This Wages Committee Progress Report updates the living wage to October 2017. It also indicates the gap between the living wage and the TAML base wage and between the living wage and the full wage package for typical tea workers.

In this way, it is possible to tell whether the gap to a living wage continued to decrease in the past 12 months to October 2017.
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Before discussing progress in the last year, it is useful to indicate conclusions of last year’s 2016 Wages Committee Progress Report. This report updated the following to October 2016 for the Malawi Tea 2020 Annual General Meeting: (i) living wage for rural southern Malawi, and (ii) prevailing wages in the tea sector and alternative measures of wages and poverty for rural Malawi. It found that:

- The gap between tea wages and the living wage in recent years has substantially fallen, and more pointedly between the date of the original living wage study (January 2014) and the October 2016 Annual General Meeting as well as between signing of the MOU for the Malawi Tea 2020 Revitalization Program Towards Living Wage and October 2016. This reduction in the gap to a living wage occurred, because the TAML base wage increased faster than inflation. Indeed, the TAML base wage increased four times between January 2014 and August 2017 - including after the Malawi Tea 2020 MOU was signed in July 2015, when the 2016-18 CBA for the tea sector became effective in August 2016, and when the 2016-18 CBA had a mid-term adjustment effective in August 1, 2017.

- The close link between the TAML base wage and the rural minimum wage that existed for many years was broken when the Malawi Tea 2020 MOU was signed, and the TAML base wage became much higher than the rural minimum wage.
3.1 Challenges faced by workers in maintaining their living standard discussed in last years’ 2016 Wages Committee Progress Report

Last years’ Wages Committee Progress Report highlighted three challenges facing workers and their ability to maintain their living standard. First, workers faced a very high annual inflation rate in October 2016 which was running at 23.1% at that time – as high inflation continuously reduces the purchasing power of wages. Second, workers were faced with a 15% income tax rate for monthly earnings above K20,000 ($28) and a 30% income tax rate for monthly income above K25,000 ($35). This considerably reduced take home pay. Third, workers faced the possibility that their wage would remain unchanged for the next 22 months until the end of the 2016-18 CBA despite very high inflation - although the possibility existed of an increase in the TAML wage in August 2017 after non-binding mid-CBA discussions between TAML and PAWU.

3.2 Improvements in the difficult macro-economic environment for tea workers since October 2016

The three macro-economic challenges noted in the previous section that were negatively affecting living standards of tea workers in October 2016 remain important in October 2017 – but they are less important in 2017 than they were in 2016.
3.2.1 Inflation rate still high but falling rapidly

Inflation remains very high in rural Malawi - but it is much lower in 2017 than it was in 2016. The annual year on year rural inflation rate was 23.1% in October 2016, and is probably around 10% in October 2017.\footnote{July 2017 was the latest available month with inflation data reported by the Malawi Statistical Office at the time of the writing of this report. Since the annual year on year rural inflation rate for July 2017 was 11.0% and it has been falling, we assume that it is likely to be somewhere around 10 for October 2017.} Figure 1 indicates the year on year annual rural inflation rate by month since January 2014.

![Figure 1: Rural Malawi year on year annual inflation rate by month, January 2014 to July 2017](image)

\[\text{Figure 1: Rural Malawi year on year annual inflation rate by month, January 2014 to July 2017}\]
3.2.2 Income tax exclusion threshold increased in 2017

Last year’s 2016 Wages Committee Progress Report indicated that Malawi tea workers were increasingly having to pay income tax under Malawi’s PAYE (Pay As You Earn) tax system. This was very surprising to those from outside Malawi, because tea workers earn so little. The reason why many tea workers had to pay income tax is that Malawi had a very low threshold for paying income tax. Workers in 2016 were subject to a 15% tax rate when their pay in a month was between K20,000-K25,000 ($28-$35 only!) and a 30% tax rate when their income in a month exceeded K25,000 ($35 only!).

