INTEGRATED HOUSEHOLD LIVING CONDITIONS SURVEY IN MYANMAR
(2009-2010)

POVERTY PROFILE

MINISTRY OF NATIONAL PLANNING AND ECONOMIC DEVELOPMENT

NAYPYITAW

Sida

unicef

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Poverty Profile

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FOREWORD

The Integrated Household Living Conditions Assessment (IHLCA) project provides the Government of the Republic of the Union of Myanmar, the UN and other national and international stakeholders with statistical data for determining living conditions in the country. The first nation-wide survey was carried out in 2004-2005. This second survey, in addition to providing the most recent state of living conditions and poverty levels, also provides opportunities to make comparisons and trend analysis for contributing to well-informed, pro-poor decision making.

The overall survey design of the IHLCA-II was chosen to mirror the IHLCA-I, in order to secure comparability. For this reason almost half of the number of interviewed households was the same households as in 2004-2005, allowing for poverty dynamics analysis. The survey included a nationwide representative sample of 18,660 households. As in the first survey, all of the field work was divided into two rounds; the first round took place between December 2009 and January 2010 (after the harvest) and the second round from May 2010 onwards (before the harvest).

The survey has been undertaken in close cooperation with the Planning Department of the Ministry of National Planning and Economic Development (MNPED), the United Nations Children's Fund (UNICEF) and the Swedish International Development Cooperation Agency (Sida). The survey methodology and process follows international control standards and the project team has received extensive technical oversight and support from organizations such as the World Bank and Statistic Sweden, as well as from technical staff from UNICEF and UNDP. These partners have also monitored the survey process from design and methodology to data analysis.

Being one of the most comprehensive surveys on living conditions and poverty undertaken in Myanmar we trust that this statistical data will be useful and valuable for various purposes and a variety of stakeholders, and it is our hope that this will lead to well-informed planning and decision making and subsequent improvements in the well-being of the Myanmar population.

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Additional contributions were made by the National Nutrition Center, the Department of Health Planning, the Yangon Institute of Economics, the Education Planning and Training Department, the Department of Labor, the Department of Agricultural Planning, the Settlements and Land Records Department, and the Department of Population.

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Acronyms

DDR	Demographic Dependency Ratio
EDR	Economic Dependency Ratio
FGT	Foster-Greer-Thorbecke (Poverty Measures)
FHH	Female Headed Household
FRH	Fertility and Reproductive Health (Survey)
MICS	Multiple Indicator Cluster Survey
Sida	Swedish International Development Cooperation Agency
SWOC	State of the World's Children (Survey)
TRU	Time Rate of Unemployment
UNICEF	United Nations Children's Fund

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Executive Summary

1. Introduction

The *Poverty Profile* presents select results from the IHLCA-II survey with emphasis on consumption poverty and its correlates. It is not limited to consumption poverty however, as other dimensions of living conditions, including health, education, water/sanitation, etc. are reviewed. Its core objective is to provide information on levels and trends in key indicators of well-being, and their correlates, with a view to inform public policy decisions. In terms of format, the *Poverty Profile* reviews the following issues in turn: Poverty and Inequality (Section 2); Demographic Characteristics of Households (Section 3); Economic Activities of Households (Section 4); the Labour Market (Section 5); Housing, Water and Sanitation (Section 6); Health and Nutrition (Section 7), Education (Section 8) and Conclusion (Section 9).

2. Poverty and Inequality

Food poverty afflicts around 5% of the population and has fallen from around 10% in 2005. Food poverty incidence is more than twice as high in rural than urban areas, at 5.6% and 2.5% respectively. Rural areas account for over 85% of total food poverty. The highest values of food poverty incidence are in Chin at 25% followed by Rakhine (10%), Tanintharyi (9.6%) and Shan (9%). The four major contributing states/regions to national food poverty, are Ayeyarwady (18.7%), Mandalay (16%), Shan (15.4%) and Rakhine State (14.9%).

Poverty afflicts around 25% of the population and has fallen by 6 percentage points since 2005. Poverty incidence is around twice as high in rural than urban areas at 29% and 15% respectively. Rural areas account for almost 85% of total poverty. The highest values of poverty incidence are in Chin at 73% followed by Rakhine (44%), Tanintharyi (33%), Shan (33%) and Ayeyarwady (32%). The four major contributing states/regions to national poverty incidence are Ayeyarwady (19%), Mandalay (15%), Rakhine (12%) and Shan State (11%).

Findings on trends in three poverty 'proxies', namely, caloric intake, the food share in consumption and ownership of small assets, are mixed. Caloric intake has increased for the bottom decile, which represented the 'food poor' in 2005, and for the second and third deciles. The food share in consumption has risen across the bottom three deciles and begins to fall only towards the top of the consumption distribution. Small asset ownership is increasing across the distribution at higher rates towards the bottom of the distribution. Trends in the food share are not what one would expect, *prima facie,* in light of findings on reductions in poverty. On the other hand, the data on caloric intake and small asset ownership are broadly consistent with falling levels of poverty and increasing consumption expenditure among the poor. *In light of these conflicting results, caution is urged in the interpretation of data on poverty levels and trends, in particular on the magnitude of the decline in poverty.*

Both 'relative' and 'absolute' inequality appears to have fallen between 2005 and 2010. The consumption share of the bottom 20%, a measure of relative equality, has risen slightly from 11.1% to 12%, though sampling error may account for this difference. Further, the consumption gap between the richest and poorest 20% has decreased by around 8%. In general, the data suggest that poorer population groups have experienced faster growth than richer ones across the entire consumption distribution. In addition, the rates of growth of the poorest two deciles are quite substantial at 14% and 9% respectively, while those of the richest two deciles are zero or negative. In summary, these data suggest that both relative and absolute inequality have fallen in Myanmar over the period 2005-2010.

Poverty dynamics is concerned with changes in the poverty status of individual households over time. Specifically, it analyses those households which: i) remain poor (chronically poor); ii) escape from or enter in poverty (transitory poor) and iii) remain non-poor. Overall, transitory poverty appears to affect close to 3 times the number of households as chronic poverty, 28% vs. 10% of households respectively. The

extent of *both* descents into (11.3% of households), and escapes from (16.5% of households), poverty appears significant. While measurement error undoubtedly inflates the size of transitory poverty, it still remains a significant phenomenon. For policy purposes, a better understanding of the reasons for descents into, and escapes from, poverty is necessary.

3. Demographic Characteristics of Households

As in 2005, there is an association between poverty and household size. Poor households tend to be larger than non-poor, at 6.0 and 4.7 members, respectively. There is not much difference in household size between urban and rural areas.

The demographic dependency ratio compares the number of household members less than 15 and over 59 years of age, relative to those between the ages of 15-59. As in 2005, the relationship between the demographic dependency ratio and consumption poverty is weak. These data suggest that poverty is not primarily driven by life-cycle considerations related to the early child rearing years and with caring of elderly parents.

The economic dependency ratio compares the number of economically inactive and active household members between the ages of 15-59. As in 2005, there appears to be an inverse relationship between this indicator and poverty, i.e. the poor have proportionally more economically active household members. Overall, these data suggest that poverty is not due to economic inactivity, even in urban areas, but to low returns associated with economic activities.

As in 2005, there is an inverse relationship between poverty and female-headship. The relative proportions of poor and non-poor female -headed households are 18% and 21.5% respectively. It may be due to receipt of remittance income or the fact that only better-off women, in primarily urban areas, are able to form their own households upon divorce or death of a spouse.

4. Economic Activities of Household Members

In terms of industrial structure, agriculture, hunting and forestry is by far the biggest employer accounting for half of total employment. Manufacturing is very small, employing around 6% of the economically active population. The remainder of employment is mainly in the low-end service sector. Around 54% of poor household members are engaged in agricultural activities, compared to 49% of non-poor household members. The size of the agricultural sector, combined with the small size of, and slow growth in, manufacturing, and the preponderance of low-end service sector jobs, make a *prima facie* case for the centrality of rural-based, agricultural-led development to any successful strategy of poverty reduction, at least in the short-run.

In terms of occupation, casual labour in rural areas is quite high at around 21% of economically active household members and increasing from 23 to 28%. There has been a corresponding decline in contributing family workers among the poor from 17.5% to 12% but not in own account workers. Together, these data suggest that the increasing 'casualisation' of poverty is due *primarily* to contributing family workers entering into casual employment and not, say, to growing landlessness associated with a fall in own-account work. It also suggests that the increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as labourers increasingly supplement contributing family work with casual labour.

With respect to land size, average farm size of 6.7 acres (or 2.71 hectares) is moderate by South-East Asian standards, though low by international standards. Poor households have significantly smaller farm size that non-poor households at 4.4 and 7.3 acres respectively. Overall, there has not been a worsening of the size distribution of farm land. In summary, small farm size is a correlate of poverty which has remained quite stable since 2005 among most consumption deciles, including the poorest.

Landlessness is a significant phenomenon at 24% of those whose primary economic activity is agriculture, which appears to have declined slightly from 26% in 2005. It is much higher among poor than non-poor households at 34% and 19% respectively and may have increased slightly for the former since 2005, from 32% to 34%, though this difference is not statistically significant. There may have been an increase in landlessness amongst the very poorest bottom decile from around 34% to 38% though the difference is not statistically significant. The highest rates of landlessness are found in Bago (41%), Yangon (39%) and Ayeyarwaddy (33%). In summary, landlessness is another important correlate of poverty which may have increased slightly over time, in particular among the very poorest. This finding suggests that while the *increasing* 'casualisation' of poverty is not due *primarily* to an increase in landlessness, it may be a contributing factor among the poorest of the poor.

In terms of credit access, around one-third of agricultural households received a formal or informal loan for agricultural activities in 2009, compared with around 38% in 2004. Only around 11% of non-agricultural households took out such a loan to finance business activities in 2009, compared with around 15% in 2004. The average loan size to the poor is not insignificant amounting to around 60% of the annual food poverty line. Around half of agricultural credit is sourced informally, a share which has stayed relatively constant over time and which is similar for poor and non-poor households. In terms of debt, there has been a striking decline in the number of indebted households from around 48% to 30% between 2004 and 2009, a fall which is equally evident in poor and non-poor households. Debt levels of poor households, at 14% of total annual consumption expenditure, appear quite high. The policy implications of the analysis of credit and debt are not without complexity. On the one hand, there is a case for increasing formal credit access given low and declining coverage as well as the apparent ability of a significant number of households to pay off existing debts. On the other hand, the sustainability of some debt loads, in particular among the poor, appears uncertain given relatively high debt/consumption ratios.

5. Labour Market

In terms of labour force participation, overall rates are high at two-thirds (67%) of the population aged 15 and above and higher for the poor than non-poor at 69% and 66% respectively. There are stark differences in child participation rates (ages 10-14) between the poor and non-poor at 18% and 10% respectively, and between participation rates of the poor and non-poor aged 15-24 at 72% and 62% respectively. These findings suggest that poverty is not primarily due to non-participation in the labour force but to low remuneration/returns for those who do participate (as found in Section 3.2 on the economic dependency ratio). In addition, they provide limited, additional support to the suggestion in Section 4.2 that increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as household members increasingly enter the labour force. Finally, the much higher rates of child labour force participation among the poor raise questions about the possibility of the intergenerational transmission of poverty and poverty traps, as evidenced by low enrolment rates for working children.

In terms of unemployment, levels are extremely low in Myanmar at around 1.7%. The poor are more likely to be unemployed than the non-poor, at 2.4% and 1.4% respectively, but the level of open unemployment of the poor is still very low and unchanged from its 2005 level of 2.3%. The Time Rates of Unemployment (TRU), proxied by unemployment in the 7 days preceding the questionnaire is very low as well at 2.5%. The relationship between poverty and the TRU is very similar to the poverty/unemployment relationship described above. The poor/non-poor breakdown is 3.7% and 2.1% respectively, with levels for the poor virtually identical between 2005 and 2010. In summary, there is an association between poverty and open unemployment and between poverty and the Time Rate of Employment in Myanmar, but both the relationship is weak and both are very small contributors to overall poverty. Poverty has much more to do with low returns to work than with the absence of work.

Finally, underemployment appears to be a significant phenomenon in Myanmar with pronounced seasonal dimensions, which appears to have increased between 2005 and 2010. It is not, however, closely associated with poverty. These findings provided added support for the view that poverty has much

more to do with low returns to work than with the absence of work (as argued in the context of economic dependency ratios, labour force participation rates and unemployment). They also attest to the importance of poverty dynamics, or flows into and out of poverty over the course of the agricultural cycle.

6. Housing, Water and Sanitation

Section 6 has presented data on various aspects of housing, water and sanitation conditions in Myanmar.

In terms of 'quality' roofing, which is sometimes used as a proxy of consumption poverty, around 53% of households had access in 2010, a statistically significant increase from its 2005 level of 44%. There are large differences between the poor and non-poor, at 32% and 59% respectively, though access for the poor has increased from its 2005 level of 27.8%, a change which is not statistically significant. There is quite significant state/divisional variation, with particularly low levels in Rakhine (20%) and Ayeyarwaddy (39%). In summary, access to quality roofing has increased significantly overall, though slightly less so for the poor, with significant remaining gaps between states/regions. If sub-quality roofing is interpreted as a proxy for poverty, these findings provide support for the drop in poverty rates found in Section 2.

In terms of safe drinking water, overall access has increased in statistically significant fashion between 2005 and 2010, from 63% to 70% respectively. There are differences in access between the poor and non-poor, at 62% and 72% respectively, and between rural and urban dwellers, at 65% and 81% respectively. Access to the poor has increased over time from its 2005 level of 59%, a change which is not statistically significant. Particularly low levels are found in Ayeyarwaddy (45%), Rakhine (50%) and Tanintharyi (56%). In summary, access to safe drinking water has increased modestly overall, though less so for the poor, with significant remaining gaps between states/regions and between urban and rural areas.

With respect to improved sanitation, overall access has increased in statistically significant fashion between 2005 and 2010, from 67% to 79% respectively. There are large differences in access between the poor and non-poor, at 72% and 82% respectively, and moderate differences between rural and urban dwellers, at 77% and 84% respectively. Access to the poor has increased from its 2005 level of 59%, a change which is statistically significant. Particularly low levels are found in Rakhine (54%), though in this state, access appears to have increased over time (high standard errors urge caution in interpreting this result). In summary, access to improved sanitation has increased over time, at higher rates for the poor, with moderate remaining gaps along state/divisional lines and between the poor and non-poor

In terms of electricity, overall access has increased in statistically significant fashion between 2005 and 2010, from 38% to 48% respectively. There are very large differences in access between the poor and non-poor, at 28% and 55% respectively, and between rural and urban dwellers, at 34% and 89% respectively. Access to the poor has increased from its 2005 level of 20%, a change which is statistically significant. Particularly low levels are found in Rakhine (26%), Ayeyarwaddy (30%), Magwe (31%) and Bago (32%). In summary, access to electricity has improved over time, at faster rates for the poor, with significant remaining gaps along state/divisional lines and very large differences between the poor and non-poor.

Overall, these data suggest a process of general improvement across all indicators, though with remaining gaps along state/divisional and poverty lines. Rakhine State has tended to fare among the worst for all the indicators presented.

7. Health and Nutrition

In terms of immunisation against measles, coverage stood at around 82% in 2010, a modest increase from its 2005 level of 80%. There are considerable differences in coverage between the poor and non-poor, at 76% and 86% respectively, and between rural and urban dwellers, at 80% and 92% respectively. Coverage of the poor has fallen slightly from its 2005 level of 78%, a change which is not statistically significant.

There is moderate regional/state variation, with particularly low levels in Rakhine (68%). In summary, immunisation coverage against measles has increased modestly overall, though has declined slightly for poor households. Remaining gaps exist between the states/regions, urban and rural dwellers and between poor and non-poor households

With respect to maternal health, antenatal care coverage stood at around 83% in 2010, virtually identical to its 2005 level. There are moderate differences in access between the poor and non-poor, at 77% and 86% respectively, and differences between rural and urban dwellers, at 81% and 93% respectively. Particularly low levels are found in Chin (60%) and Rakhine (67%). Overall, 78% of births were attended by skilled personnel in 2010, similar to its 2005 level of 73%. There are considerable differences between the poor and non-poor, at 69% and 81% respectively, and differences between rural and urban dwellers, at 74% and 93% respectively.
Once again, particularly low levels are found in Rakhine (55%) and Chin (61%). In summary, indicators of maternal health have stayed at relatively high levels or increased modestly with remaining gaps between states/regions, urban and rural dwellers and between poor and non-poor households

In terms of morbidity, self-reported morbidity stood as 5.4% of the population in 2010, virtually identical to its 2005 level of 5.3%. These data show slightly higher levels of morbidity for the non-poor than the poor, at 5.5% and 5.1% respectively, which is undoubtedly due to self-report bias. Comparatively higher levels are found in Kayin (8.9%), Chin (8.1%), Kayah (8.0%) and Rakhine (8.0%). In summary, self-reported morbidity levels have remained unchanged over time but reflect the self-report bias found in the literature whereby the poor appear less ill than the non-poor.

With respect to moderate malnutrition, levels stood at 32% in 2010, a non-statistically significant decline from its 2005 level of 34%. There are differences between the poor and non-poor, at 35% and 30.6% respectively, and between rural and urban dwellers, at 33.7% and 25.5% respectively. Malnutrition among the poor has declined from its 2005 level of 37.9%, a change which is not statistically significant. Particularly high levels are found in Rakhine (53%) and Shan (S) (48%).

In terms of severe malnutrition, levels stood at 9.1% in 2010, a non-statistically significant decline from its 2005 level of 9.4%. There are differences between the poor and non-poor, at 10.2% and 8.6% respectively, and between rural and urban dwellers, at 9.7% and 6.9% respectively. Unlike moderate malnutrition, females have higher rates than males at 10% and 8.3% respectively. Malnutrition among the poor has declined from its 2005 level of 11.3%, a change which is not statistically significant. Particularly high levels are found in Shan (S) (18.5%) and Rakhine (16.3%). Overall, these data suggest a pattern of modest improvement over time and are broadly consistent with findings of declines in food poverty and poverty presented in Chapter 2.

Access to health care stood at around 81% in 2010, compared to 65% in 2005, an increase which is statistically significant. There are slight differences in access between the poor and non-poor, at 77% and 82% respectively, and large differences between rural and urban dwellers, at 75% and 96% respectively. Access to the poor has increased over time from its 2005 level of 57%, a change which is statistically significant. Particularly low levels are found in Sagaing (62%) and Chin (68%). In summary, access to health care has improved quite substantially since 2005, in particular for the poor, with large remaining gaps between urban and rural dwellers.

Overall, health shares of expenditure were around 5% in 2010, almost identical to their 2005 level. Shares of the poor are significantly lower than the non-poor, at 3.7% and 5.1% respectively, as is the case with shares of rural vs. urban dwellers, at 4.4% and 5.9% respectively. The non-poor pay close to three times the amount of the poor on health, which suggests much better access to higher quality care.

8. Education

In terms of literacy, overall rates stood at around 90% in 2010, compared to 85% in 2005, an increase which is statistically significant. There are large differences between the poor and non-poor, at 84% and

93% respectively, though literacy of the poor has registered a statistically significant increase from its 2005 level of 79%. There are considerable differences between rural and urban dwellers, at 89% and 95% respectively and between females and males at 89% and 96% respectively. The lowest levels of literacy are found in Rakhine (75%) and Shan (75%). In summary, literacy levels have increased somewhat from already high levels, with proportionate gains for the poor. Modest gaps persist between poor and non-poor households, males and females and urban and rural households with much larger differences along state/division lines.

Net primary enrolment stood at around 88% in 2010, a statistically significant increase from its 2005 level of 85%. There are large differences in enrolment rates between the poor and non-poor, at 81% and 90% respectively. Net primary enrolment rates of the poor increased slightly from their 2005 level of 80%. Noticeable differences are found between rural and urban dwellers, at 87% and 92% respectively, though not along gender lines. The lowest net primary enrolment rates are found in Rakhine State (71%). In summary, net primary enrolment rates have increased slightly from already high levels and have stayed constant for the poor. Significant gaps remain between states/regions, urban and rural dwellers and poor and non-poor households.

