

# Cross-Country Comparison of Key Indicators from COMPACI/CmiA Baseline Surveys

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## Acknowledgement

Although the sole author of this report is Dr Eric Weiss, Senior M&E Specialist, the data used for this report were extracted from the various COMPACI baseline survey datasets. These country-level datasets were analyzed and the analysis reports written by Dr. Weiss (Benin, Zambia, and Mozambique), Mr. Nate Allen, NORC Research Analyst (Burkina Faso, Côte d' Ivoire, and Malawi), and Ms. Anna Whitaker, NORC Research Analyst (Mozambique).



# 1. Introduction

The Competitive African Cotton for Pro-Poor Growth project (COMPACI) aims to strengthen the capacity of targeted cotton farmers with regard to:

- Increasing productivity and quality of their products
- Diversifying crop production
- Facilitating access to and use of micro credits
- Establishing sustainable business linkages to improve the cotton value chain.

COMPACI's main anticipated impact is to increase family income of the 265,000 targeted small-scale farmers by at least 34 % over 3.5 years through increased agricultural productivity. Beside this economic impact other social and ecological impacts are expected such as increased school attendance or improved soil fertility.

Project funds are used for activities comprising introduction and intensification of good agricultural practices including integrated pest management, soil and water conservation techniques, and quality management. The project facilitates market access of cotton farmers by giving them the opportunity to brand their cotton according to quality labels and by creating a direct link to textile retailers. The envisaged increase in high quality cotton is intended to have a significant positive impact on the competitiveness of small-scale farmers, resulting in higher incomes.

Beyond information on the framework conditions of the cotton sector in COMPACI countries, project implementation data from the project sub-grantees in each country, and qualitative data collected from cotton farmer through focus groups, the COMPACI monitoring and evaluation (M&E) system includes a quantitative assessment to assess the impact of the program on its participants. This quantitative assessment is based upon a statistical sample of farmers in each country chosen from the set of cotton farmers participating in COMPACI and from a similar set of cotton farmers in each country who are not participating in the project.

The assessment methodology gathers data on relevant indicators from the sampled farmers at the start of the project and then again at the end of the projects; the change in the indicator over the intervening time period for each group is then compared. Because the two groups are chosen so as to be as similar as possible (i.e., both groups have similar household-level characteristics on average and are growing cotton in similar climactic and market conditions), any difference in the change in indicators can be attributed statistically to the difference between the groups, which is whether or not they

participated in COMPACI. The final surveys are anticipated to take place at the end of 2013 and beginning of 2014.

The key indicators included in the quantitative assessment include:

- Participation in farmer associations
- Agricultural production (of cotton and other crops), productivity, use of inputs
- Household income, expenditure, and assets
- School attendance of boys and girls
- Food security
- Health and medical care
- Training/extension scheme and adoption/use of new technologies and sustainable farming practices (such as compost pits and soil/water conservation).

**Table 1.1** COMPACI baseline surveys

Country / Local Research Organization	Data Collection Period	Sample Size (COMPACI / Non-COMPACI)
Benin / CRA	May 2010	183 / 177
Burkina Faso / CERFODES	May-July 2010 January 2011 (Bt cotton farmers)	362 / 198 (conventional cotton) 12 / 129 (Bt cotton) 17 / 84 (organic cotton) <sup>3</sup>
Cote d'Ivoire / CNRA	June-November 2010 <sup>1</sup>	168 / 152
Malawi / Bunda College	September-October 2010	179 / 164
Zambia / ZARI	May-August 2010	193 / 240
Mozambique / KULA	May 2011 <sup>2</sup>	194 / 160

<sup>1</sup> Data collection was interrupted by political unrest during the summer of 2010.

<sup>2</sup> Mozambique joined the COMPACI project in 2010.

<sup>3</sup> In Burkina Faso, the sample was designed to include farmers growing conventional, Bt, and organic cotton.

Table 1.1 above shows the data collection period and the sample size for each of the COMPACI countries. The sample sizes, with the exception of Burkina Faso, where multiple types of cotton needed to be included in the sample design, were targeted in the range of 300-400 farmers, which are expected to be sufficient to assess the expected increase in cotton farmer income projected by COMPACI. For Benin, Burkina Faso, Côte d'Ivoire, and Zambia, the baseline questionnaire asked about agricultural production for the 2008/2009 season (i.e., the season before COMPACI activities were started). In Malawi, because of disruptions in the cotton sector over pricing in the 2008/2009 season, the baseline survey targeted the 2009/2010 season. In Mozambique, where the COMPACI program began in 2010, the baseline survey also questioned cotton farmers about the 2009/2010 season. Thus, the data presented in this report reflect past conditions in the cotton sector and do not reflect the run up in cotton prices seen in 2010-2011.

This report presents comparisons of the values of key, select indicators for all COMPACI countries. The indicator values presented in this report were extracted from the COMPACI baseline survey datasets for the affected countries and were selected by DEG as being those of most interest for cross-country comparison. The indicators presented in this report have been grouped into broad categories, each of which is represented by a section of this report. These sections are:

- Section 2: Demographics Indicators
- Section 3: Education Indicators
- Section 4: Cotton and Other Crops Indicators
- Section 5: Income Indicators
- Section 6: Miscellaneous Indicators

An abbreviated table of the most critical of these indicators is presented in Table 1.2, which also presents the weighted average/total of these indicators across all COMPACI countries. The complete table of these indicators and their baseline values for all COMPACI countries are presented in Annex 1 with appropriate footnotes regarding the data sources, values, exchange rates between local currencies and U.S. dollar (USD, both nominal and Purchasing Power Parity (PPP) rates<sup>1</sup> are presented), and other qualifications to the data.

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<sup>1</sup> The most current “official” PPP exchange rates were generated for the year 2008 by the United Nations statistics component and are used for the Millennium Development Goals (MDG) indicators; see <http://unstats.un.org/unsd/mdg/SeriesDetail.aspx?srid=699>.

**Table 1.2** Key indicators extracted from the COMPACI baseline surveys

Indicator	Benin	Burkina Faso	Cote d' Ivoire	Malawi	Zambia	Mozambique	Weighted Average / Total
<b>Household and Farm Indicators</b>							
Percentage of households earning less than 1.50 USD/day*	77%	77%	71%	93%	92%	76%	86%
Percentage of households reported hungry season	13%	12%	71%	36%	24%	13%	27%
Average households size	8.5	10.1	9.7	4.6	6.6	3.4	6.2
Number of people benefiting from COMPACI	127,577	158,893	283,356	264,886	1,096,610	229,210	2,160,532
Average farm size (ha)	11.5	6.5	10.3	2.8	8.5	3.3	6.8
Average cotton field share of total farm size (%)	23%	28%	42%	25%	27%	28%	28%
<b>Income Indicators</b>							
Average daily per capita income (USD)*	1.28	1.28	1.40	0.59	0.99	1.56	1.10
Average share of cotton in total cash income (%)	62%	33%	29%	43%	49%	67%	50%
Average share of cotton in total cash and in kind income (%)	35%	20%	14%	22%	28%	18%	24%

\* Nominal exchange rates for 1 USD at time of survey and used here: Benin-CFA 527.47; Burkina Faso – CFA 527.47; Cote d' Ivoire – CFA 527.47; Malawi – MWK 150.14; Mozambique – MZN 33; Zambia – ZMK 4,800

In general, the figures in this report are self-explanatory and, inasmuch as they simply compare values across the different COMPACI countries, do not require explanation or detailed analysis.

Consequently, the various figures are presented with relatively little or no text or explanation of their derivation unless such are footnotes to the data themselves.

Conventions used in this report include:

- Unless otherwise noted, all percentages have been rounded off to the nearest whole percent
- Unless otherwise noted all number amounts have been rounded off to the nearest whole integer value
- Obvious outlier data, including extreme values have been omitted from the calculations and values presented in the figures in this report.
- “Nominal” exchange rates used in this report to convert between U.S. dollars (USD) and local currencies are as follows:
  - ▶ Benin – CFA 527.47;
  - ▶ Burkina Faso – CFA 527.47;
  - ▶ Côte d’Ivoire – CFA 527.47;
  - ▶ Malawi – MWK 150.14;
  - ▶ Mozambique – MZN 33
  - ▶ Zambia – ZMK 4,800
- PPP exchange rates used in this report to convert between U.S. dollars (USD) and local currencies were taken from the UN 2008 rates used in their MDG project and are as follows:
  - ▶ Benin-CFA 283.27;
  - ▶ Burkina Faso – CFA 248.43;
  - ▶ Côte d’Ivoire – CFA 328.01;
  - ▶ Malawi – MWK 69.06;
  - ▶ Mozambique – MZN 14.77
  - ▶ Zambia – ZMK 3,482.55
- For purposes of improved graphical presentation, the names of the COMPACI countries have been abbreviated in all of the figures in this report as follows:
  - ▶ Benin: BN
  - ▶ Burkina Faso: BF
  - ▶ Côte d’Ivoire: CI
  - ▶ Malawi: MW
  - ▶ Mozambique: MZ
  - ▶ Zambia: ZA

- Unless otherwise stated, all income figures in this report refer to “net income;” that is, income from the various sources less applicable costs associated with earning that income.
- “*Net income from cotton*” was calculated for this report as the amount of money received for the cotton less any credit extended by the cotton companies and less any money spent by the households on inputs (seeds, fertilizer, pesticide, etc), hired labor used for growing cotton, or for any other expenses associated with growing cotton.

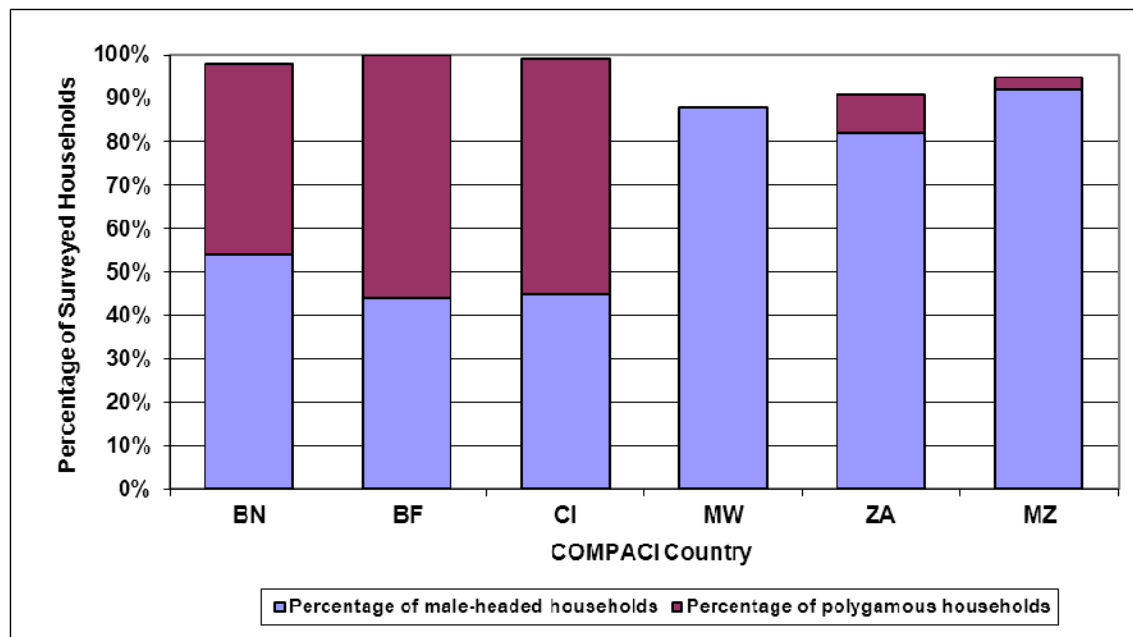
## 2. Demographic Indicators

In all of the COMPACI baseline surveys, questions are asked about the household demographics – number of members and composition of the household. Generally, for these purposes the definition of “household” refers to “*all people that regularly eat together.*” Note that, under this definition, family members that have emigrated away from their home areas for work or for other reasons are *not* considered part of the households for these surveys.