Fortunately for tea workers, government changed its income tax rate schedule on July 1, 2017. It increased the income exclusion from K20,000 per month to K30,000 per month. The 15% tax rate bracket therefore shifted from K20,000-25,000 to K30,000-35,000, and the 30% tax rate bracket therefore shifted from K25,000 and up to K35,000 and up. These changes are important for many tea workers as many tea workers earn more than K30,000 per month. Tax savings would be K3,000 in months when a worker earns K35,000 per month or more.

This change in the income tax regime means that the amount of income tax many tea workers paid fell by a substantial amount as of July 2017, which we estimate to typically be around K1,500 - K2,500 per month up to a maximum of K3,000 in a month. See figure 2 for an estimate of typical income tax paid by tea workers from January 2014 to October 2017.
Notice that income tax increased rapidly in the second half of 2015 and again in August 2016 following increases in TAML wages and fell back to close to zero in July 2017 following the increase in income tax exclusion. This recent reduction in income tax substantially increased the take home of many tea workers, although it is worth noting that in future income tax will again increasingly affect the take home pay of tea workers as wages increase with inflation and/or with progress towards payment of a living wage (unless the threshold for PAYE income tax is again revised upward).

3.2.3 Small upward adjustment in the TAML base wage (with no change in overkilo threshold) in July 2017 mid-term 2016-18 CBA

TAML voluntarily agreed to increase the TAML base wage by 5.2% effective from August 1, 2017 until the end of July 2018 (i.e. end of 2016-18 CBA). This also affected workers’ income taxes.
The net living wage was originally estimated to be K35,222 per month (and K1,531 per workday) for January 2014. Consumer prices have approximately doubled since January 2014 and so the K35,222 in January 2014 is equivalent in purchasing power to K70,465 per month and K3,051 per workday in October 2017 after taking into considering the amount of inflation in rural Malawi between January 2014 (study date) and October 2017 (Steering Committee meeting) using Malawi government’s rural CPI. This updated net living wage has the same purchasing power as the original January 2014 living wage – and so is the same in terms of the living standard it affords. Readers are referred to Annex A for a discussion of how we estimated inflation for different months within the year in light of the highly seasonal pattern of inflation in Malawi.

Table 1 indicates the net living wage for January 2014, 2015, 2016 and 2017 (month of original living wage study) as well as for October 2016 and 2017 (month of Steering Committee meeting). The net living wage in October 2017 is approximately twice that in January 2014 in Kwacha, because prices in rural Malawi increased by approximately 100% in this 3+ year period. Figure 3 displays graphically the data in table 1.
Table 1. Living wage updated for inflation to October 2017 so that it keeps the same purchasing power

<table>
<thead>
<tr>
<th>Date</th>
<th>Year on year annual inflation rate</th>
<th>Living wage per month adjusted for inflation (living wage in previous period times inflation in period)</th>
<th>Living wage per day adjusted for inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2014 (original study date)</td>
<td></td>
<td>35,222</td>
<td>1,531</td>
</tr>
<tr>
<td>January 2015</td>
<td>20.56%</td>
<td>42,445</td>
<td>1,846</td>
</tr>
<tr>
<td>January 2016</td>
<td>26.94%</td>
<td>53,906</td>
<td>2,344</td>
</tr>
<tr>
<td>October 2016 (Steering Committee meeting)</td>
<td>B</td>
<td>62,261</td>
<td>2,707</td>
</tr>
<tr>
<td>January 2017</td>
<td>21.18%</td>
<td>65,325</td>
<td>2,840</td>
</tr>
<tr>
<td>October 2017 (Steering Committee meeting)</td>
<td>c, d</td>
<td>70,165</td>
<td>3,051</td>
</tr>
</tbody>
</table>

Notes: *Living wage per day assumes that there are 23 workdays per month on average (see Anker and Anker 2014 living wage report). B Inflation between January 2016 and October 2016 was estimated by assuming that the monthly inflation rate in the January 2016-January 2017 period is constant. Thus, it was 15.50% for January 2016 to October 2016. B Inflation between January 2017 and October 2017 was estimated by assuming that the monthly inflation rate during this period was constant, and that the year on year inflation rate between January 2016 and January 2017 is 10%. Thus, it is 7.41% for January 2017 to October 2017. Total amount of inflation between January 2014 study month/year and October 2017 was approximately 100%. Sources: Malawi National Statistical Office for rural inflation rate. Anker and Anker (2014) for living wage for January 2014.
Figure 3: Rural Malawi daily net living wage in Kwacha updated for inflation to keep same purchasing power, January 2014 - July 2017
5. How we measure the gap between tea wages and the living wage