Net secondary enrolment stood at around 53% in 2010, a statistically significant increase from its 2005 level of 42%. There are large differences between the poor and non-poor, at 35% and 59% respectively, though the secondary enrolment rate of the poor has increased in statistically significant fashion from its 2005 level of 28%. Large differences are found between rural and urban dwellers, at 47% and 75%, respectively, though not between males and females. Once again, the lowest rates are found in Rakhine State (32%). In summary, net secondary enrolment has increased considerably with large gains for the poor. Significant gaps remain between states/regions, urban and rural dwellers and poor and non-poor households.

With respect to access to a primary school, defined in terms of physical distance, levels stood at around 91% in 2010, virtually unchanged from 2005. There are slight and statistically insignificant differences in access between the poor and non-poor, at 89% and 92% respectively, while larger differences are found between rural and urban dwellers, at 89% and 96% respectively. The lowest levels of access are found in Chin (73%) and Kayin (75%). In terms of access to secondary school levels stood at around 34% in 2010, a slight and statistically insignificant increase from its 2005 level of 32%. There are considerable differences in access between the poor and non-poor, at 27% and 36% respectively, and access for the former has increased from its 2005 level of 24% though the change is not statistically significant. Big differences are found between rural and urban dwellers, at 24% and 61% respectively. The lowest levels of access are found in Rakhine (23%) and Magwe (22%), despite apparent improvements in both these states since 2005. In summary, access to secondary school has increased slightly with modest remaining gaps between poor and non-poor households and very large differences between urban and rural dwellers.

In terms of educational attainment, around two-thirds (65%) of household heads have achieved only primary education or less, a figure which has remained virtually constant since 2005. Only around 15% of household heads have secondary school or higher. Around 22% of poor households heads have completed middle school or higher, compared to around 40% of non-poor household heads There are significant differences across strata, in that 75% of rural dwellers have only a primary education or less compared to 37% of urban residents. Overall, levels of education attainment are low in Myanmar with large gaps between poor and non-poor households and between urban and rural dwellers

With respect to education expenditure, overall, education shares were around 2% in 2010, down 4% from their 2005 level. Shares of the poor are lower than the non-poor, at 1.2% and 1.8% respectively, as is the case with shares of rural vs. urban dwellers, at 1.5% and 2.2% respectively. The non-poor pay close to three times the amount of the poor on education, in absolute terms, which may suggest better access to higher quality education. In summary, *in relative terms*, the burden for the poor of education is less than that of the non-poor though the quality of education received by the latter is likely higher.

9. Trends in Well-being in Myanmar, 2005-2010

Economic Dimensions of Well-being

IHLCA data suggest that there have been eight main areas of improvement between 2005-2010. There have been statistically significant declines in food poverty and in poverty across all FGT poverty measures. Caloric intake has increased for the bottom decile, which represented the 'food poor' in 2005, and for the second and third deciles. Small asset holdings have increased across the consumption distribution, at a faster rate for the poorest deciles. Both relative and absolute measures of inequality have improved. Consumption expenditure has increased for all but the top decile and at a much higher rates for the lower deciles The size distribution of land holdings has remained quite stable or improved slightly. Both the percentage of households reporting debt, and the debt burden per indebted household, have fallen. Data on roof-type and malnutrition, summarised in the following Section, are also consistent with improvements in economic well-being.

On the other hand, the food share in consumption has risen across the bottom four deciles and begins to fall only towards the top of the consumption distribution. There appears to have been an increase in landlessness among the bottom decile, i.e. the very poorest, and among the poor. Credit access for agricultural activities has declined overall and for the poor in particular. Underemployment has increased somewhat, though is not closely associated with poverty. In addition, it should be recalled the some of the apparent increases in consumption expenditure may be due to an increase in labour time and effort as a higher percentage of workers have entered the labour market, and others have supplemented contributing family work with casual labour.

Overall, these data present a mixed picture (as shown in the table below). Certain economic aspects of well-being have improved markedly, while others have deteriorated or stagnated. *As mentioned above, in light of these conflicting results, caution is urged in the interpretation of data on poverty levels and trends, in particular on the magnitude of the decline in poverty*

Trends in Economic Well-being, 2005-2010

		Improvement						Deterioration						No Change	
		Deciles				Poor	All	Deciles				Poor	All	Poor	All
		1	2	3	4			1	2	3	4				
	Food Poverty														
1	P0						X*								
2	P1						X*								
3	P2						X								
	Poverty														
4	P0						X*								
5	P1						X*								
6	P2						X*								
	Poverty Proxies														
7	Caloric Intake	X*	X	X									X		
8	Food Share						X*	X*	X*	X*	X				
	Asset Ownership														
9	TV	X*	X*	X*	X*										
10	Radio/Stereo	X*	X*	X*	X*										
11	Bicycle		X	X	X			X							
12	Motor-Cycle	X*	X*	X*	X*										
	Inequality														
13	Share of Bottom 20%						X								
14	Consumption Gap						X								
15	Consumption Exp.	X*	X*	X*	X*	X*	X								
16	Land Size	X*	X	X	X*	X	X								
17	Landlessness		X		X		X	X		X		X			
18	Credit Access (Agriculture)											X*	X*		
	Debt														
19	% of Households					X*	X*								
20	Total Debt/Cons. Exp.					X	X								
21	Unemploymemt													X	X
22	Time Rate of Unemployment													X	X*
23	Underemployment											X	X*		

* Statistically significant at 95%

Social Dimensions of Well-being

Almost all indicators appear to have improved, many in statistically significant fashion. The two exceptions concern measles immunisation coverage and access to primary school for the poor which have fallen slightly. These latter changes are not statistically significant. In summary, IHLCA data suggest a broad improvement in the social dimensions of well-being between 2005 and 2010.

Trends in Social Well-being, 2005-2010

						No Change	
		Poor	All	Poor	All	Poor	All
1	Quality Roofing	X	X*				
2	Access to Safe Drinking Water	X	X*				
3	Access to Improved Sanitation	X*	X*				
4	Access to Electricity	X*	X*				
5	Immunisation		X	X			
6	Antenatal Care Coverage	X					X
7	Births Attended by Skilled Personnel	X	X*				
8	Self Reported Morbidity					X	X
9	Moderate Malnutrition	X	X				
10	Severe Malnutrition	X	X				
11	Access to Health Care	X*	X*				
12	Literacy	X*	X*				
13	Net Primary Enrolment	X	X*				
14	Net Secondary Enrolment	X*	X*				
15	Access to Primary School			X			X
16	Access to Secondary School	X	X				

* Statistically significant at 95%

1. Introduction

Section 1 begins with a brief history of the IHLCA-II survey (Section 1.1) and proceeds to outline a number of methodological features of the survey. Specifically, it reviews select issues concerning data collection and analysis and provides an overview of the IHLCA-II questionnaire (Section 1.2). Next, a number of sampling issues are discussed and clarified (Section 1.3). It concludes with an overview of the format and objectives of the *Poverty Profile* (Section 1.3).

1.1 Background

The Integrated Household Living Conditions Assessment (IHLCA) is a multi-purpose household survey which provides data on key dimensions of living conditions and well-being. The first IHLCA survey was conducted in 2004-2005 with the support of the United Nations Development Programme and national partners including the Ministry of National Planning and Economic Development and the Central Statistical Organization. The IHLCA-I was a nationally representative sample of 18 660 households in both rural and urban areas across Myanmar. It allowed for the estimation of poverty levels drawing on a detailed consumption module, using modern, 'industry-standard' techniques to set the poverty line.

At the request of the government of Myanmar, UNDP, UNICEF and Sida have supported a follow-up survey to the original IHLCA. The core objective is to update the 2004-2005 data, shedding new light on levels and trends in living conditions. To this end, a technical workshop was held with stakeholders in April, 2009 to discuss issues of survey design, data analysis and processing. It was agreed that the IHLCA-II should retain a similar format as the IHLCA-I to facilitate consistent comparisons of results over time.

1.2 Data Sources, Collection and Analysis[1]

The IHLCA-II survey is comprised of three main instruments: the Household Questionnaire, the Community Questionnaire for Key Informants and the Community Price Questionnaire.

The Household Questionnaire forms the basis of most of the information presented in the *Poverty Profile*. It contains the following modules:

i. Household Characteristics;
ii. Housing;
iii. Education and Literacy;
iv. Health, Nutrition and Mortality;
v. Consumption Expenditure;
vi. Household Assets, Gifts and Remittances;
vii. Labour and Employment;
viii. Business Activities;
ix. Finance and Savings.

The Community Questionnaire for Key Informants contains a range of community-level information on infrastructure, housing, economic activities, schools, health facilities, etc. In most cases, these data are not presented in the *Poverty Profile* which focuses on household level information.[2] Data from the Community

[1] These issues are discussed in much greater detail in IHLCA-II, *Technical Report on Survey Design and Implementation,* Feb. 15, 2010.
[2] The two exceptions are data on access to health and education discussed in Sections 7 and 8 respectively.

Price Questionnaire were used to adjust consumption expenditure data for difference across space (states, regions) and over time (between 2004-2005 and 2009-2010).

Following the format of IHLCA-I, data collection was conducted in two rounds, December-January, 2009-2010 and May, 2010. The original rationale to conduct two rounds was to capture seasonal variation in core well-being indicators associated primarily with the agricultural cycle. Generally, December-January marks a period of greater prosperity for many rural households following, or during, the harvesting of the monsoon paddy. May falls within the summer months and is a time of greater hardship. Data from the two separate rounds are necessary to estimate 'true' average, annual figures for data which experience higher and lower levels over the course of the year, such as consumption expenditure. The IHLCA-II retained this format for those indicators which are expected to vary seasonally.

At the level of data collection, a number of measures were put in place to reduce measurement error. Consistency checks were performed on-site by field supervisors which allowed enumerators to return to respondents and probe discrepant information. Field enumerators were recruited locally to increase the likelihood that translation issues, or contextual differences in interpretation, did not influence results. In addition, field teams comprised both male and female enumerators to ensure that respondents could be interviewed by persons of their same gender. The aim was to enhance the validity of sensitive information on issues such as reproductive health.

Data entry and cleaning has been undertaken by the Planning Department (PD) of the Ministry of National Planning and Economic Development (MNPED) with technical assistance from the World Bank. Data analysis has been conducted by the IHLCA technical unit drawing on technical support and training provided during the first IHLCA. Analytical support concerning sampling, and standard error estimation, has been provided by Statistics Sweden.

1.3 Sampling Issues[3]

The IHLCA-II is a nationally 'representative,' 50% 'panel' survey with sample size of 18,660 households. It is important to clarify at the outset the meaning of the terms 'representative' and 'panel' and to say a word about the special sampling problems posed by cyclone *Nargis* in May, 2008.

The IHLCA surveys are 'representative' of the population of Myanmar in the sense that it is possible to estimate the relationship between sample results and the 'true' results in the entire population. In order to make such estimates, and interpret them correctly, it is important to define four additional concepts: i) standard errors; ii) sampling error; iii) confidence intervals and iv) levels of statistical significance.

i. *Standard errors* provide a measure of how far estimated sample statistics differ from their 'true' values in the entire population. They are calculated on the basis of the variance and number of observations in the sample. The variance is a measure of the dispersion, or the spread, of the values of a variable.
ii. The estimated difference between sample estimates and population values is known as *sampling error*. The extent of sampling error is known by examination of the size of the standard errors in question.
iii. *Confidence intervals* provide a range of plausible values for an unknown population parameter. The wider the confidence interval, the more uncertain we are about the unknown parameter. Confidence limits are the lower and upper boundaries of a confidence interval.
iv. *Levels of statistical significance* provide a degree of certainty that sample results are not due to chance. By convention, statistical significance is often set at the 95% level.

These four concepts are relevant to the interpretation of results in the *Poverty Profile* in two ways:

[3] These issues are discussed in much greater detail in IHLCA-II, *Technical Report on Survey Design and Implementation,* Feb. 15, 2010.

First, standard errors are presented (in parenthesis) below all results in the *Poverty Profile*. If we multiply the standard error by approximately 2 (1.96), and subsequently add and subtract that value from the value of our results, we arrive at a 95% confidence intervals for all data in the *Poverty Profile*. Otherwise stated, the reader can determine, with 95% certainty, how far the estimated sample results from the IHLCA-II differ from the 'true' population results in Myanmar.

Second, tests of statistical significance of differences between 2005 and 2010 are reported in the text and presented in the Statistical Appendix at the end of this volume. If differences are deemed to be statistically significant, we simply mean that we are at least 95% certain that such differences reflect 'real' differences in the population of Myanmar, and not differences in the samples, due to chance. It does *not* mean that such differences are economically or socially significant. It should also be noted that we present actual 'p values' in the Statistical Appendix, which represent the actual probabilities that observed differences are due to chance. So, all 'p values' less than or equal to 0.05, are those which are statistically significant at the 95% level.

The IHLCA-II also contains a 'panel' element, in that 50% of households are the same as those selected in 2004-05. Panel data facilitates the analysis of poverty dynamics, i.e. the entry into, and escape from, poverty of individual households, and not simply the analysis of stocks of poverty at different points of time. Otherwise stated, it allows for an analysis of both transitory and chronic poverty which may call for very different policy responses. In the *Poverty Profile,* data on poverty dynamics are presented in Chapter 2, **Error! Reference source not found.**. They are addressed at greater length in the companion volume on *Poverty Dynamics*.

From the point of view of sampling, cyclone *Nargis* poses immediate challenges in that certain villages have either 'disappeared' or have been so extensively damaged to preclude conducting a survey. In particular, the issue arose for eleven villages in Bogalay and Laputta Township in Ayeyarwady Division. To address this problem, eleven villages with similar characteristics, from the same or nearby village tracts, have been substituted into the sampling frame. It should be emphasized that widespread loss of life associated with this tragedy will not increase poverty rates, if those who perished were on average no worse/better off than those who survived.[4]

1.4 Format and Objectives of the Poverty Profile

The *Poverty Profile* presents select results from the IHLCA-II survey with emphasis on consumption poverty and its correlates. It is not limited to consumption poverty however, as other dimensions of living conditions, including health, education, water/sanitation, etc. are reviewed. Its core objective is to provide information on levels and trends in key indicators of well-being, and their correlates, with a view to inform public policy decisions.

In most cases, trend data are presented to facilitate comparisons with data from the IHLCA-I. Most data are also disaggregated by states or regions, strata (urban/rural) and poverty status. Where relevant, gender is also presented as a category of disaggregation. Most of the data are presented in tabular form, though maps are also presented to show the spatial distribution of poverty.

As discussed above, two rounds of the IHLCA were conducted, in December-January, 2009-2010 and May, 2010. In most cases, merged data across the two rounds are presented in the *Poverty Profile*. Exceptions are for cases where there are significant differences in results between the two rounds or for those indicators which were only collected in the first round.

[4] This paradox of poverty measurement is explored in Kanbur R. and D. Mukherjee, 2007, "Premature Mortality and Poverty Measurement," *Bulletin of Economic Research*, Vol. 59. No. 4.

For select indicators, results of other major surveys are presented in Section-specific Appendices to provide a robustness check of results. Specifically, such data are presented for water/sanitation (Section 6), nutrition (Section 7) and literacy (Section 8).

There are two companion volumes to the *Poverty Profile*. First, the *MDG Data Report*, presents data on a range of MDG indicators. There is some overlap with the *Poverty Profile* which also contains certain MDG indicators. Second, the *Poverty Dynamics Report*, exploits the panel dimension of the IHLCA-II and reviews data on trajectories of individual households with respect to consumption poverty and other core indicators.

In terms of format, the *Poverty Profile* reviews the following issues in turn: Poverty and Inequality (Section 2); Demographic Characteristics of Households (Section 3); Economic Activities of Households (Section 4); the Labour Market (Section 5); Housing, Water and Sanitation (Section 6); Health and Nutrition (Section 7) and Education (Section 8) and Conclusion (Section 9).

2. Poverty and Inequality

Section 2 presents information on poverty and inequality in Myanmar. It first explains, in layman's terms, the poverty lines and measures used in the *Poverty Profile*. It then presents data on levels and trends in 'food poverty' (Section 2.2), 'poverty' (Section 2.3), poverty proxies (Section 2.4) and inequality (Section 2.5). Next, data on the dynamics of poverty in Myanmar are reviewed (Section 2.6). A final section (2.7) summarizes key findings.

2.1 Poverty Metrics, Lines and Measures

Three core issues arise in applied poverty analysis. The first concerns the appropriate well-being metric, to use and addresses the question 'poverty of what'. The second concerns the distinction between the 'poor and non-poor,' and addresses the question 'how to set the poverty line'. The third issue, aggregation, concerns the poverty measures used and addresses the question 'how to 'add-up' those who fall below the poverty line'.

2.1.1 The Metric

In the *Poverty Profile*, the well-being metric used is consumption expenditure. There are two key advantages to using consumption expenditure, over say income. First, generally, consumption expenditure is measured with less error than income. Second, it is subject to less fluctuation than income and as such, is a better medium-term gauge of well-being as households 'smooth' consumption over time.

In order to make consumption expenditure comparable across households a number of adjustments must be made. Specifically, it is necessary to adjust for different household composition, for economies of scale in consumption and for prices differences across sites. All of these adjustments have been made and are detailed in a technical report accompanying IHLCA-II.[5]

One final complication to note when using consumption expenditure as a measure of well-being, is the problem of 'necessary' expenditures which are wellbeing-reducing. For example, large expenditures on health care count 'positively' by increasing household expenditure, yet they are likely to reduce well-being (from both the illness and the expenditure burden). While the issue is complex, we address it by removing health expenditure from household expenditure estimates when calculating poverty measures.

2.1.2 Poverty Lines

Two poverty lines are presented in the *Poverty Profile*, the 'food poverty' and 'poverty' lines. The food poverty line measures how much consumption expenditure is required to meet basic caloric needs only. The poverty line simply adds an allowance for non-food expenditure.

There are different ways to set food poverty and poverty lines. In the Poverty Profile, the 'food share' method has been used, relying on the actually expenditure patterns of the poor. What follows is an intuitive explanation of this method. A technical exposition is available in the above-mentioned *Quantitative Survey Technical Report*.

The Food Poverty Line

There are five basic steps which are required to set the food poverty line:

[5] IHLCA-II. 2010. *Technical Report on Survey Design and Implementation*. February 15.

1. First, a 'poor' reference group is selected, which, in the present case, is the second quartile (25%) of the consumption distribution, i.e. the bottom 25-50%.
2. Second, the number of calories consumed by this reference group is calculated. This step requires information on the quantities of food items consumed and the caloric content of these food items.
3. Third, the minimum required caloric intake is calculated for different population groups based on nutritional norms. In Myanmar, different caloric requirements have been set for males, females, children and rural/urban dwellers.
4. Fourth, the food actually consumed by reference group is 'scaled up or down' until it reaches the minimum required level of caloric intake. In practice, this means that the 'basket' of foods consumed stays the same but the level is increased or decreased.
5. Finally, the cost of this new scaled food basket is calculated, and represents the food poverty line.

It should be noted that the 'food poverty' line is very meagre indeed. It represents the amount required to meet caloric requirements assuming that *all* household income is spent on food. As such, it represents a level of extreme hardship.

The Poverty Line

The poverty line retains all of the above steps and simply adds an allowance of non-food expenditure. Three additional steps are required:

1. First, the non-food share in consumption expenditure of the reference group is calculated.
2. Second, a monetary value is assigned to this share (by multiplying it by the food poverty line).
3. Third, the monetary value is added to the food poverty line to arrive at the poverty line.

Calculated in this way, the poverty line represents a minimum of food and non-food expenditures based on the consumption patterns of the second quartile of the consumption distribution.

The actual (nominal) values of the food-poverty and poverty lines per adult equivalent per year, in 2005 and 2010 kyats, are as follows:

	2005	**2010**
Food Poverty Line	118402	274990
Poverty Line	162136	376151

2.1.3 Poverty Measures

In the Poverty Profile, the industry standard Foster-Greer-Thorbecke (FGT) class of poverty measures is used to 'add up' those who fall below the poverty line (see Appendix 2.1 for a more technical discussion). By convention, three FGT measures are widely used, represented as P0, P1 and P2:

- P0, or *Poverty Incidence*, represents the percentage of the population who are poor.
- P1, or *Poverty Intensity*, multiplies poverty incidence by the poverty gap, i.e. the average shortfall from the poverty line. As such, it is a combined measure of the extent and the depth of poverty.
- P2, or *Poverty Severity*, multiples poverty incidence by the squared poverty gap. The effect is to give proportionally more weight to households which are further away from the poverty line. Accordingly, P2 may be interpreted as a combined indicator of the extent of poverty and inequality among the poor.[6]

[6] In the initial Poverty Profile presenting the IHLCA-I results, P0, P1 and P2 were labeled the poverty headcount, poverty gap index and squared poverty gap index, respectively.