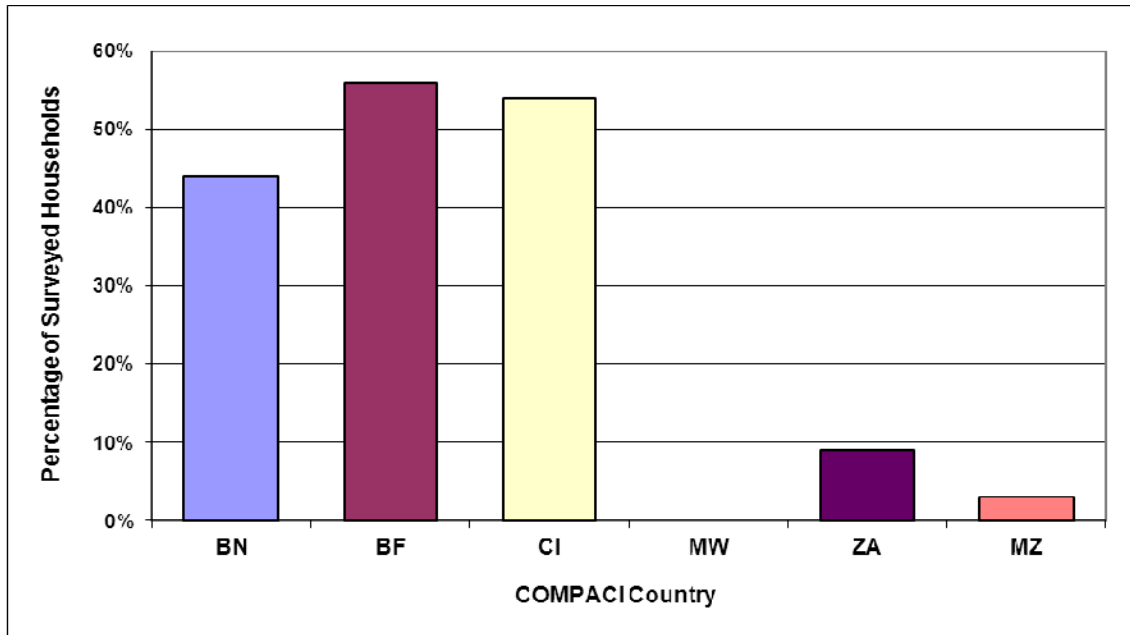
Note that the definition of *household* that is sometimes used of “*people that sleep under the same roof*” cannot be used here because of the multi-hut household compounds found in Burkina Faso and elsewhere.

In addition to the household size, the *types of household*, i.e., *Male-Headed Monogamous*, *Female-Headed*, and *Male-Headed Polygamous* are determined for all surveyed households. The partial results, for all COMPACI countries, are presented in Figures 2.1 and 2.2.

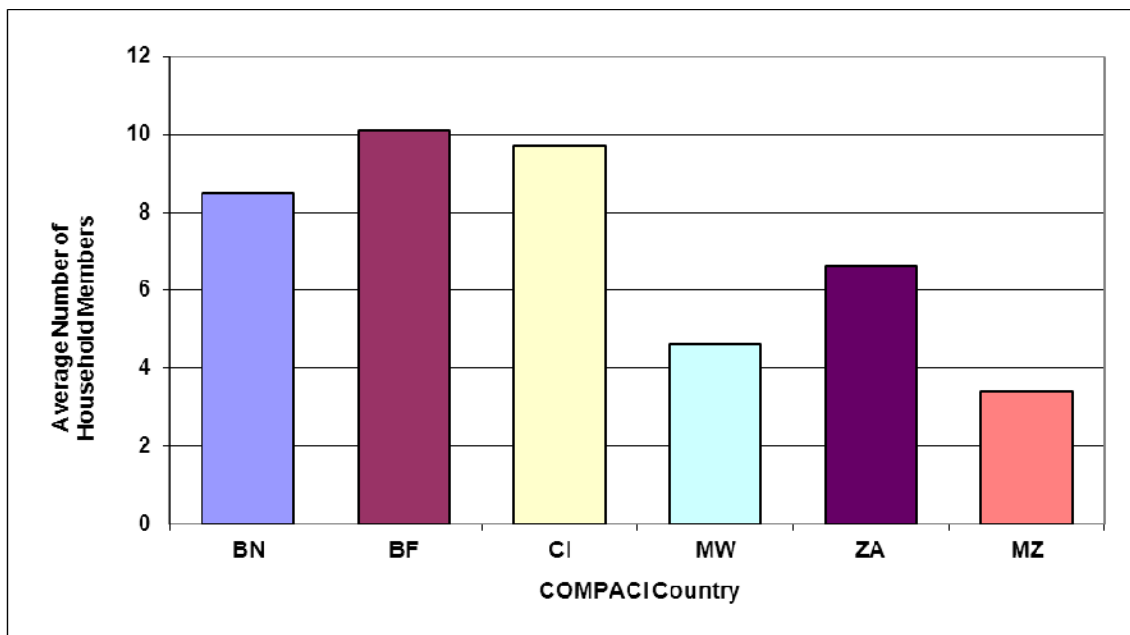
**Figure 2.1** Percentages of male-headed and polygamous households



**Figure 2.2** Percentages of male-headed polygamous households



**Figure 2.3** Average household size



### 3. Education Indicators

The education of the head of household has been known to affect the ability of that household to benefit from some programs. For example, development programs that rely on the beneficiaries reading pamphlets or other program material will have less impact on households where the primary beneficiary (often the head of the household) is illiterate.

In the COMPACI baseline surveys, questions are asked to determine the highest school grade completed by all household members 5 years of age or older. From the household responses to these questions and from knowing how many years are required to complete primary school<sup>2</sup> in each COMPACI country, the percentage of heads of households that have completed primary school can be determined as was done here.

**Figure 3.1** Primary school completion rates for heads of surveyed households

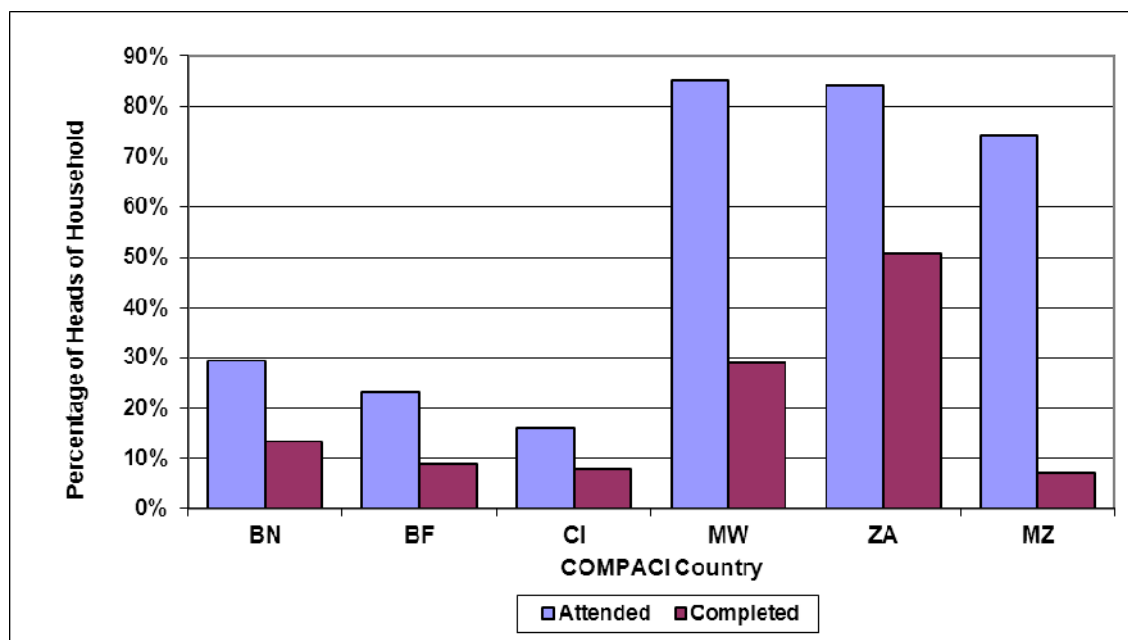


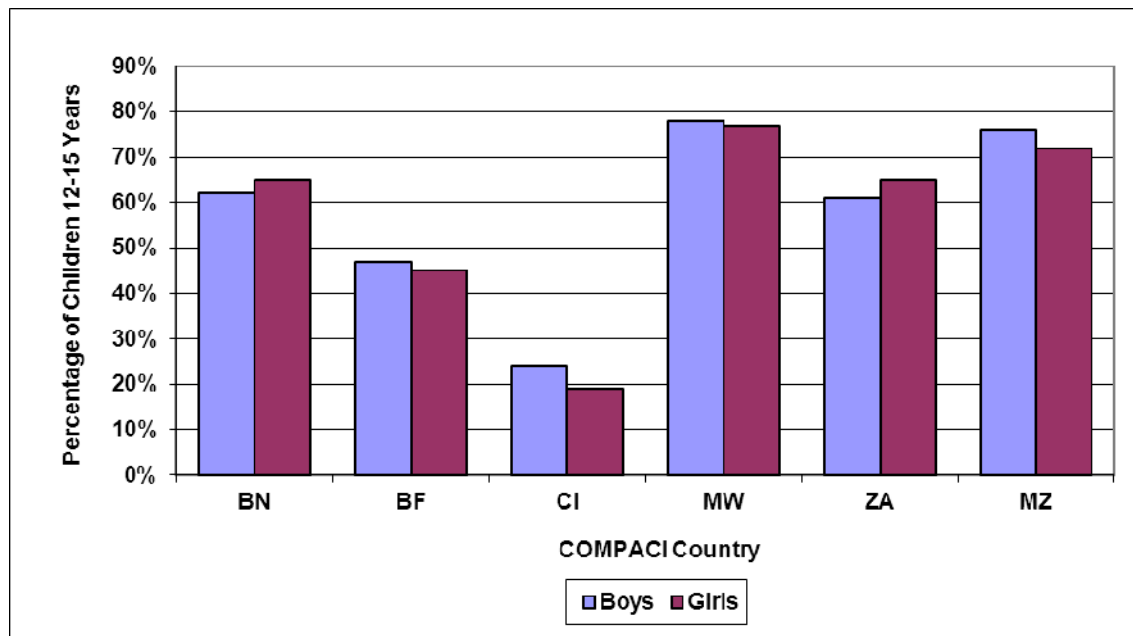
Figure 3.1 shows both the percentage of household heads that attended *any* primary school (the blue bars) and the percentage of household heads that completed primary school (the maroon bars). Both of these percentages are calculated based on all of the surveyed households. Therefore, the figure shows that for the surveyed households in Benin, 29% of the household heads attended *some* primary school and that 13% of the surveyed household heads *completed* primary school. Similarly, for

<sup>2</sup> Primary school goes up to grade P7 in all COMPACI countries except for Malawi in which Primary school goes up to grade P8.

Zambia, 84% of the surveyed household heads attended at least some primary school and 51% of the household heads completed it.

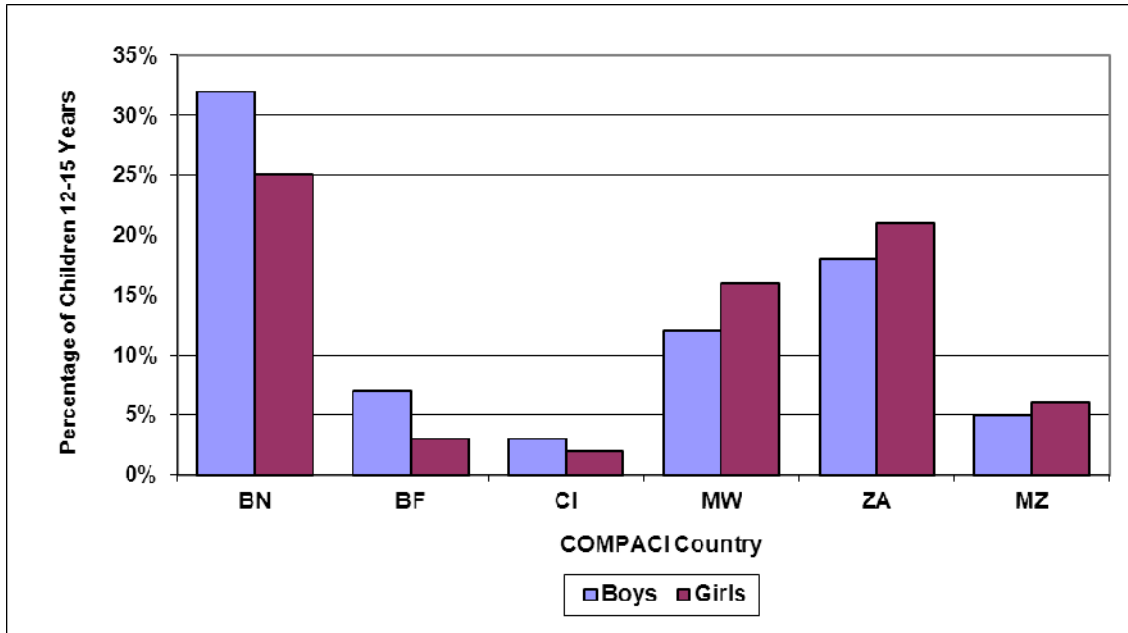
Additionally, one of the secondary COMPACI objectives is to increase primary school enrolment of both boys and girls of primary school age. The COMPACI baseline interview also asks whether all household members over 5 years of age are currently attending school and if not, the primary reason for the child not attending school. Of course, for older household members, the reasons for not attending school can include *completion of education, household/agricultural work, or married/pregnant* (for women). These data can be used to determine the (separate) attendance rate of boys and girls of primary school age, as was done for the indicators presented in Figure 3.2.

