The Chars Livelihoods Programme

The Tier 2 Pilot: Reviewing the Decision not to Scale Up and Exploring the Relationship Between Sharecropping & Income

Reuben Blackie, Stuart Kenward, Rafiqul Islam & Zahangir Alam[1]

Innovation, Monitoring & Learning Division

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[1] Reuben Blackie is Young Professional, IML; Stuart Kenward is Director, IML; Rafiqul Islam is Unit Manager, IML & Zahangir Alam is Data Entry and Monitoring Officer, CLP

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Executive Summary

Key findings
• T1 and T2 incomes are the same, regardless of whether a 12 month or 30 day recall period is used. • The T2 package cannot be justified on the basis of different asset levels, as assets do not appear to be affecting incomes. • Economically, sharecropping is not especially profitable, but acts as a stepping stone on the path to land ownership, as well as providing several social or non-economic benefits.

This study was conducted in response to the recommendations of the 2011 Annual Review of the Chars Livelihoods Programme. The therefore the objectives of the study, based on the review's recommendations, were:

- To explore if there were differences in incomes between Tier 1 (households that meet the standard CLP criteria), and Tier 2[2] households based on a 12 month recall period, where consumption value[3] was included as income.
- To determine if Tier 2 was justified and should be scaled up.
- To explore the asset-income relationship by assessing whether sharecropping of land is a profitable practice (as Tier 2 selection criteria allows sharecropping).
- To understand why households become involved in sharecropping, and the barriers to involvement.

Data collection was conducted by an independent company between June and August 2011, in Lalmonhirat, Kurigram, Jamalpur, Rangpur, Pabna and Tangail, Nilpharmari districts in 21 villages where the CLP had not yet worked. No data collection was conducted in Gaibandha District, as there were insufficient island *char* villages in the district where the CLP had not yet worked. Villages were selected based on a random sampling methodology but proportionate to village size. A number of tools were used to collect quantitative and qualitative information, including participatory well-being analysis.

The study found that applying a 12 month recall produced the same results in regards to incomes of T1 and T2 as the original baseline study. Incomes of T1 and T2 households track each other throughout the year (even though T2 HHs share crop and own more assets). The similarities in incomes are explained by the fact that labour is the key driver of income - sharecropping and ownership of assets do not have a large influence on per person per day (pppd) incomes and the incomes of sharecroppers are typically the same as non-sharecroppers. The Annual Review was mistaken in its suggestion that the reason for similarities in incomes between T1 and T2 was a result of methodology. However, it is accepted that the seasonality of income flows on the *chars* means that the results of a 30-day recall may differ depending on the time of year in which it is conducted.

Based on the finding that assets and land are not contributing significantly to the incomes of those close to the poverty line, the decision not to scale up the T2 pilot was justified. T2 households (HHs) are relatively better off than T1 households (from a vulnerability perspective), because they have more assets to sell in times of crisis. Therefore, while asset transfer may reduce household vulnerability to shocks, it will not drive up regular incomes.

[2] Tier 2 was a pilot group of households that received support from the CLP despite having incomes above the extreme poverty line. Tier 2 is explained in more detail on page 5.

[3] The original income calculations included in the baseline report comparing tier 1 and tier 2 households did not include the value of food that was produced and consumed within the household (such as farmers consuming part of their own harvest). The Annual Review argued that excluding this "consumption value" resulted in an underestimation of incomes.

Sharecroppers are present in all Wellbeing Analysis Groups (WBGs) and 20% of extreme poor (EP[4]) households sharecrop. However, most sharecroppers are not EP, suggesting that sharecropping is not accessible to many of the EP, but rather appears to be a stepping stone to land ownership that is utilised by those slightly above the poverty line. The practice also has a number of benefits that do not translate directly into income, which make it attractive to HHs trying to move up the socio-economic scale. These include construction of social capital, risk management and building of savings. While the current CLP criteria exclude the proportion of EP households that practice sharecropping, modifying land access criteria is unlikely to be an effective way of including these households, as inclusion error would rise.

[4] Defined as having per person per day income of <=Tk 19 in 2009/'10 prices, the rural Rajshahi extreme poverty line as per *Jackson, A. (2009)* *DfID Bangladesh Information Note: Poverty Thresholds and Reporting*

1. Background

The Chars Livelihoods Programme (CLP) aims to improve the livelihoods, incomes and food security of more than 1 million people living on island *chars* in the North West of Bangladesh and to lift 67,000 core households out of extreme poverty by 2016. These core households, known as core participant households (CPHH), receive an integrated package of assets and support aimed at improving their socio-economic status. This includes transfer of assets worth up to Tk 16,000, stipends, income support and other benefits such as training, education and subsidised healthcare for a limited period of 18 months. The CLP is currently in its second phase (known as CLP-2), which follows on from the first phase (CLP-1) that ran from 2004 to 2010. The first phase had the objective of raising 55,000 CPHHs out of extreme poverty[5].