Last years’ Wages Committee 2016 Progress Report concluded that the best way to measure progress towards payment of a living wage is to use the ratio between the tea wage and the living wage. Such a ratio abstracts away from looking at the number of Kwacha difference which becomes increasingly meaningless over time because of the high inflation rate in Malawi.

Last years’ 2016 Wages Committee Progress Report also concluded that the baseline to measure progress towards payment of a living wage should be the average tea wage/living wage ratio for the period from the living wage study (January 2014) until September 2015 (start of Malawi Tea 2020 Program). The reason we decided to use an average ratio for a period of time for the baseline rather than the ratio at any one point in time is that the ratio is very sensitive to changes in particular months - because the real value of the living wage continuously falls with inflation every month, tea wages increase only once in a while and all at once.

In the analysis in this section, we consider the full pay package received by tea workers, because workers receive much more than only the TAML base wage. For this reason, we look at the gap to a living wage by using progressively more comprehensive measures of wages of tea workers. We: (i) start with the TAML base wage, (ii) add our current estimate of the value of common in-kind benefits, (iii) then add what are believed to be typical overkilo payments for additional tea plucked, and (iv) finally take into consideration likely income taxes on the full pay package assuming that in-kind benefits are not subject to income tax. This approach has important advantages. First, it makes it easier to explain and understand tea wages. Second, this isolates out
the effect of different forms of remuneration and assumptions. Third, as the Wages Committee is presently working closely with TAML and tea estates to collect payroll data and cost of in kind benefits to tea estates, it is expected that next years’ Wages Committee Progress Report will be based on actual wages data and in kind benefits cost data instead of educated approximate values as in this years’ report.

5.2 Improvement in base wage and in kind benefits since Malawi Tea 2020: Longer term perspective

Figure 4 indicates that there has been a considerable improvement in the TAML base wage since the beginning of the Malawi 2020 Program in terms of progress made towards a living wage. Since the beginning of the Malawi 2020 project, the ratio between the TAML base wage and the living wage has been consistently higher than the baseline ratio of (0.33). The numerator of this ratio is the TAML base wage, the denominator is the living wage, and a ratio of 1.0 indicates that the TAML base wage equals a living wage. The closer the ratio is to 1.0, the smaller the gap to a living wage. Figure 4 indicates that over the period of the Malawi Tea 2020 Program that wages were closer to a living wage than they were before the Malawi Tea 2020 began.

Figure 4: Ratio of TAML base wage to living wage, January 2014 - October 2017

2. The baseline ratio was based on the average ratio of the TAML base wage to a living wage from January 2014 – September 2015.
5.3 Change in ratio of tea wage to living wage in past 12 months: TAML base wage plus in kind benefits

There was a big improvement in the TAML base wage relative to living wage before October 2016 (see figure 5 below). However, there was a small deterioration in the ratio in the 12 months since October 2016. The TAML base wage to living wage ratio fell from 0.44 in October 2016 to 0.41 in October 2017. The average ratio for October 2016-October 2017 was also 0.41. The small deterioration in this ratio was due to the fact that inflation in this time period (around 10%) exceeded the increase in the TAML base wage agreed to by TAML in the mid-term CBA review in July 2017 (5.2%). None-the-less, the 0.41 ratio for October 2017 remained well above the Malawi Tea 2020 baseline of 0.33.