While the value of P0 has a clear intuitive interpretation the same cannot said of P1 and P2. Their main value is to allow for a relative ranking of the poverty situation of different population groups in terms of poverty intensity and severity respectively.

Another useful feature of the FGT class measures is called 'additive decomposability'. Otherwise stated, it is possible to calculate the relative contribution of different population groups to overall poverty for the three FGT measures. Throughout Section 2, data on national poverty shares are presented for the P0, P1 and P2 measures.

2.2 'Food' Poverty

Table 1 presents data on food poverty levels in Myanmar in 2010 for the FGT class of poverty indices presented in the previous section. Four points are particularly relevant:

i. Levels of food poverty are very low, at around 5% nationally (reflected in the 0.048 value in bold in the table).
ii. Food poverty remains primarily a rural phenomenon in Myanmar. Overall, rural food poverty incidence, at 5.6%, is around double that of urban poverty, at 2.5%. The pattern holds in virtually all states/regions for all poverty measures. Further, the contribution of rural poverty to total poverty is around 87%.
iii. There is wide variation between states/regions. The highest values of food poverty incidence are in Chin at 25% followed by Rakhine (10%), Tanintharyi (9.6%) and Shan (9%) (see Figure 1). These four states/regions remain the poorest, no matter the FGT poverty measure used.
iv. The four major contributing states/regions to national poverty, no matter the FGT measure used, are Ayeyarwady (18.7%), Mandalay (16%), Shan (15.4%) and Rakhine State (14.9%) (see Figure 2). Together, these four states account for around two thirds of total food poverty in Myanmar.

It should be recalled that the 'food poverty' line represents a level of extreme hardship (see Section 2.1.2). It corresponds to the amount required to meet caloric requirements assuming that *all* household income is spent on food.

Table 2 presents data on trends in food poverty incidence between the two IHLCA surveys in 2005 and 2010. A number of points are relevant to note.

i. Overall, food poverty incidence has been halved between 2005 and 2010, from 9.6% to 4.8%, a change which is statistically significant.
ii. The downward trend is evident in both urban and rural areas at a broadly similar rate.
iii. The downward trend is found in all states and regions, though some of these changes are not statistically significant.

These data suggest an improvement in basic food consumption for the poorest population groups in Myanmar,[7] with remaining gaps between states/regions and in particular, between rural and urban areas.

[7] See Section 2.4 for additional analysis.

Figure 1 Food Poverty Incidence by State/Region, 2010

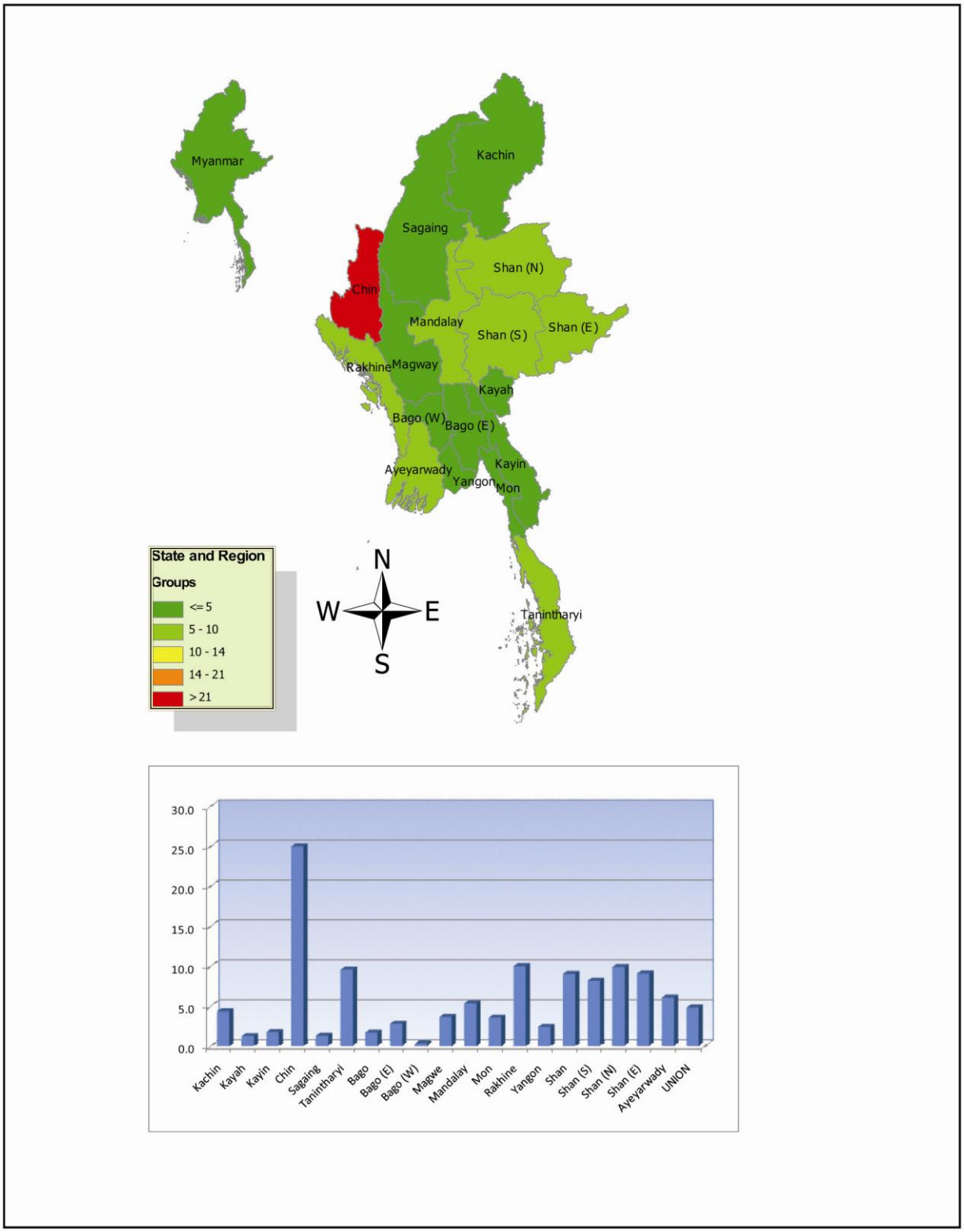

Figure 2 National Food Poverty Shares by State/Region, 2010

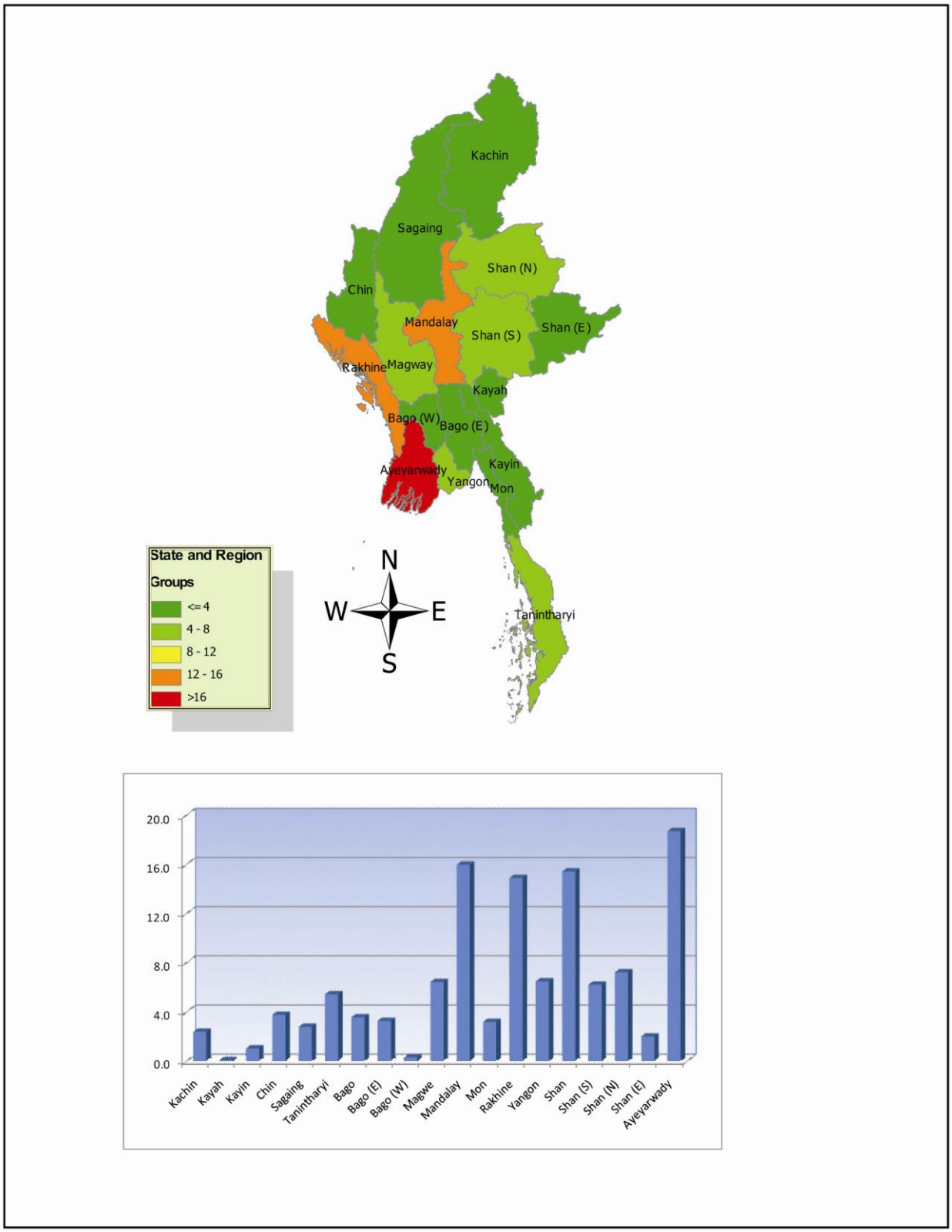

Table 1 Food Poverty Measures, 2010

State, Region and Union	Urban			Rural			Total					
	P0 (Incidence)	P1 (Intensity)	P2 (Severity)	P0	P1	P2	P0	National Poverty Share (%)	P1	National Poverty Share (%)	P2	National Poverty Share (%)
Kachin	0.025 (0.016)	0.003 (0.003)	0.0006 (0.0005)	0.050 (0.022)	0.007 (0.002)	0.0015 (0.0005)	0.043 (0.011)	2.4 (0.73)	0.006 (0.001)	2.5 (0.44)	0.0013 (0.0001)	2.7 (0.56)
Kayah	0.000 (0.000)	0.000 (0.000)	0.0000 (0.0000)	0.019 (0.021)	0.002 (0.003)	0.0003 (0.0003)	0.012 (0.012)	0.1 (0.01)	0.002 (0.002)	0.1 (0.01)	0.0002 (0.0002)	0.0 (0.01)
Kayin	0.000 (0.000)	0.000 (0.000)	0.0000 (0.0000)	0.021 (0.007)	0.002 (0.000)	0.0002 (0.0000)	0.017 (0.006)	1.0 (0.19)	0.001 (0.000)	0.6 (0.15)	0.0001 (0.0000)	0.3 (0.08)
Chin	0.064 (0.008)	0.007 (0.002)	0.0011 (0.0004)	0.308 (0.080)	0.046 (0.020)	0.0105 (0.0064)	0.250 (0.038)	3.8 (0.52)	0.037 (0.012)	4.5 (1.25)	0.0082 (0.0041)	4.8 (2.09)
Sagaing	0.025 (0.011)	0.003 (0.001)	0.0004 (0.0001)	0.011 (0.005)	0.001 (0.001)	0.0002 (0.0001)	0.013 (0.005)	2.8 (0.54)	0.001 (0.001)	2.5 (0.44)	0.0002 (0.0001)	2.1 (0.33)
Tanintharyi	0.045 (0.045)	0.005 (0.004)	0.0010 (0.0008)	0.111 (0.043)	0.018 (0.009)	0.0053 (0.0028)	0.096 (0.040)	5.4 (2.11)	0.015 (0.007)	6.8 (3.14)	0.0043 (0.0023)	9.4 (4.77)
Bago	0.034 (0.008)	0.003 (0.002)	0.0005 (0.0003)	0.014 (0.005)	0.001 (0.000)	0.0001 (0.0000)	0.017 (0.005)	3.6 (1.02)	0.001 (0.000)	2.0 (0.67)	0.0001 (0.0001)	1.0 (0.47)
- Bago (E)	0.049 (0.008)	0.004 (0.002)	0.0007 (0.0004)	0.024 (0.010)	0.002 (0.001)	0.0001 (0.0001)	0.028 (0.010)	3.3 (1.00)	0.002 (0.001)	1.8 (0.66)	0.0002 (0.0001)	0.9 (0.46)
- Bago (W)	0.007 (0.005)	0.001 (0.000)	0.0000 (0.0000)	0.003 (0.002)	0.000 (0.000)	0.0000 (0.0000)	0.003 (0.002)	0.3 (0.16)	0.000 (0.000)	0.2 (0.08)	0.0000 (0.0000)	0.1 (0.03)
Magwe	0.021 (0.009)	0.001 (0.001)	0.0002 (0.0001)	0.038 (0.010)	0.005 (0.002)	0.0012 (0.0005)	0.036 (0.009)	6.4 (1.57)	0.005 (0.002)	7.1 (2.19)	0.0011 (0.0004)	7.4 (2.90)
Mandalay	0.023 (0.004)	0.003 (0.001)	0.0006 (0.0003)	0.065 (0.027)	0.009 (0.004)	0.0024 (0.0011)	0.053 (0.020)	16.0 (5.02)	0.007 (0.003)	17.9 (6.02)	0.0019 (0.0008)	22.1 (7.79)
Mon	0.024 (0.008)	0.002 (0.001)	0.0003 (0.0002)	0.038 (0.015)	0.004 (0.001)	0.0007 (0.0004)	0.036 (0.013)	3.2 (0.51)	0.003 (0.001)	2.4 (0.45)	0.0006 (0.0004)	2.2 (0.49)
Rakhine	0.044 (0.004)	0.005 (0.000)	0.0012 (0.0001)	0.115 (0.036)	0.011 (0.004)	0.0017 (0.0007)	0.100 (0.039)	14.9 (5.10)	0.010 (0.004)	12.2 (4.78)	0.0016 (0.0006)	9.2 (3.64)
Yangon	0.016 (0.006)	0.002 (0.001)	0.0004 (0.0002)	0.048 (0.025)	0.006 (0.003)	0.0011 (0.0006)	0.024 (0.005)	6.5 (1.09)	0.003 (0.001)	6.6 (1.95)	0.0005 (0.0003)	5.6 (2.42)
Shan	0.035 (0.028)	0.004 (0.003)	0.0006 (0.0005)	0.108 (0.025)	0.012 (0.004)	0.0020 (0.0006)	0.090 (0.031)	15.4 (5.38)	0.010 (0.004)	14.2 (5.79)	0.0017 (0.0007)	11.1 (4.69)
- Shan (S)	0.036 (0.052)	0.004 (0.006)	0.0006 (0.0009)	0.098 (0.055)	0.014 (0.008)	0.0023 (0.0012)	0.082 (0.066)	6.2 (5.39)	0.012 (0.009)	7.1 (6.00)	0.0018 (0.0014)	5.4 (4.68)
- Shan (N)	0.034 (0.029)	0.005 (0.004)	0.0009 (0.0009)	0.116 (0.026)	0.012 (0.002)	0.0020 (0.0004)	0.099 (0.028)	7.2 (2.15)	0.010 (0.002)	6.0 (1.33)	0.0018 (0.0004)	5.0 (1.20)
- Shan (E)	0.035 (0.014)	0.001 (0.000)	0.0001 (0.0000)	0.109 (0.015)	0.008 (0.001)	0.0011 (0.0003)	0.091 (0.013)	2.0 (0.27)	0.007 (0.001)	1.2 (0.17)	0.0008 (0.0002)	0.7 (0.14)
Ayeyarwady	0.038 (0.007)	0.005 (0.001)	0.0010 (0.0003)	0.065 (0.016)	0.009 (0.002)	0.0020 (0.0006)	0.061 (0.013)	18.7 (4.15)	0.008 (0.002)	20.7 (4.65)	0.0018 (0.0005)	22.0 (5.77)
UNION	**0.025 (0.004)**	**0.003 (0.001)**	**0.0005 (0.0001)**	**0.056 (0.007)**	**0.007 (0.001)**	**0.0015 (0.0002)**	**0.048 (0.006)**	**100.0 (0.00)**	**0.006 (0.001)**	**100.0 (0.00)**	**0.0012 (0.0002)**	**100.0 (0.00)**
- Urban	n.a	n.a	n.a	n.a	n.a	n.a	0.025 (0.004)	13.5 (2.72)	0.003 (0.001)	12.8 (2.70)	0.0005 (0.0001)	11.2 (2.72)
- Rural	n.a	n.a	n.a	n.a	n.a	n.a	0.056 (0.007)	86.5 (2.72)	0.007 (0.001)	87.2 (2.70)	0.0015 (0.0002)	88.8 (2.72)

Source: IHLCA Survey 2009-2010

Table 2 Trends in Food Poverty Incidence, 2005-2010

State, Region and Union	Urban		Rural		Total	
	2005	2010	2005	2010	2005	2010
Kachin	8.6 (4.66)	2.5 (1.60)	16.6 (5.32)	5.0 (2.16)	14.3 (4.11)	4.3 (1.12)
Kayah	5.1 (0.41)	0.0 (0.00)	17.1 (4.59)	1.9 (2.10)	12.5 (2.17)	1.2 (1.22)
Kayin	0.0 (0.00)	0.0 (0.00)	2.2 (0.77)	2.1 (0.73)	1.9 (0.76)	1.7 (0.61)
Chin	5.5 (1.65)	6.4 (0.76)	49.4 (14.23)	30.8 (8.03)	39.8 (7.65)	25.0 (3.83)
Sagaing	4.0 (1.39)	2.5 (1.07)	8.3 (2.43)	1.1 (0.53)	7.7 (1.96)	1.3 (0.55)
Tanintharyi	9.1 (10.44)	4.5 (4.51)	11.9 (1.78)	11.1 (4.32)	11.4 (3.30)	9.6 (4.00)
Bago	10.0 (2.22)	3.4 (0.83)	5.7 (1.40)	1.4 (0.53)	6.3 (1.59)	1.7 (0.50)
- Bago (E)	12.4 (2.74)	4.9 (0.80)	4.9 (2.05)	2.4 (1.02)	6.1 (2.53)	2.8 (0.96)
- Bago (W)	5.5 (1.48)	0.7 (0.54)	6.7 (1.70)	0.3 (0.24)	6.6 (1.52)	0.3 (0.15)
Magwe	7.0 (1.23)	2.1 (0.90)	13.8 (2.59)	3.8 (1.01)	13.1 (2.58)	3.6 (0.87)
Mandalay	6.0 (1.22)	2.3 (0.38)	13.1 (1.47)	6.5 (2.68)	11.1 (1.17)	5.3 (1.98)
Mon	8.1 (4.19)	2.4 (0.79)	4.3 (2.80)	3.8 (1.46)	5.0 (2.60)	3.6 (1.30)
Rakhine	7.1 (1.54)	4.4 (0.40)	12.9 (2.11)	11.5 (3.65)	11.8 (1.93)	10.0 (3.85)
Yangon	3.5 (1.77)	1.6 (0.63)	4.9 (4.99)	4.8 (2.53)	3.9 (1.93)	2.4 (0.52)
Shan	11.1 (5.68)	3.5 (2.76)	18.9 (2.24)	10.8 (2.54)	17.2 (3.27)	9.0 (3.12)
- Shan (S)	7.7 (9.11)	3.6 (5.19)	14.5 (4.49)	9.8 (5.54)	12.9 (6.51)	8.2 (6.57)
- Shan (N)	15.8 (7.38)	3.4 (2.95)	22.2 (2.85)	11.6 (2.64)	20.8 (3.83)	9.9 (2.81)
- Shan (E)	8.4 (3.60)	3.5 (1.45)	23.1 (9.87)	10.9 (1.49)	19.8 (8.67)	9.1 (1.27)
Ayeyarwady	9.5 (3.46)	3.8 (0.66)	9.6 (1.36)	6.5 (1.59)	9.6 (1.39)	6.1 (1.30)
UNION	**6.1 (0.93)**	**2.5 (0.36)**	**10.9 (0.73)**	**5.6 (0.70)**	**9.6 (0.66)**	**4.8 (0.56)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

2.3 Poverty

Table 3 presents data on poverty levels in Myanmar in 2010 for the FGT class of poverty indices (see Section 2.1.3). Four points are relevant to note.

i. Overall, around 25% of the population falls below the poverty line.
ii. As with 'food poverty', there is a decided rural aspect to poverty in Myanmar. Overall, rural poverty incidence, at 29%, is around double that of urban poverty, at 15%. The pattern holds in almost all states/regions for all FGT poverty measures. Further, the contribution of rural poverty to total poverty is 84%.
iii. There is wide variation between states/regions. The highest values of poverty incidence are in Chin at 73% followed by Rakhine (44%), Tanintharyi (33%), Shan (33%) and Ayeyarwady (32%) (see Figure 3). This ranking of states/regions parallels that for food poverty, with the addition of Ayeyarwady. Of particular note, is the extremely high rural poverty incidence in Chin State of 80%.
iv. As with food poverty, the four major contributing states/regions to national poverty, no matter the FGT measure used, are Ayeyarwady (19%), Mandalay (15%), Rakhine (12%) and Shan State (11%) (see Figure 4). Together, these four states account for over half of total poverty in Myanmar.