In 2010, facing a potential shortfall in target CPHH numbers, the CLP ran a pilot of 1,000 households which marginally failed the CLP inclusion criteria of being landless and assetless, but were nonetheless considered to be very poor. These households (known as Tier 2) received a lower-value package of support than Tier 1. It was believed that their higher initial levels of land and productive assets meant that they would require lower levels of asset transfer from the CLP to move out of extreme poverty. At baseline, incomes of Tier 2 HHs were found to be equal to those of Tier 1 (standard CPHH), based on a 30-day recall of income. In 2011, the first Annual Review of CLP-2 argued that the lower-value package approach to Tier 2 was not justified based on data available at the time, and criticised the CLP's use of 30 day recall to determine income. The review team suggested that use of a 30 day recall was likely to be inaccurate for households relying on seasonal incomes related to assets, and the finding that Tier 1 and Tier 2 incomes were the same was probably incorrect as a result of this. The review also recommended further research into the relationship between productive assets, land and income.

The study was conducted in response to the Annual Review's recommendations. The objectives of the study were:

- To explore if there were differences in incomes between Tier 1 (households that meet the standard CLP criteria), and Tier 2 based on a 12 month income recall, where consumption value[6] is included as income.
- To determine if Tier 2 was justified and should be scaled up.
- To explore the asset-income relationship by assessing whether sharecropping of land is a profitable practice (as Tier 2 selection criteria allows sharecropping).
- To understand why households become involved in sharecropping, and what the barriers to entry are.

2. Methodology

In order to investigate incomes, 50 Tier 1 (T1) and 50 Tier 2 (T2) households were selected at random from households subjected to monthly monitoring in Lalmonhirat and Kurigram. Monthly monitoring is used by the CLP to track changes in a sample of households (HHs) over time, and is based primarily on a structured questionnaire. For this study, additional questions were included during monitoring in June 2011, asking HHs to recall detailed information on income and income sources over the last 30 days, as well as slightly less detailed income information regarding the previous 12 months. These HHs had been receiving CLP support for up to four months at the time of the survey.

To investigate sharecropping, data regarding incomes of sharecroppers were drawn from a participatory study conducted across the CLP's working area. Data collection for this study was conducted between June and August 2011 in Lalmonhirat, Kurigram, Jamalpur, Rangpur, Pabna, Tangail and Nilpharmari districts by an independent contractor in 21 villages where the CLP had not yet worked. No data collection was conducted in Gaibandha District, as there were insufficient island *char* villages in the districts where the CLP had not yet worked. The study included use of wellbeing analysis to classify households into one of four well-being groups (WBG 1 being the poorest, and WBG 4 the

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[5] Defined as having income of <Tk 19 per person per day (2009/ '10 prices) as per rural Rajshahi extreme poverty line in *Jackson, A. (2009)* *DFID Bangladesh Information Note: Poverty Thresholds and Reporting*

[6] The original income calculations did not include the value of food that was produced and consumed within the household (such as farmers consuming part of their own harvest). The Annual Review argued that excluding this "consumption value" resulted in underestimation of incomes.

least poor). A sample of respondents from each WBG also completed a questionnaire relating to levels of assets, food security and incomes. This was supported by additional data which were gathered through a series of case studies of sharecroppers, highlighting the reasons for sharecropping, barriers to entry, level of profitability and arrangements of sharecropping tenancies. A number of focus group discussions were also held with landowners, sharecroppers and aspiring sharecroppers to explore in more depth the reasons why people do and do not become involved in sharecropping.

The methodology has the following limitations:

- Although direct CLP income support (stipends) was excluded from all calculations, as T1 and T2 households interviewed were receiving CLP support, it was not possible to separate incomes from assets provided by the CLP. For example, it was not possible to separate the income from CLP-provided livestock from livestock which was not provided by the CLP. As a result, there may be some overestimation of incomes. However, this should be a minor problem at most, given that the very little support provided by CLP translates directly into income in the early stages (see table 2). Furthermore, as both groups were receiving support, any overestimates would affect both groups equally, meaning that calculations on income differences would not be affected.
- Direct data on profitability of sharecropping was not scientifically sampled (these data came from case studies) and the sample was very small. However, it is felt that the data on incomes collected scientifically from a larger sample can help to validate these data.
- 12 month recall of crop value, sale amounts and yearly expenditure on inputs could suffer from inaccuracy, particularly where amounts are relatively small or transactions infrequent.