Figure 5: Ratio of TAML base wage to living wage, September 2015 to October 2017

Of course, tea workers receive more than the TAML base wage. When the value of common in kind benefits are taken into consideration, the ratio of tea wages to a living wage increases to 0.52 in October 2017 (see Figure 6 below). It is important to note that the assumptions we used for values of common in kind benefits are based mainly on results from the original living wage study in January 2014 (increased by inflation) – and that the Wages Committee is now working closely with TAML to determine more evidence-based values for common in kind benefits.
5.3. Ratio of tea wages to living wage: Adding overkilo payments for tea pluckers to TAML base wage and value of in kind benefits

In addition to the base wage and in kind benefits, tea pluckers receive additional pay when they pluck more than 53 kilos in a day. Some field workers receive skill allowances. Factory workers receive overtime pay. In this section, we add to the tea wages indicated in the previous section what we believe to be typical overkilo payments given to tea pluckers who make up a large proportion of tea workers. As the mid-CBA agreement in July 2017 maintained a 53 kg overkilo threshold, this means that overkilo payment for each overkilo plucked increased by the same 5.2% as the TAML base wage.

The change in the ratio for the last 12 months of the complete TAML wage package for workers who plucked 60 kilos on average per day is similar to the pattern shown in figures 4 and 5 above – that is, there was a small decrease in the ratio between October 2016 and October 2017. This ratio was 0.57 of the living wage in October 2017 3 for the full wage package of base wage, in kind benefits, and overkilo payment.

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3. We assumed that pluckers pluck an average of 60 kilos per day over the year. Note that the Wages Committee will determine the value of overkilo payments more precisely in the next year based on payroll data from tea estates.
It is worth noting that the ratio for the full pay package of tea pluckers in October 2017 (0.58) was only slightly above the baseline ratio (0.57). The reason why this measure of progress for Malawi Tea 2020 is less than the increase to October 2017 for the TAML base wage plus value of in kind benefits is that the overkilo threshold used for the baseline was 44 kilos per day for most of the baseline period compared to 53 kilos per day for 2017.\footnote{The minimum amount of raw tea needing to be plucked before overkilo payments were made increased from 44 kilos from January 2014 to August 2015, to 50 kilos in September 2015, and to 53 kilos from August 2016 to July 2018 end of 2016-18 CBA.} The increase in the overkilo threshold had the effect of reducing overkilo payments compared to what they would have been had the threshold remained the same after the baseline period. This means that when the overkilo thresholds changed, pluckers were paid for fewer overkilo and therefore their overall pay did not increase by the same percentage as the base wage.

\footnote{The minimum amount of raw tea needing to be plucked before overkilo payments were made increased from 44 kilos from January 2014 to August 2015, to 50 kilos in September 2015, and to 53 kilos from August 2016 to July 2018 end of 2016-18 CBA.}
5.4. Ratio of tea wages to living wage: Taking the effect of income tax into consideration

This section looks at how take home pay of workers changed considering income tax and the full wage package of base wage, in kind benefits, and overkilo payments. Once again, we use the ratio to the living wage. This analysis is important for two reasons. First, take home pay of tea workers does not increase as rapidly as gross pay, because as tea wages increase, workers pay an increasing proportion of their pay in income tax. Second, income tax rates changed in July 2017.

Figure 8 indicates the ratio of both gross pay (top line) and net pay (lower line) to living wage. Values in this figure assume that in kind benefits are not subject to income tax. Notice that while gross pay to living wage ratio falls slightly from October 2016 to October 2017, that in contrast net pay to living wage ratio is basically unchanged from October 2016 to October 2017. The increase in the income tax threshold from K20,000 to K30,000 in July 2017 helped increase take home pay and this effectively counterbalanced the small decrease in real gross tea wages – such that the ratio for net wage to living wage was basically unchanged from October 2016 to October 2017.
6. TAML base wage continues to be much higher than the rural minimum wage

The 2016 Wages Committee Progress Report found that the TAML base wage and the rural minimum wage were very similar and closely linked between 2004 and July 2015 albeit the TAML base wage changed more frequently and was generally slightly higher than the rural minimum wage (Figure 9). Then in July 2015 with the signing of the Malawi Tea 2020 Program MOU, this link was broken. Since then the TAML base wage has been much higher than the rural minimum wage. Whereas the TAML base wage increased five times since the signing of the Malawi Tea 2020 MOU, the rural minimum wage increased only three times. The TAML daily base wage is now K1240 compared to the rural minimum wage per day of K962. Although the gap between the TAML base wage and the rural minimum wage narrowed in 2017 when the rural minimum wage increased from K688 to K962, there is still a large difference.

