Full Length Research Paper

Diagnosing challenges of small-scale industries Ghana: A case of agro-processing industries in Kassena-Nankana District

E. K. Derbile1, Abubakari Ahmed2* and R. D. Dinye2

1Department of Planning, Land Economy and Rural Development, University for Development Studies, Wa Campus, Ghana.
2Centre for Settlement Studies, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

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The literature on development problems of small scale industries in Ghana tend to paint a broad brush picture that may lend less relevance to development planning specific to local situations. Drawing on the case of small scale agro-processing industries, this paper examines geo-specific constraints that affect the development of small scale industries in the kassena-Nankana District of North Eastern Ghana. The findings show that industrialists have limited economic access to raw materials and energy supplies owing to environmental factors and the impact of macro-economic policies. There is also spatial inequity in the utilization of engine powered agro-processing technologies as a result of which many rural industrialists depend on man powered agro-processing technologies which have multiple adverse implications for production and growth. The main issues that underpin access to technology are the level of service development at the community level and accessibility to urban towns. There is also limited utilization of credit for capitalization owing to the lack of accessible credit facilities and ignorance while marketing of industrial products is constrained by climatic variability and poor debt recovery. Within the social setting, multiple household roles reduce time allocation of female industrialists to industrial production, while the lack of formal education and over burdened social expenditures present difficult managerial challenges to rural industrialists in general. The authors recommend the promotion of industrial development through a holistic approach to district development planning and management. Given the nature of the local economy, the authors stress the need to facilitate the development of the agricultural sector as pre-conditional and complimentary to the industrial development process.

Key words: Small-scale industries, agro-processing industries, industrial development, macro-economic policies, kassena-Nankana District.

INTRODUCTION

Over the past decade, Africa and other developing regions have been in the midst of tremendous changes. In the wake of unprecedented market liberalization and decentralization policies have interfaced with globalization and urbanization trends to dramatically transform social, political, economic and cultural lives. In this context of rapid change, most countries in Sub-Saharan Africa, progress in the development of industries has been limited due to a myriad of problems that generally beset the informal sector. Given the contributions of these industries to the development of village based economies, and rural employment and poverty reduction, it has become more pertinent for geo-specific diagnosis and analysis of the problems that undermine the development of small scale industries for planning purposes. After independence, the driving forces of neo-colonial economic relationships between most African countries and their western counterparts have been
counter productive to the development of small scale industries particularly in rural regions. Characterized by heavy dependence on the export of agricultural and mineral products such as cocoa and gold in the case of Ghana (Seini, 2002) and import of manufactured goods under trade liberalization, the local industrial sector has remained largely undeveloped. Although successive governments since the late 1980’s have formulated policies and implemented programmes to address this issue, such interventions are yet to have the desired impacts and enormous challenges still constraint the development of small scale industries today. It is within this purview that we shed light on the specific problem situation of small scale industries at the district level for enhancing district development planning.

The issue

Despite the vital role that small scale agro-processing industries play in livelihood sustenance and household poverty reduction in the kassena-Nankana District (Dinye and Derbile, 2004), their growth and development are constraint by many factors. As a corollary, the industrial sector is widely undeveloped and many people (68%) of the district’s population continue to earn low incomes from their engagement in food crop and livestock production for the lack of auspicious options (Kassena-Nankana District Assembly, 2001). That apart, poverty studies have shown that more of the poorest in Ghana come from households that are involved in food crop farming than from the category that are engaged in non-farm employment further asserting the role of non-farm employment in poverty reduction (Ghana, 2000). The Ghana Shared Growth Development Agenda currently outlines the development policy framework of the country – in which there is policy support for agricultural based industrialization for the transformation of the rural environment into a commercially attractive, viable and dynamic sector for sustained equitable industrialization and growth. This underpins the need for geo-specific analysis of the problems of small scale industries at the district level for district development planning purposes. Although the limiting factors of small industrial development have been widely reported in the Developing World and in Ghana, this paper derives its worth from examining the unique situation pertaining to the district in the context of local governance. What are these constraints, nature and manifestations? A critical examination and analysis of the issues can enhance effective policy formulation for the development of small scale agro-processing industries and district development planning.