**Figure 3.2** Percentage of boys and girls 5-12<sup>3</sup> years attending school



<sup>3</sup> In Zambia, 6-12 year old boys

**Figure 3.3** Percentage of boys and girls 12-15 years that have completed primary school<sup>4</sup>

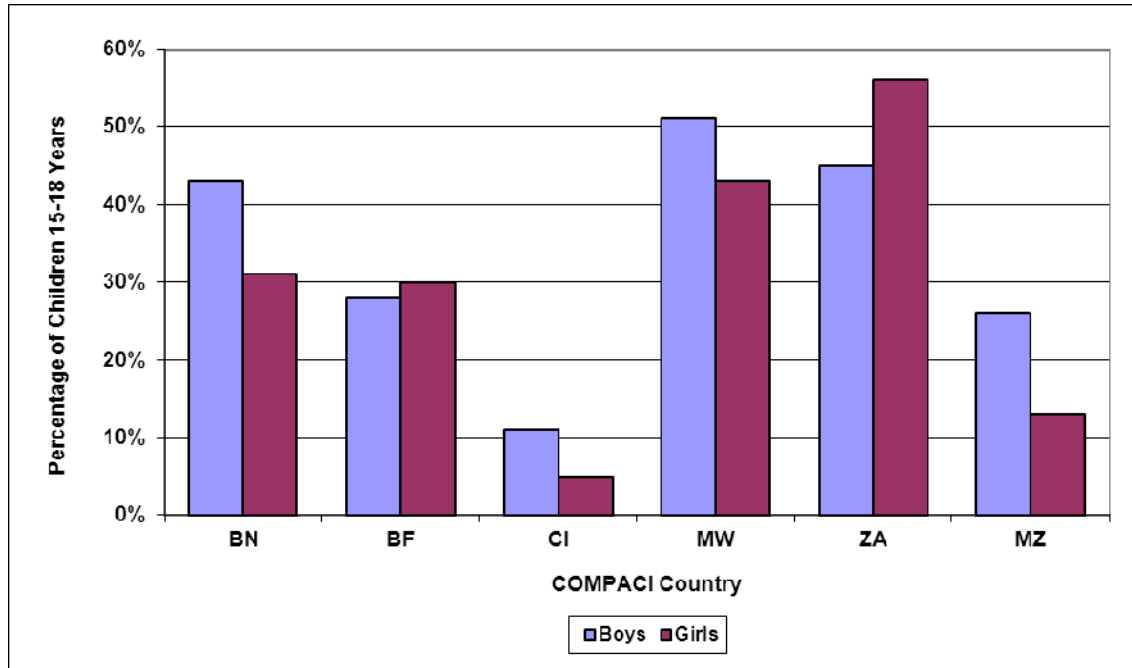


The same data referred to above can also be used to drive the percentages of boys and girls between the ages of 12 to 15 years that have *completed* primary school. These results are presented in Figure 3.3.

Finally, to allow for the possibility that some children may have started and thus completed primary school at an older age, the percentages of boys and girls 15-18 years old that have completed primary school were also determined from the same data mentioned above (see Figure 3.4).

<sup>4</sup> Primary school goes up to grade P7 in all COMPACI countries except for Malawi in which primary school goes up to grade P8.

**Figure 3.4** Percentages of boys and girls 15-18 years that completed primary school



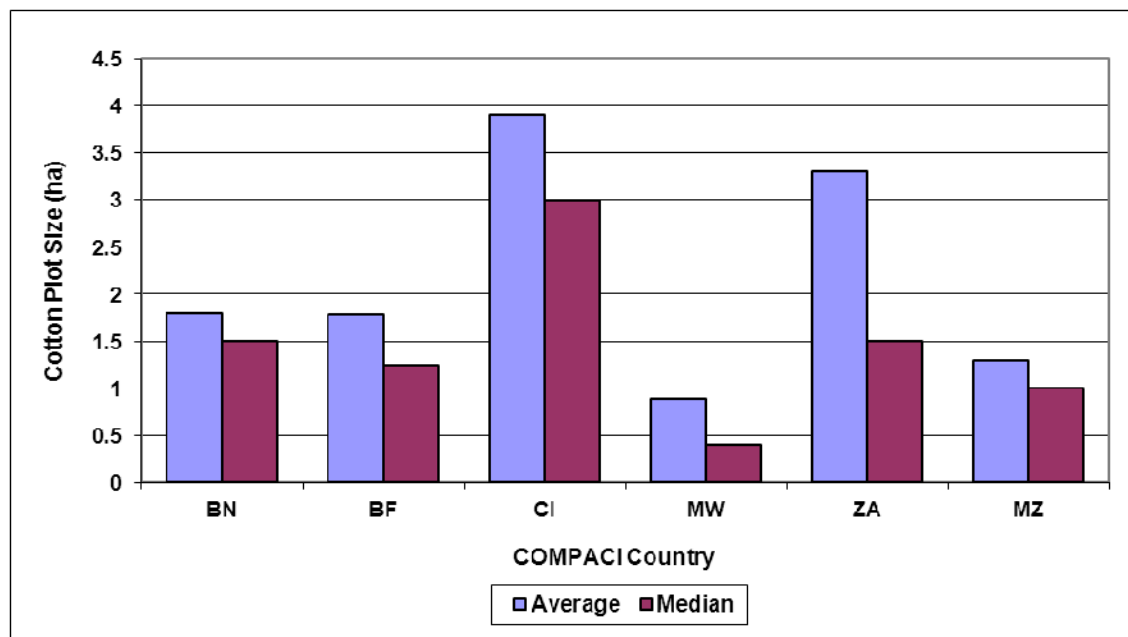
## 4. Cotton and Other Crop Indicators

Indicators of considerable and critical interest to COMPACI relate to cotton farming, cotton farms, and other crops that farmers grow that may compete with cotton for farmer households' labor and land. Therefore, it is of interest to look at some key parameters relating to these issues.

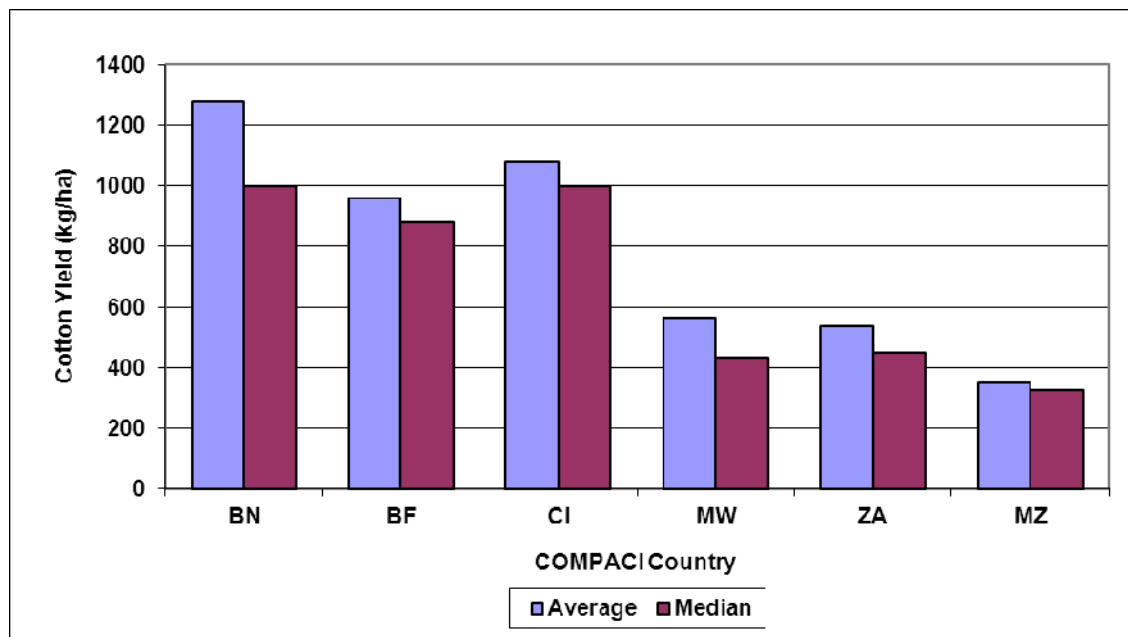
During the COMPACI baseline surveys, respondents were asked the size, in hectares, of their cotton plots; where and when possible, the area of these plots were also measured using hand-held GPS devices. In many cases, the plots could not be measured due to distance from the interview site, farmer reluctance, or for other reasons. Consequently, not all farmers in all countries had their cotton plots measured. Therefore, for the sake of consistency in this cross-country comparison, *only the self-reported sizes of the cotton plots will be considered*. However, in Annex 1, the average and median sizes of those plots that were measured in each baseline survey are presented.

Figure 4.1 Presents data on the average and median self-reported sizes of the surveyed households' cotton plots. The cotton yields (kg/ha) were calculated based on the reported cotton plot size and cotton production; the average and median values from each baseline survey are presented in Figure 4.2

**Figure 4.1** Average and median (self-reported) cotton plot sizes (ha)

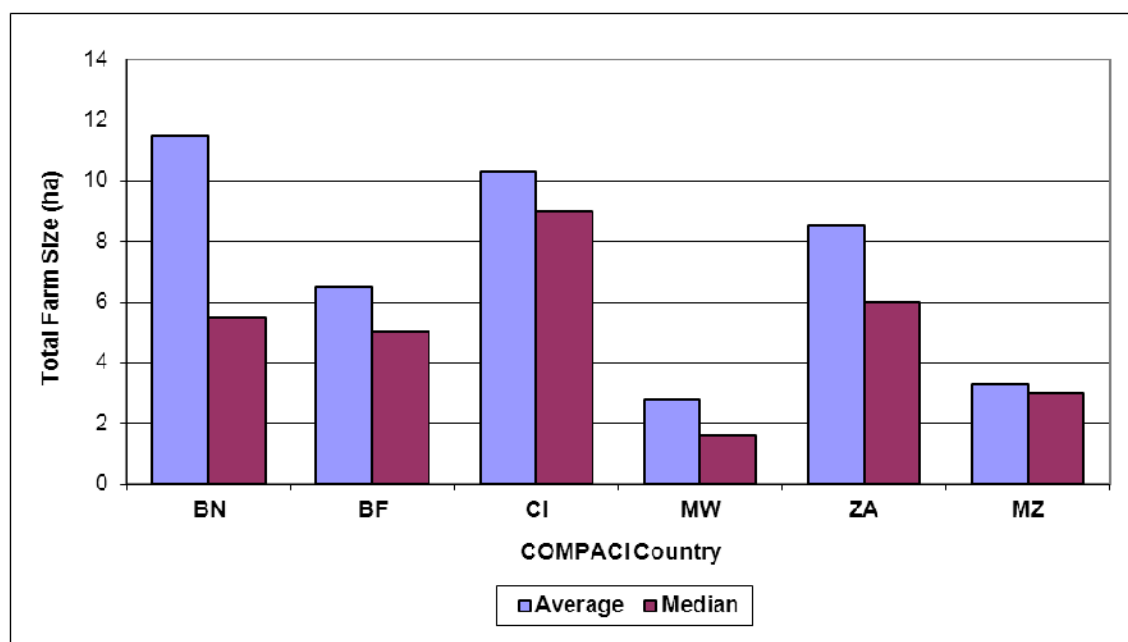


**Figure 4.2** Average and median cotton yields (kg/ha)



Respondents were also asked about the *total amount of land available to the households for cotton, maize, and other crops*. The average and median reported amounts of total available farmland are presented in Figure 4.3

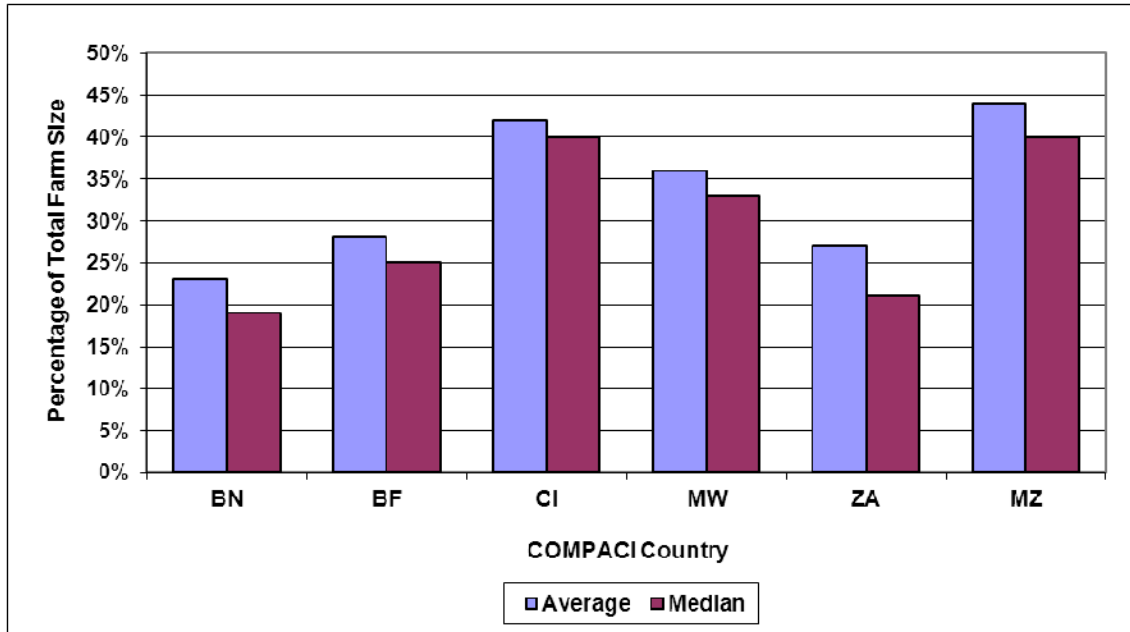
**Figure 4.3** Average and median total farm sizes<sup>5</sup> (ha)



<sup>5</sup> Cotton plot sizes based on self-reported responses from survey respondents

Based on the sizes of the cotton plots and the total available amounts of farmland, the *percentage of total farmland used for cotton* can be calculated. These results are shown in Figure 4.4

**Figure 4.4** Percentage of total farm size used for cotton<sup>3</sup> in last season



In addition to cotton, virtually all farmers grow other crops for food and/or income. In the baseline surveys, farmers were asked about the different crops they grew, up to a total of 10-12 (this varied by country). The total numbers of crops grown, *including cotton*, by cotton farmers in the different COMPACI countries are presented in Figure 4.5.