Figure 9: TAML base wage compared to rural minimum wage in Kwacha, January 2007 - October 2017
7.1 TAML base wage in USD has continuously increased since 2004

Figure 10 displays the TAML base wage expressed in USD. This is an important metric for tea producers who are exporters selling to a world market and so receive most of their revenue in foreign currency. The TAML base wage in USD has increased fairly steadily since 2004 (see trend line in figure 10). Figure 10 also shows that until recently the USD value of the TAML base wage often fluctuated wildly over time, especially after the devaluation of the Kwacha in 2012 and the advent of very high inflation.

7.2 TAML base wage in USD slightly higher in October 2017 than in October 2016

The TAML base wage continued to increase in US dollars since the October 2016 Malawi Tea 2020 Steering Group meeting. The TAML base wage in Kwacha increased by 5.2% in August 2017 when TAML voluntarily agreed to a 5.2% base wage increase during its nonbinding mid-CBA discussions with PAWU. This small increase in Kwacha translated into a small increase in US dollars, because the Kwacha to USD exchange rate has been almost unchanged since August 2016 (being only 1.1% higher in September 2017 compared to August 2016, at 718 Kwacha per dollar compared to 726 Kwacha per dollar).
7.3 Uncertain how long the Kwacha to USD exchange rate will remain unchanged - but Kwacha is likely to resume depreciating in the future which will improve ability of tea estates to raise wages in Kwacha

Typically, the foreign exchange rate of a currency depreciates with high inflation in a country. This means that one would expect the Kwacha to USD exchange rate to increase over time. The fact that the Kwacha to USD exchange rate remained virtually unchanged since August 2016 despite Malawi’s high inflation is therefore unexpected. It appears to be due to government efforts supported by the IMF to stabilize the macro economic environment and bring inflation under control. The recently observed stable exchange rate could also be partly due to good agricultural production as well as infusions of money from IMF, World Bank and other bilateral institutions.

In the longer run, however, it is highly likely that the Kwacha will recommence its continuous depreciation over time. It is not possible to know when this depreciation will restart, since it will depend to a large extent on government policy and international organizations as well as on rainfall and agricultural output and on the national election schedule. When the Kwacha again begins to depreciate, tea estates should at that point be better able to raise wages in Kwacha5, although it is also important to keep in mind that any renewed depreciation of the Kwacha is likely to be accompanied by renewed inflation (IMF Working Paper 2017 WP/17/48) which will reduce the purchasing power of future wage increases.

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5. The per kilo export price of tea is another obviously important factor in the ability of tea estates to raise wages. Recent trends in the Limbe price, however, have not been very favorable. The all grades price of tea in 2016 was similar to that in 2009 and 2010.
Figure 11 below provides a wage ladder for October 2017 where the living wage is compared to TAML wages, rural minimum wage, and poverty line wages.

The living wage is much higher than the rural minimum wage (around 3 times higher), and the national poverty line wage and World Bank extreme poverty line wage (around 2.5 times higher). The living wage, on the other hand, is much lower than the Center for Social Concern (CfSC) rural basic needs basket wage given that the CfSC basic needs basket wage is around 25% higher and it does not include many needs such as health care, clothing and footwear, housing except for utilities, transportation, recreation and culture, alcohol and tobacco, and furniture and appliances. The living wage is similar to and slightly higher than the World Bank poverty line wage. Interested readers are referred to the footnote to this sentence for an explanation of why the World Bank poverty line wage in the 2014 original Malawi living wage study was considerably less than the living wage, slightly more than the living wage in 2016, and slightly less than the living wage in 2017.6

The living wage is around two and a half times more than the TAML base wage. In reality though, the gap between tea sector wages and the living wage is much smaller than this, because tea workers receive other forms of remuneration in addition to a daily base wage. Many tea pluckers receive over kilo payment when they pluck more than 53 kilos in a day. Some workers receive skill allowances. Many tea factory workers receive overtime pay.
All tea workers receive various in kind benefits such as free lunch and medical care, and some workers receive free housing. When these other forms of pay are included in remuneration, tea wages are much higher. Awaiting better information on wages, we roughly estimate that these other forms of pay are somewhere around an additional 40% of base pay. Valuing these other forms of remuneration in a fair and reasonable way will be the task of the Wages Committee in future.