3. The Tier 2 Pilot in Brief

Tier 2 was a pilot of 1,000 households in Kurigram and Lalmonhirat districts that began in January 2010. The Tier 2 pilot was selected as the preferred option from several available to the CLP when a potential shortfall in numbers emerged.

In early 2010, the CLP conducted a study[7] into the number of potential core participant households living on the island *chars,* to confirm data that had been provided by IMOs at the design stage. The report showed that unless some action was taken, the CLP was unlikely to be able to meet its target of 67,000 CPHH, because the number of HHs that met the CLP criteria was lower than had originally been thought. A number of options were considered in the final report, including:

- reducing the target/closing the project early
- modifying the selection criteria of the CLP
- expanding into districts in new to the CLP
- allowing a second tier of CPHH (T2)

It was felt that creating T2 could help the CLP to overcome the numbers shortfall, while bringing in some households that did not qualify for CLP CPHH status, but nonetheless were still very poor and vulnerable. Indeed, T2 households have characteristics identical to T1 in most respects (Table 1). On this basis, it was agreed that a pilot of T2 would be run to assess feasibility before any decision on scaling up was taken.

It was felt that the low incomes of T2 households justified their inclusion into the CLP programme, but that their higher level of productive assets meant that they would require a lower value package of support from the CLP in order to allow them to move out of extreme poverty (Table 2). Further justification for Tier 2 was based on the risk to social cohesion and programme impact. By excluding households that failed to meet the selection criteria but were in practice very similar to Tier 1 households, local tensions and divisions can be created or enlarged. In order to bring T2 HHs into the programme, an adjusted set of criteria were defined (Table 3) which allowed households with a limited quantity of productive assets, including share land, to be selected. Tier 2 was planned as a pilot that could be scaled up if the results were positive.

During baseline, T2 households were found to have incomes only slightly above the extreme poverty line, despite having different asset levels to Tier 1. At baseline, per person per day (pppd) incomes of

[7] Kenward, S. and Islam, R. (2010) *CLP-2 Districts: an Assessment of the Potential Number of Core Participant Households and Island Char Villages*

T1 & T2 were found to be Tk 22 and Tk 23 respectively, yet T1 households were found to own on average productive assets of only Tk 633, while T2 owned productive assets worth Tk 5,574[8] (Table 1; these figures include land). This finding generated some confusion, and was highlighted by members of the CLP team during the annual review. The annual review report recommended further investigation into the reason why Tier 1 and 2 to incomes were the same, and suggested that it was most likely that incomes were not the same, but appeared to be the same as a result of poor methodology at baseline. The IML department developed this study as a response to the findings and recommendations of the annual review.

Table 1: Asset Ownership/Access by T1 & T2 at Baseline

	T1	T2
Mean value of cash savings (Tk)	76.8	107.9
% of hhs owning land	0	1.3
% of hhs share cropping	0.9	49.1
Mean value of productive assets (Tk)	633	5,574
Mean value of total assets (Tk)	1,984	7,636
% of households who have shared cattle	7.1	21.1

Table 2: CLP Support to Tier1 and Tier 2

Components of package	T1	T2
SD group training	Full modules	Full modules
Asset value (Taka)	15,500	9,000
Monthly asset maintenance stipends	250	250
Family income support stipend	350	0
AI vouchers	300	0
Vaccination and de-worming support	400	200
Vegetable seed	900	60
HG training	425	170
Livestock training	595	595
Raised plinth	Yes	Yes, but not guaranteed
Latrine grant	5,500	1,500
Health vouchers	1,500	1,000

Table 3: Selection Criteria for Tier 1 and Tier 2

Criteria for Selection	T1	T2
Residency	6 months on island *char*	6 months on island *char*
Land ownership	No land ownership	Up to 5 decimals of homestead and 33 decimals share cropping
Productive assets	Up to Tk 5,000	Up to Tk 15,000
Credit	No loan from a micro-finance institute	No loan from a micro-finance institute
Assets and income	Not receiving cash/ asset grants from another programme	Not receiving cash/ asset grants from another programme

4. Findings from the Annual Review

The Annual Review concluded that there was no justification for the lower package of assets and support given to T2 on the evidence available at the time. This evidence (tier 1 and tier 2 baseline data), indicated that T1 & T2 incomes were the same but that asset levels were different, suggesting that different levels of productive assets and land access were not affecting incomes. However, the review team argued that the methodology of the baseline study was incorrect, and that the conclusion

[8]CLP (2011) *Baseline Findings: Comparing First and Second Tier CPHHs of Cohort 2.2.*

that T1 and T2 incomes were the same was probably incorrect, due to these methodological errors. The key flaws identified were:

- exclusion of consumption income
- use of 30 day recall period

The review pointed out that failure to include consumption of goods produced within the home as part of income could have led to underestimates of T2 incomes, as the T2 households have the ability to produce some crops and livestock.