Study area

The study was conducted in the Kassena-Nankana District – prior to its splitting into kassena Nankana West with district capital as Paga and Kassena-Nankana East with district capital as Navrongo in 2008. These two new districts still share common characteristics and are spatially, socially and economically interlinked. For the purposes of this paper, Kassena Nankana District is taken to refer to the old district prior to the split into two districts. The district is located within the Upper East Region along the Ghana-Burkina Faso border and has a total land area of 167 km² with a population of 149,491 (Ghana Statistical Service, 2002). Subsistence agriculture is the mainstay of the local economy employing about sixty eight percent (68%) of the employable population. The single most important economic activity in the district is commercial irrigation under the Tono Project, but high capital investment requirements have made irrigation economically inaccessible to the majority of rural farmers. As a corollary, majority of farmers are involved in rain fed agriculture and the rearing of poultry and small ruminants for their livelihoods. The industrial sector is widely undeveloped with as many as sixty-eight percent (68%) of the district’s population earning low incomes from food crops and livestock production (Kassena-Nankana District Assembly, 2001).

METHODOLOGY

This paper was prepared using both quantitative and qualitative data generated on four different types of small scale agro-processing industries. These include ‘pito’ (local alcohol) brewing, rice milling, shea butter production, and local restaurant services such as the preparation of bean cakes. The quantitative data was generated from a survey in May 2011 while the qualitative data was generated from focus group sessions held in August, 2011. In the May 2011 survey, two hundred and twenty eight (228) rural industrialists were interviewed from four different communities through a combination of stratified and simple random sampling techniques. Stratification was used in the selection of the communities to ensure that the two predominant ethnic groups (Kassem and Nankam speaking people) were represented in the sample. As a result, Pungu and Chiana were selected to represent the Kassem speaking people while Kologo, and Kandiga were selected to represent the Nankam speaking people. At the community level, simple random sampling was used for the selection of respondents for interviews. Two focus group sessions were organized – one in Kologo and another in Chiana. The discussants were rural industrialists and mainly women involved in agro-processing activities.

Small-scale industries and the informal sector

Small scale enterprises are generally classified as informal sector economic activities because of their peculiar characteristics. The informal sector may be broadly characterized as consisting of units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. In fact, the revised International Labour Organisation (ILO) / Regional Employment Programme for Latin America and the Caribbean (PREALC) views the informal economy as the collection of marginal enterprises characterized by: low entry barriers in terms of skills, capital, and organization; family ownership enterprises;
small scale of operation; labor intensive production with outdated technology; unregulated and competitive markets; low levels of productivity; and low levels of capacity for accumulation (Flórez, 2002). The informal sector is a segment of society bound to disappear as a result of economic growth and structural transformation, the experience has been greater growth in informal employment than in the formal sector. As a corollary, interest in investigating its dynamics and salient features has grown steadily over the years. Common features of industries in the informal sector are their small sizes in respect of labour, capital and business operations. In Ghana, just as in many developing countries, labour is commonly used to define and describe Small Scale Industries (SSIs). The Ghana Statistical Service (GSS) considers firms with less than 10 employees as small scale enterprises. However, the National Board of Small Scale Industries (NBSSI) in Ghana applies both the 'fixed asset and number of employees' criteria. It defines a Small Scale Enterprise (SSE) as one with not more than 9 workers, has plant and machinery (excluding land, buildings and vehicles) not exceeding 10 million Cedis (US$ 9506, using 1994 exchange rate) (Kayunula and Quartey, 2000).

SSEs provide most rural non-farm employment but they are highly dispersed enterprises that are often missed in statistics due to their informal nature. Their contribution to development in Africa and the developing world are significant. In some African countries, they account for over two thirds of all urban and rural non-farm employment yet the very nature of the informal sector seem to lay the foundation of the problems that operators in the sector encounter. These problems have generally ranged from poor implementation of policies and support programmes to financial and economic constraints with dire consequences for capitalization, and social and cultural limitations.

The appropriate diagnosis and solution of the problems that small scale enterprises encounter has become even more pertinent firstly, because of the roles of SSIs in economic growth and secondly, following forecast of economic development in Sub-Saharan Africa. Predictions of international economic and financial institutions indicate that Sub-Saharan Africa is the only geo-region where the current economic growth, even at optimistic assumptions, will not be sufficient to improve human living conditions up to the end of the century. The African Development Perspectives Yearbook advocates an industrialization strategy for Africa based on agricultural development. Industrialization has to be well coordinated with an accompanying agricultural development policy. Agricultural based industrialization ought to embrace redistribution of entitlements to the means of production, that is, land reforms, supporting demand by the creation of non-agricultural employment in rural areas, and rise in labour productivity through investments in education and health.