6. It is important to note that World Bank international poverty line wages are quite imprecise, because they are based on the purchasing power parity (PPP) of the Kwacha compared to what a dollar buys in the United States (the comparator country) and this is very difficult to measure in part because this depends on which goods and services are used to make this comparison (e.g. autos are more expensive in Malawi than in the United States whereas services are much less expensive in Malawi than in the United States). The difficulty of measuring PPPs is shown by the fact that the purchasing power parity of the Malawi Kwacha changed only by around 6% when the World Bank re-estimated PPPs for all countries in the world in 2011. In contrast, PPPs changed by slightly more than 50% on average for developing countries as a whole. This helps to explain why the World Bank poverty line wage for Malawi changed so much relative to our living wage over time. It went from being substantially lower than our living wage in January 2014, to being slightly greater than our living wage in October 2016, and then slightly lower than our living wage in October 2017. All of this shifting around was due to measurement issues with World Bank PPPs and World Bank poverty lines.
In order to know how much progress the tea industry is making in moving towards paying a living wage as well how much further it has to go, it is best to measure prevailing wages based on actual data rather than assumptions. This is more complicated than it sounds, because remuneration of tea workers includes more than their base wage.

The Wages Committee will make a major effort in the next year to measure tea wages based on payroll and financial data. This will be done in close collaboration with TAML and tea estates who have agreed to provide the required data. Indeed, the Wages Committee has already begun to work on this, and it has already developed tentative templates together with TAML to measure: (i) prevailing wages and (ii) cost of in kind benefits to tea estates. It is also worth noting that the Wages Committee will represent typical tea wages by calculating a typical tea wage as a weighted average of tea estate wages using number of workers on each estate as weights.

This work on measuring wages during the next year will involve, in particular, the following:

1. Estimate fair and reasonable values for common in kind benefits. This estimate will be based mainly on the cost of in kind benefits to tea estates. A tentative template for recording this information has been developed with tea estates that lists expenses for each common in kind benefit. The expectation is that tea estates will fill in this template using information from their financial records. For example, cost of a medical clinic would include: labor costs such as for nurses and aides; medicines and supplies; licensing fees; uniforms; ambulance variable costs for drivers, petrol and maintenance; ambulance depreciation costs. Individual expense items would eventually be added up to arrive at a total cost for each in kind benefit.

2. Estimate a fair and reasonable value for estate housing. Housing, which is an in kind benefit, will be treated separately, partly because it is so important and partly because it poses difficulties that need resolving.

3. Determine cash wages of tea workers based on payroll data provided by tea estates. This includes separating cash wages into different components such as overtime, overkilo payments, and skills allowance.

4. Determine average number of workdays per month over the year as well as average number of paid days per month over the year that includes paid public holidays, paid sick leave, and paid annual leave.

5. Analyze differences in wages, days worked, etc. between male and female workers as well as between workers with different length contracts if possible.
10. Recent improvements for in kind benefits

Tea estates have improved in kind benefits in the past year or so. They have improved lunch and started on a journey to improve estate housing. Estates now add vitamin supplements to maize meal served in the free lunch provided to workers. Tea estates now also include vegetables in lunch at least one time per week and some estates include vegetables more than once per week. We estimate based on partial data that improved lunches cost tea estates somewhere around K50 per worker per month. While these are not very big amounts, nutrition supplements and vegetables in lunches significantly improve workers’ lives. Vegetables not only improve nutrition, they also improve the palatability of lunch.