However, the review team were more concerned with the potential effects of using a 30 day recall period to calculate incomes in an economy which is highly seasonal such as that of the *chars*. It was suggested that use of 30-day recall could underestimate T2 incomes by excluding large, seasonal incomes such as the value of livestock and crop sales and migration/remittance incomes. Specifically, the review said:

> *"The ideal way [to calculate incomes] would be to use an annual recall period. This may not suffer heavily from memory recall problem because these are bulky incomes and the households generally do not find it difficult to recall them. We can also consider income from sale of cattle in this category as well as remittances." (page 17)*

The authors recommended more detailed investigation into the income-asset relationship, including re-assessment of T1 and T2 incomes based on 12-month recall and including consumption value as part of income. It was suggested that the study should "help gain insight into land management, cropping patterns and incomes from different sizes of landholding, and also differentiate between incomes from leased land/share cropping". (page 20)

5. Results

5.1 Is the use of 30-day Recall Valid?

This study found that T1 and T2 had identical incomes when a 12-month recall (including consumption value) was used (Tk 23 pppd for both groups), and these are the same as found by the 30-day recall in the original baseline study, which found that incomes were Tk 22 and Tk 23 pppd for T1 and T2 respectively. The incomes of both groups track each other over the year, reflecting periods of high and low labour demand (Figure 1).

Analysis of the source of incomes shows that wage labour is the single most important source of income and that T2 derive a higher proportion of their income from labour, not from asset and crop sales or migration as was suggested in the Annual Review (Figure 2). In fact, land and livestock are of less importance to incomes according to the 12-month recall than to the 30-day recall (annex 2). Interestingly, a higher proportion of T1 are generating income from land (predominantly share land) than have chosen land under the asset transfer project (ATP). Baseline information suggests this is due to some error in selection, some T1 investing in land very soon after joining the programme, and lag between selection and baseline. Given that this accounts for around 20% of incomes, some further investigation is warranted.

T2 do generate some large "lump sum" incomes from assets such as land and livestock on a seasonal basis. However, T1 either generate similar seasonal incomes, or generate a more consistent, lower level of income from their assets over the year. The annual pattern of income from livestock, for

Figure 1: Monthly PPPD Income of T1 & T2 Based on 12-Month Recall

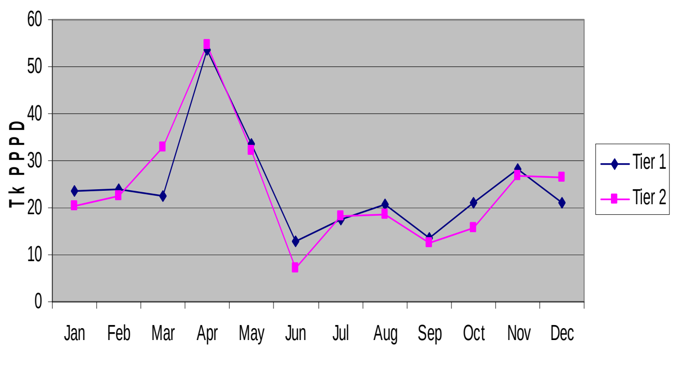
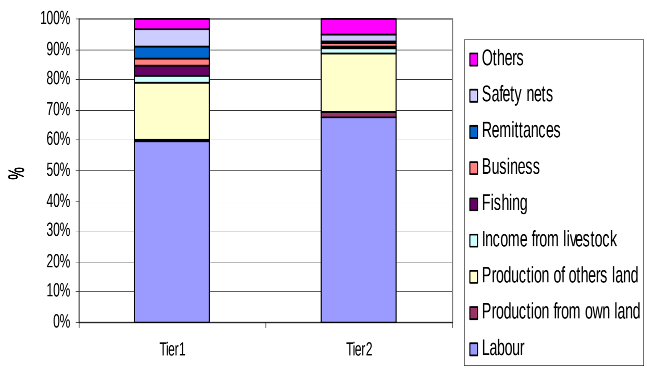


Figure 2: Proportion of Income from Different sources (12 month recall)



example, shows some significant differences between T1 and T2 (see Annex 1), but over the year the incomes from livestock work out remarkably similar (Tk 0.3 and Tk 0.4 pppd respectively).