RESULTS AND DISCUSSION

Raw material and energy supplies for production

The orientation of African governments to earn foreign currency in order to service debts often lead to increased exports of raw materials and agricultural products, to the neglect of supporting food crop production for feeding local industries. A salient issue in research in the growing recognition of the limits set by ecological constraints with regard to an agricultural 'big push' due to limited suitability of parts of Africa's eco-zone for intensive agriculture. However, the commitment to promotion of non traditional export crops in Ghana such as pineapple, plants, cotton seed, cashew, mangoes and water melon (Seini, 2002) is strong indication of how the country is still strongly driven by primary commodity export – rather than focusing on meeting raw material needs of local industry. It is therefore, undisputable that present food shortages as manifested in the incidence of seasonal hunger particularly in Northern Ghana, also affects the supply of raw materials for small scale industries. In a study on agro and wood based industries in the Dagomba West District of Ghana, Boapeah and Poppe (1992) found that most industrialists (about 70%) obtained their raw materials all year round. Although impressionistic, the remaining 30% industrialists are confronted with seasonal and occasional supplies of raw materials. The problems associated with supply also permeate the energy sector. Contrary to dependence on fossil fuel in the commercial sector, the dominant rural energy resources are traditional firewood, charcoal, dung and agricultural residues. The incidence of global warming as a repercussion of burning fossil fuels has disclosed a new kind of scarcity biophysical in character that now affect supply of traditional energy. As a consequence, the use of fossil fuels as a source of energy is reducing because the supply of traditional energy is not secured. The huge demand for firewood and charcoal in the context of desertification has increased the efforts of labour and time to obtain the energy resources needed. Thus it can be noted that energy supply in Sub-Saharan Africa is not sustainable and underpinned by economic and ecological crisis.

The findings show that market prices and seasonality of supply are two main factors that affect raw material and energy supplies for economic production. About 90% of rural industrialists purchase their raw materials from the open market and this underlies the limited economic access to raw materials. The costs of raw materials are generally assessed as high. Figure 1 shows raw material cost assessment by industrialists.

From Figure 1, 76% of rural industrialists assess costs of raw materials as generally costly or very costly. The effect according to discussants from focus group sessions is that, the cost of raw materials is a major factor that limits production even when the desire is to increase production.

With small capital holdings, maintaining our low levels of output or reducing output levels remains the two ways we adapt to high cost of raw materials in order to remain in business, says a focus group discussant (12/08/11, Chiana).

Similarly, the cost of firewood (another major energy source) is rising with increasing distances that fetchers of firewood have to walk to fetch firewood for sale. Although rural industrialists buy firewood, they are generally inclined to using family labour to fetch firewood to meet production energy requirements in order to reduce cost. Plant stocks have been another major source of energy for rural dwellers in the area but it has also become a scarce commodity. In a contribution on stocks as energy source, a focus group discussant had this to say:
These days, households keep their stocks after harvest for household uses. It is harvested soon after crop harvest to prevent animals from eating them. Gone are the days when stocks were commonly sold. So we do not often buy stocks because even when available, it is costly. If one uses stocks, it must come from household reserve (Chiana, 12/08/11).

The seasonality of some raw material and energy supplies is one of the factors that limit both physical and economic access to raw material and energy for economic production. Although this tends to affect relatively fewer industrialists, the findings show that 48% are affected by seasonality of raw material and energy supplies. Table 1 describes the seasonality and supply of raw material and energy.

From Table 1, raw material and energy supplies vary over a three community seasonal classification. The analysis shows that shea nuts, paddy rice and guinea corn are more available in the farming and harvesting seasons while availability is less during the warm season. General availability of raw material is less during the warm season. Focus group discussants provide an in-depth understanding on the seasonality of supply and access to shea nuts and the factors that affect supply in Kologo as follows:

You see, we harvest a lot of shea nuts here in Kologo between May and July. But there comes a time it is simply difficult accessing shea nuts. From May to October, shea nuts are generally available for shea butter production and the prices are lower. But this is the time that women from Navrongo (that is the district capital), and some women from Kologo also buy shea nuts from here and send to Navrongo the district capital for sale. So there usually comes a time when the supply of shea nuts is limited here. Around this time, usually November to April, it is simply scarce here in Kologo. Since we want to stay in business, we are compelled to travel to Navrongo on Navrongo market days to buy shea nuts for production. But around this time, shea nuts are costly and this erodes our profits. For instance, while an ‘alonka bowl of shea nuts will cost about eight Ghana pesewas (GHc0, 80) during the harvest season, the same bowl of shea nuts will cost GHc1, 50 (One Ghana cedis, fifty pesewas) during the November – April period, particularly, December to January (06/08/11, Kologo).