**Figure 4.5** Total numbers of crops grown by surveyed farmers (including cotton)

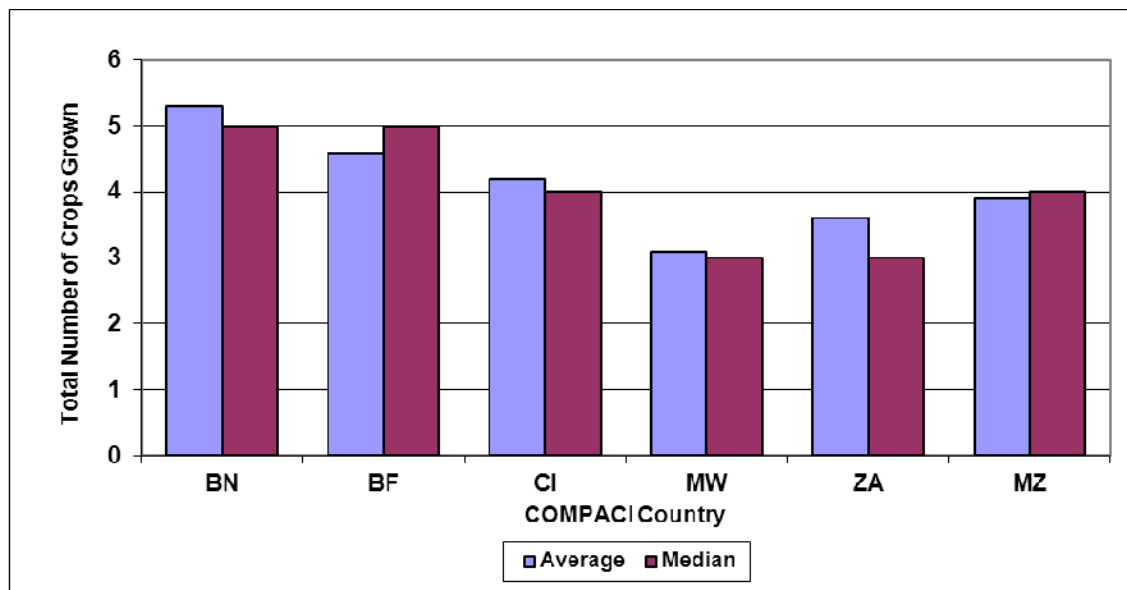


Table 4.1 shows the first, second, and third *non-cotton* crops most commonly grown by the surveyed households.

**Table 4.1** Most commonly grown crops other than cotton

Crop	Benin	Burkina Faso	Côte d'Ivoire	Malawi	Zambia	Mozambique
Maize						
Yams						
Sorghum						
Groundnuts						
Sunflower						
Millet						
Rice						
Cassava						
Beans						



## 5. Income Indicators

Given that the primary objective of COMPACI is to raise the income of participant cotton farmers, it is important to assess and track household income. This has been done here with a series of indicators.

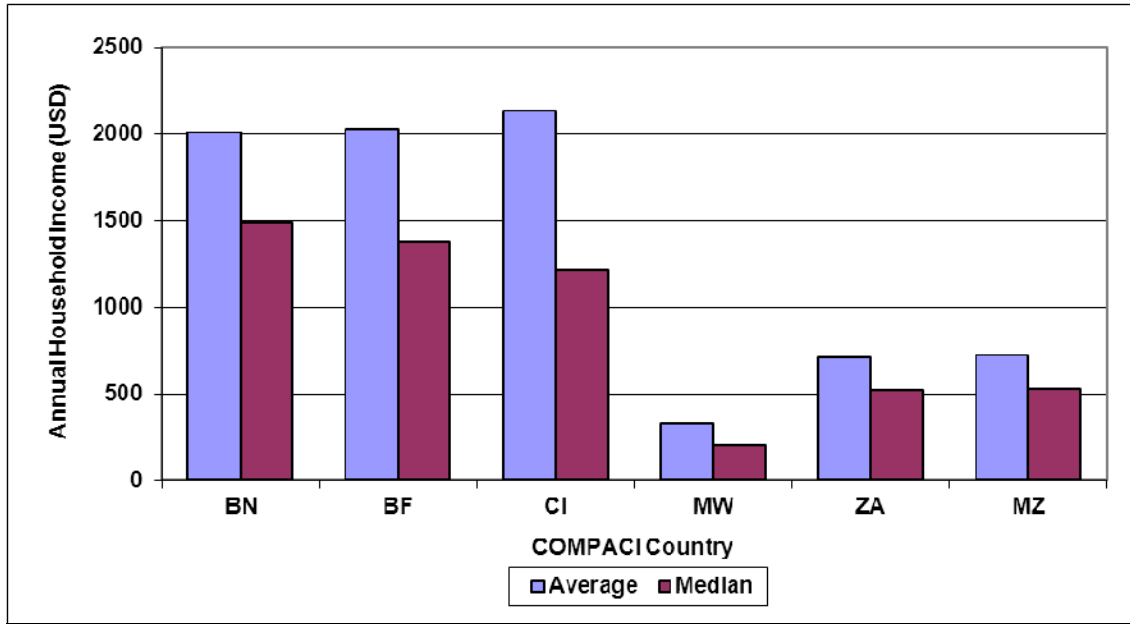
The first indicator, *total annual household income*, includes several different income streams in addition to income from cotton. These other streams reflect both cash and *in-kind* income. *Cash income* includes *income from other crops*, *income from sale of vegetables*, *income from miscellaneous labor jobs*, and *income from other sources*.

*In-kind income* is the income imputed to a household that results from crops grown but not sold for cash. The underlying concept behind this is that these crops have a food or other value to the households, and because they grew them, they do not have to buy these crops. For the COMPACI baseline analyses, only the major (most commonly) crops grown in each COMPACI country were considered for in-kind income. The value of these crops was calculated based on average per-kg market prices for these crops in the COMPACI survey areas.

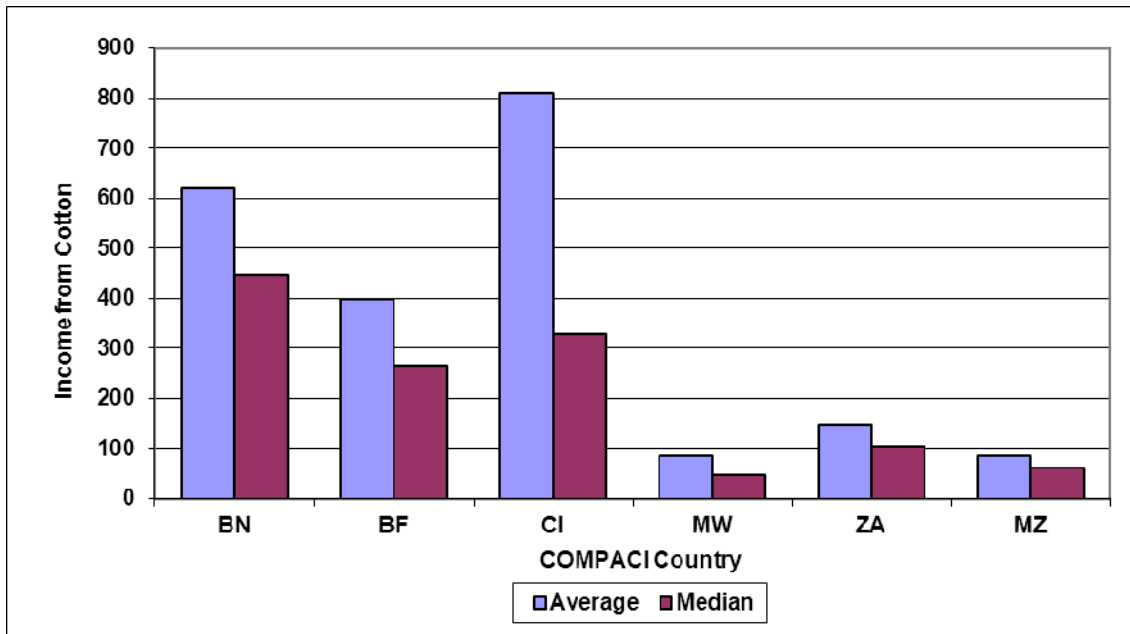
The values of these various income indicators in all COMPACI countries are presented in Figures 5.1 to 5.11. All income figures are expressed in USD to make the results comparable across all countries. Both the “nominal” (official) exchange rates and Purchasing Power Parity (PPP) rates are used; the precise exchange rates between USD and the national currencies was given in Section 1, Introduction, of this report.

Figures 5.1 to 5.4 present data on *total annual household income* and on the percentage of *total income* and of *total cash income* that comes from cotton.

**Figure 5.1** Average/median annual total net income per household (USD, using nominal exchange rate)

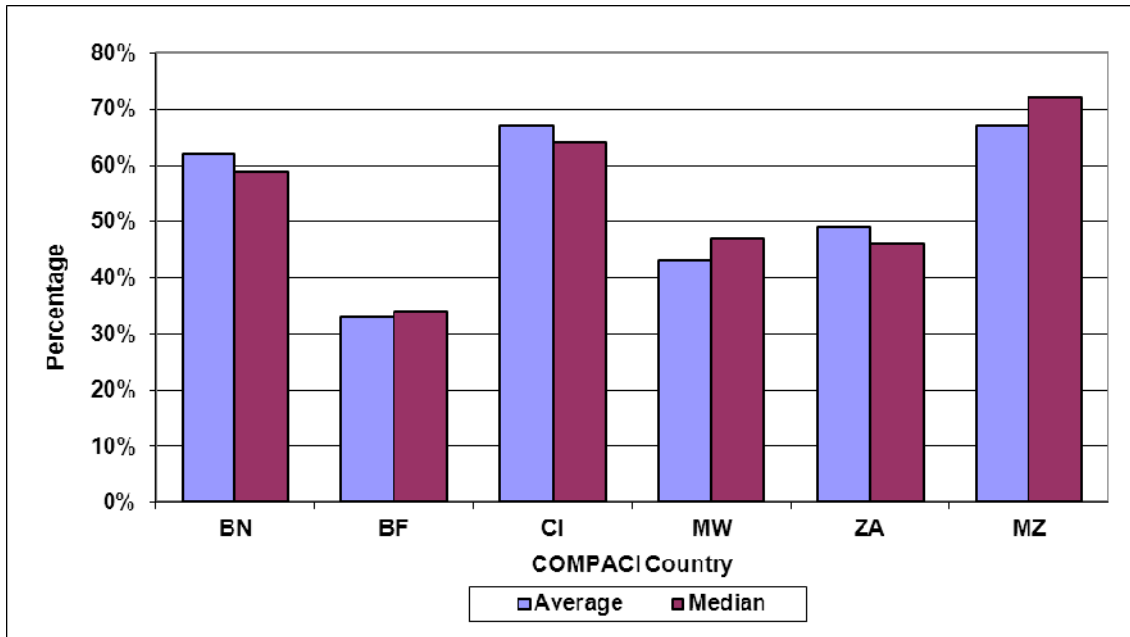


**Figure 5.2** Average/median total annual net income per household from cotton<sup>6</sup> (USD, using nominal exchange rate)