Thus while the data do not support the argument put forward in the Annual Review that income similarities between T1 and T2 were a result of methodology, the findings do lend weight to the argument that the timing of the 30 day recall is important. Monthly incomes of the *char* dwellers are known to fluctuate with seasons, but this tends to reflect trends in labour demand and supply rather than asset based incomes[9], as was suggested in the Annual Review. The findings do not provide any information regarding the accuracy of the data generated by the 12-month recall method, and it remains unclear whether a 12-month recall is more accurate than a 30-day recall (Annex 2). One way in which this could be tested in the future, would be to compare data from a 12 month recall with data from the existing CLP monthly monitoring system (that measures household changes over time using a range of variables including income and expenditure). However, a 12-month dataset from monthly monitoring is not yet available.

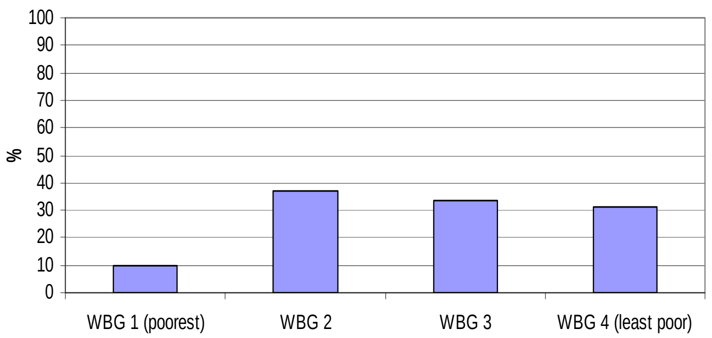
5.2 Who is sharecropping and why?

While sharecroppers are present in all WBGs (wellbeing analysis groups), the WBG with the highest proportion of sharecroppers is WBG 2 (53%, Figure 3), and fewer than 10% of all sharecroppers are found within WBG 1 (the poorest group). This indicates that sharecropping is either not attractive to, or not accessible by, the majority of the poorest HHs (as identified by the community). However, there are around 20% of extreme poor HHs (based on Tk 19 extreme poverty line) that are sharecropping. In WBG 1, sharecroppers are much wealthier than non-sharecroppers. In all other WBGs, incomes of sharecropping HHs are not significantly higher than those of non-sharecropping HHs (Annex 3). Furthermore, there is no difference in the proportion of income generated from land between T1 and T2 HHs (who are often sharecroppers; Figure 2).

Thus sharecropping does not appear to be more profitable than alternative activities – a finding that is supported by data from focus groups and case studies. This then raises the question as to why HHs are choosing to sharecrop, if there is little or no immediate economic benefit from doing so.

Focus groups and case studies suggest a number of key reasons, mostly indicating that the benefits from sharecropping are non-economic or do not translate directly into household income:

Figure 3: Proportion of HHs Sharecropping by WBG



- *Sharecropping is seen as a stepping stone from landlessness to owning land*, as sharecropping can be a savings method that delivers a lump sum return from regular small investments over a long period of time.

- *Sharecropping is a method of building social capital*, for example by creating a relationship with a landowner. This is one way in which poorer members of society can have some influence in the community. It is also a livelihood strategy, as sharecroppers state that they may be able to call on landowners for support during crises (having built up social capital).

- *Risk management*: assets from sharecropped land (such as stored crops) can be sold off during crises. HHs prefer to sell these smaller assets than to sell off larger assets (such as cattle), which those without access to land may be forced to do.

[9] CLP (2011) *Seasonal demand for labour on island chars and its effect on migration and remittances*

- *Sharecropping is also a way of managing periods of low labour demand*. Sharecroppers can work on their land during periods when no work is available, and thus remain productive. Other HH members that are unable to do a full day of labour, or would not be selected as day labourers (such as the elderly or mothers with very young children) are also able to contribute something to HH income by doing short or irregular periods of labour on the HHs share land.

Discussion groups suggest that the practice would be more profitable if sharecroppers could cultivate higher value crops such as chillies, but many indicate that they cannot afford the initial capital investment required for these crops. Nevertheless, the potential for improved earnings through such production is attractive.