Another issue is the inverse relationship between raw material supply and energy supplies in the context of their supplies according to the seasons. While the availability of agro-rain materials is relatively higher in the farming season, common energy supplies, such as firewood and crop residual stocks for burning, are rather higher and more accessible during the warm season. This is because stocks are scarce in the farming season, while it is also difficult to find dry wood. Even access to dry wood in the warm/dry season is constraint. With increasing deforestation, women walk long distances into the bush to fetch firewood, a practice they described as tiresome and characterized by drudgery. This then means energy supplies are less available when raw materials are most available and the vice versa. Although rural industrialists’ still manage to engage in all year round production – a mismatch in the seasonal supply of raw materials and energy can lower output levels and hold back the potential for increased production. This calls for innovative ways to ensure all year round production among rural industries.

**Figure 1.** Cost assessments of raw materials; Source: Field Survey, May 2011.

**Processing technologies and growth of industries**

Accessibility and utilization of technology is crucial for industrial growth and development. However, low access and capital mobilization among industrialists means that small scale industries are not able to finance utilization of labour saving technologies particularly when tools and equipments have to be imported. Boapeah and Poppe (1992) in their study of Dangme West District note that about 95% industrialists obtain their supply of tools and equipment from external sources that is, outside the
district. They assert that with such a heavy reliance on external supply of tools and equipment, price increases in these inputs or their scarcity could cripple enterprises in the district. This situation points to the precarious situation of small scale industries in the adoption and application of advanced technology. In the assessment of Ofei (2004), there is a problem of lack of access to modern or intermediate technology in Ghana so that many firms use old machinery and have problems of accessing spare parts for maintenance.

Despite modest use of engine powered technologies for milling, the use of simple and labour intensive based technologies are still significant and widespread in the kassena-Nankana District. Figure 2 shows processing technologies used by rural industrialist.

From Figure 2, 62% of industrialists utilize engine/ motor-powered milling to grind their raw materials into paste for further processing. Although this aggregate picture seems to be encouraging, there are outstanding equity concerns. Firstly, close to 40% of rural industrialist still depend on simple but labour intensive technologies such as man powered milling and pounding for agro-processing. For this category of industrialists, they do not have access to the preferred option of motorized milling.

Secondly, there is community - to - community variation in the access and utilization of engine powered processing technologies. This gives the issue of access a spatial dimension. Table 2 presents a statistical analysis of community to community variation in the utilization of three selected processing technologies that were applicable to 180 industrialists – in the areas of ‘pito’ brewing, rice milling, shea butter production, and local restaurant services.

From Table 2, rural industrialists from Chiana and Pungu have much greater access to engine powered milling than their counterparts in kologo and Kandiga and this is by no means coincidental. In the case of Chiana, two reasons are discernable. It is one of the most developed sub-district capitals having many services of its own including motorized milling services. Secondly, it is better served by the transportation system so that industrialists here also have better access to services in the district capital than their counterparts in Kologo and Kandiga. Pungu has the closest geographical proximity to the district capital, Navrongo, so those industrialists here also have better access to services offered by the district capital. Aside, Pungu also has its own intermediate technology services that provide support agro-processing services. For instance, discussants generally agreed that although some rice millers from Pungu seek engine powered milling service from Navrongo, the majority of rice millers seek the service in Pungu itself because the service is available. Focus group discussants from Pungu underscore the relevance of engine powered rice milling to the growth of the rice milling industry. They assert that:

- Engine powered rice milling makes our work easy and faster; at the moment it is not expensive; it also brightens the rice grain and makes it marketable in the Navrongo market; reduces the risk of having many stones in rice grain unlike the traditional forms of milling; and reduces drudgery (04/08/11, Pungu).

The findings from the 2011 survey corroborate the findings from focus group sessions. Industrialists interviewed reported different advantages in the use of engine/motorized powered milling technologies. About 58% respondents reported reduction in the time and duration of processing activities as advantages. This was followed by reduction in drudgery (33%) and reduction in wastes (9%).