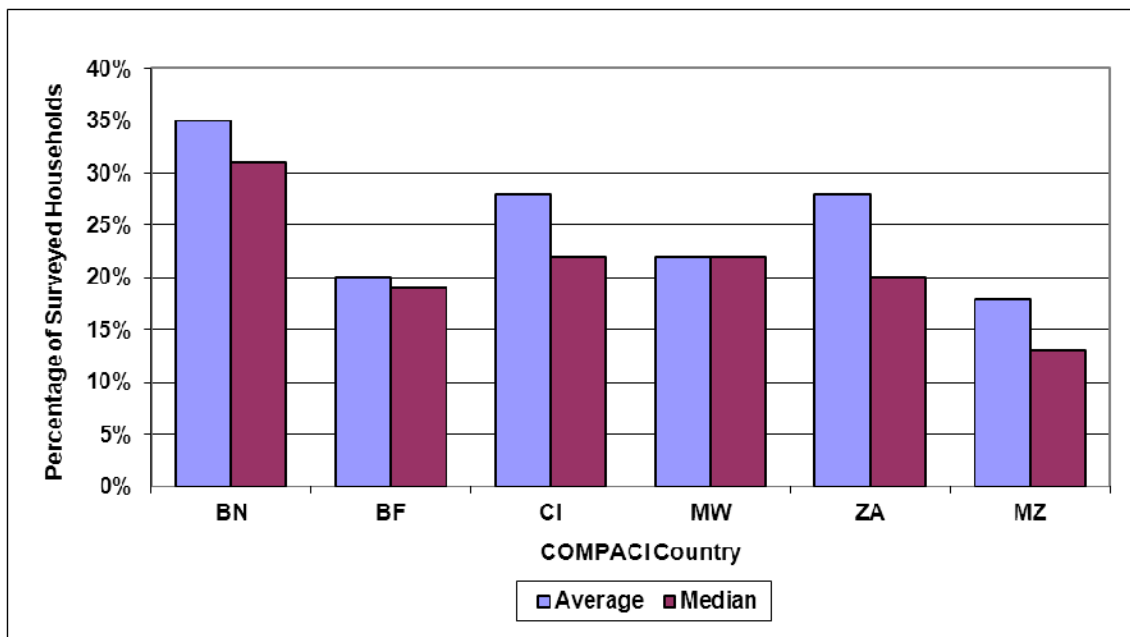


<sup>6</sup> “Net income from cotton” was calculated for this report as the amount of money received for the cotton less any credit extended by the cotton companies and less any money spent by the households on inputs (seeds, fertilizer, pesticide, etc), hired labor used for growing cotton, or for any other expenses associated with growing cotton.

**Figure 5.3** Average/median percentage of net cash income derived from cotton



**Figure 5.4** Average/median percentage of total net income (cash plus in-kind) derived from cotton



**Figure 5.5** Average/median percentage of total income from in-kind income

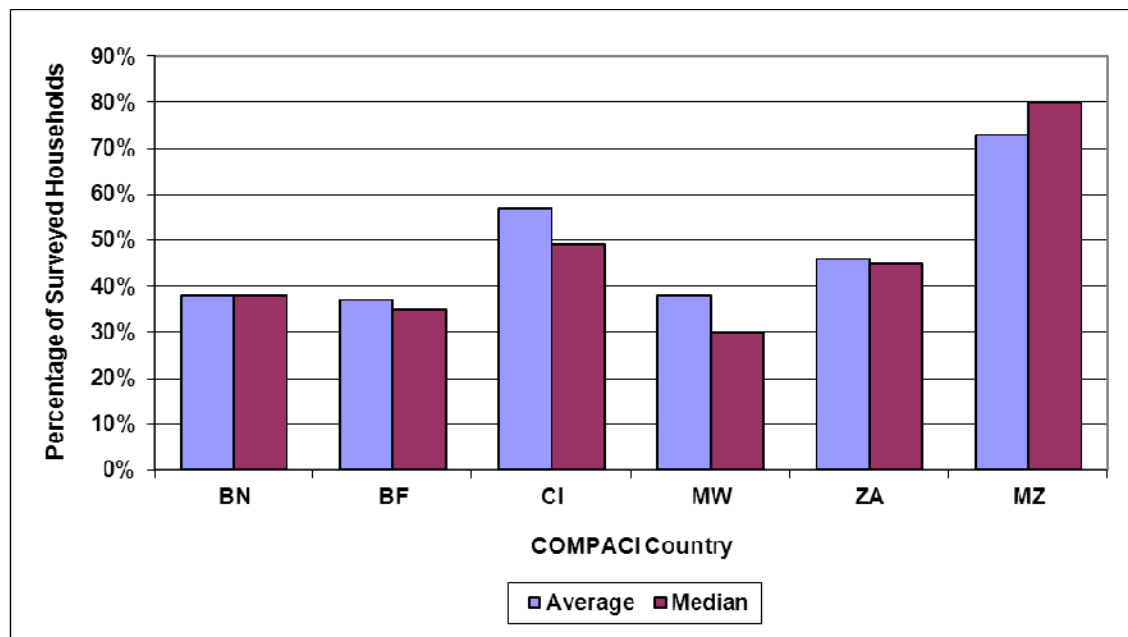
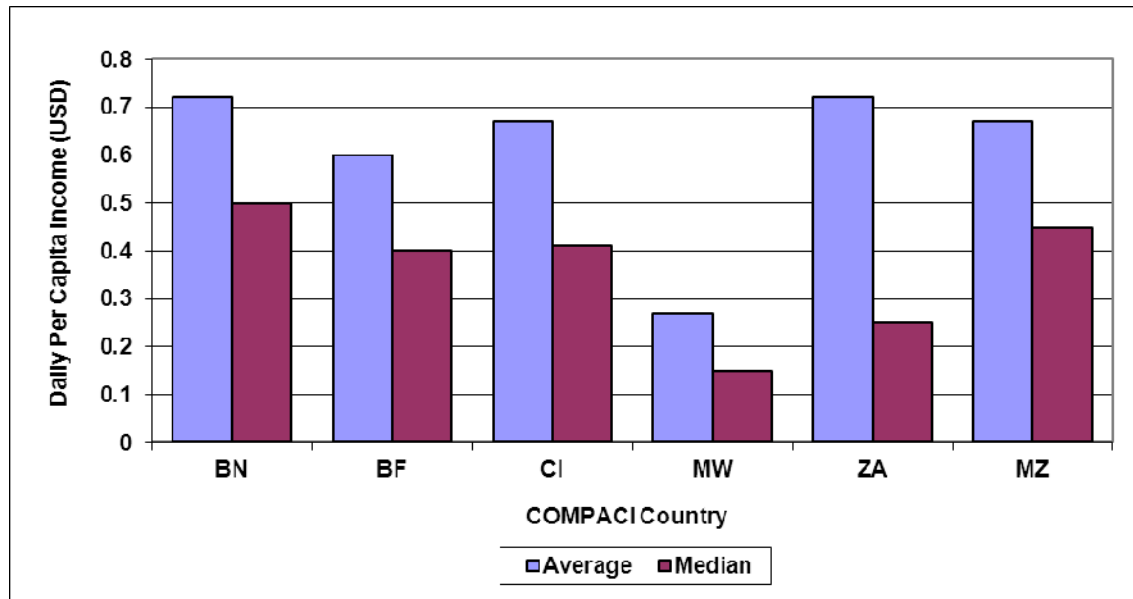


Figure 5.5 presents data on the average and median values of *in-kind* income, calculated as described above.

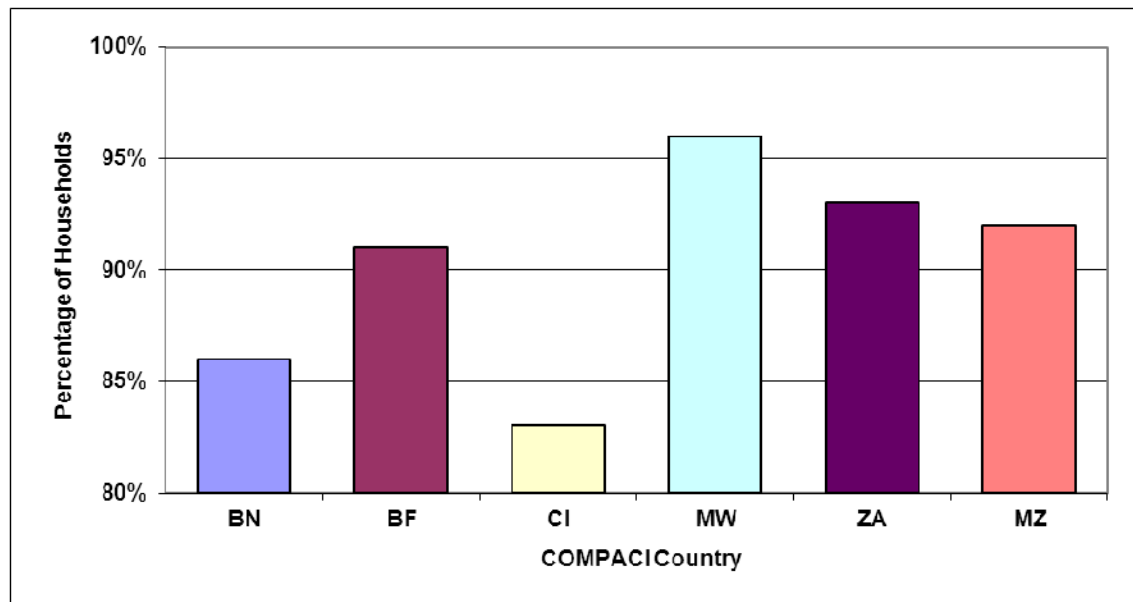
If the value of *total annual household income* for each household is divided by the *number of days in a year* (365.25) and by the *number of household members*, the resulting value is *per capita daily income* for that household. Figures 5.6 to 5.8 present data on the average and median value of this indicator, in USD (using the nominal exchange rate) and of the percentages of surveyed households in each COMPACI country that fall below the cutoff lines of USD 1.25 (Figure 5.7) and USD 1.50 (Figure 5.8). These cutoff lines are sometimes used as *national poverty lines*; any household below these thresholds is counted as *poor* in assessments of that country’s prevalence of poverty.

**Figure 5.6** Average/median daily per capita net income (USD, using nominal exchange rate)

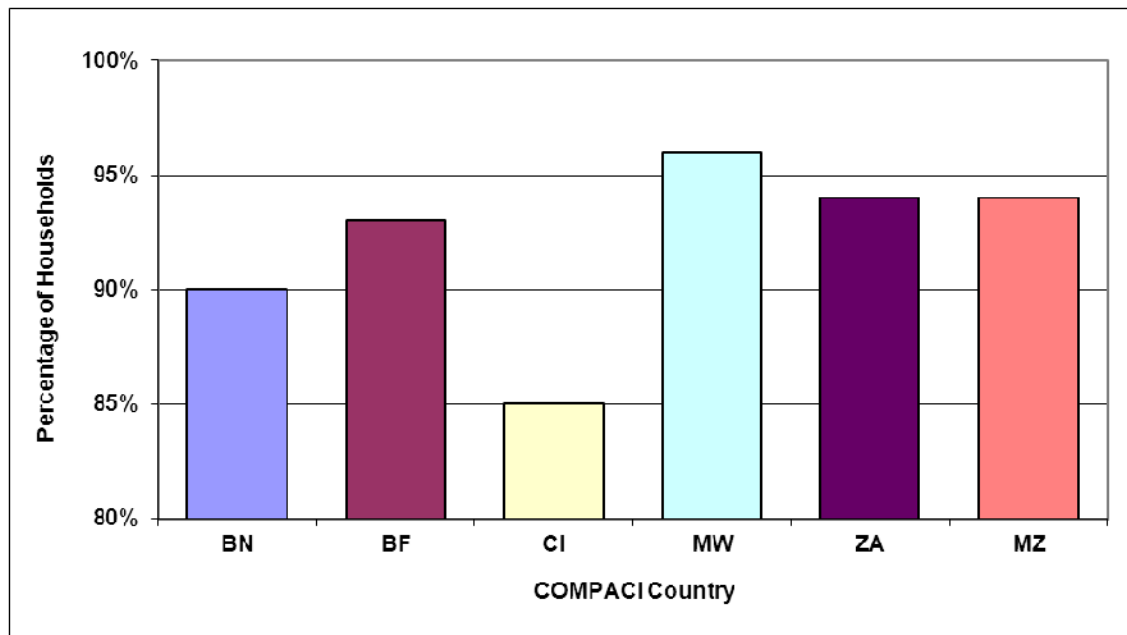


Note in Figures 5.7 and 5.8 that the vertical scale ranges from 80% to 100% instead of from 0%-100%. This was done in the interests of making the small differences in the rates between countries more graphically apparent.