While sharecropping may be an aspiration for many of the extreme poor, there are also a number of barriers which can prevent extreme poor households from becoming sharecroppers. These include:

- *Lack of financial capital required for investment in inputs such as seed, irrigation and fertiliser*. These inputs are required to generate sufficient returns for the landowner and sharecropper, but most landowners contribute nothing. At best, the landowner may provide 50% of the cost of inputs (in return for a larger share of the crop), but the remaining 50% may still be unaffordable to the very poorest.

- *Lack of sufficient human capital – for example, disabled, female headed, elderly or small households.* The landowners will select those households that have labour in sufficient quantities to deliver the highest productivity. Many of the extreme poor lack human capital within the household, due to illness or absent adult male for example, which makes them unattractive as candidates.

- *Lack of 'work ethic' reputation – which may be linked to previous*. For example, women are considered less able to work than men and even as day labourers will receive lower wages. Thus a female headed household may not be considered able to work hard enough to generate the returns that the landowner requires.

- *Lack of initial social capital such as a connection to the landowner.* The poorest often lack social capital, which makes it difficult to make the initial connection with the landowner. This is particularly difficult for recent in-migrants.

6. Conclusions

Based on 12-month recall, incomes of T1 & T2 are the same and match those from the baseline study, and there is no evidence to prove that a 12-month recall is more accurate than a 30-day recall. The Annual Review was not correct in its assumption that the use of a 30-day recall was the reason behind the similarities in incomes of T1 and T2. While high degrees of seasonality on the *chars* mean that the timing of a 30-day recall is likely to affect the income findings, this seasonality appears to affect the incomes of T1 and T2 equally.

In most cases, sharecropping is not influencing income significantly – labour is the key driver of income. The Annual Review was mistaken in its view that livestock and other assets were more important to the incomes of T2 than those of T1. In fact, use of the 12 month recall indicates that the contribution to total income by livestock and land is equal for T1 and T2, and T2 derive a higher proportion of their income from labour than T1. Although sharecropping does not appear to be especially profitable, the practice has a number of benefits that do not translate directly into income, which make it attractive to HHs trying to move up the socio-economic scale. These include construction of social capital, risk management and building of savings. The data suggest that sharecropping is not accessible to the majority of the extreme poor, but rather appears to be a stepping stone to land ownership that is utilised by those slightly above the poverty line. Although 20% of EP HHs (HHs with incomes pppd of less than Tk 19) are sharecropping, the majority of sharecroppers are not EP.

The rationale for providing a reduced asset package to T2 was not justified, as assets are not driving income. Therefore, discontinuing T2 as it existed was probably the best decision.

7. Recommendations

In light of the findings from the study, the following recommendations are made:

- Not recommended that the CLP change landholding criteria to include the 20% of EP HHs that are sharecropping. This is because work on selection criteria has shown that increasing land thresholds results in unacceptable inclusion error[10].

- Recommended that T2 is not expanded.

- Recommended that the CLPs' operations team consider increasing arable agricultural advice and training provision to CPHHs, to match that currently available for livestock farmers through the Livestock Services Providers project and Livelihoods training. This could be done through the proposed Agricultural Services Providers project, for example.

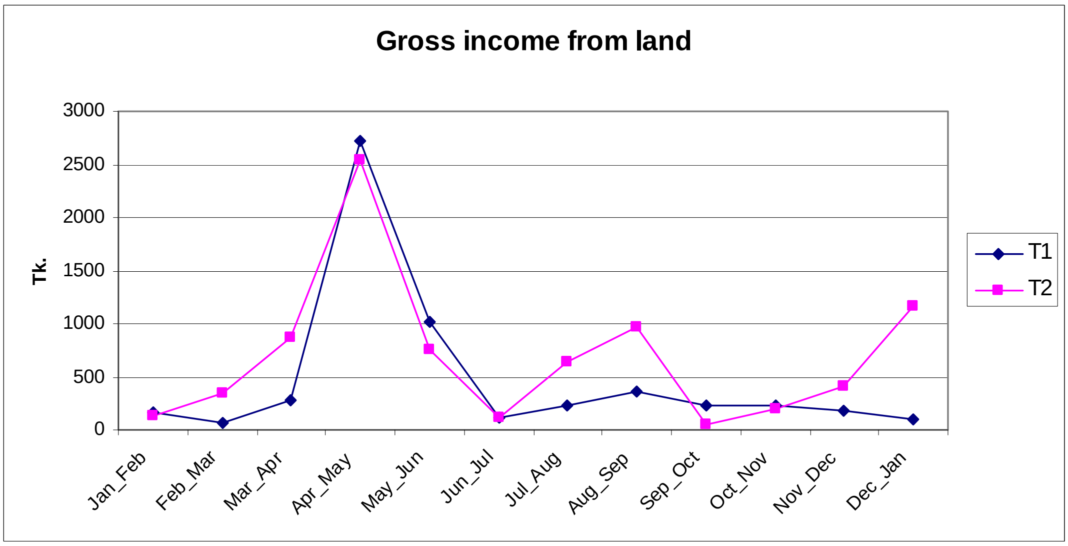
- Recommended that the CLP's operations team considers options to increase CPHH access to agricultural inputs, such as input vouchers. This would allow HHs that do choose to invest in land to move into production of higher-value crops.