The analysis therefore, shows that industrialists in kologo and kandiga depend more on simple and labour intensive processing technologies because they lack adequate numbers of motorized milling services. Given the roles that engine/motorized agro-processing play in the development of small scale industries, it is important that policy formulation at the district level incorporates spatial targeting in the provision of these services so that these services are provided where they are needed most to accelerate industrial development. Given that rural industrialists understand and appreciate the relevance of intermediate motorized technology, there is an enabling environment for the adoption of such technologies.

Financing small-scale industries

The lack of credit is commonly reported as a long standing problem that affects the development of small scale industries in developing countries – credit for start ups and growth. In Ghana small scale industries are equally asserted to lack access to resources and financial markets which constraint is reported to have a spatial dimension in the country (Ofei, 2004). That differences in the development of regions or regional imbalances cause differential access to funding from both formal and non formal financial institutions. These imbalances are caused by a number of factors – population size, quality of public services, geographic dispersion, illiteracy rates, availability of banking services and the level of infrastructure available. He asserts that limited access to finance in the formal sector manifest in sources of business start up funds. The research highlights that about 84% started industrial activities with personal savings, 30% with support from relations and only 32% accessed credit from the banks and that success rate for loan application was about 31%. The high dependence on personal savings is undisputedly an indicator of limited access to financial markets in the formal sector.

The findings from the kassena-Nankna District generally corroborate this scenario. The results show that there is low utilization of credit as a means to financing industries. Figure 3 describes the credit utilization level of
rural industrialists for financing their businesses.

From Figure 3, only 22% of industrialists interviewed sought credit as a means to financing their industries while the remaining 78% have not utilized credit for capitalization purposes. This situation is underpinned by what rural industrialist perceive as the lack of suitably accessible credit facilities and opportunities. There are however, other limiting factors informed by field investigations. Although awareness is an important precondition for demanding credit, awareness level of credit packages promoted by non-profit organizations is low among rural industrialists. For instance, about 51% of industrialists did not know of credit facilities provided by the district assembly under the District Assembly poverty reduction fund. Out of the number who knew of the facility, 46% lacked knowledge on the modalities for accessing the fund and this too can be a limiting factor to accessing such attractive credit packages.

A further analysis of multiple sources of credit for rural industrialist reveals relative access to credit in relation to the different sources. The results from the study show that rural industrialists who utilized credit, sought it from five sources including – the district assembly, money lenders, banks, relatives and non-governmental organizations. Figure 4 shows the percentage distribution of sources of credit for rural industrialists.

From Figure 4, rural industrialist who utilized credit from non-profit oriented formal sources constitutes about 53% and these include those who accessed credit from – the district assembly and non-governmental organizations.
Those who accessed credit from relatives constitute about 27% of rural industrialists. In total, about 80% of rural industrialist who sought credit sought it from non-profit making sources. The remaining 20% sought credit from profit making sources – including the banks and money lenders. The results therefore, show that more rural industrialists sought credit from non-profit making sources than from profit-making sources such as the banks and money lenders. Non-profit making sources of credit tend to have lower better credit conditions – lower interest rates, flexible repayments arrangements and easier access conditions than profit making sources because of their poverty reduction orientation. As a corollary, where conditions for accessing credit have been found to be most suitable such as in the case of the district assembly and with non-governmental organizations, utilization of credit has been relatively high. This underlines that there is demand for rural credit except that potential demand has been held in check because of access difficulties such as – high interest rates and bureaucracy as in the case of the banks in particular. By alleviating financing constraints, microfinance is able to promote small scale investments from otherwise unrealized market activities while yielding a return on their investment (Hartarska and Nadolnyak, 2008; Hilson and Ackah-Baidoo, 2011).

Markets for small scale industrial products

Marketing of small-scale processed food products is found to be largely informal. Enterprises located in rural areas relied on demand from local informal markets, which are small and unreliable. Demand is erratic and seasonal (only when fresh products were not available). There are general lack of marketing skills and information. Processors had little knowledge of their customer preferences regarding product range, taste and packaging for example. There is no evidence of deliberate effort to promote the products (Mhazo et al., 2003).

The very nature of community based agro-processing industries does not make this consideration central to location. However, rural industrialists are able to find markets for their products within the framework of functional urban regions in which local interrelationships take place – what is describes as intra-regional contacts. These relationships give rise to marketing opportunities and transactions for rural industrialists. While there are marketing problems that rural industrialists face, they are able to find generally good markets for their products. Figure 5 shows market demand and price assessments for industrial products according to the perceptions of industrialists.