Table 4 presents data on trends in poverty incidence between the two IHLCA surveys in 2005 and 2010. Three points are important.

i. Overall, poverty incidence has fallen by around 6 percentage points between 2005 and 2010, a change which is statistically significant.
ii. As with food poverty the downward trend is evident in both urban and rural areas though at a higher rate in the former than latter.
iii. The downward trend is found in almost all states and regions, though many of these differences are not statistically significant.

Overall, these data suggest an improvement in basic consumption for the poorest 30% of the population in Myanmar with remaining gaps between states/regions and in particular, between rural and urban areas. [8]

[8] See Section 2.4 for additional analysis.

Figure 3 Poverty Incidence by State/Region, 2010

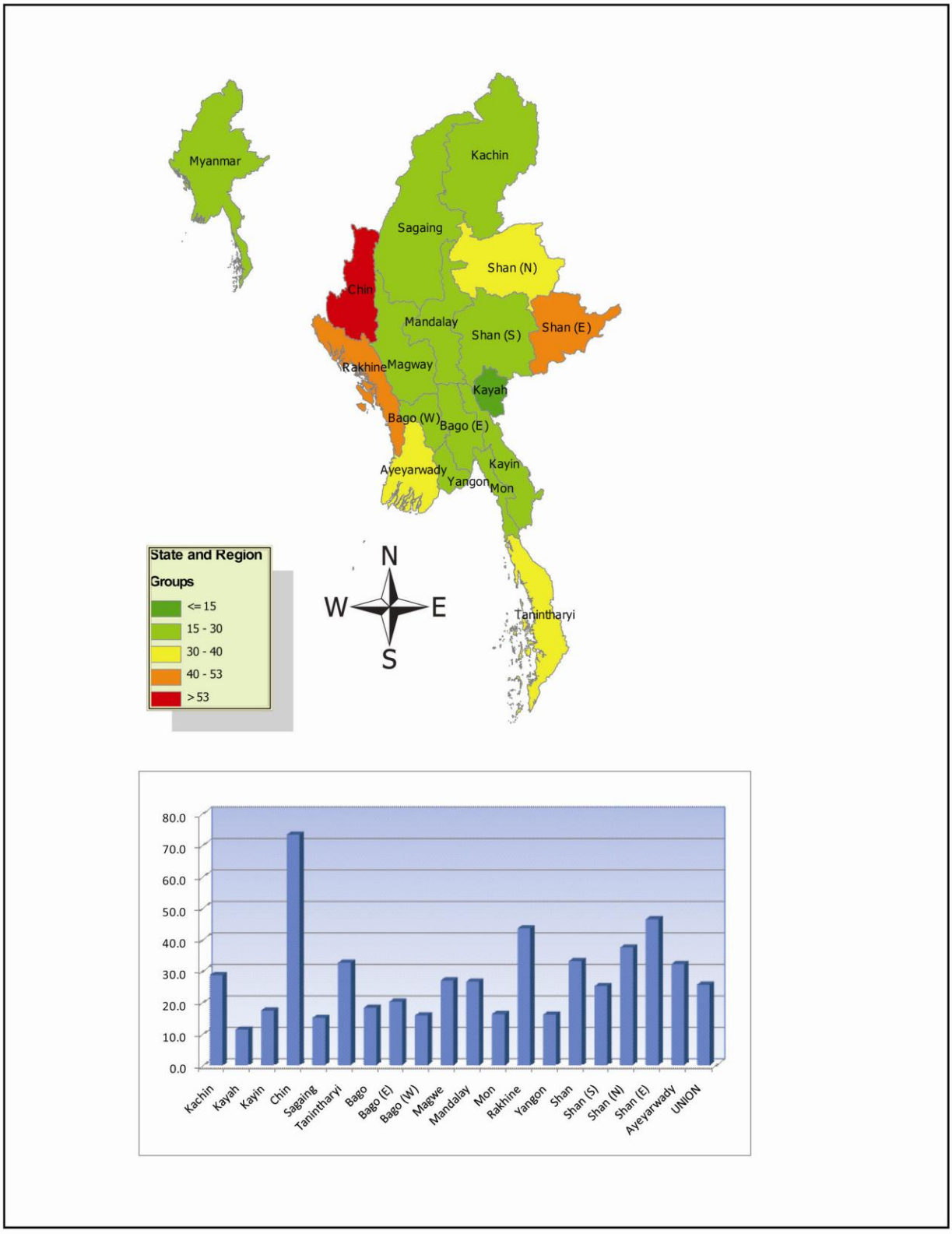

Figure 4 National Poverty Shares by State/Region, 2010

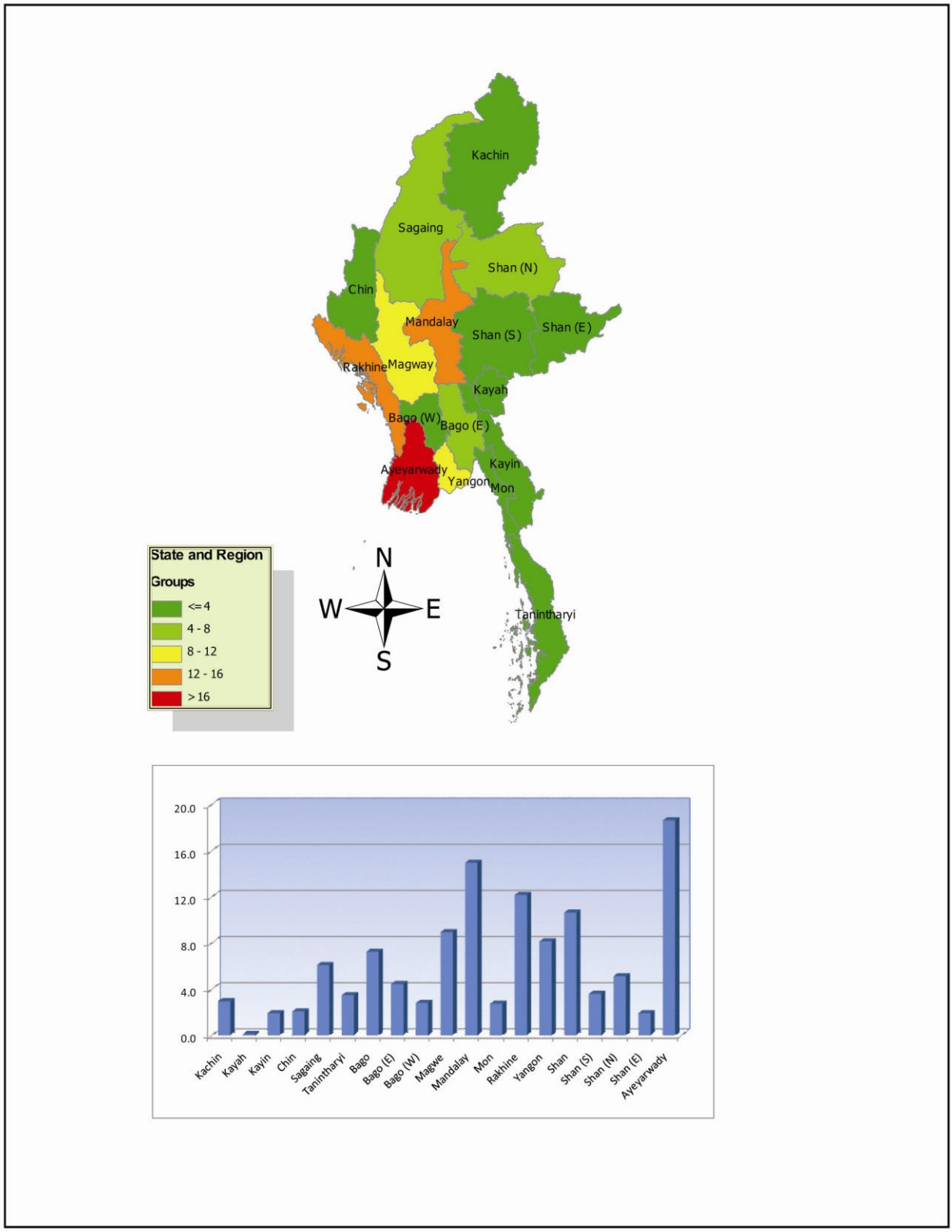

Table 3 Poverty Measures, 2010

State, Region and Union	Urban			Rural			Total					
	P0 (Incidence)	P1 (Intensity)	P2 (Severity)	P0	P1	P2	P0	National Poverty Share (%)	P1	National Poverty Share (%)	P2	National Poverty Share (%)
Kachin	0.234 (0.032)	0.037 (0.007)	0.0083 (0.0024)	0.306 (0.026)	0.045 (0.006)	0.0112 (0.0024)	0.286 (0.026)	2.9 (0.20)	0.043 (0.004)	2.8 (0.37)	0.0104 (0.0013)	2.7 (0.47)
Kayah	0.023 (0.028)	0.002 (0.002)	0.0001 (0.0001)	0.163 (0.025)	0.019 (0.006)	0.0041 (0.0023)	0.114 (0.004)	0.1 (0.01)	0.013 (0.002)	0.1 (0.01)	0.0027 (0.0012)	0.1 (0.03)
Kayin	0.168 (0.031)	0.020 (0.009)	0.0030 (0.0016)	0.175 (0.004)	0.018 (0.005)	0.0038 (0.0014)	0.174 (0.005)	1.9 (0.40)	0.018 (0.003)	1.3 (0.11)	0.0036 (0.0010)	1.0 (0.14)
Chin	0.521 (0.039)	0.076 (0.004)	0.0160 (0.0013)	0.800 (0.042)	0.196 (0.027)	0.0613 (0.0149)	0.733 (0.022)	2.1 (0.16)	0.167 (0.012)	2.9 (0.23)	0.0505 (0.0077)	3.5 (0.43)
Sagaing	0.160 (0.025)	0.024 (0.005)	0.0057 (0.0016)	0.149 (0.014)	0.017 (0.003)	0.0034 (0.0008)	0.151 (0.015)	6.1 (0.54)	0.018 (0.003)	4.6 (0.69)	0.0037 (0.0008)	3.8 (0.78)
Tanintharyi	0.167 (0.125)	0.029 (0.027)	0.0077 (0.0072)	0.375 (0.080)	0.077 (0.022)	0.0238 (0.0088)	0.326 (0.094)	3.5 (0.82)	0.066 (0.023)	4.4 (1.32)	0.0200 (0.0080)	5.3 (1.95)
Bago	0.190 (0.025)	0.032 (0.005)	0.0077 (0.0018)	0.182 (0.021)	0.023 (0.004)	0.0043 (0.0009)	0.183 (0.020)	7.2 (0.71)	0.024 (0.004)	6.0 (0.81)	0.0047 (0.0009)	4.7 (0.86)
- Bago (E)	0.209 (0.024)	0.040 (0.004)	0.0103 (0.0019)	0.201 (0.040)	0.028 (0.007)	0.0057 (0.0017)	0.202 (0.036)	4.4 (0.65)	0.030 (0.007)	4.1 (0.75)	0.0064 (0.0018)	3.5 (0.82)
- Bago (W)	0.156 (0.068)	0.018 (0.008)	0.0031 (0.0014)	0.159 (0.006)	0.017 (0.001)	0.0027 (0.0002)	0.159 (0.011)	2.8 (0.17)	0.017 (0.001)	1.9 (0.15)	0.0027 (0.0001)	1.2 (0.12)
Magwe	0.158 (0.052)	0.022 (0.009)	0.0048 (0.0019)	0.282 (0.038)	0.040 (0.007)	0.0096 (0.0020)	0.270 (0.030)	8.9 (0.78)	0.039 (0.006)	8.0 (1.07)	0.0092 (0.0017)	7.6 (1.32)
Mandalay	0.141 (0.020)	0.021 (0.004)	0.0052 (0.0010)	0.316 (0.072)	0.055 (0.017)	0.0148 (0.0053)	0.266 (0.058)	15.0 (2.66)	0.045 (0.013)	15.9 (3.87)	0.0120 (0.0041)	16.8 (4.72)
Mon	0.178 (0.021)	0.024 (0.006)	0.0056 (0.0015)	0.160 (0.019)	0.025 (0.005)	0.0063 (0.0017)	0.163 (0.015)	2.7 (0.38)	0.025 (0.004)	2.6 (0.57)	0.0061 (0.0015)	2.6 (0.76)
Rakhine	0.221 (0.014)	0.032 (0.002)	0.0081 (0.0006)	0.491 (0.044)	0.087 (0.014)	0.0220 (0.0049)	0.435 (0.072)	12.2 (1.88)	0.076 (0.019)	13.3 (2.99)	0.0191 (0.0058)	13.3 (3.68)
Yangon	0.119 (0.020)	0.016 (0.003)	0.0036 (0.0009)	0.287 (0.029)	0.043 (0.011)	0.0101 (0.0041)	0.161 (0.017)	8.1 (1.11)	0.023 (0.003)	7.1 (1.04)	0.0052 (0.0012)	6.6 (1.24)
Shan	0.141 (0.076)	0.025 (0.015)	0.0066 (0.0045)	0.392 (0.050)	0.071 (0.012)	0.0189 (0.0036)	0.331 (0.072)	10.6 (2.60)	0.060 (0.016)	12.0 (3.37)	0.0160 (0.0047)	12.7 (4.01)
- Shan (S)	0.083 (0.113)	0.019 (0.026)	0.0058 (0.0083)	0.312 (0.104)	0.057 (0.025)	0.0165 (0.0081)	0.252 (0.148)	3.6 (2.44)	0.047 (0.032)	4.2 (3.23)	0.0137 (0.0101)	4.8 (3.97)
- Shan (N)	0.163 (0.061)	0.028 (0.010)	0.0072 (0.0040)	0.431 (0.081)	0.081 (0.017)	0.0211 (0.0040)	0.374 (0.087)	5.1 (1.30)	0.070 (0.017)	6.0 (1.55)	0.0181 (0.0043)	6.2 (1.56)
- Shan (E)	0.286 (0.058)	0.040 (0.013)	0.0077 (0.0031)	0.523 (0.041)	0.084 (0.007)	0.0196 (0.0019)	0.464 (0.038)	1.9 (0.12)	0.073 (0.005)	1.9 (0.17)	0.0166 (0.0014)	1.7 (0.21)
Ayeyarwady	0.231 (0.032)	0.037 (0.004)	0.0089 (0.0010)	0.339 (0.029)	0.056 (0.008)	0.0143 (0.0027)	0.322 (0.029)	18.6 (2.23)	0.053 (0.007)	19.1 (3.05)	0.0135 (0.0022)	19.4 (3.63)
UNION	**0.157 (0.011)**	**0.023 (0.002)**	**0.0055 (0.0006)**	**0.292 (0.016)**	**0.047 (0.004)**	**0.0120 (0.0012)**	**0.256 (0.014)**	**100.0 (0.00)**	**0.041 (0.003)**	**100.0 (0.00)**	**0.0103 (0.0010)**	**100.0 (0.00)**
- Urban	n.a	n.a	n.a	n.a	n.a	n.a	0.157 (0.011)	15.9 (1.87)	0.023 (0.002)	14.8 (1.96)	0.0055 (0.0006)	14.0 (2.11)
- Rural	n.a	n.a	n.a	n.a	n.a	n.a	0.292 (0.016)	84.1 (1.87)	0.047 (0.004)	85.2 (1.96)	0.0120 (0.0012)	86.0 (2.11)

Source: IHLCA Survey 2009-2010

Table 4 Trends in Poverty Incidence, 2005-2010

State, Region and Union	Urban		Rural		Total	
	2005	2010	2005	2010	2005	2010
Kachin	37.7 (2.34)	23.4 (3.22)	46.8 (8.83)	30.6 (2.57)	44.2 (5.70)	28.6 (2.62)
Kayah	26.1 (7.45)	2.3 (2.82)	38.2 (3.31)	16.3 (2.52)	33.6 (1.64)	11.4 (0.37)
Kayin	7.8 (3.36)	16.8 (3.08)	12.5 (4.09)	17.5 (0.39)	11.8 (4.14)	17.4 (0.51)
Chin	45.9 (3.41)	52.1 (3.88)	80.9 (10.31)	80.0 (4.20)	73.3 (6.10)	73.3 (2.18)
Sagaing	21.9 (2.57)	16.0 (2.51)	27.4 (4.58)	14.9 (1.43)	26.6 (3.88)	15.1 (1.49)
Tanintharyi	20.8 (15.67)	16.7 (12.53)	37.2 (5.85)	37.5 (7.96)	33.8 (7.58)	32.6 (9.43)
Bago	30.7 (5.40)	19.0 (2.54)	31.8 (4.99)	18.2 (2.13)	31.6 (4.95)	18.3 (2.00)
- Bago (E)	34.8 (6.97)	20.9 (2.39)	30.2 (6.73)	20.1 (4.03)	30.9 (7.00)	20.2 (3.57)
- Bago (W)	23.1 (2.32)	15.6 (6.83)	33.8 (7.13)	15.9 (0.62)	32.6 (6.74)	15.9 (1.07)
Magwe	25.8 (4.65)	15.8 (5.20)	43.9 (7.44)	28.2 (3.85)	42.1 (7.58)	27.0 (2.98)
Mandalay	24.1 (3.20)	14.1 (2.04)	44.7 (5.27)	31.6 (7.25)	38.9 (4.07)	26.6 (5.77)
Mon	22.5 (5.84)	17.8 (2.05)	21.3 (9.26)	16.0 (1.95)	21.5 (7.73)	16.3 (1.53)
Rakhine	25.5 (2.66)	22.1 (1.38)	41.2 (2.66)	49.1 (4.37)	38.1 (2.88)	43.5 (7.24)
Yangon	14.4 (3.68)	11.9 (1.99)	17.4 (17.39)	28.7 (2.93)	15.1 (6.19)	16.1 (1.68)
Shan	31.0 (9.27)	14.1 (7.56)	50.5 (4.66)	39.2 (4.96)	46.1 (6.75)	33.1 (7.22)
- Shan (S)	26.1 (14.81)	8.3 (11.28)	44.5 (10.79)	31.2 (10.44)	40.2 (14.32)	25.2 (14.77)
- Shan (N)	34.7 (12.01)	16.3 (6.07)	55.0 (4.93)	43.1 (8.09)	50.6 (6.86)	37.4 (8.72)
- Shan (E)	37.1 (7.41)	28.6 (5.81)	56.0 (11.03)	52.3 (4.06)	51.8 (9.23)	46.4 (3.77)
Ayeyarwady	24.4 (6.14)	23.1 (3.16)	30.3 (2.49)	33.9 (2.87)	29.3 (1.91)	32.2 (2.94)
UNION	**21.5 (1.86)**	**15.7 (1.08)**	**35.8 (1.90)**	**29.2 (1.55)**	**32.1 (1.67)**	**25.6 (1.36)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

2.4 Poverty 'Proxies'

The previous two Sections have presented data which suggest a statistically significant decline in both food poverty and poverty. In the section, we examine whether the fall in poverty is consistent with three poverty 'proxies', or indicators which one would expect to show similar trends, namely: i) caloric intake; ii) the food share in consumption and iii) ownership of small assets. Data are presented by decile for the entire consumption distribution.