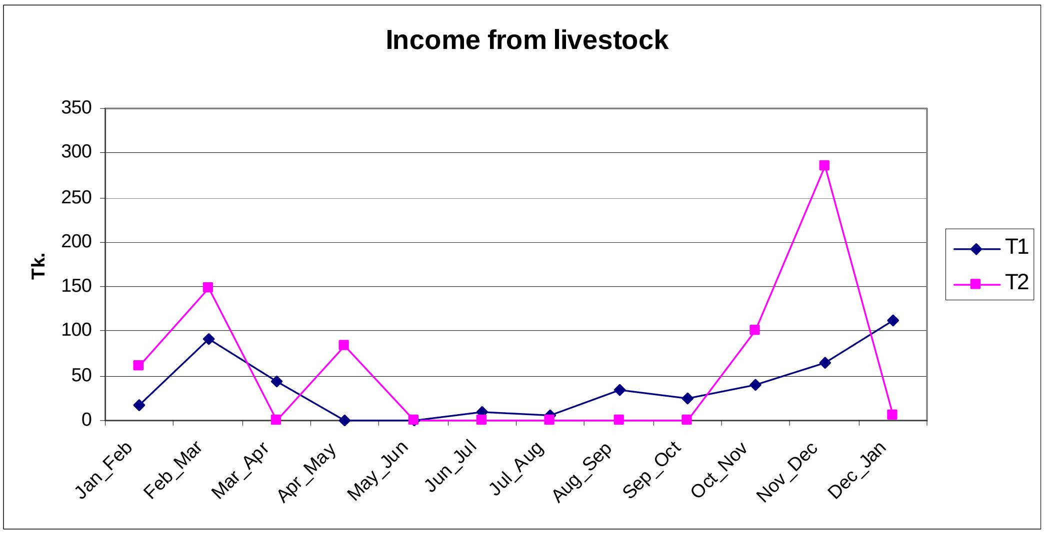
- Recommended that the CLP adopts a 12 month recall system for income, until data becomes available to test the accuracy of 12 month versus 30 day recall. Income data calculations should include consumption income in future.

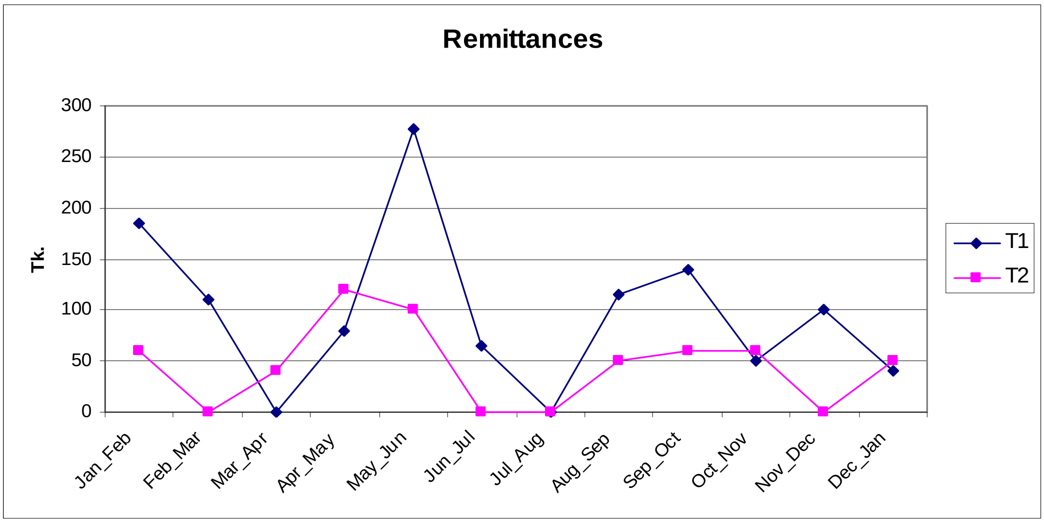
- Recommended that further research is done to understand how T1 incomes from land can be at 20% on average, in spite of the CLP criteria.