From Figure 5, the majority of industrialists consider both market demand and prices to be generally moderate. From the analysis, 44% industrialists assessed market demand as moderate while as much as 68% assessed market prices similarly. Ten (10) percent assess market prices as very low while thirteen (13) percent assess market demand as very low. The qualitative data shed light on some of the marketing challenges facing rural industrialists. Results from the focus group discussions show that seasonality and poor debt recovery adversely affects marketing for industrialists in the ‘pito’ (local alcoholic brewing industry). A brewer at a focus group discussion session in kologo sums up the marketing issues in the industry this way:

The demand for ‘pito’ during the warm season is very high so that we make good sales during this period. In the wet season, the demand falls drastically. You may not even sell all your drink before it is night. The men are
Table 1. Seasonality of raw material and energy supplies.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Raw material</th>
<th>Energy supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming season</td>
<td>About 73% industrialist attest to availability of shea nuts while 23% attest to that of paddy rice</td>
<td>Limited availability of firewood and stocks in particular for energy</td>
</tr>
<tr>
<td>[June – August]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvest /harmattan</td>
<td>About 44% attest to availability of paddy rice, 41% guinea corn and 31% general food stuff including beans</td>
<td>About 80% attest to availability of stocks for energy while 40% attest to that of firewood</td>
</tr>
<tr>
<td>[September–December]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warm season</td>
<td>Availability of raw materials (shea nuts, paddy rice, guinea corn, other foodstuff) generally and relatively lower than other seasons</td>
<td>About 90% attest to availability of firewood while 5% attest to that of stocks.</td>
</tr>
<tr>
<td>[January – May]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All year round</td>
<td>Guinea corn was only raw material reported to have substantial all year round availability. Supplies of other raw materials characterized by gross fluctuations and limited availability</td>
<td>Firewood was only energy source reported to have substantial all year round supply but also characterized by fluctuations in supply</td>
</tr>
<tr>
<td>[June – May]</td>
<td></td>
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</tbody>
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Sources: Field Survey (May 2011), Focus Group Discussions (August, 2011); Notes: Classification of seasons is according to respondents perspectives and is not water tide - overlaps are possible.

Table 2. Processing technologies by community.

<table>
<thead>
<tr>
<th>Processing method</th>
<th>Frequency of responses by community</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pungu</td>
<td>Chiana</td>
</tr>
<tr>
<td>Engine powered milling</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Man powered milling</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Man powered pounding</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>54</td>
</tr>
</tbody>
</table>


also part of our problem. They buy our ‘pito’ on credit and never pay. In many instances debt recovery becomes difficult so that we are forced to write off such debts as bad debts sometimes. It reduces our profits but what can we do? She asked rhetorically (06/08/11, Kologo).

Social constraints to industrial development

The literature suggests that some social constraints adversely affect the development of small scale industries in both urban and rural in developing regions. Mfaume and Leonard (2004), reports of bureaucratic hurdles and crime undermining the development of industries and their utility - in poverty reduction in Dar es Salaam, Tanzania. While the government has encouraged the establishment of small scale enterprises through its publicity machinery, the proliferation and mushrooming of small scale industries has been accompanied by increased prevalence of crime such as theft and robbery, bureaucratic hurdles and constant social tensions between entrepreneurs and local government authorities over destruction of properties in enforcing settlement or town legislations. Although this might be social phenomenon in urban setting, it does highlight the extent to which the complex of social and political forces can affect the development of small scale industries. In rural settings, the social problems emerge from the social and cultural environments. It highlights the gender dimensions of social problems affecting rural industries in the study district in an earlier paper. We noted that husbands support their wives in their industrial activities but this must be on condition that wife’s behavior is culturally acceptable - respect for husbands and sometimes consultations on expenditures from returns. Husbands generally entertain fears that their wives will become ‘arrogant’ when they get richer than them. Although these types of social issues do not prevent women from industrial activities, they have the potential of holding back initiatives of female entrepreneurs in rural industrial development. In this paper, we highlight social constraints in relation to gender roles in the household and education. We note that gendered roles, social expenditures and low formal educational backgrounds
of rural industrialists are factors that undermine the development of rural industries. Analysis of these social constraints and how they affect the development of industry is shown in Table 3.