2.4.1 Caloric Intake

Table 5 presents data on daily caloric intake per adult equivalent by consumption decile.[9] The data suggest a statistically significant improvement for the lowest decile, which represented the 'food poor' in 2005, as well as increased for the second and third deciles. Overall, caloric intake appears to have fallen by around 1%. These data are consistent with a fall in food poverty.

Table 5 Caloric Intake by Decile, 2005-2010

Consumption Deciles	Total		% Change 2005-2010
	2005	2010	
1st decile (lowest 10%)	2577 (27)	2656 (29)	3
2nd decile	2992 (30)	3015 (26)	1
3rd decile	3142 (30)	3161 (34)	1
4th decile	3317 (28)	3302 (34)	0
5th decile	3439 (34)	3385 (39)	-2
6th decile	3534 (39)	3529 (38)	0
7th decile	3637 (56)	3587 (53)	-1
8th decile	3782 (53)	3708 (46)	-2
9th decile	3862 (67)	3813 (47)	-1
10th decile (highest 10%)	4125 (118)	3898 (82)	-5
UNION	**3441 (37)**	**3405 (28)**	**-1**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

[9] In order to calculate caloric intake it was necessary to impute a caloric value to a number of food items for which there was no quantity information in the IHLCA questionnaire. The procedure used was to calculate the unit cost of calories of those food items for which quantity information existed and subsequently, to impute this value to 'other' food to arrive at caloric consumption. This exercise was conducted for every household in the database and results averaged to arrive at the figures above.

2.4.2 Food Shares in Consumption

Table 6 presents data on levels and trends of the food share in consumption expenditure (including health expenditure) between 2005 and 2010. The food share is a well-being indicator in its own right, as it shows the 'burden' of food expenditure in total expenditure. In addition, it can be considered a proxy measure of changes in consumption expenditure, and potentially poverty. Typically, the food share falls as consumption rises from low levels.

The data in Table 6 suggest that the food share has increased across the bottom three deciles and begins to fall only towards the top of the consumption distribution. These changes among the bottom three deciles are statistically significant. This finding is surprising in light of the above findings on the reduction of poverty as well as data on increases in consumption expenditure for the bottom deciles (see Table 10). It is also surprising in that consumption expenditure has increased much more rapidly at the lower end of the distribution and had actually fallen among the top decile (see Table 10 below).

Table 6 Food Shares by Decile (Including Health Expenditure)

Consumption Deciles	2005	2010
1st decile (lowest 10%)	72.4 (0.67)	74.1 (0.54)
2nd decile	72.0 (0.63)	73.4 (0.49)
3rd decile	71.6 (0.48)	73.3 (0.51)
4th decile	72.2 (0.53)	71.7 (0.88)
5th decile	71.4 (0.66)	71.6 (0.72)
6th decile	71.2 (0.80)	70.5 (1.15)
7th decile	70.4 (0.93)	70.4 (0.68)
8th decile	70.8 (0.89)	69.3 (0.72)
9th decile	68.5 (1.07)	66.6 (0.93)
10th decile (highest 10%)	63.6 (0.83)	56.8 (2.11)
UNION	**69.4 (0.47)**	**68.0 (0.67)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

2.4.3 Small Asset Ownership

Table 7 presents data on trends between 2005 and 2010 of four potential poverty 'proxies'. The proxies, percentage of households owning radio-cassettes, TVs, bicycles and motorcycles all exhibit significant differences between poor and non-poor households and are likely to be responsive to changes in living standards.[10] It addition, small assets are measured with less error than say consumption expenditure or income, and as such, provide estimates of high reliability.[11][11]

[10] These were the five main small assets reported on in the initial *Poverty Profile* from IHLCA-I.
[11] The one caveat concerns declines in the real prices of these goods, due to say increased imports from China, which could serve to overstate the consumption gains proxied by increasing asset ownership.

According to the data in Table 7, the poorest decile has realised statistically significant increases in ownership of TVs, radio-cassettes/stereos and motorcycles since 2005. Bicycle ownership has stayed virtually constant at a relatively high level.[12] The same upward trend is found across the bottom 4 deciles, excepting that bicycle ownership begins to increase from the 2nd decile. In general terms, the rate of increase of asset ownership is higher towards the lower end of the distribution which is consistent with the data on consumption expenditure in Table 10. In summary, data on small asset ownership are consistent with the above findings on food poverty and poverty.

Table 7 Small Asset Ownership by Decile (%), 2005-2010

Consumption Deciles	TV		Radio-cassette/stereo		Bicycle		Motor-cycle	
	2005	2010	2005	2010	2005	2010	2005	2010
1st decile (lowest 10%)	6.89 (0.93)	15.28 (1.51)	14.17 (1.24)	23.59 (2.16)	27.09 (2.13)	26.98 (2.76)	3.13 (0.69)	10.57 (1.93)
2nd decile	9.56 (1.16)	20.23 (1.84)	17.95 (1.14)	29.22 (2.05)	33.42 (1.94)	36.23 (2.10)	3.91 (0.68)	11.87 (1.30)
3rd decile	13.01 (1.15)	24.97 (2.28)	19.93 (1.22)	33.12 (1.92)	37.27 (2.23)	39.69 (1.93)	5.45 (0.68)	14.63 (1.29)
4th decile	15.32 (1.07)	30.54 (1.76)	19.89 (1.28)	35.98 (2.26)	39.39 (2.05)	44.17 (2.21)	6.10 (0.78)	18.56 (1.51)
5th decile	18.32 (1.61)	33.78 (2.56)	24.23 (1.39)	36.78 (2.26)	41.61 (2.53)	45.66 (2.37)	6.23 (0.81)	19.63 (1.69)
6th decile	20.52 (2.10)	37.66 (2.35)	27.49 (2.04)	40.31 (1.88)	45.41 (2.36)	48.86 (2.36)	9.02 (1.30)	25.27 (1.93)
7th decile	28.96 (2.70)	45.46 (2.45)	30.36 (1.99)	42.67 (2.22)	48.13 (2.26)	48.59 (2.50)	9.99 (1.32)	26.96 (1.66)
8th decile	33.58 (2.26)	52.62 (2.42)	33.64 (1.94)	42.55 (2.73)	48.39 (2.13)	52.00 (2.63)	13.81 (1.39)	33.98 (1.99)
9th decile	43.24 (2.67)	60.09 (2.39)	40.77 (1.35)	44.12 (2.23)	49.84 (2.41)	53.19 (2.68)	17.73 (1.84)	38.40 (2.28)
10th decile (highest 10%)	65.23 (2.94)	76.00 (2.68)	46.41 (2.35)	46.42 (3.04)	44.29 (6.27)	47.27 (4.23)	22.04 (3.25)	42.03 (3.61)
UNION	**25.46 (1.59)**	**39.66 (1.84)**	**27.48 (1.19)**	**37.48 (1.67)**	**41.48 (1.82)**	**44.26 (1.90)**	**9.74 (0.85)**	**24.19 (1.22)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Overall, results from the poverty proxy data are mixed. Trends in the food share are not what one would expect, *prima facie,* in light of findings on reductions in poverty. On the other hand, the data on caloric intake and small asset ownership are broadly consistent with falling levels of poverty and increasing consumption expenditure among the poor. *In light of these conflicting results, caution is urged in the interpretation of data on poverty levels and trends, in particular on the magnitude of the decline in poverty*.

[12] The ownership ratio between the top and bottom deciles for bicycles was 1.5 in 2005, compared to 9.5, 3.3 and 7.3 for TVs, radio-cassettes/stereos and motor-cycles, respectively.

2.5 Inequality

Inequality is different from poverty in that it looks at the entire distribution of some variable, in this case consumption expenditure, and not simply those below the poverty line. There are many different measures of inequality with a range of properties. Here, we rely on two indicators which have intuitive appeal.

The first, the Consumption Share of the Poorest 20%, is an indicator of relative inequality. Relative inequality is only concerned with 'one's share of the pie'. This measure remains constant as long as everyone's consumption increases or decreases at the same rate.

The second inequality measure, the Consumption Gap between the Richest and Poorest 20%, is a measure of absolute inequality. It is concerned with the absolute value of the difference in consumption between the richest and poorest. It should be noted that if the consumption expenditure of the richest and poorest 20% both increase by the same rate, relative inequality will remain unchanged but absolute inequality will increase. The reason is that the richest 20% are at a much higher level of consumption so their absolute gain will be much greater.

Table 8 presents data on the first inequality measure. Overall, the consumption share of the bottom 20% has risen slightly from 11.1% to 12%, though sampling error may account for this difference. The same upward trend is found across all states/regions and almost all strata. According to these data, in relative terms, the bottom 20% has outperformed the rest of the population in terms of growth of consumption expenditure between 2005 and 2010.

Table 9 reviews changes in absolute inequality. The data are presented in constant 2009 kyat to allow for consistent comparisons over time.[13] According to these data, the consumption gap between the richest and poorest 20% has decreased between 2005 and 2010. This apparent decline is found in most states/regions. These data suggest that the growth rate of consumption expenditure of the poorest 20% must have been significantly higher than that of the top 20% over the time period in question.

Table 10 further probes the issue of the relative growth rates of consumption among different deciles (10%) of the consumption distribution. The data show an inverse relationship between levels and growth rates of consumption expenditure among *all* deciles of the consumption distribution. Otherwise stated, the poorer one is, the faster one grows. Further, the rates of growth of the poorest two deciles are quite substantial at 14% and 9% respectively, while those of the richest two deciles are zero or negative. Though large standard errors urge caution in interpreting trends at the top end, a downward and statistically significant trend is evident throughout the distribution.[14]

In summary, these data suggest that both relative and absolute inequality have fallen in Myanmar over the period 2005-2010. According to the data, poorer population groups have increased their consumption faster than richer ones across the entire consumption distribution (though high standard errors urge caution when interpreting trends among the top 20%).

[13] The price deflator was constructed from data collected in the price questionnaires.

[14] While underreporting of consumption at the top end is likely occurring, (which is common for household survey data), it is unclear why the extent of underreporting would have increased substantially between 2005 and 2010.

Table 8 Consumption Share of Bottom 20%, 2005-2010

State, Region and Union	Urban		Rural		Total	
	2005	2010	2005	2010	2005	2010
Kachin	10.4 (3.33)	11.6 (1.53)	11.2 (3.58)	12.4 (1.03)	10.9 (2.46)	12.2 (0.88)
Kayah	13.2 (3.63)	14.4 (4.33)	11.3 (0.27)	12.4 (2.18)	12.0 (2.42)	12.8 (0.47)
Kayin	11.2 (6.81)	11.7 (0.61)	12.8 (3.82)	13.1 (0.57)	12.7 (4.59)	12.9 (0.84)
Chin	14.0 (2.32)	13.3 (2.57)	8.8 (4.30)	13.9 (4.06)	9.2 (3.30)	13.6 (2.71)
Sagaing	11.6 (2.32)	11.3 (2.07)	12.0 (2.60)	13.5 (1.46)	11.9 (2.30)	13.1 (1.25)
Tanintharyi	9.1 (6.30)	11.1 (7.11)	11.1 (2.84)	11.3 (3.97)	10.4 (3.43)	11.0 (4.32)
Bago	11.2 (3.11)	11.7 (2.58)	12.7 (2.63)	13.0 (1.64)	12.5 (2.73)	12.8 (1.62)
- Bago (E)	10.8 (3.16)	11.7 (1.90)	12.7 (3.82)	12.8 (2.79)	12.5 (4.21)	12.7 (2.71)
- Bago (W)	11.6 (2.07)	11.9 (7.73)	12.7 (3.21)	13.1 (1.81)	12.6 (3.25)	13.0 (2.06)
Magwe	11.0 (2.71)	11.5 (2.44)	12.0 (2.75)	13.3 (2.27)	11.8 (3.13)	13.0 (1.56)
Mandalay	10.7 (2.61)	11.1 (1.66)	12.5 (2.20)	12.5 (3.73)	11.7 (1.84)	11.7 (2.94)
Mon	11.3 (1.93)	11.6 (0.85)	12.3 (6.25)	13.2 (1.82)	12.3 (5.29)	12.9 (1.24)
Rakhine	11.7 (1.54)	11.9 (0.94)	12.1 (1.43)	13.1 (2.57)	12.0 (1.77)	12.5 (4.18)
Yangon	9.5 (3.65)	10.9 (2.88)	12.0 (13.84)	12.6 (3.80)	9.9 (5.14)	11.0 (2.09)
Shan	10.6 (3.76)	11.6 (4.78)	11.5 (1.83)	12.5 (2.39)	11.1 (2.69)	11.9 (3.79)
- Shan (S)	10.7 (6.17)	11.3 (4.80)	11.6 (3.66)	12.7 (7.06)	11.2 (5.12)	12.0 (8.97)
- Shan (N)	10.2 (5.12)	11.5 (6.48)	11.4 (1.72)	12.3 (4.04)	11.1 (2.57)	11.8 (4.54)
- Shan (E)	11.0 (4.04)	12.4 (3.40)	11.8 (5.25)	14.0 (1.24)	11.8 (5.47)	13.4 (1.43)
Ayeyarwady	10.4 (3.49)	11.3 (2.94)	11.5 (1.12)	12.8 (1.87)	11.3 (1.00)	12.5 (2.06)
UNION	**10.0 (1.48)**	**11.1 (1.12)**	**11.8 (0.92)**	**12.6 (0.92)**	**11.1 (0.90)**	**12.0 (0.81)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 9 Consumption Gap between Richest and Poorest 20% (in December, 2009 Kyat)

State, Region and Union	Urban			Rural			Total		
	2005	2010	% Change, 2005-2010	2005	2010	% Change, 2005-2010	2005	2010	% Change, 2005-2010
Kachin	555099 (9665)	584819 (41973)	5	468292 (17213)	441710 (18017)	-6	497849 (10190)	482553 (22601)	-3
Kayah	485195 (42059)	463023 (4548)	-5	430619 (29947)	502131 (37416)	17	458517 (16741)	493365 (12243)	8
Kayin	702841 (44995)	646662 (29240)	-8	441244 (12000)	424651 (22683)	-4	486849 (13215)	466158 (35113)	-4
Chin	281814 (13339)	320984 (23341)	14	541979 (37437)	222396 (12063)	-59	512453 (147392)	262934 (14348)	-49
Sagaing	580448 (15626)	673354 (49611)	16	443418 (10083)	396840 (9204)	-11	465628 (9130)	445894 (20026)	-4
Tanintharyi	799233 (54443)	636130 (22979)	-20	503558 (11921)	489134 (8647)	-3	587840 (21494)	546960 (19167)	-7
Bago	539675 (27545)	597062 (22861)	11	405687 (6872)	431853 (21657)	6	424821 (6373)	455783 (12355)	7
- Bago (E)	519131 (29092)	567618 (10160)	9	418403 (7618)	424145 (17716)	1	435113 (7381)	447662 (20380)	3
- Bago (W)	555730 (37605)	628083 (31218)	13	391960 (5568)	439496 (29174)	12	413805 (5292)	462506 (10254)	12
Magwe	601958 (9414)	638059 (30382)	6	401438 (20163)	388445 (10096)	-3	434415 (18779)	425125 (22929)	-2
Mandalay	677718 (42829)	705688 (9667)	4	365934 (7133)	407316 (6650)	11	487988 (34836)	533874 (13530)	9
Mon	487259 (38328)	548727 (15399)	13	448306 (8310)	402826 (26248)	-10	454581 (11265)	436961 (14828)	-4
Rakhine	472938 (10836)	527493 (13786)	12	396187 (15528)	345765 (9201)	-13	422374 (14718)	410776 (18567)	-3
Yangon	1098456 (144562)	867863 (81232)	-21	457350 (6152)	417419 (26064)	-9	970235 (138492)	786429 (79107)	-19
Shan	638398 (25673)	636335 (24989)	0	426444 (5325)	390912 (17553)	-8	496640 (26920)	486160 (23182)	-2
- Shan (S)	680135 (16572)	648849 (37848)	-5	434800 (15388)	389562 (21504)	-10	515739 (34852)	510038 (29845)	-1
- Shan (N)	616928 (18397)	641716 (45243)	4	416760 (5909)	408057 (10452)	-2	476588 (20582)	483585 (22549)	1
- Shan (E)	537990 (51538)	476415 (7384)	-11	387814 (14236)	275886 (5661)	-29	445266 (18059)	331925 (21491)	-25
Ayeyarwady	601151 (10874)	643307 (36493)	7	482657 (7458)	390809 (15116)	-19	507509 (6493)	444759 (24110)	-12
UNION	**836180 (100180)**	**736008 (43363)**	**-12**	**445046 (3630)**	**415457 (5854)**	**-7**	**573260 (42472)**	**525929 (19681)**	**-8**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 10 Consumption Expenditure by Decile, 2005-2010 (Dec. 2009, Kyats)

Consumption Deciles	2005	2010	% Change 2005-2010
1st decile (lowest 10%)	247827 (1046)	281494 (1296)	14
2nd decile	319508 (376)	348782 (384)	9
3rd decile	366053 (385)	391039 (378)	7
4th decile	407208 (245)	429125 (252)	5
5th decile	447008 (279)	464807 (298)	4
6th decile	488661 (341)	504432 (355)	3
7th decile	537609 (624)	550423 (390)	2
8th decile	602177 (771)	608931 (485)	1
9th decile	696612 (1382)	698597 (1124)	0
10th decile (highest 10%)	1017433 (66810)	983550 (29581)	-3
UNION	**513003 (14621)**	**526110 (8404)**	**3**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

2.6 Poverty Dynamics

As discussed in Section 1.3, the IHLCA contains a partial panel element, in that 50% of households are the same as those selected in 2004-05. Panel data facilitates the analysis of 'poverty dynamics,' i.e. changes in the poverty status of individual households over time.[15] Specifically, it allows one to distinguish between those households which: i) remain poor (chronically poor); ii) escape from or enter in poverty (transitory poor) and iii) remain non-poor. In jargon, it is said that poverty dynamics moves analysis from 'stocks' of poverty, at one or more points in time, to 'flows' of poverty over time.

The analysis of poverty dynamics is, in principle, quite important for policy purposes. It is important to know if poverty is due mainly to those who are chronically poor or if there are significant numbers of households who fall into, and escape from, poverty. The processes generating chronic and transitory poverty may be quite different, as will be the appropriate policy response. Present-day global policy initiatives in favour of social protection are to a large extent driven by the imperative of better addressing transitory poverty.

There is one important methodological point about the data presented in Table 11 below. Measurement error, i.e. respondent error about household consumption, is a much more serious problem for panel data than data on stocks of poverty. When analyzing the latter, a reasonable assumption is that over/under-reporting of consumption will balance out over large enough numbers, so that the overall poverty estimate will be unbiased. In the case of panel data, over and underreporting around the poverty line will have the effect of artificially inflating the numbers of entrants into and escapees from poverty and artificially inflate the magnitude of transitory poverty. The data presented below have not been adjusted for measurement error and therefore will likely overestimate the size of transitory poverty.

[15] See Shaffer, P. 2008. "New Thinking on Poverty: Implications for Globalisation and Poverty Reduction Strategies." *UNDESA Working Paper No. 65*. ST/ESA/2008/DWP/65.

It should also be made explicit that the data present here are based only on information from the panel households in the survey. As such, the poverty totals are not the same as the data presented above, which draws on the full samples.

Table 11 presents data on poverty dynamics between 2005 and 2010 in the form of a transition matrix displaying the four categories of households mentioned above. There are three important points to note:

i. Overall, transitory poverty appears to be a significant phenomenon in Myanmar. These data suggest it is close to 3 times the size of chronic poverty, affecting 28% vs. 10% of households. Even if a significant portion of transitory poverty is due to measurement error, its magnitude is still significant.
ii. This pattern repeats across most states/regions, though high standard errors urge caution in interpretation. It is interesting that there appears to be a high degree of transitory poverty in states/regions with both high and low poverty incidence, such as Chin and Yangon, respectively.
iii. The extent of *both* descents into (11.3% of households), and escapes from (16.5% of households), poverty appears significant.

The last point suggests that for policy purposes, a better understanding of the reasons for descents into, and escapes from, poverty is necessary. Ideally, appropriate policy instruments should be in place to prevent the former and facilitate the latter.