[10] Kenward, Blackie & Islam (2011) *Review of the CLP' s Selection and Graduation Criteria*

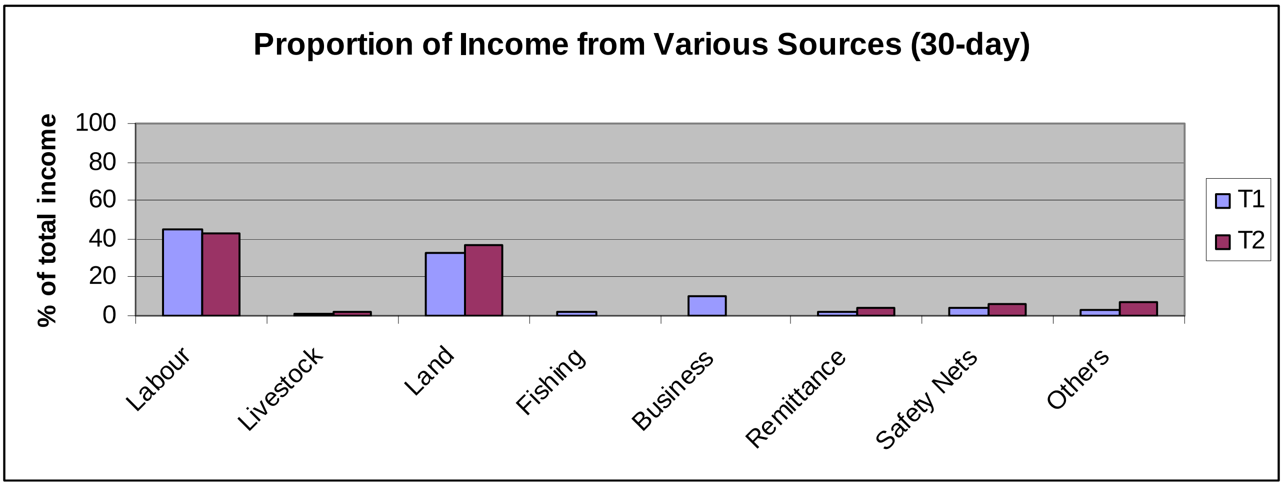
Annex 1: Incomes of T1 & T2 from selected sources, based on 12-month recall

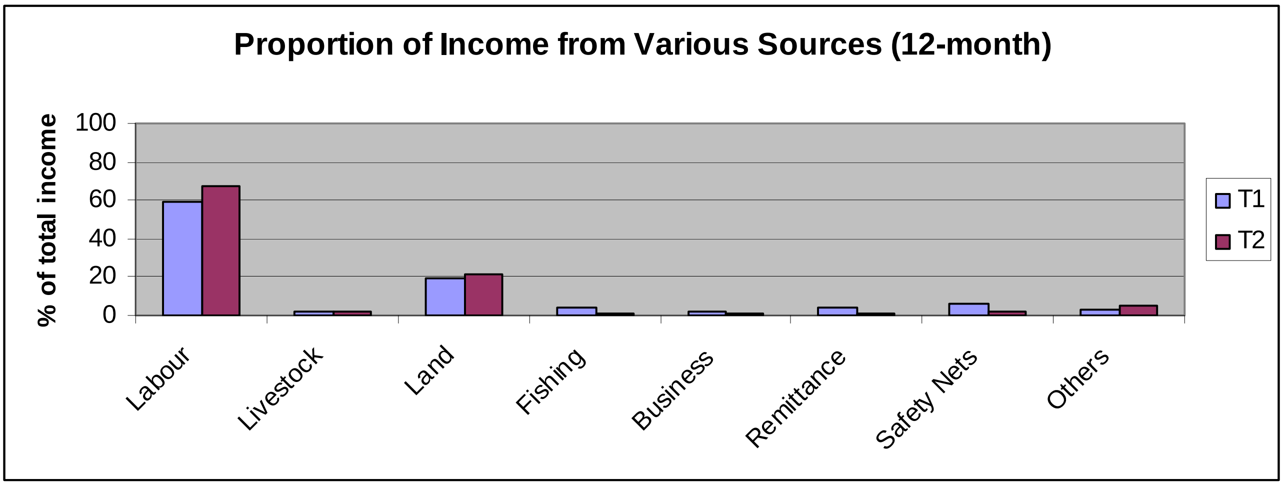






Annex 2: Results from 30-day and 12-month Recalls





Annex 3: Sharecropper Distribution & Incomes