It would be a good idea, in our opinion, for tea estates to extend provision of vegetables in lunch to additional days each week as this would not be very expensive yet would significantly improve the lives of workers. In our opinion, it would also be a good idea for Malawi Tea 2020 and TAML to look into ways to improve the nutritional value of breakfast which currently consists of black tea and 30 grams of sugar (approximately 7 teaspoons).

TAML recently adopted a new policy for worker housing with the “purpose to ensure good living conditions for any employee who is housed by one of the TAML members”. The standard used is that “defined by SAN [Sustainable Agricultural Network] Standard 2017”. “A standard house/unit size for 5 people will be considered” and have a “total living area at least 30 square meters” consisting of: 2 bedrooms, 1 living room, 1 khonde (verandah), 1 outside kitchen, 1 outside bathroom, and 1 outside toilet per 2 housing units.

Each estate will undertake a housing census to determine the number of houses in each of 4 quality categories: A quality (ideal condition and design), B quality (minor renovations needed to reach A quality standard), C quality (major renovations required to reach A quality standard), and D quality (needs to be demolished or completely rebuilt to reach A quality standard). To move to an acceptable situation for estate housing, “there will be a long term project of rectifying housing to be left with only grade A and B housing”.

7. Even though the machine used to mix nutrition supplements into maize meal is expensive, the cost per meal of adding nutrition supplements is very low. For example, if such a machine costs $20,000, lasts 20 years, and adds in nutrients for 2,000 meals per day, the cost of the machine would work out to be around K4 per meal and so around K26 per month for a worker. The low cost of chemicals per meal, electricity, maintenance costs, and labor costs would marginally increase this estimated cost per meal.

8. We estimated the cost of vegetables to be around K12 per meal based on information on this that we received from one tea estate.
The 2016 Wages Committee Progress Report concluded that: (i) considerable progress had been made by the Malawi Tea 2020 Program in closing the gap to a living wage in the Malawi tea industry; (ii) despite this progress, there remained a long way to go to achieving a living wage for tea workers in Malawi; (iii) very high inflation in rural Malawi posed a major problem hindering progress toward payment of a living wage since inflation continuously reduces the purchasing power of wages and so increases the living wage; and (iv) income tax was becoming increasingly important for tea workers and so was becoming an increasingly important impediment to achieving payment of a living wage in the Malawi tea industry.

For the past year (October 2016-October 2017), the Wages Committee found the following as regard progress towards payment of a living wage:

1. There was almost no change in tea wages relative to the living wage. Both increased by around 10% in the past year with the net living wage per workday increasing to K3,051 and our best estimate of the prevailing wage for a typical tea plucker (base wage plus value of common in kind benefits plus overkilo payments for an average of 60 kilos plucked per day) increasing to somewhere around K1,753. Our best estimate is that the ratio of prevailing wage to living wage (awaiting detailed wages data from TAML) remained around 0.57 showing that the gap is K1,298 and tea wages are 43% less than the living wage.

2. We think that this lack of progress towards payment of a living wage in the past year can be viewed in a positive way (the proverbial glass half full) for several reasons. The significant progress on wages from the start of the Malawi Tea 2020 Program until the October 2016 Wages Committee meeting last year) was maintained in the face of a difficult macro environment for tea estates such as a constant USD exchange rate despite high inflation in Malawi. This meant that costs in Kwacha were rising while the currency in which tea is priced remained the same. Despite this, tea wages expressed in USD increased in the past year.
3. There were significant improvements in the quality of kind benefits that were not costly to estates and therefore did not greatly increase the value of in kind benefit because their value is based on their cost to tea estates. These improvements of in kind benefits none-the-less significantly improved the lives of workers. Nutrition of lunches improved and a new housing policy and a commitment to improving estate housing was made that is likely to have an important positive affect in future. In our opinion, it would make sense to increase the number of days per week when vegetables are included in lunch as this would not be very costly and would significantly improve the nutrition and palatability of lunches. We also feel that Malawi Tea 2020 and TAML should look into how to improve the TAML breakfast which consists at present of black tea and 7 teaspoons of sugar.

4. The TAML base wage continues to remain considerably higher than the rural minimum wage (29% higher) even after a major increase in the rural minimum wage in the past year.