Table 11 Poverty Transitions Matrix

State, Region and Union	Chronic Poor	Transitory		Non Poor
		Descents	Escapes	
Kachin	12.5 (1.15)	8.9 (2.25)	23.6 (6.68)	55.1 (5.90)
Kayah	3.7 (1.40)	4.9 (0.14)	19.7 (1.49)	71.7 (0.05)
Kayin	1.9 (0.21)	13.0 (0.90)	9.5 (3.72)	75.6 (3.44)
Chin	51.5 (8.06)	17.4 (7.25)	20.6 (1.91)	10.5 (1.66)
Sagaing	3.1 (0.58)	7.5 (0.67)	19.1 (4.22)	70.3 (4.92)
Tanintharyi	15.0 (5.95)	15.3 (3.33)	13.2 (1.85)	56.6 (8.77)
Bago	5.6 (0.71)	9.7 (1.32)	17.9 (3.25)	66.8 (3.24)
- Bago (E)	6.2 (1.17)	10.5 (2.33)	19.1 (4.85)	64.3 (4.07)
- Bago (W)	5.0 (0.84)	8.9 (1.19)	16.7 (4.25)	69.4 (5.10)
Magwe	11.3 (2.59)	13.3 (1.70)	24.7 (6.41)	50.8 (5.51)
Mandalay	14.8 (3.83)	8.0 (1.66)	20.5 (2.39)	56.6 (5.43)
Mon	4.5 (0.74)	9.0 (1.83)	11.7 (5.36)	74.8 (4.34)
Rakhine	17.0 (4.01)	19.8 (5.58)	16.2 (1.54)	47.0 (9.31)
Yangon	3.3 (1.61)	9.9 (1.22)	7.0 (3.82)	79.8 (5.14)
Shan	18.3 (4.97)	12.5 (4.04)	21.0 (2.51)	48.2 (10.66)
- Shan (S)	10.0 (8.15)	14.3 (8.84)	18.3 (5.43)	57.4 (22.41)
- Shan (N)	26.2 (7.65)	9.8 (0.77)	23.7 (1.44)	40.3 (8.51)
- Shan (E)	21.1 (6.26)	15.8 (4.23)	21.1 (1.48)	42.1 (3.34)
Ayeyarwady	11.5 (1.63)	14.3 (1.60)	13.3 (0.88)	60.9 (2.16)
UNION	**10.0 (0.89)**	**11.3 (0.66)**	**16.5 (1.17)**	**62.1 (1.84)**

Source: IHLCA Survey 2009-2010

2.7 Summary

Section 2 presented data on levels and trends of 'food poverty', 'poverty', poverty proxies and inequality and examined aspects of the dynamics of poverty in Myanmar.

Food poverty afflicts around 5% of the population and has fallen from around 10% in 2005. Food poverty incidence is more than twice as high in rural than urban areas, at 5.6% and 2.5% respectively. Rural areas account for over 85% of total food poverty. The highest values of food poverty incidence are in Chin at 25% followed by Rakhine (10%), Tanintharyi (9.6%) and Shan (9%). The four major contributing states/regions to national food poverty, are Ayeyarwady (18.7%), Mandalay (16%), Shan (15.4%) and Rakhine State (14.9%).

Poverty afflicts around 25% of the population and has fallen by 6 percentage points since 2005. Poverty incidence is around twice as high in rural than urban areas at 29% and 15% respectively. Rural areas account for almost 85% of total poverty. The highest values of poverty incidence are in Chin at 73%

followed by Rakhine (44%), Tanintharyi (33%), Shan (33%) and Ayeyarwady (32%). The four major contributing states/regions to national poverty incidence are Ayeyarwady (19%), Mandalay (15%), Rakhine (12%) and Shan State (11%).

Findings on trends in three poverty 'proxies', namely, caloric intake, the food share in consumption and ownership of small assets, are mixed. Caloric intake has increased for the bottom decile, which represented the 'food poor' in 2005, and for the second and third deciles. The food share in consumption has risen across the bottom three deciles and begins to fall only towards the top of the consumption distribution. Small asset ownership is increasing across the distribution at higher rates towards the bottom of the distribution. Trends in the food share are not what one would expect, *prima facie,* in light of findings on reductions in poverty. On the other hand, the data on caloric intake and small asset ownership are broadly consistent with falling levels of poverty and increasing consumption expenditure among the poor. *In light of these conflicting results, caution is urged in the interpretation of data on poverty levels and trends, in particular on the magnitude of the decline in poverty*

Both 'relative' and 'absolute' inequality appears to have fallen between 2005 and 2010. The consumption share of the bottom 20%, a measure of relative equality, has risen slightly from 11.1% to 12%, though sampling error may account for this difference. Further, the consumption gap between the richest and poorest 20% has decreased by around 8%. In general, data suggest an inverse relationship between levels and growth rates of consumption such that poorer population groups have grown faster than richer ones across the consumption distribution. In addition, the rates of growth of the poorest two deciles are quite substantial at 14% and 9% respectively, while those of the richest two deciles are zero or negative. In summary, these data suggest that both relative and absolute inequality have fallen in Myanmar over the period 2005-2010.

Poverty dynamics is concerned with changes in the poverty status of individual households over time. Specifically, it analyses those households which: i) remain poor (chronically poor); ii) escape from or enter in poverty (transitory poor) and iii) remain non-poor. Overall, transitory poverty appears to affect close to 3 times the number of households as chronic poverty, 28% vs. 10% of households respectively. The extent of *both* descents into (11.3% of households), and escapes from (16.5% of households), poverty appears significant. While measurement error undoubtedly inflates the size of transitory poverty, it still remains a significant phenomenon. For policy purposes, a better understanding of the reasons for descents into, and escapes from, poverty is necessary.

Appendix 2.1 The Foster, Greer,Thorbecke (FGT) Class of Poverty Measures

The Foster, Greer and Thorbecke (FGT) class of poverty measures may be represented as:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{g_i}{z}\right)^\alpha$$

where z is the poverty line; $g_i = z - y_i$, the consumption shortfall from the poverty line of the ith poor person, q the number of poor persons and n the total population.

When α is assigned the value of 0, the index collapses to q/n, the proportion of poor individuals in the total population or poverty **incidence.** When α is assigned the value of 1, the index measures the normalised poverty gap, or population-weighted average shortfall from the poverty line. $P_{\alpha=1}$ provides a measure of the **intensity** of poverty. When α is assigned a value greater than 1, the index becomes distributionally sensitive as greater weight is assigned larger individual poverty gaps. By convention, P_α is assigned the value of 2 to gauge the **severity** of poverty.

3. Demographic Characteristics of Households

Section 3 reviews data on three important demographic characteristics of households with emphasis on their relationship to consumption poverty. First levels and trends of average household size are examined (Section 3.1) followed by dependency ratios (Section 3.2) and the proportion of Female-Headed Households (Section 3.3). A final section (3.4) summarises key results.

3.1 Household Size

Table 12 presents data on household size over time in Myanmar, disaggregated by state/region, poverty status and strata. There are four key findings:

i. Household size had stayed relatively constant between 2005 and 2010 at around 5 individuals per household.
ii. Second, there is limited variation across states/regions though the overall range is only between 4.7 and 6.0. It is relevant to note that some of the poorest states also have the larger households, as evidenced by Chin (6.1), Rakhine (6.0), Tanintharyi (5.8).
iii. As in 2005, there is an association between poverty and household size. Poor households tend to be larger than non-poor, at 6.0 and 4.7 members, respectively. The differences are statistically significant.
iv. Interestingly, there is not much difference in household size between urban and rural areas.

It should be noted that the above relationship between household size and poverty is a common finding, despite the fact that many rich households are also very large. These apparently contradictory findings have been labelled the 'demographic paradox of poverty' (Lipton) or the 'family size paradox' (Krishnaji). That is, larger households are, on average, poorer though certain population groups have larger households and are less likely to be poor. It is likely that both of these phenomena are occurring but that the first dominates the second.

Table 12 Average Household Size

State, Region and Union	2010					2005 Total	% Change 2005-2010
	Poverty Status		Strata		Total		
	Poor	Non poor	Urban	Rural			
Kachin	6.7 (0.13)	5.5 (0.16)	6.0 (0.31)	5.7 (0.09)	5.8 (0.14)	6.0 (0.18)	-2.7
Kayah	7.1 (0.63)	5.1 (0.23)	4.8 (0.15)	5.5 (0.28)	5.2 (0.18)	5.5 (0.29)	-4.2
Kayin	7.1 (0.30)	5.4 (0.02)	5.5 (0.12)	5.6 (0.04)	5.6 (0.02)	5.6 (0.07)	0.8
Chin	6.7 (0.47)	4.8 (0.28)	5.7 (0.41)	6.2 (0.30)	6.0 (0.37)	6.1 (0.32)	-0.1
Sagaing	6.2 (0.34)	5.1 (0.12)	4.9 (0.07)	5.3 (0.14)	5.2 (0.13)	5.5 (0.05)	-5.6
Tanintharyi	6.6 (0.15)	5.4 (0.02)	6.0 (0.17)	5.7 (0.16)	5.7 (0.14)	5.8 (0.23)	-1.0
Bago	5.6 (0.33)	4.4 (0.16)	4.5 (0.25)	4.6 (0.18)	4.6 (0.18)	4.7 (0.23)	-3.0
- Bago (E)	6.2 (0.20)	4.7 (0.10)	5.0 (0.08)	4.9 (0.15)	4.9 (0.14)	5.2 (0.15)	-5.8
- Bago (W)	4.8 (0.11)	4.1 (0.20)	3.9 (0.08)	4.2 (0.18)	4.2 (0.18)	4.2 (0.12)	0.7
Magwe	5.6 (0.10)	4.5 (0.14)	4.4 (0.04)	4.8 (0.09)	4.8 (0.09)	5.0 (0.10)	-3.5
Mandalay	6.0 (0.17)	4.7 (0.16)	5.0 (0.14)	5.0 (0.09)	5.0 (0.09)	5.2 (0.09)	-4.8
Mon	6.1 (0.38)	5.0 (0.15)	5.1 (0.09)	5.2 (0.18)	5.2 (0.16)	5.3 (0.16)	-2.1
Rakhine	6.9 (0.24)	5.2 (0.10)	5.3 (0.06)	6.0 (0.15)	5.9 (0.03)	6.0 (0.18)	-2.7
Yangon	5.9 (0.36)	4.5 (0.13)	4.7 (0.17)	4.4 (0.00)	4.7 (0.13)	4.7 (0.10)	-1.4
Shan	6.2 (0.35)	4.9 (0.11)	5.1 (0.29)	5.3 (0.20)	5.3 (0.21)	5.5 (0.23)	-4.3
- Shan (S)	6.8 (0.34)	4.9 (0.21)	4.7 (0.17)	5.5 (0.38)	5.3 (0.47)	5.6 (0.53)	-5.6
- Shan (N)	5.7 (0.20)	5.0 (0.12)	5.5 (0.12)	5.1 (0.07)	5.2 (0.08)	5.5 (0.20)	-4.8
- Shan (E)	6.7 (0.39)	5.1 (0.41)	6.3 (0.27)	5.5 (0.33)	5.7 (0.36)	5.6 (0.27)	2.8
Ayeyarwaddy	5.5 (0.08)	4.4 (0.08)	4.5 (0.19)	4.7 (0.09)	4.7 (0.09)	5.1 (0.04)	-7.8
Union 2010	**6.0 (0.07)**	**4.7 (0.04)**	**4.9 (0.08)**	**5.0 (0.04)**	**5.0 (0.04)**	**5.2 (0.04)**	**-3.9**
Union 2005	**6.1 (0.08)**	**4.9 (0.03)**	**5.1 (0.09)**	**5.2 (0.03)**	**5.2 (0.04)**		
Change (%)	**-0.9**	**-3.1**	**-4.5**	**-3.7**	**-3.9**		

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

3.2 Dependency Ratios

3.2.1 Demographic Dependency Ratios (DDRs)

The demographic dependency ratio compares the number of household members less than 15 and over 59 years of age, relative to those between the ages of 15-59. The higher the ratio value, the higher the 'dependency burden' on the household. In some contexts, high DDRs, this indicator can serve as a proxy for lifecycle poverty associated with the early child rearing years and with caring of elderly parents.

Table 13 provides data on the demographic dependency ratio over time in Myanmar, disaggregated by state/region, poverty status and strata. There are a number of relevant results:

i. The ratio has been quite stable over time, declining from 0.58 to 0.53.
ii. As in 2005, the relationship between the demographic dependency ratio and consumption poverty is weak. The ratio values for poor and non-poor are 0.56 and 0.52 respectively.
iii. It is interesting that even in Chin State, with the highest poverty incidence in Myanmar at 73%, the very high overall demographic dependency ratio (0.71) is not associated with poverty. The respective figures for poor and non-poor households are 0.68 and 0.79.
iv. Unsurprisingly, it is higher in rural than urban areas (as the fertility rate is higher in the former).[16]

In summary, these data suggest that poverty is not primarily driven by life-cycle considerations in Myanmar.

3.2.2 Economic Dependency Ratios (EDRs)

The economic dependency ratio compares the number of economically inactive and active household members between the ages of 15-59. 'Economically active' is defined as being engaged in an economic activity, including a contributing family worker. As above, the higher the ratio value, the higher the 'economic burden' on the household. In conjunction with data on consumption, the EDR addresses the relationship between consumption poverty, labour force participation and employment.

Table 14 provides data on the economic dependency ratio over time in Myanmar, disaggregated by state/region, poverty status and strata. There are a number of relevant results:

i. The ratio has been virtually constant over time, increasing from 0.65 to 0.67.
ii. As in 2005, there appears to be an inverse relationship between this indicator and poverty. The ratio stands at 0.69 and 0.62 in non-poor and poor households respectively.
iii. There is significant variation across states/regions. The one real outlier is Rakhine state where the ratio exceeds 1 and there is a stronger association between economic inactivity and poverty.
iv. The relationship is significantly higher in urban than rural areas at 0.88 and 0.69 respectively.
v. Within urban areas themselves, the above relationship with poverty holds as the ratio is higher among non-poor than poor households at 0.89 vs. 0.84 (not shown in Table 14).

Overall, these data suggest that that poverty in not due to economic inactivity, even in urban areas, but to low returns associated with economic activities. Rakhine State appears to be the lone exception.

[16] The *2007 Fertility and Reproductive Health Survey* (p. 60) reported total fertility rates of 2.18 and 1.68 in rural and urban areas respectively.

Table 13 Demographic Dependency Ratio

State, Region and Union	2010					2005 Total	% Change 2005-2010
	Poverty Status		Strata		Total		
	Poor	Non poor	Urban	Rural			
Kachin	0.53 (0.05)	0.63 (0.01)	0.57 (0.04)	0.61 (0.02)	0.60 (0.02)	0.64 (0.02)	-6.8
Kayah	0.75 (0.11)	0.60 (0.09)	0.55 (0.04)	0.66 (0.14)	0.62 (0.10)	0.59 (0.04)	3.7
Kayin	0.58 (0.01)	0.64 (0.03)	0.45 (0.03)	0.67 (0.03)	0.63 (0.02)	0.74 (0.05)	-15.8
Chin	0.68 (0.04)	0.79 (0.11)	0.59 (0.08)	0.75 (0.05)	0.71 (0.04)	0.78 (0.03)	-9.0
Sagaing	0.64 (0.02)	0.51 (0.03)	0.47 (0.01)	0.54 (0.03)	0.53 (0.03)	0.56 (0.06)	-6.3
Tanintharyi	0.62 (0.10)	0.59 (0.02)	0.57 (0.04)	0.60 (0.06)	0.60 (0.05)	0.69 (0.05)	-13.2
Bago	0.56 (0.05)	0.51 (0.02)	0.51 (0.03)	0.52 (0.02)	0.52 (0.02)	0.59 (0.02)	-12.2
- Bago (E)	0.53 (0.04)	0.53 (0.03)	0.49 (0.05)	0.54 (0.01)	0.53 (0.02)	0.62 (0.02)	-13.4
- Bago (W)	0.61 (0.15)	0.48 (0.03)	0.53 (0.02)	0.50 (0.05)	0.50 (0.04)	0.56 (0.01)	-10.3
Magwe	0.57 (0.02)	0.51 (0.02)	0.48 (0.02)	0.53 (0.01)	0.52 (0.01)	0.59 (0.02)	-10.9
Mandalay	0.53 (0.03)	0.51 (0.02)	0.46 (0.02)	0.54 (0.03)	0.51 (0.02)	0.56 (0.02)	-7.9
Mon	0.38 (0.00)	0.53 (0.01)	0.46 (0.02)	0.51 (0.02)	0.50 (0.01)	0.56 (0.03)	-9.9
Rakhine	0.62 (0.03)	0.60 (0.07)	0.39 (0.03)	0.67 (0.02)	0.61 (0.05)	0.72 (0.04)	-15.2
Yangon	0.50 (0.04)	0.46 (0.03)	0.45 (0.02)	0.49 (0.05)	0.46 (0.03)	0.45 (0.03)	1.8
Shan	0.49 (0.05)	0.54 (0.04)	0.47 (0.03)	0.54 (0.05)	0.52 (0.04)	0.59 (0.04)	-10.9
- Shan (S)	0.59 (0.04)	0.57 (0.13)	0.44 (0.03)	0.64 (0.09)	0.58 (0.11)	0.66 (0.11)	-12.6
- Shan (N)	0.43 (0.04)	0.53 (0.01)	0.55 (0.02)	0.47 (0.04)	0.49 (0.03)	0.56 (0.04)	-12.4
- Shan (E)	0.48 (0.08)	0.46 (0.01)	0.40 (0.05)	0.49 (0.03)	0.47 (0.04)	0.46 (0.01)	1.6
Ayeyarwaddy	0.58 (0.01)	0.55 (0.02)	0.46 (0.01)	0.58 (0.01)	0.56 (0.01)	0.59 (0.02)	-5.6
Union 2010	**0.56 (0.01)**	**0.52 (0.01)**	**0.46 (0.01)**	**0.56 (0.01)**	**0.53 (0.01)**	**0.58 (0.01)**	**-8.1**
Union 2005	**0.62 (0.02)**	**0.56 (0.01)**	**0.48 (0.01)**	**0.61 (0.01)**	**0.58 (0.01)**		
Change (%)	**-10.9**	**-6.2**	**-3.8**	**-9.5**	**-8.1**		

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 14 Economic Dependency Ratio

State, Region and Union	2010					2005 Total	% Change 2005-2010
	Poverty Status		Strata		Total		
	Poor	Non poor	Urban	Rural			
Kachin	0.75 (0.05)	0.81 (0.06)	0.95 (0.16)	0.74 (0.06)	0.80 (0.05)	0.70 (0.04)	13.0
Kayah	0.61 (0.14)	0.53 (0.07)	0.65 (0.03)	0.47 (0.09)	0.54 (0.08)	0.55 (0.03)	-1.8
Kayin	0.56 (0.06)	0.69 (0.03)	0.66 (0.14)	0.66 (0.01)	0.66 (0.02)	0.65 (0.03)	2.0
Chin	0.52 (0.05)	0.64 (0.10)	0.86 (0.02)	0.47 (0.03)	0.55 (0.06)	0.63 (0.13)	-12.1
Sagaing	0.52 (0.03)	0.57 (0.02)	0.73 (0.03)	0.54 (0.01)	0.57 (0.02)	0.61 (0.03)	-7.2
Tanintharyi	0.73 (0.07)	0.77 (0.05)	0.89 (0.04)	0.72 (0.04)	0.76 (0.04)	0.76 (0.01)	-1.0
Bago	0.55 (0.06)	0.62 (0.06)	0.80 (0.03)	0.58 (0.06)	0.60 (0.05)	0.54 (0.05)	11.5
- Bago (E)	0.58 (0.04)	0.73 (0.01)	0.83 (0.04)	0.68 (0.02)	0.70 (0.01)	0.58 (0.02)	22.0
- Bago (W)	0.50 (0.14)	0.50 (0.06)	0.75 (0.02)	0.47 (0.07)	0.50 (0.07)	0.50 (0.12)	-0.5
Magwe	0.46 (0.01)	0.49 (0.01)	0.79 (0.06)	0.46 (0.01)	0.48 (0.01)	0.51 (0.03)	-4.7
Mandalay	0.50 (0.03)	0.66 (0.04)	0.83 (0.05)	0.54 (0.02)	0.61 (0.03)	0.62 (0.03)	-0.5
Mon	0.68 (0.05)	0.76 (0.07)	0.79 (0.03)	0.73 (0.09)	0.74 (0.07)	0.80 (0.03)	-6.5
Rakhine	1.17 (0.05)	1.03 (0.06)	1.08 (0.01)	1.09 (0.06)	1.09 (0.04)	1.00 (0.06)	8.4
Yangon	0.89 (0.11)	0.96 (0.04)	1.01 (0.05)	0.78 (0.07)	0.95 (0.05)	0.93 (0.05)	1.8
Shan	0.41 (0.05)	0.47 (0.03)	0.63 (0.04)	0.39 (0.04)	0.45 (0.03)	0.43 (0.03)	4.9
- Shan (S)	0.47 (0.08)	0.47 (0.02)	0.59 (0.02)	0.43 (0.08)	0.47 (0.04)	0.46 (0.04)	2.0
- Shan (N)	0.38 (0.03)	0.47 (0.04)	0.73 (0.07)	0.37 (0.03)	0.43 (0.05)	0.39 (0.05)	9.8
- Shan (E)	0.39 (0.07)	0.43 (0.09)	0.56 (0.07)	0.36 (0.06)	0.41 (0.08)	0.41 (0.09)	-0.5
Ayeyarwaddy	0.66 (0.03)	0.72 (0.04)	0.79 (0.05)	0.68 (0.04)	0.70 (0.03)	0.60 (0.03)	15.2
Union 2010	**0.62 (0.02)**	**0.69 (0.01)**	**0.88 (0.03)**	**0.60 (0.01)**	**0.67 (0.01)**	**0.65 (0.01)**	**3.3**
Union 2005	**0.57 (0.02)**	**0.68 (0.02)**	**0.86 (0.03)**	**0.58 (0.01)**	**0.65 (0.01)**		
Change (%)	**8.5**	**0.2**	**1.7**	**4.0**	**3.3**		

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

3.3. Female-Headed Households (FHHs)

Because consumption data is collected at the level of the household, it is often difficult to determine the distribution of consumption along gender lines. Specifically, it is hard to determine if females are more or less poor than males. One partial way to address this question is to compare the situation of male and female-headed households.[17] Table 15 presents this comparison and comes to three core findings:

i. The percentage of FHH has increased somewhat between 2005 and 2010 and stands at around 21% of households
ii. As in 2005, there is an inverse relationship between poverty and female-headship. The relative proportions of poor and non-poor FHHs are 18% and 21.5% respectively
iii. Female-headed households are much more likely to be in urban than rural areas, at 27% vs. 19% of household respectively.