**Figure 5.7** Percentages of households earning less than 1.25 USD daily per capita income (using nominal exchange rates)



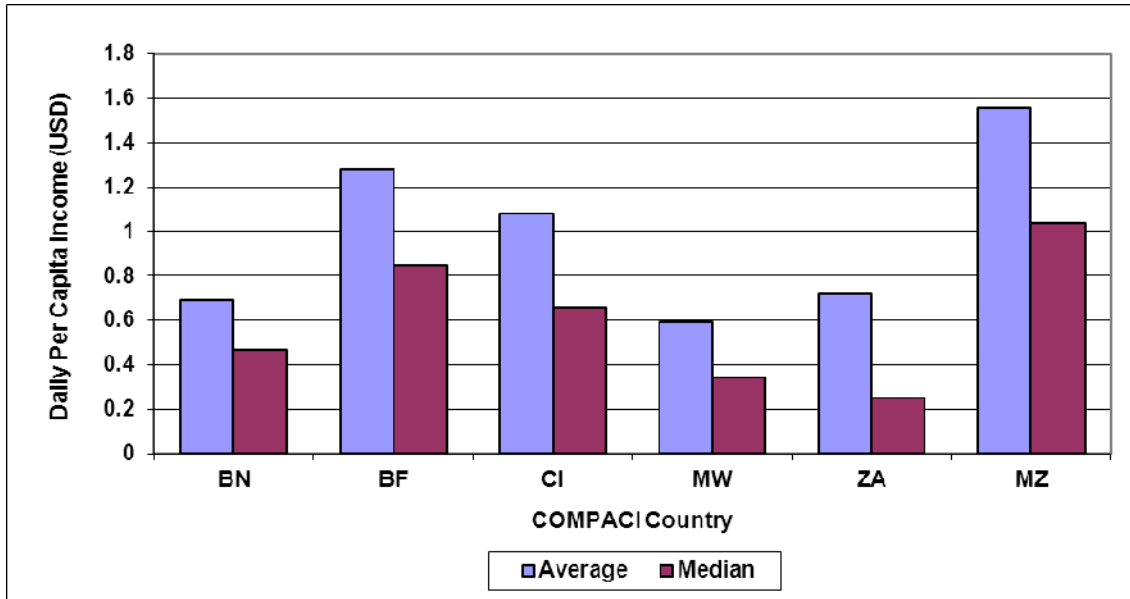
**Figure 5.8:** Percentages of households earning less than 1.50 USD daily per capita income (using nominal exchange rates)



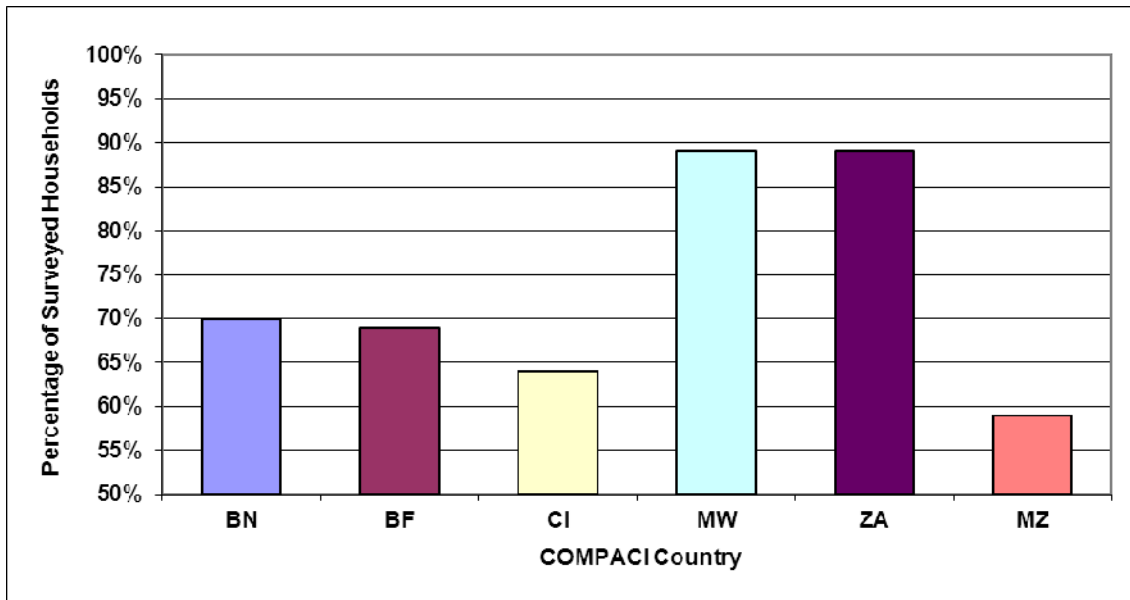
When comparing incomes or other economic indicators across multiple countries, Purchasing Power Parity (PPP) exchange rates against the USD are usually used in place of the nominal exchange rates against the USD. The reason for this is that, by design, PPP rates normalize the effective purchasing power of a given amount across the different countries being compared. In terms of the rural poor who comprise the COMPACI stakeholders, the PPP exchange rates more accurately capture the effective purchasing power of any given amount of income.

Figures 5.9 to 5.11 are analogous to Figures 5.6 to 5.8, except that now PPP exchange rates were used instead of the nominal exchange rates. This has the practical effect of appearing to raise households' income to reflect their true purchasing power across the different countries, thus making the results more comparable. Note that the scale of the vertical axis in Figures 5.10-5.11 ranges from 50%-100%; instead of from 0%-100%; this was done to make the differences between countries more graphically apparent.

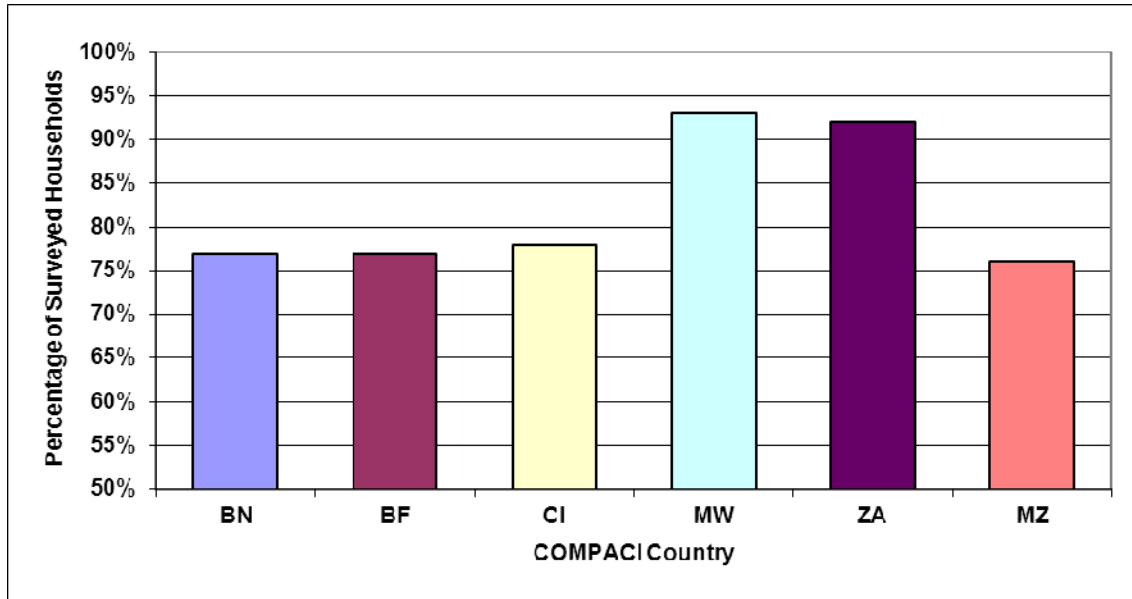
**Figure 5.9** Average/median daily per capita income (USD, using 2008 Purchasing Power Parity exchange rates)



**Figure 5.10** Percentage of households earning less than 1.25 USD daily per capita income (USD, using 2008 Purchasing Power Parity exchange rates)



**Figure 5.11** Percentage of households earning less than 1.50 USD daily per capita income (USD, using 2008 Purchasing Power Parity exchange rates)

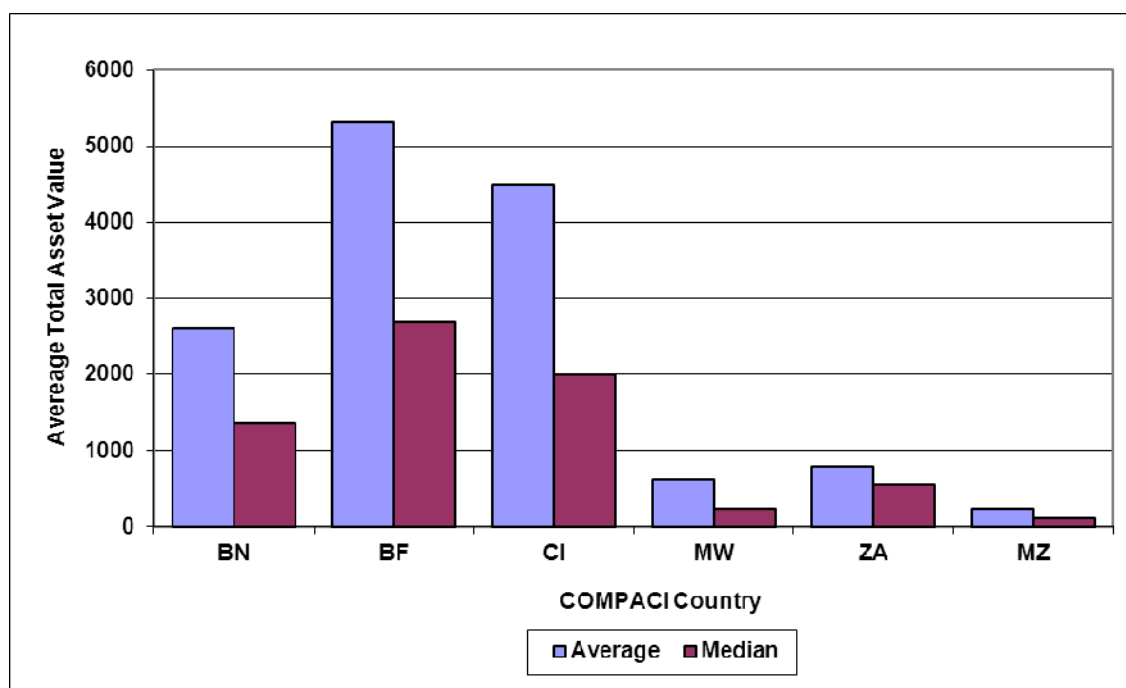


## 6. Miscellaneous Indicators

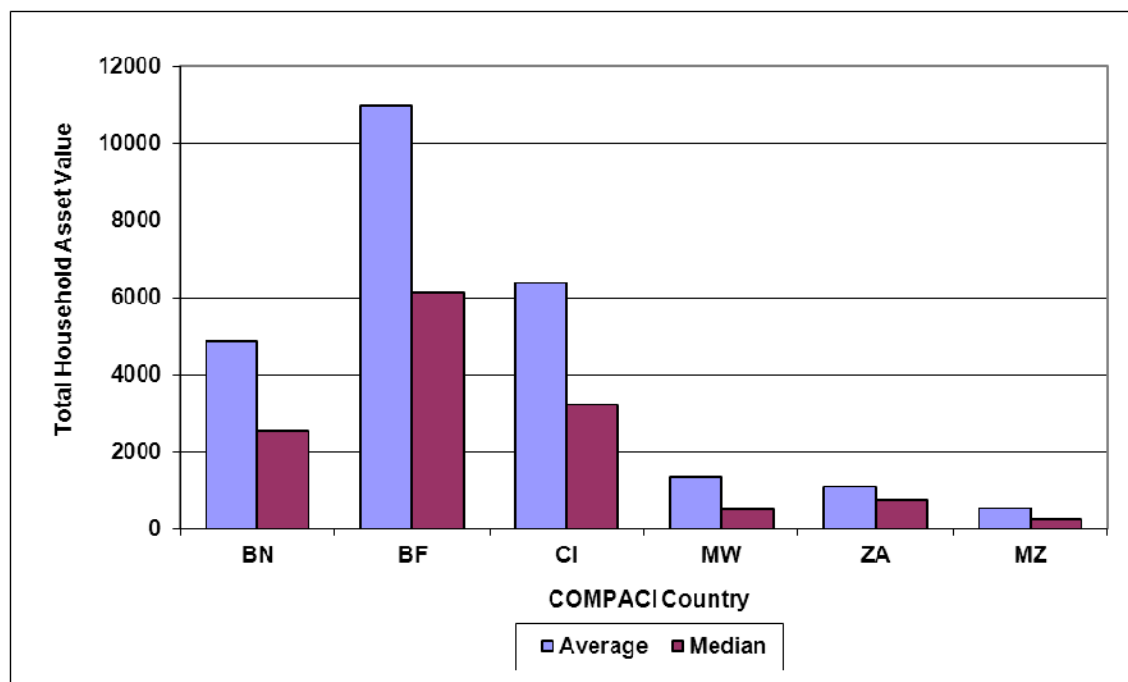
In addition to *income*, other proxy variables are sometimes used to assess poverty and poverty reduction. Such proxy variables include *asset holdings*, *expenditures*, *percent of expenditures made for food*, various *food security indicators*, and *ability to afford needed medical care*.

The values for indicators assessing *total household asset value* are presented using the nominal exchange rate and the PPP exchange rate for USD in Figures 6.1 and 6.2, respectively. are presented in Figures 6.1- 6.2, respectively.