**SUMMARY OF FINDINGS**

This paper assessed the challenges that confront the development of small scale agro-processing industries for purposes of district development planning in Ghana and in particular, the Kassena-Nankan District. The findings point to several interrelated constraints that adversely affect the development of small scale industries:

1. Small scale enterprises are confronted with high costs and seasonality in the supply of raw materials and energy resources that adversely limit economic access to supplies. This high cost and seasonality in supplies are the consequences of a combination of factors – climatic variability and change and its implications on agricultural production, desertification, and macro-economic policies with its implications on transportation and accessibility.

2. There is spatial inequity in the access to intermediate and engine powered agro-processing technologies in the district. Access to engine powered milling tended to be directly correlated with level of service development in the community and accessibility to the district capital. Inaccessible remote areas had the least access to engine powered milling. As a consequence, quite a substantial number of industrialists depend on man powered milling and pounding which tend to have adverse multiple implications for production.

3. The utilization of credit for financing industrial production is limited and that multiple actors underpin limited access. These include the lack of access to suitable credit facilities and low awareness among industrialist on available credit packages from non-profit development agencies.

4. Marketing of industrial products are generally affected by seasonality and poor debt recovery although the general assessment is that industrialists have good market prices and demand for their products.

5. Social constraints affect the development of small scale industries in many ways. These include multiple household roles of female industrialists that adversely affect time allocation to industrial production, low formal education among industrialists adversely affecting adaptability to dealing with formal institutions. Overburdened household social expenditures come with it

### Table 3. Social constraints to rural industrial development.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Issue and description</th>
</tr>
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<tbody>
<tr>
<td>Multiple household roles</td>
<td>Small scale agro industrial processing in the rural sector is an exclusive preserve of females – hence only females were interviewed. From the study, 71% of industrialists were married and this comes with it many social obligations and responsibilities the most crucial being procreation. From the analysis, 53% industrialist had between 3 to 4 children, and 48% between 5 to 10 children. This comes with it enormous domestic chores and social responsibilities making rural industrialists - care takers of households, drawers of wood and water, cooks, care takers of the sick and in addition provide labour to support household agricultural production. This situation limits the time and energies that they can allocate to industrial production</td>
</tr>
<tr>
<td>Formal education</td>
<td>Although it does not take necessarily take formal education to be a good entrepreneur, it generally has a positive bearing in the management of businesses. From the findings, 72% of industrialists had no formal education while the remaining 28% had varying levels of formal education mostly at the basic level. The consequence is social distance between majority of rural industrialist and formal institutions such as the district assembly, banks and non-governmental organizations (NGOs). Social distance impairs communication and pro-activeness – so that this could be a contributory factor for the lack of knowledge on credit facilities and non pro-activeness in accessing credit for investment.</td>
</tr>
<tr>
<td>Social expenditures</td>
<td>Deriving from their numerous social obligations and responsibilities, rural industrialists are also over burdened by social expenditures. The need to meet certain household needs-food, education, health and water needs, they draw on returns from their industries. In this regard it is reported that about 80 percent of such expenditures are on food. Although this points to the utility of these industries to poverty reduction, there seem to be a strong tendency for dipping too deep into coffers of industries to meet such needs. In such instances, social expenditures may have an unsustainable effect on rural industries. In the worst scenario, high social expenditures erode the capital base of rural industrialist or at best keep production level perpetually low.</td>
</tr>
</tbody>
</table>

Sources: Derived from Field Survey, 2011; Focus Group Sessions, 2011.
risks of eroding the capital base of small scale industrialists.

Conclusion

In this paper we conclude that a number of constraints affect the development of small scale industries in the Kassena-Nankana District, Ghana. In the production realm, industrialists have limited economic access to raw material and energy supplies owing to environmental and policy factors. There is also spatial inequity in access to intermediate or advanced processing technologies. In the management realm, there is limited utilization of credit for capitalization while marketing of industrial products is constrained by climatic variability and poor debt recovery. Within the social setting, multiple household roles have adverse implications for engagement of female industrialists in industrial production, while the lack of formal education and over burdened social expenditures present difficult managerial challenges to rural industrialist. Much as the state should not be the driving force to industrial development, its role in providing an enabling policy and support environment is crucial. In the light that the Ghana Poverty Reduction Strategy stipulates policy support for agro-processing in support of rural development, the roles of local government institutions to the attainment of this goal is central within the formwork of decentralization. As a recommendation, we note that the promotion of industrial development requires a holistic approach that should take cognizance of the role of agriculture within the district development planning and management process.

REFERENCES