The lack of relationship between poverty and female-headed has been found before in Myanmar[18] and elsewhere. It may be due to receipt of remittance income or the fact that only better-off women, in primarily urban areas, are able to form their own households upon divorce or death of a spouse, rather than say, being absorbed into a relative's family. It should also be emphasized that the female vs. male headship comparison is only one, partial way of assessing the relative consumption poverty of males and females.

3.4 Summary

Section 3 presented demographic data on levels and trends of: i) average household size; ii) demographic and economic dependency ratios and iii) the proportion of Female-Headed Households in the population.

As in 2005, there is an association between poverty and household size. Poor households tend to be larger than non-poor, at 6.0 and 4.7 members, respectively. There is not much difference in household size between urban and rural areas.

The demographic dependency ratio compares the number of household members less than 15 and over 59 years of age, relative to those between the ages of 15-59. As in 2005, the relationship between the demographic dependency ratio and consumption poverty is weak. These data suggest that poverty is not primarily driven by life-cycle considerations related to the early child rearing years and with caring of elderly parents.

The economic dependency ratio compares the number of economically inactive and active household members between the ages of 15-59. As in 2005, there appears to be an inverse relationship between this indicator and poverty, i.e. the poor have proportionally more economically active household members. Overall, these data suggest that that poverty in not due to economic inactivity, even in urban areas, but to low returns associated with economic activities.

As in 2005, there is an inverse relationship between poverty and female-headship. The relative proportions of poor and non-poor female -headed households are 18% and 21.5% respectively. It may be due to receipt of remittance income or the fact that only better-off women, in primarily urban areas, are able to form their own households upon divorce or death of a spouse rather than say, being absorbed into a relative's family.

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[17] The question can also be addressed by examining gender differences in nutritional outcomes or by modeling the intra-household resource allocation process.
[18] UNDP/UNDESA. 1999. *Studies in Social Deprivation in Myanmar*. Yangon.

Table 15 Female-Headed Households (%)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	27.9 (3.1)	24.0 (2.9)	36.7 (2.4)	20.9 (1.3)	25.0 (1.8)	22.8 (3.2)
Kayah	23.2 (1.8)	17.8 (2.4)	27.1 (6.8)	12.6 (1.4)	18.2 (2.3)	18.3 (0.2)
Kayin	24.5 (3.5)	21.5 (0.8)	24.8 (2.5)	21.3 (1.0)	21.9 (1.0)	18.9 (3.1)
Chin	13.6 (2.5)	16.4 (2.4)	7.8 (2.1)	16.9 (4.3)	14.6 (2.4)	10.4 (1.7)
Sagaing	22.3 (4.1)	21.2 (1.1)	25.2 (2.2)	20.7 (1.0)	21.3 (0.9)	17.3 (2.8)
Tanintharyi	24.5 (1.2)	20.5 (3.0)	18.5 (3.3)	22.5 (2.9)	21.6 (2.5)	20.2 (0.7)
Bago	19.9 (4.5)	21.8 (2.5)	27.9 (4.8)	20.5 (2.2)	21.5 (2.3)	18.2 (1.7)
- Bago (E)	24.7 (7.9)	26.7 (2.8)	34.8 (4.8)	24.8 (2.5)	26.4 (2.3)	21.0 (2.7)
- Bago (W)	14.0 (2.6)	16.8 (1.2)	18.1 (1.8)	16.2 (1.2)	16.4 (1.0)	15.3 (0.7)
Magwe	20.1 (2.2)	21.8 (2.0)	28.5 (2.1)	20.6 (1.9)	21.4 (1.8)	20.8 (1.1)
Mandalay	18.3 (1.2)	23.7 (2.1)	27.3 (2.5)	20.6 (2.0)	22.5 (1.5)	20.9 (1.6)
Mon	19.6 (6.0)	16.1 (1.7)	21.5 (2.1)	15.5 (2.8)	16.6 (2.3)	17.3 (3.0)
Rakhine	18.8 (3.5)	20.9 (1.7)	22.6 (2.2)	19.4 (2.0)	20.1 (1.7)	19.5 (1.3)
Yangon	19.0 (1.0)	26.1 (1.2)	28.4 (1.3)	16.1 (2.0)	25.2 (1.1)	24.4 (2.4)
Shan	13.0 (2.5)	19.2 (1.8)	27.8 (4.0)	14.0 (2.1)	17.4 (1.9)	14.3 (1.7)
- Shan (S)	7.1 (2.3)	16.4 (3.0)	22.1 (1.6)	11.5 (3.5)	14.6 (4.0)	11.1 (2.1)
- Shan (N)	17.3 (1.9)	24.0 (1.8)	37.0 (5.1)	17.8 (1.3)	21.7 (2.1)	18.0 (3.1)
- Shan (E)	10.6 (5.6)	13.8 (4.1)	26.5 (3.2)	8.5 (3.3)	12.5 (4.7)	12.8 (3.9)
Ayeyarwaddy	16.4 (1.0)	17.1 (0.5)	21.8 (1.0)	15.9 (0.5)	16.9 (0.6)	14.3 (1.2)
Union 2010	**18.5 (0.8)**	**21.5 (0.5)**	**26.7 (0.8)**	**18.7 (0.5)**	**20.8 (0.4)**	**18.9 (0.6)**
Union 2005	**18.3 (0.7)**	**19.1 (0.7)**	**25.1 (1.2)**	**16.7 (0.7)**	**18.9 (0.6)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

4. Economic Activities of Household Members

Section 4 begins by classifying household members in terms of their relevant industries/sectors (Section 4.1) and employment type (4.2). It proceeds to review issues of land ownership and landlessness (Section 4.3) and access to credit and debt (Section 4.4). A final section (4.5) summarise the main findings.

4.1 Industrial Classification

Table 16 presents data on the industrial classification of the main economic activity of household members disaggregated by poverty status, strata and gender. These data shed light on the overall industrial structure of Myanmar as well as on issues specific to the above population groups. Three points are relevant to note:

i. Overall, agriculture, hunting and forestry is by far the biggest employer accounting for half of total employment. Manufacturing is very small, employing around 6% of the economically active population. The remainder of employment is in the low-end service sector whose major components are trade/repairs (10.5%), miscellaneous production activities of private households (7.9%) and renting and business activities (7.1%).
ii. The relative size of agriculture has remained unchanged since 2005 which implies that the structural transformation of the economy, or the shift from agriculture to manufacturing and services, has stalled. Of particular note is the decline in the size of manufacturing, from 7.4% to 5.9% of employment, which contrasts starkly with the experience of rapidly industrialising countries in South-East Asia.[19]
iii. As discussed in Section 2, there is an association between agriculture and poverty. Around 54% of poor household members are engaged in agricultural activities, compared to 49% of non-poor household members.

The size of the agricultural sector, combined with the small size of, and slow growth in, manufacturing, and the preponderance of low-end service sector jobs, make a *prima facie* case for the centrality of rural-based, agriculture-led development to any successful strategy of poverty reduction, at least in the short-run.

4.2 Employment Type

Table 17 presents data on the main types of employment for the economically active population. These data provide an indication of the changing nature of work in Myanmar with implications for poverty. There are three important findings:

i. The extent of casual labour in rural areas is quite high at around 21%.
ii. There has been a significant increase in casual labour among the poor, from 23 to 28% of economically active poor household members. This change has equally affected male and female workers and is concentrated in rural areas.
iii. There has been a corresponding decline in contributing family workers among the poor from 17.5% to 12%. Own-account workers have stayed flat at 33% of the poor and employees have increased from 16% to 20%. The proportion of own-account workers and employees in rural areas have actually increased.

Together, these data suggest that the increasing 'casualisation' of poverty is due *primarily* to contributing family workers entering into casual employment and not, say, to growing landlessness associated with a fall in own-account work (though, see Section 4.3). It also suggests that the increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as labourers increasingly supplement contributing family work with casual labour.

[19] For example, in Vietnam, manufacturing's share of employment increased from 8.7% to 12.3% over the period 2000-05 (Republic of Vietnam/General Statistics Office, *Statistical Yearbooks*, Hanoi).

Table 16 Industrial Classification of Economically Active Population (%)

Industry	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Agriculture, hunting and forestry	54.2 (2.1)	48.9 (1.9)	7.1 (0.8)	63.8 (1.4)	52.3 (1.8)	47.4 (1.8)	50.2 (1.8)	50.2 (2.0)
Fishing	3.4 (0.6)	1.7 (0.2)	0.9 (0.1)	2.5 (0.3)	3.2 (0.4)	0.7 (0.1)	2.2 (0.3)	2.8 (0.4)
Mining and quarrying	1.7 (0.3)	1.5 (0.3)	1.6 (0.3)	1.6 (0.3)	2.2 (0.3)	0.7 (0.1)	1.6 (0.2)	1.2 (0.2)
Manufacturing	6.3 (0.8)	5.8 (0.5)	9.8 (0.8)	4.7 (0.5)	5.0 (0.4)	7.2 (0.8)	5.9 (0.5)	7.4 (0.6)
Electricity, gas and water supply	0.5 (0.2)	0.5 (0.1)	1.2 (0.2)	0.3 (0.0)	0.7 (0.1)	0.2 (0.0)	0.5 (0.1)	0.3 (0.1)
Construction	4.6 (0.5)	3.8 (0.4)	5.8 (0.7)	3.4 (0.4)	6.1 (0.6)	1.1 (0.1)	4.0 (0.4)	2.7 (0.3)
Wholesale and retail trade, repair of motor vehicles, motor cycles and personal and HH goods	7.0 (0.5)	11.7 (0.6)	22.9 (0.7)	6.6 (0.4)	8.0 (0.5)	13.9 (0.6)	10.5 (0.6)	11.6 (0.6)
Hotels and restaurants	1.3 (0.2)	1.4 (0.2)	2.6 (0.3)	0.9 (0.1)	1.3 (0.1)	1.4 (0.2)	1.3 (0.1)	0.9 (0.1)
Transport, storage and communications	2.8 (0.4)	4.1 (0.4)	8.9 (0.8)	2.2 (0.2)	6.1 (0.5)	0.7 (0.1)	3.8 (0.3)	3.3 (0.3)
Financial intermediations	0.1 (0.0)	0.2 (0.0)	0.6 (0.1)	0.1 (0.0)	0.1 (0.0)	0.3 (0.1)	0.2 (0.0)	0.2 (0.0)
Real estate, renting and business activities	5.1 (0.5)	7.8 (0.5)	15.1 (1.3)	4.6 (0.3)	4.4 (0.4)	10.8 (0.6)	7.1 (0.4)	5.8 (0.7)
Public administration and defence, compulsory social security	0.6 (0.1)	1.6 (0.2)	4.0 (0.4)	0.5 (0.1)	1.5 (0.2)	1.1 (0.1)	1.3 (0.2)	2.0 (0.4)
Education	1.0 (0.1)	3.2 (0.2)	5.6 (0.5)	1.8 (0.1)	1.0 (0.1)	4.9 (0.3)	2.7 (0.2)	2.0 (0.1)
Health and social work	0.4 (0.1)	0.8 (0.1)	1.6 (0.2)	0.4 (0.0)	0.6 (0.1)	0.8 (0.1)	0.7 (0.1)	5.6 (0.4)
Activities of private HH as employers & undifferentiated production activities	10.8 (1.6)	6.9 (0.4)	12.1 (0.8)	6.6 (0.8)	7.3 (0.7)	8.7 (0.7)	7.9 (0.6)	1.5 (0.2)
Extra-territorial organizations and bodies	0.1 (0.0)	0.1 (0.0)	0.3 (0.1)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.0 (0.0)
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 17 Employment-Types of Economically Active Population (%)

Employment-Type	2010							2005						
	Poverty Status		Strata		Gender		Total	Poverty Status		Strata		Gender		Total
	Poor	Non poor	Urban	Rural	Male	Female		Poor	Non poor	Urban	Rural	Male	Female	
Employer	2.5 (0.3)	6.4 (0.4)	6.4 (0.5)	5.1 (0.4)	6.4 (0.4)	4.1 (0.3)	5.4 (0.3)	5.1 (0.3)	10.9 (0.5)	8.9 (0.8)	9.1 (0.5)	5.9 (0.5)	2.9 (0.3)	9.1 (0.4)
Own account worker	33.2 (1.7)	42.9 (1.0)	37.0 (1.3)	41.5 (1.1)	40.9 (1.0)	39.8 (1.2)	40.4 (1.0)	33.3 (1.4)	37.9 (1.0)	32.3 (1.2)	37.8 (1.1)	40.0 (1.0)	38.5 (1.3)	36.4 (0.9)
Employee	19.6 (1.5)	18.1 (1.3)	36.2 (2.5)	12.9 (0.9)	18.7 (1.3)	18.3 (1.3)	18.5 (1.3)	16.1 (1.3)	18.4 (1.6)	34.9 (2.8)	11.9 (0.8)	20.8 (1.3)	19.6 (1.3)	17.6 (1.3)
Member producer's Cooperative	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)	0.0 (0.0)	0.1 (0.0)	0.2 (0.1)
Contributing family worker	11.9 (0.7)	15.3 (1.1)	9.4 (1.2)	16.1 (1.1)	11.5 (0.8)	18.5 (1.4)	14.5 (1.0)	17.4 (1.3)	16.6 (1.1)	11.5 (1.3)	18.7 (1.2)	12.4 (0.9)	21.1 (1.8)	16.9 (1.0)
Casual labourer	28.1 (1.8)	14.5 (0.8)	7.7 (0.7)	21.2 (1.1)	19.0 (1.0)	16.6 (1.0)	18.0 (1.0)	22.9 (1.0)	12.5 (0.7)	7.7 (0.7)	18.6 (0.8)	17.6 (1.1)	15.4 (1.1)	15.9 (0.7)
Workers not classifiable	4.6 (0.4)	2.7 (0.2)	3.2 (0.4)	3.2 (0.3)	3.5 (0.3)	2.7 (0.2)	3.2 (0.2)	5.0 (0.5)	3.4 (0.3)	4.4 (0.5)	3.7 (0.3)	3.3 (0.4)	2.5 (0.2)	3.9 (0.3)
2010 Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

4.3 Land

Given the association between poverty and agriculture, the question of land ownership looms large. Land is an income-generating asset if farmed or rented, as well as a source of collateral for access to credit. From the point of view of poverty, two key issues involve average farm size of agricultural households and the extent of landlessness.

Table 18 presents data on average farm size owned by agricultural households. Six points are relevant to note:

i. Average farm size of 6.7 acres (or 2.71 hectares) is moderate by South-East Asian standards,[20] though low by international standards.
ii. Since 2005, farm size has apparently increased slightly from 6.1 acres, a difference which is not statistically significant.
iii. Poor households have significantly smaller farm size than non-poor households at 4.4 and 7.3 acres respectively, compared to 4.1 and 6.9 acres respectively in 2005.
iv. Since 2005, the difference in farm size between poor and non-poor households has improved slightly.
v. Overall, there has not been a worsening of the size distribution of farmland, as evidenced by Table which shows changes in farm size per consumption decile. In general terms, the lower and middle deciles have increased their land size more rapidly than the top deciles.
vi. There is considerable variation across states and regions. The largest average farm sizes are found in Ayeyarwaddy (11.2 acres) and Yangon (9.3 acres), while the smallest are in Chin (1.7 acres).

In summary, small farm size is a correlate of poverty which has remained quite stable since 2005 among most consumption deciles, including the poorest.

Table 20 presents data on landlessness in agriculture. Landlessness is defined as those belonging to households whose main economic activity is agriculture, that do not own any agricultural land. Landless persons include causal workers, employees, contract farmers, etc.

i. Landlessness is a significant phenomenon at 24% of those whose primary economic activity is agriculture.
ii. It may have declined slightly from 26% in 2005, though the difference is not statistically significant.
iii. It is much higher among poor than non-poor households at 34% and 19% respectively. As suggested by Table 17 above, it is likely that many of the landless are employed as casual workers in agriculture.
iv. The landlessness rate for the poor may have increased since 2005, from around 32% to 34%, though this difference is not statistically significant.
v. The analysis by consumption decile in Table 21 reveals an increase in landlessness amongst the poorest decile from 34% to 38%, though the difference is not statistically significant.
vi. There is considerable variation across states and regions with the highest rates found in Bago (41%), Yangon (39%) and Ayeyarwaddy (33%).

In summary, landlessness is another important correlate of poverty which may have increased over time, in particular among the very poorest. This finding suggests a more nuanced interpretation of the results of Table 17 on occupational-types. While the *increasing* 'casualisation' of poverty is not due *primarily* to an increase in landlessness, it may be a contributing factor among the poorest of the poor.