**Figure 6.1** Average/median asset values per household (USD, using nominal exchange rates)



**Figure 6.2** Average/median asset values per household (USD, using 2008 Purchasing Power Parity exchange rates)

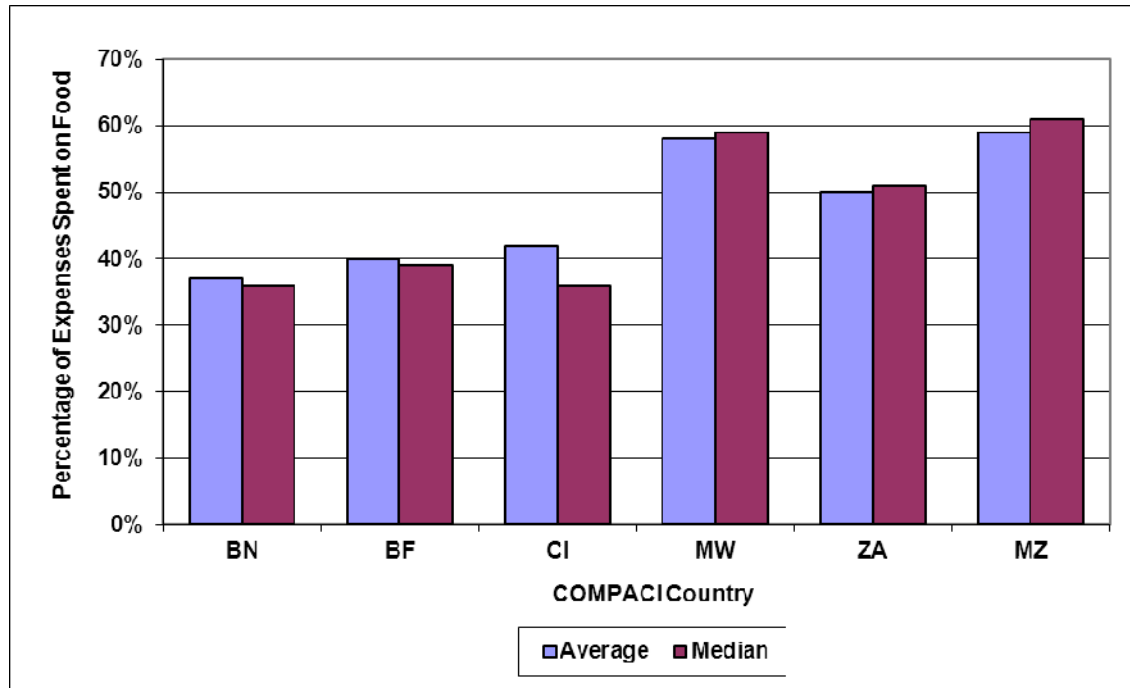


The concept behind the indicator *percentage of household expenditures made for food* is that poorer households, with less disposable income, tend to use a higher percentage of their total expenditures for food items. Therefore, the *percentage of household expenditures made for food* is sometimes used as a proxy for poverty.

For the COMPACI baseline surveys, households were asked about purchases made on a weekly basis (these were mostly food items), purchases made on a monthly basis such as rent (if applicable), electricity and telephone costs, cooking fuel, transportation, and expenditures made on a less frequent – annual, basis such as clothing school expenses, durable good, house construction/repair/improvements, etc. From the responses to these questions, *total annual expenditures* can be estimated, as can *total annual expenditures on food*. From these two values, the *percentage of household expenditures made for food* can be estimated.

Figure 6.3 presents the average and median values of this indicator. Note that, for this indicator, higher values imply deeper levels of poverty.

**Figure 6.3** Percentage of annual household expenses spent on food

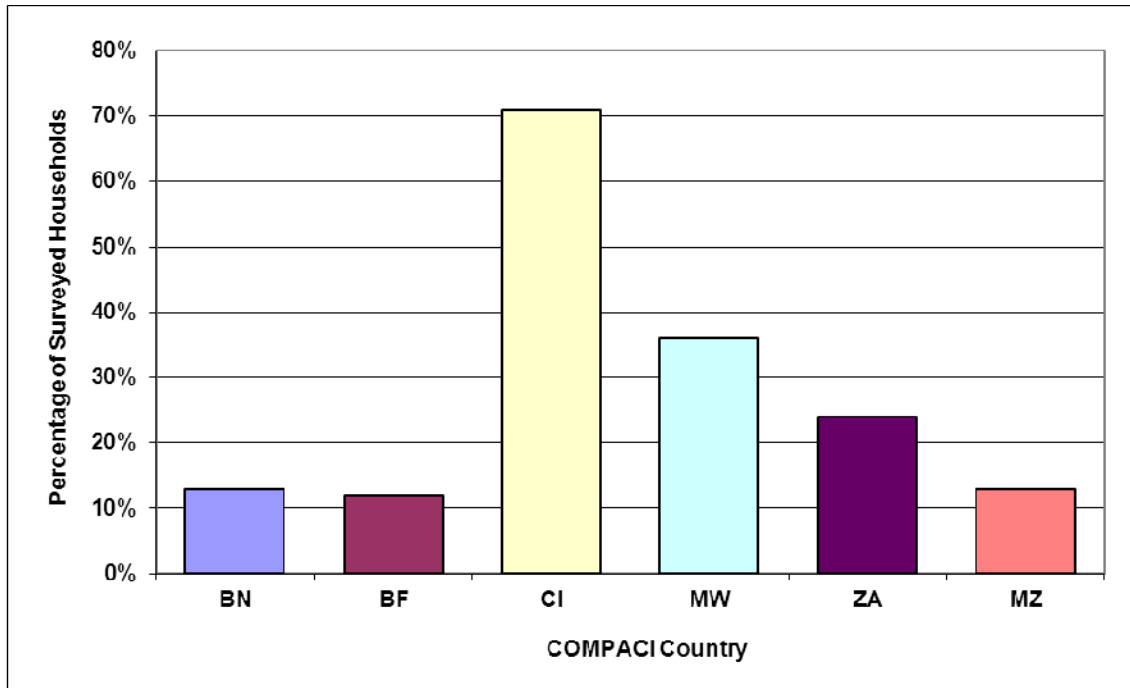


Two basic indicators of household level food security are *the existence of a hungry season*, a period when there is not enough food for everyone in the household to eat enough, and *the duration of the hungry season*.

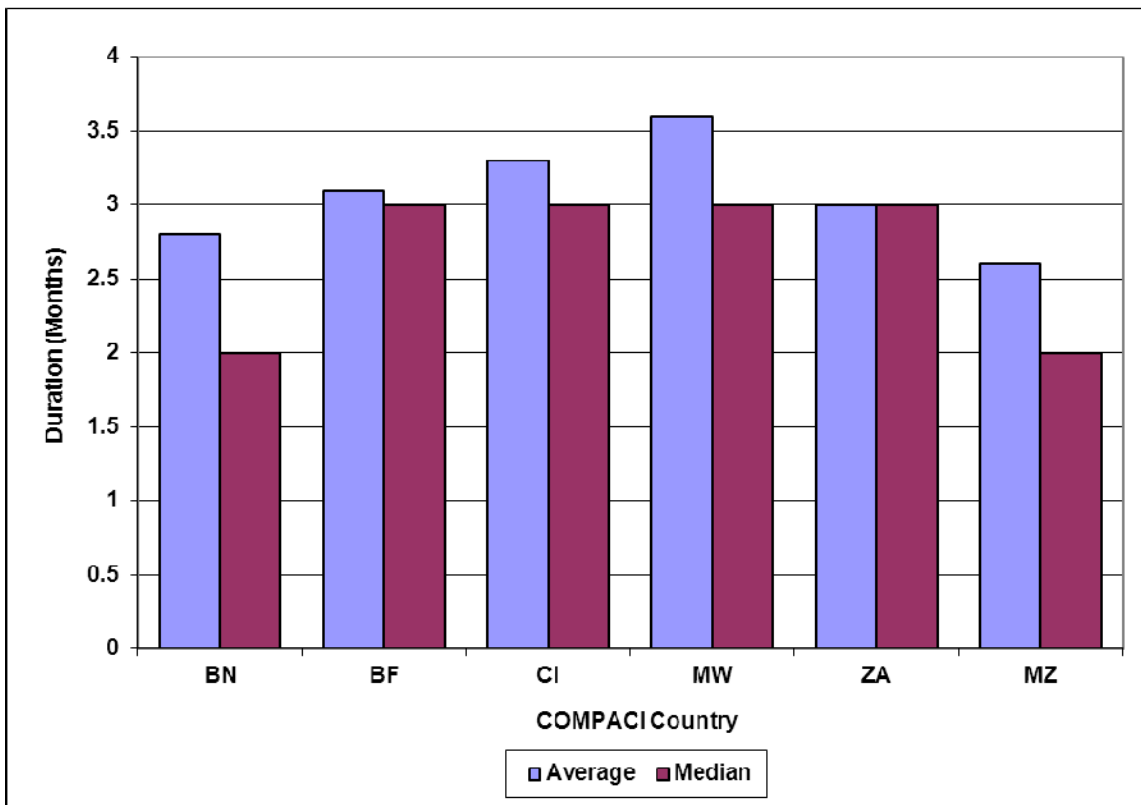
Note that because both of these indicators were, for the COMPACI baseline surveys, self-reported, some of the data may be inconsistent in that different households (and countries) may have different individual and/or cultural standards for what constitutes *enough food for everyone to eat*. Therefore, the data presented in Figures 6.4 to 6.6 necessarily is subjective in nature. Note that Figure 6.6 simply combines the data from Figures 6.4 and 6.5 to show the inter-relationship of these two *hungry season* indicators in the COMPACI countries.

It would be possible to explore this subject more objectively to get less subjective responses through the use of the FGD/mini-survey format used for other COMPACI investigations and analyses.

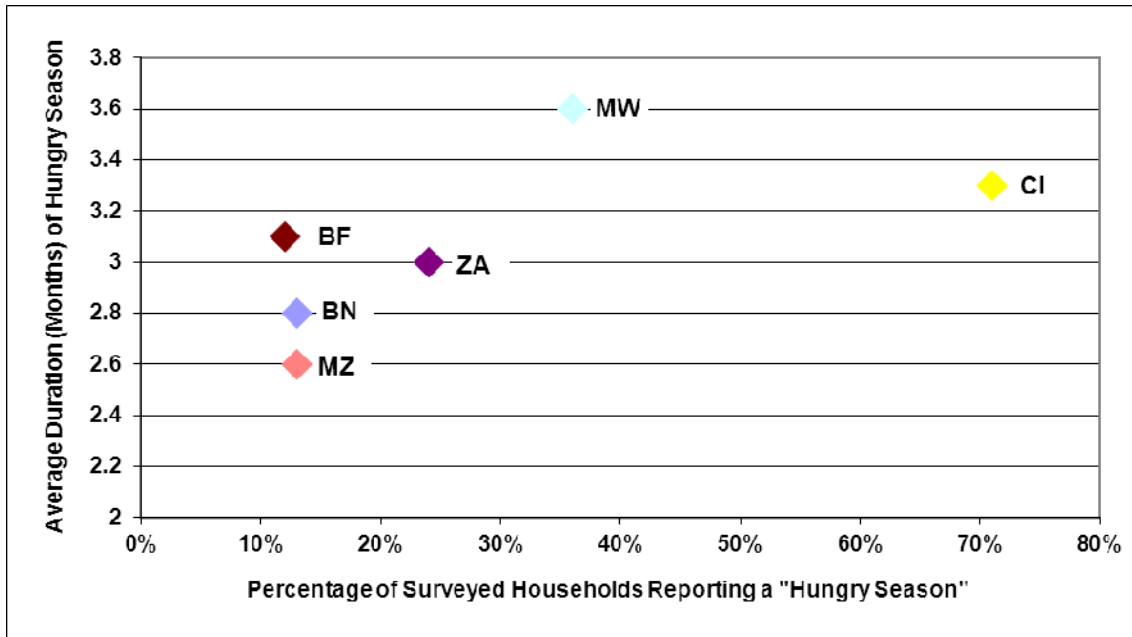
**Figure 6.4** Percentage of households that reported having a hungry season



**Figure 6.5** Average and median duration (months) of the “hungry season” among surveyed households that reported having a “hungry season”



