new trade regime under Act East policies, there is more to look within and resolve many tricky issues before we open up for gainful participation in the global value chain.

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