The Wages Committee would like to alert readers to the following issues looking forward:

1. Inflation remains high in Malawi (at around 10%) even if it has been falling rapidly. This means that the living wage will continue to increase in future to ensure that it retains its purchasing power and therefore the gap to a living wage will increase in the absence of future wage increases.

2. Income tax will likely be a drag on take home pay of tea workers – despite the recent increase in the minimum income tax threshold - and so affect the ability of Malawi Tea 2020 to make progress towards payment of a living wage. Unfortunately, workers in Malawi start to pay income tax at the very low income of only $41 per month.

3. It is important to have a better and more complete measurement and understanding of wages in the Malawi tea industry so that progress towards payment of a living wage can be better measured. For this reason, the Wages Committee’s workplan for next year includes working closely with TAML to measure the following using payroll data and financial records data: fair and reasonable values of in kind benefits, amounts of variable wage payments such as overkilo payments and overtime, and typical number of workdays and paid days per month. Future work of the Wages Committee is expected to also include analysis of the improved wages data collected on issues such as gender differences and differences between workers of different length contracts if possible.

9. It is important to note that the cost to the Malawi Tea 2020 program of developing the system for improving mid-day meals is not considered in how the cost and value of in kind benefits are determined.
Extreme seasonality of inflation rates in rural Malawi - which means that it is problematic to use standard approach to measure inflation to a particular month during the year (such as October when Steering Committee meets), and therefore an alternative approach is needed to estimate inflation to a particular month (such as October) during the year.

This annex provides a technical discussion of how inflation for October 2016 and October 2017 were estimated so that the living wage estimates could be available for October when the Malawi 2020 Steering Committee meets. This Annex does not need to be read unless someone is interested in this type of technical discussion.

Figure 12 graphs month-to-month inflation rates for 2007-2017 for rural Malawi using rural CPI index data from the Malawi National Statistical Office (NSO). Each point represents the percentage change in inflation between two months - for example, inflation from January to February, February to March, March to April, and so on. Figure 12 indicates that inflation in Malawi follows a highly seasonal pattern with the same pattern occurring every year. Prices (i.e. CPI) fall sharply every March to August and increase sharply every September to February. This pattern is observed in each of the 11 years shown in Figure 12. How seasonal overall prices are is clearly indicated by the fact that the annual rural inflation rate averaged +59.8% for September to February, whereas in contrast the annual rural inflation rate averaged -27.3% for March to August. There are two reasons for this striking seasonal pattern in rural inflation rates. First, food represents most (63%) of the rural CPI consumption basket, and within food, maize has a very high weighting. Second, food prices in Malawi are highly seasonal, especially for maize. As a result, CPI – that is, inflation - is highly seasonal. Unfortunately, Malawi NSO does not report seasonally adjusted CPI.
This means that the standard approach to measuring inflation (i.e. dividing the CPI index for final month of interest by the CPI index for original month of interest) is misleading for periods of less than one year. For example, the standard approach would indicate deflation and falling prices for March to August and extremely high inflation for September to February. One way of dealing with this situation “is to change the focus from short-term month-to-month price indices and instead focus on making year-over-year price comparisons for each month of the year” (ILO, IMF, OECD, EUROSTAT, World Bank, Consumer Price Manual, 2004, p. 396), since these “can be viewed as a seasonally adjusted annual consumer price index" (ILO IMF, OECD, EUROSTAT, World Bank, Consumer Price Manual, 2004, p. 403). It is obviously for this reason that the Malawi National Statistical Office emphasizes and reports year-over-year inflation rates for each month.

We thus rely on year on year rural inflation rates for January (month of the original living wage study) to update our living wage each year using rural CPI rates reported by the Malawi Statistical Office. To estimate inflation to a particular month within a January-January period (such as October), we assume that all months within this period have the same monthly inflation rate. This smoothing approach overestimates inflation compared to actual inflation in months of the year when actual prices decrease and underestimates inflation in months with very high inflation. It is worth noting however that both our approach and the standard approach indicate the same living wage for each January.

![Figure 12: Month to month inflation rate, 2007 - 2017](image)
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