**Figure 6.6** Prevalence and duration of “Hungry Season” in surveyed households



**Figure 6.7** Percentages of households that had a mobile phone, bicycle, and motorbike

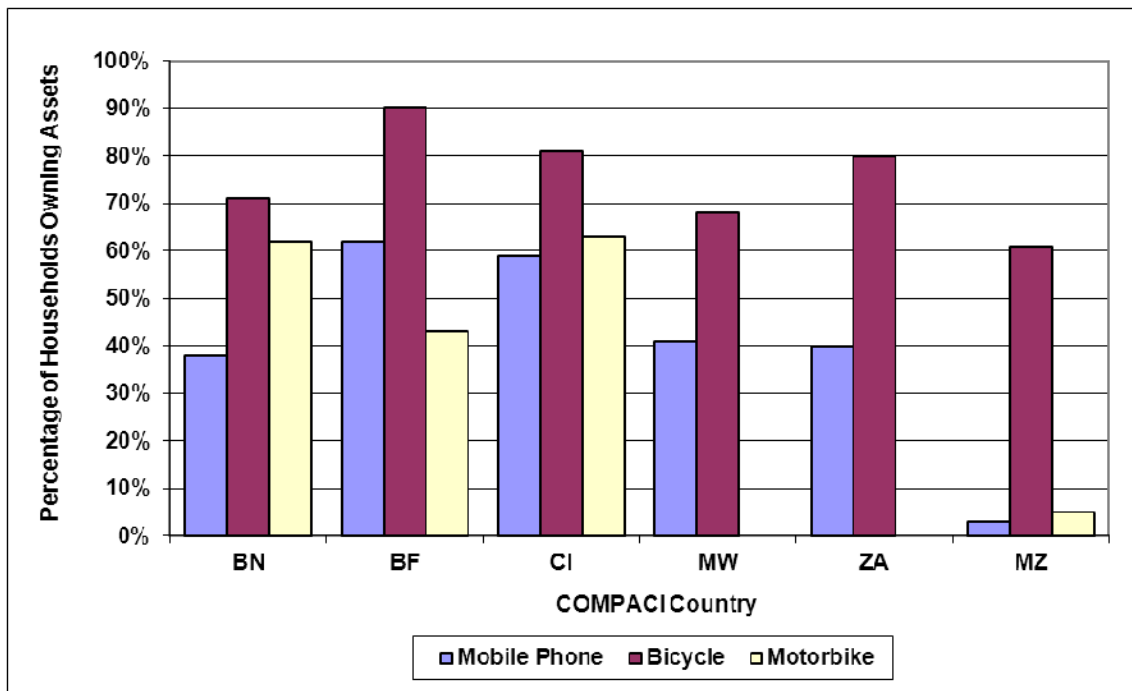
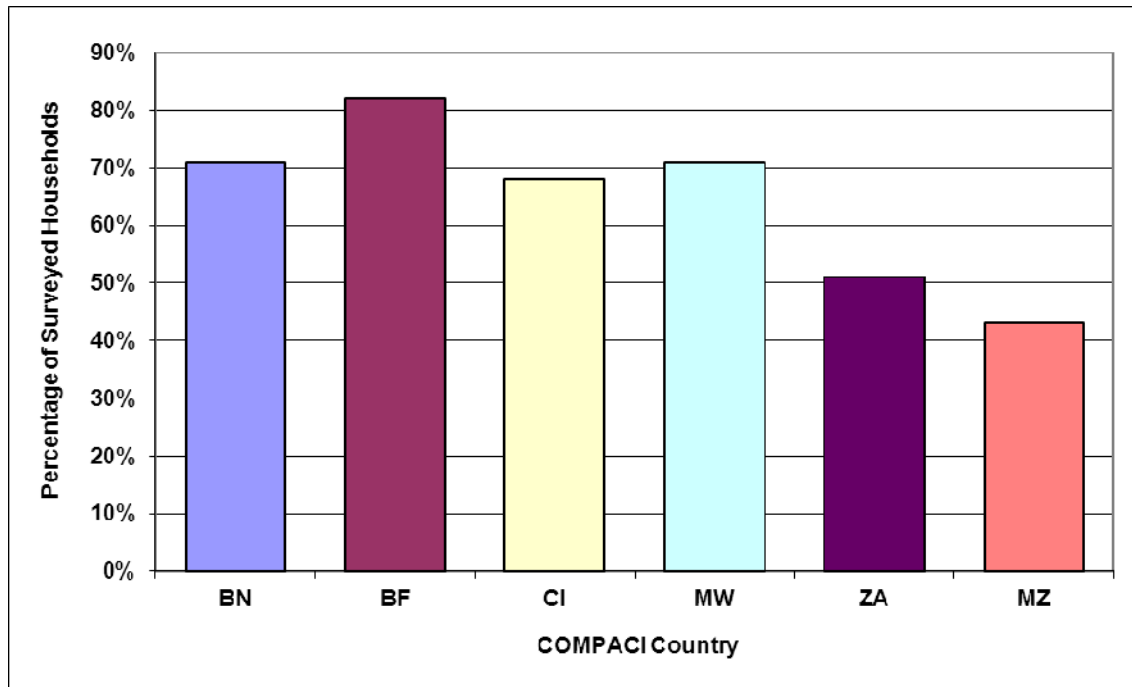


Figure 6.7 presents ownership rates for three select household assets, *mobile phones*, *bicycles*, and *motorbikes*.

Finally, Figure 6.8 presents data on the percentages of surveyed households in each COMPACI country that report being able to get medical care for *acute* medical problems *most or all of the time*.

**Figure 6.8** Percentage of households getting answering they were able to get needed medical care for acute problems “most of the time” and “always”



## Annex 1: Cross Country Comparison of Key Indicators from COMPACI Baseline Surveys

**Table A-1** Cross country comparison of key indicators from COMPACI baseline surveys

Key Indicator	Benin	Burkina Faso	Côte d'Ivoire	Malawi	Zambia	Mozambique
Percentage of male-headed households	54%	44%	45%	88%	82%	92%
Percentage of polygamous households	44%	56%	54%	0%	9%	3%
Average household size	8.5	10.1	9.7	4.6	6.6	3.4
Percentage of heads of households having completed primary school	13%	9%	8%	29%	51%	7%
Percentage of boys 5-12 years old attending school	62%	47%	24%	78%	61% (6-12 years)	76%
Percentage of girls 5-12 years old attending school	65%	45%	19%	77%	65% (6-12 years)	72%
Percentage of boys 12-15 years having completed primary school (include length of primary school education for each country)	32% (P7)	7% (P7)	3% (P7)	12% (P8)	18% (P7)	5% (P7)
Percentage of girls 12-15 years having completed primary school (include length of primary school education for each country)	25% (P7)	3% (P7)	2% (P7)	16% (P8)	21% (P7)	6% (P7)
Percentage of boys 15-18 years old having completed primary school	43% (P7)	28% (P7)	11% (P7)	51% (P8)	45% (P7)	26% (P7)

Key Indicator	Benin	Burkina Faso	Côte d'Ivoire	Malawi	Zambia	Mozambique
Percentage of girls 15-18 years old having completed primary school	31% (P7)	30% (P7)	5% (P7)	43% (P8)	56% (P7)	13% (P7)
Average/median size of cotton plots per farmer (ha) <sup>1,6</sup>	1.80 / 1.50 (R)	1.78 / 1.25 (R)	3.90 / 3.00 (R)	0.43 / 0.36 (M) 0.89 / 0.40 (R)	3.30 / 1.50 (R)	0.86 / 0.70 (M) 1.30 / 1.00 (R)
Average/median yield (kg/ha) per farmer <sup>1,6,7</sup>	1,717 / 1,112 (M) 1,279 / 1,000 (R)	958 / 880 (R)	1,078 / 1,000 (R)	844 / 571 (M) 566 / 432 (R)	1,292 / 320 (R)	447 / 437 (M) 351 / 326 (R)
Average/median of total size of the farm (including size of cotton plots) (ha) <sup>6</sup>	11.5 ha / 5.5 ha	6.5 ha / 5.0 ha	10.3ha / 9.0 ha	2.8 ha / 1.6 ha	8.5 ha / 6.0 ha	3.3 ha / 3.0 ha
Average/median percentage of cotton area of the total farm area <sup>1,6</sup>	23% / 19% (M) 28% / 27% (R)	28% / 25% (R)	42% / 40% (R)	25% / 22%(M) 36% / 33%(R)	27% / 21% (R)	28% / 24% (M) 44% / 40% (R)
Average/median number of crops (including cotton)	5.3/5	4.6/5	4.2 / 4	3.1/3	3.6 / 3.0	3.9 / 4.0
The three most grown crops <i>apart from cotton</i>	Maize (1) Yams (2) Sorghum (3)	Sorghum (1) Maize (2) Millet (3)	Maize (1) Rice (2) Groundnut (3)	Maize (1) Groundnut(2) Sorghum (3)	Maize (1) Groundnuts (2) Sunflower (3)	Maize (1) Cassava (2) Beans (3)
Average/median annual total net income per household (USD, using nominal exchange rate) <sup>2</sup>	2,010 / 1,489	2,032 / 1,376	2,130 / 1,218	328 / 202	708 / 521	725 / 530
Average/median total annual net income per household from cotton (USD, using nominal exchange rate) <sup>2,6,7</sup>	620 / 446	398 / 266	811 / 328	86 / 48	148 / 104	86 / 61
Average/median percentage of net cash income derived from cotton <sup>6,7</sup>	62% / 59%	33% / 34%	67% / 64%	43% / 47%	49% / 46%	67% / 72%
Average/median percentage of <i>total</i> net income (cash plus in-kind) derived from cotton <sup>6,7</sup>	35% / 31%	20% / 19%	28% / 22%	22% / 22%	28% / 20%	18% / 13%
Average/median percentage of in-kind income of total income <sup>3,7</sup>	38% / 38%	37% / 35%	57% / 49%	38% / 30%	46% / 45%	73% / 80%

Key Indicator	Benin	Burkina Faso	Côte d'Ivoire	Malawi	Zambia	Mozambique
Average/median <i>daily</i> per capita income (USD, using nominal exchange rate) <sup>2,7</sup>	0.69 / 0.47	0.60 / 0.40	0.67 / 0.40	0.27 / 0.15	0.72 / 0.25	0.67 / 0.45
Percentage of households earning less than 1.25 USD daily per capita income (using nominal exchange rate) <sup>2,7</sup>	87%	91%	83%	96%	93%	92%
Percentage of households earning less than 1.50 USD daily per capita income (using nominal exchange rate) <sup>2,7</sup>	90%	93%	85%	96%	94%	94%
Average/median daily per capita income (USD, using PPP, World Bank Figures adjusted by inflation) <sup>4,7</sup>	1.28 / 0.88	1.28 / 0.85	1.08 / 0.66	0.59 / 0.34	0.99 / 0.34	1.56 / 1.04
Percentage of households earning less than 1.25 USD daily per capita income (using PPP, World Bank figures adjusted by inflation) <sup>4,7</sup>	70%	69%	73%	89%	89%	70%
Percentage of households earning less than 1.50 USD daily per capita income (using PPP, World Bank figures adjusted by inflation) <sup>4,7</sup>	77%	77%	78%	93%	92%	76%
Average/median asset values per household (USD, using nominal exchange rate) <sup>2,7</sup>	2,615 / 1,359	5,324 / 2,697	4,502 / 1,998	622 / 235	787 / 552	233 / 108
Average/median asset values per household using USD PPP (adjusted by inflation) <sup>4,7</sup>	4,873 / 2,533	10,964 / 6,122	6,384 / 3,211	1,358 / 511	1,085 / 761	540 / 250
Average/median percentage of total annual household expenses spent on food	37% / 36%	40% / 39%	42% / 36%	58% / 59%	50% / 51%	59% / 61%
Percentage of households that reported having a hungry season	13%	12%	71%	36%	24%	13%

Key Indicator	Benin	Burkina Faso	Côte d'Ivoire	Malawi	Zambia	Mozambique
Average/median duration (months) of "hungry season" for households that reported having a "hungry season"	2.8/2	3.1/3	3.3/3	3.6/3	3/3	2.6/2
Percentage of households that had a mobile phone	38%	62%	59%	41%	40%	3%
Percentage of households that had a bicycle	71%	90%	81%	68%	80%	61%
Percentage of households that had a motorbike	62%	43%	63%	0%	0%	5%
Percentage of households answering they were able to get needed medical care for acute problems "most of the time" and "always" <sup>5</sup>	71%	82%	68%	71%	51%	43%

1. M= Sizes of cotton plot as measured with GPS; R=sizes of cotton plots as reported by farmers
2. Nominal exchange rates for 1 USD at time of survey and used here: Benin-CFA 527.47; Burkina Faso – CFA 527.47; Cote d' Ivoire – CFA 527.47; Malawi – MWK 150.14; Mozambique – MZN 33; Zambia – ZMK 4,800
3. In-kind income calculated for crops grown by  $\geq 10\%$  of households
4. Purchasing Power Parity (PPP) exchange rates for 1 USD for 2008 taken from UN Millennium Development Goal website (<http://unstats.un.org/unsd/mdg/SeriesDetail.aspx?srid=699> ) and used here: Benin-CFA 283.27; Burkina Faso – CFA 248.43; Cote d' Ivoire – CFA 328.01, Malawi – MWK 69.06; Mozambique – MZN 14.25; Zambia – ZMK 3,482.55
5. Percentage calculated based *only* on households that reported having acute medical issue within the last year
6. All area and yield statistics, as well as profits and percent of total profits from cotton for Mozambique were calculated only for the 292 farmers who grew cotton in 2009-2010.
7. Extreme outliers were removed from the average/median yield calculations and for income and asset calculations.
8. Percentage calculated based *only* on households that reported having acute medical issue within the last year