[20] For example, according to the FAO's Farm Census data, average farm size (in hectares) in select South-East Asian countries in the 1990s was as follows: Indonesia (0.87); Korea (1.05); Laos (1.57); Thailand (3.36) (Eastwood R. and M. Lipton, 2004, 'Farm Size,' University of Sussex, mimeo)

Table 18 Average Land Area Owned by Agricultural Households (Acres)

State, Region and Union	2010			2005 Total	% Change 2005-2010
	Poverty Status		Total		
	Poor	Non poor			
Kachin	4.2 (0.6)	6.9 (1.7)	6.1 (1.4)	3.3 (0.5)	85.4
Kayah	4.7 (0.4)	5.0 (0.1)	5.0 (0.1)	3.6 (2.1)	41.0
Kayin	3.7 (0.5)	4.9 (0.6)	4.8 (0.6)	3.7 (0.6)	30.4
Chin	1.7 (0.3)	1.8 (0.4)	1.7 (0.3)	0.6 (0.1)	206.1
Sagaing	5.6 (0.8)	8.0 (0.4)	7.8 (0.4)	7.9 (1.2)	-1.6
Tanintharyi	5.7 (0.6)	8.4 (1.4)	7.7 (1.0)	3.9 (0.5)	96.5
Bago	4.9 (0.9)	7.9 (1.3)	7.7 (1.2)	5.8 (0.7)	32.7
- Bago (E)	5.1 (1.3)	9.6 (1.6)	9.2 (1.3)	6.9 (1.3)	34.0
- Bago (W)	4.5 (1.0)	6.5 (1.7)	6.4 (1.5)	4.9 (0.4)	29.8
Magwe	3.7 (0.5)	5.8 (0.5)	5.4 (0.4)	5.2 (0.4)	5.3
Mandalay	4.4 (0.5)	6.5 (0.6)	6.0 (0.5)	5.5 (0.3)	9.4
Mon	5.6 (0.7)	8.7 (1.7)	8.4 (1.5)	6.1 (1.0)	38.9
Rakhine	4.2 (1.4)	4.6 (0.5)	4.5 (0.7)	4.1 (0.5)	9.5
Yangon	5.7 (0.0)	10.1 (1.5)	9.3 (1.5)	7.3 (0.8)	27.9
Shan	3.7 (0.2)	4.4 (0.7)	4.1 (0.5)	2.6 (0.3)	56.5
- Shan (S)	4.0 (0.1)	4.0 (0.8)	4.0 (0.6)	3.2 (0.6)	24.1
- Shan (N)	3.7 (0.3)	5.2 (1.1)	4.6 (0.7)	2.2 (0.3)	106.1
- Shan (E)	3.2 (0.4)	3.0 (0.2)	3.1 (0.2)	2.1 (0.4)	44.5
Ayeyarwaddy	5.5 (0.8)	10.3 (1.0)	9.3 (1.0)	11.2 (2.8)	-16.9
Union 2010	**4.4 (0.2)**	**7.3 (0.3)**	**6.7 (0.2)**	**6.1 (0.4)**	**9.4**
Union 2005	**4.1 (0.2)**	**6.9 (0.6)**	**6.1 (0.4)**		
Change (%)	**8.4**	**4.6**	**9.4**		

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 19 Average Land Area Owned by Consumption Decile (Acres)

Consumption Deciles	2005	2010	% Change 2005-2010
1st decile (lowest 10%)	3.17 (0.18)	3.88 (0.21)	22
2nd decile	4.14 (0.18)	4.60 (0.23)	11
3rd decile	4.91 (0.38)	5.37 (0.34)	9
4th decile	4.94 (0.32)	5.76 (0.32)	17
5th decile	5.10 (0.29)	6.22 (0.36)	22
6th decile	6.14 (0.49)	7.04 (0.32)	15
7th decile	6.12 (0.35)	7.27 (0.43)	19
8th decile	9.28 (2.00)	7.90 (0.38)	-15
9th decile	8.07 (0.66)	9.53 (1.01)	18
10th decile (highest 10%)	12.13 (3.29)	10.12 (0.94)	-17
UNION	**6.11 (0.43)**	**6.69 (0.23)**	**10**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 20 Landless Rate in Agriculture

State, Region and Union	2010			2005 Total
	Poverty Status		Total	
	Poor	Non poor		
Kachin	21.4 (3.2)	15.0 (2.1)	17.2 (2.4)	25.6 (2.4)
Kayah	24.5 (9.8)	10.8 (0.2)	12.7 (1.5)	11.1 (1.3)
Kayin	15.0 (4.7)	11.0 (0.8)	11.7 (0.3)	16.4 (9.6)
Chin	8.4 (5.1)	7.0 (3.0)	8.1 (4.7)	10.2 (3.5)
Sagaing	30.3 (4.9)	12.8 (1.4)	15.3 (1.8)	15.6 (2.5)
Tanintharyi	39.6 (10.9)	10.2 (2.1)	20.3 (6.8)	25.5 (5.9)
Bago	69.6 (5.2)	35.4 (2.0)	40.7 (2.9)	40.9 (3.6)
- Bago (E)	64.4 (9.2)	36.8 (4.6)	41.9 (5.5)	45.6 (3.7)
- Bago (W)	75.8 (4.3)	34.4 (2.3)	39.8 (2.4)	36.1 (1.6)
Magwe	33.4 (3.6)	19.4 (4.2)	23.1 (3.8)	26.2 (3.8)
Mandalay	31.8 (5.4)	19.0 (5.2)	23.0 (4.5)	24.3 (2.3)
Mon	49.9 (19.4)	20.1 (4.2)	24.9 (5.9)	24.9 (1.9)
Rakhine	34.0 (9.0)	17.8 (4.3)	24.6 (5.3)	31.5 (1.3)
Yangon	57.5 (4.7)	29.5 (5.0)	39.4 (5.8)	51.2 (2.2)
Shan	7.0 (2.7)	6.3 (1.1)	6.6 (1.4)	9.9 (1.4)
- Shan (S)	7.4 (4.6)	7.8 (0.3)	7.7 (1.6)	10.0 (1.8)
- Shan (N)	8.5 (3.8)	6.0 (2.9)	7.2 (2.6)	10.6 (2.7)
- Shan (E)	2.1 (1.7)	1.8 (0.4)	1.9 (0.9)	7.6 (3.0)
Ayeyarwaddy	50.4 (8.0)	24.2 (3.8)	32.6 (5.1)	32.3 (3.2)
Union 2010	**33.6 (2.7)**	**19.8 (1.2)**	**23.6 (1.3)**	**25.7 (1.0)**
Union 2005	**31.8 (2.0)**	**22.0 (1.1)**	**25.7 (1.0)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 21 Landless Rate in Agriculture by Consumption Decile

Consumption Deciles	2005	2010
1st decile (lowest 10%)	33.77 (2.42)	37.96 (4.05)
2nd decile	31.81 (2.14)	29.82 (2.40)
3rd decile	29.19 (2.39)	30.60 (1.78)
4th decile	25.74 (2.25)	23.33 (2.39)
5th decile	24.38 (1.71)	21.83 (1.87)
6th decile	20.90 (1.47)	20.71 (1.77)
7th decile	21.38 (1.93)	15.38 (1.58)
8th decile	17.51 (1.57)	14.45 (1.58)
9th decile	19.12 (2.30)	10.60 (1.57)
10th decile (highest 10%)	14.80 (2.39)	6.95 (1.24)
UNION	**25.72 (1.04)**	**23.61 (1.33)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

4.4 Credit and Debt

Access to credit bears a potentially important relationship to poverty in that credit can serve as a means of financing income-generating activities and/or a means of 'smoothing' consumption when income fluctuates. It has particular importance for agricultural households given the time lag between sowing and harvest seasons and attendant fluctuations in household income. On the other hand, credit can lead to unsustainable debt loads, especially in a context of slow growth. The data presented below attempts to shed light on credit access, loan size and source, and debt loads over time in Myanmar.

Table 22[21] presents data on the proportion of households, whose main economic activity is agriculture, having received a loan between the period May-October, 2009 for agricultural activities. It is important to note that this table combines recipients of both formal and informal credit institutions. There are four core findings:

i. Around one-third of agricultural households received a loan for agricultural activities in 2009, compared with around 38% in 2004.
ii. Non-poor households are somewhat more likely than poor households to have credit access at 34% and 30% respectively.
iii. There are very small differences in credit access between male and female-headed households
iv. There is wide spatial variation in credit access. Very low credit access is found in Shan East (1.8%) and North (8.9%) as well as Chin (5.6%) and Tanintharyi (11.2%) In the case of Shan state, there are strong social mores against money lending.

Table 23 presents data on the proportion of households, whose main economic activity is not agriculture, having received a loan for business activity. Five points are relevant to mention:

i. Only around 11% of non-agricultural households took out a loan to finance business activities in 2009, compared with around 15% in 2004.
ii. Interestingly, a higher percentage of poor households (13.5%) than non-poor households (10.6%) had access to credit.
iii. Credit access is low in urban areas at 8.6%, compared to 13.2% in rural areas.
iv. Gender differences, as measured by male and female-headed households, do not appear to be significant.
v. As with agricultural credit, Shan East (2.5%) North (5.3%) have the lowest levels of access followed by Bago West (5.5%)

In light of the fact that the above data comprise both formal and informal lending, levels of credit access appear moderate to low. Also, in the case of agriculture credit, access has declined over time. Accordingly, there is a *prima facie* case to extend official credit access, though the issue is not without its complexity (as discussed below).

[21] For ease of exposition, Table 22 and Table 23 have been labeled 'Access to Credit,' though strictly speaking they measure 'receipt of loans'.

Table 22 Access to Credit (Population %, Agriculture)

State, Region and Union	2010					2005 Total
	Poverty Status		Head of Household		Total	
	Poor	Non poor	Male	Female		
Kachin	28.5 (7.6)	24.4 (4.3)	24.5 (3.2)	30.5 (10.0)	25.5 (3.2)	21.7 (9.4)
Kayah	52.4 (2.3)	43.6 (9.1)	43.2 (4.1)	50.5 (30.2)	44.4 (8.5)	40.8 (6.4)
Kayin	12.8 (2.4)	10.6 (2.6)	9.8 (4.3)	15.6 (6.1)	10.9 (2.2)	16.3 (9.6)
Chin	8.2 (8.4)	0.0 (0.0)	5.7 (6.3)	5.0 (4.4)	5.6 (6.0)	5.4 (4.4)
Sagaing	25.0 (4.3)	32.6 (3.9)	32.9 (4.3)	27.0 (2.5)	31.8 (3.9)	38.8 (3.8)
Tanintharyi	12.2 (2.4)	10.8 (5.1)	11.6 (3.5)	8.8 (3.6)	11.2 (3.4)	10.7 (1.6)
Bago	44.5 (10.9)	38.4 (5.0)	37.8 (5.6)	43.7 (4.5)	38.8 (5.1)	56.9 (7.3)
- Bago (E)	66.6 (8.8)	45.1 (10.7)	47.5 (10.2)	45.8 (7.1)	47.1 (9.6)	67.7 (8.3)
- Bago (W)	14.4 (10.4)	32.8 (5.0)	30.5 (6.3)	40.6 (8.1)	31.7 (4.9)	48.0 (9.2)
Magwe	41.5 (8.5)	33.2 (8.3)	34.4 (7.7)	36.7 (11.6)	34.8 (8.2)	45.2 (3.7)
Mandalay	34.3 (3.8)	34.3 (3.3)	33.4 (2.3)	38.8 (3.9)	34.3 (2.0)	36.2 (2.4)
Mon	21.3 (14.1)	13.9 (5.0)	15.2 (5.9)	9.6 (5.4)	14.6 (5.7)	22.9 (3.6)
Rakhine	26.5 (5.1)	28.1 (3.4)	29.7 (4.4)	13.6 (5.2)	27.6 (3.6)	24.9 (2.2)
Yangon	66.9 (13.9)	75.8 (7.8)	75.3 (7.4)	66.7 (23.8)	74.3 (9.3)	59.6 (4.8)
Shan	11.1 (4.8)	16.6 (3.0)	15.1 (3.4)	12.0 (3.9)	14.7 (3.4)	23.5 (8.3)
- Shan (S)	27.1 (2.0)	25.2 (1.9)	25.9 (1.8)	24.4 (4.3)	25.7 (2.1)	38.5 (16.0)
- Shan (N)	4.9 (3.3)	11.6 (2.1)	9.5 (2.5)	6.1 (5.2)	8.9 (2.6)	15.3 (6.6)
- Shan (E)	1.8 (1.1)	1.9 (0.1)	1.8 (0.3)	2.0 (2.6)	1.8 (0.5)	1.6 (1.3)
Ayeyarwaddy	48.5 (7.0)	55.4 (2.5)	55.0 (2.3)	47.5 (5.6)	54.0 (2.1)	49.4 (6.8)
Union 2010	**29.7 (2.3)**	**33.8 (1.7)**	**33.2 (1.6)**	**32.0 (2.0)**	**33.0 (1.6)**	**38.1 (1.8)**
Union 2005	**36.7 (2.5)**	**38.6 (2.0)**	**38.1 (1.9)**	**37.8 (2.3)**	**38.1 (1.8)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 23 Access to Credit (Population %, Non-Agricultural Businesses)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Head of Household		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	9.2 (7.2)	8.7 (1.0)	7.2 (2.4)	10.0 (1.1)	8.1 (3.1)	10.7 (2.0)	8.8 (1.8)	15.2 (2.6)
Kayah	59.4 (48.2)	9.4 (5.0)	12.8 (8.2)	8.2 (5.7)	10.8 (6.3)	11.4 (7.8)	10.9 (6.6)	22.7 (2.0)
Kayin	34.1 (6.0)	12.7 (3.9)	4.5 (4.1)	21.2 (2.6)	17.7 (3.4)	5.6 (2.6)	15.6 (2.5)	23.0 (5.4)
Chin	24.0 (10.1)	9.3 (9.0)	17.4 (7.5)	16.2 (12.0)	16.9 (7.2)	19.9 (18.5)	17.1 (7.5)	8.0 (6.9)
Sagaing	1.3 (1.3)	7.9 (1.3)	7.0 (0.7)	7.3 (1.6)	7.3 (1.2)	7.1 (2.9)	7.2 (1.2)	12.4 (2.5)
Tanintharyi	10.2 (5.5)	18.9 (1.4)	15.6 (1.9)	17.7 (1.5)	18.8 (1.1)	9.4 (2.5)	17.0 (0.5)	18.2 (3.9)
Bago	10.2 (5.8)	15.1 (7.0)	15.7 (5.6)	13.8 (7.5)	13.4 (7.1)	17.7 (6.2)	14.4 (6.6)	19.3 (1.1)
- Bago (E)	22.3 (7.8)	20.0 (11.1)	23.7 (9.2)	18.6 (12.2)	21.6 (11.4)	17.0 (8.2)	20.3 (10.5)	19.3 (0.9)
- Bago (W)	0.0 (0.0)	6.7 (2.9)	3.3 (0.8)	6.6 (3.3)	3.0 (0.5)	20.0 (11.2)	5.5 (2.5)	19.2 (2.8)
Magwe	16.7 (2.0)	12.5 (2.3)	8.6 (2.7)	15.0 (2.8)	14.1 (2.5)	10.2 (6.4)	13.3 (1.7)	16.8 (2.0)
Mandalay	12.5 (6.5)	7.3 (2.0)	5.1 (1.3)	11.5 (4.4)	7.1 (2.3)	10.7 (3.8)	7.9 (2.5)	10.6 (1.8)
Mon	28.1 (18.0)	10.6 (5.5)	15.6 (4.5)	11.1 (7.0)	11.3 (5.9)	16.8 (10.5)	12.3 (6.5)	11.8 (4.7)
Rakhine	22.7 (6.1)	16.1 (2.8)	16.7 (2.4)	18.1 (3.7)	19.1 (3.6)	11.9 (4.5)	17.6 (2.7)	20.6 (5.1)
Yangon	5.1 (4.2)	7.6 (2.1)	7.9 (2.2)	4.3 (2.7)	6.9 (2.5)	8.9 (3.6)	7.4 (2.1)	9.6 (2.4)
Shan	2.6 (1.2)	4.9 (1.2)	3.9 (1.1)	5.1 (1.3)	4.0 (1.1)	5.8 (3.2)	4.4 (0.9)	6.9 (1.9)
- Shan (S)	4.9 (5.7)	3.9 (2.4)	2.4 (0.7)	8.1 (6.2)	3.0 (0.8)	7.4 (10.0)	4.0 (1.8)	6.2 (2.9)
- Shan (N)	1.2 (1.2)	6.6 (0.5)	6.7 (0.7)	4.2 (1.2)	5.4 (0.9)	4.9 (3.1)	5.3 (0.8)	8.1 (3.1)
- Shan (E)	5.7 (2.7)	1.3 (1.0)	0.9 (1.2)	4.1 (1.3)	2.0 (1.3)	4.9 (2.4)	2.5 (0.9)	4.8 (1.4)
Ayeyarwaddy	19.2 (5.0)	15.6 (2.4)	11.3 (1.4)	18.3 (2.7)	16.1 (2.1)	17.3 (4.8)	16.3 (2.5)	22.0 (2.6)
Union 2010	**13.5 (2.0)**	**10.6 (1.1)**	**8.6 (1.0)**	**13.2 (1.4)**	**11.0 (1.1)**	**11.4 (1.6)**	**11.1 (1.1)**	**15.0 (0.9)**
Union 2005	**18.8 (1.3)**	**14.0 (0.9)**	**12.6 (1.1)**	**16.6 (1.1)**	**15.0 (1.0)**	**14.8 (1.3)**	**15.0 (0.9)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

In addition to credit access, or outreach, two other relevant considerations consider loan size and source. Very small loans are unlikely to translate into significant impact on household income or consumption. Loan source is relevant in that it sheds light on repayment terms and conditions. While the IHCLA-II did not collect data on interest rates, it is safe to assume that rates will be higher, in some cases significantly higher, from informal credit sources. The formal/informal distinction contrasts public banks/govt. agencies, private banks, local credit unions/local NGOs and international organisations on the one hand, and relatives or friends, employer/landlord, traders/brokers and pawn shops/money lenders, on the other. The data in Table 24 concern loans extended between the Myanmar New Year and the Lighting Festival in 2004 and 2009, respectively. There are four key findings:

i. Average loan size, in particular of the poor, is not insignificant at around 170,000 kyats, which is approximately 45% of the annual poverty line of 376,151 kyats (see Section 2.1.2).
ii. Loan size of the poor has increased quite substantially between 2004 and 2009, though high standard errors raise caution in interpreting this change.
iii. Around half of agricultural credit is sourced informally, a share which has stayed relatively constant over time.
iv. Interestingly, there are not large differences between poor and non-poor household in accessing informal credit.

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Table 24 Size and Source of Agricultural Credit

Categories	Poor		Non Poor		Total	
	2004	2009	2004	2009	2004	2009
Size of most Recent Agricultural Loan (December, 2009 Kyat)	109779	170170	187981	213791	167974	206966
	(7575)	(24615)	(28198)	(18953)	(21651)	(16708)
Informal Share of Agricultural Credit (%)	45.8	47.2	47.5	52.1	47.0	51.3
	(3.52)	(4.06)	(2.95)	(3.00)	(2.76)	(2.93)

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

The flip side of credit is debt. Debt loads can become onerous if credit does not generate sufficient returns to facilitate loan repayment. Table 25 presents partial information which sheds light on the sustainability of debt over time and at present. The data are based on questionnaire responses on debt loads at the time of the Myanmar Light Festival in 2004 and 2009. There are three key results:

i. There has been a striking decline in the number of indebted households from around 48% to 30% between 2004 and 2009. While the questionnaire did not ask about debt forgiveness from official lending sources, it is reasonable to assume that some of this decline reflects successful debt repayment.
ii. The fall in the number of households in debt is equally evident in poor and non-poor households.
iii. Total debt levels of poor household appear quite high at 14% of total consumption expenditure, in light of high food shares in consumption of around 74% (see Section 2, Table 6).

Table 25 Household Debt

Categories	Poor		Non Poor		Total	
	2004	2009	2004	2009	2004	2009
Percent of Households in Debt	53.0 (1.3)	33.0 (1.9)	46.6 (1.7)	29.4 (1.4)	48.4 (1.4)	30.2 (1.4)
Total debt as % of Indebted Household Consumption (including health expenditure)	15.0 (1.2)	14.1 (1.0)	24.0 (2.0)	22.2 (3.5)	21.9 (1.7)	20.8 (2.9)

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

The policy implications of the preceding analysis on credit and debt require suitable nuance. On the one hand, there is a case for increasing formal credit access given low and declining coverage. Further, it appears that a significant number of households have been able to pay off existing debts. On the other hand, the sustainability of some debt loads, in particular among the poor, appears open to question given relatively high debt/consumption ratios. In some cases, lower interest rates associated with formal credit extension will alleviate the debt burden, but in other cases, credit repayment may prove unduly onerous for those at low levels of consumption.

4.5 Summary

Section 4 has presented information on the types of the economic activities undertaken by households in Myanmar, as well as their access to productive assets, land and credit.

In terms of industrial structure, agriculture, hunting and forestry is by far the biggest employer accounting for half of total employment. Manufacturing is very small, employing around 6% of the economically active population. The remainder of employment is mainly in the low-end service sector. Around 54% of poor households are engaged in agricultural activities, compared to 49% of non-poor households. The size of the agricultural sector, combined with the small size of, and slow growth in, manufacturing, and the preponderance of low-end service sector jobs, make a *prima facie* case for the centrality of rural-based, agricultural-led development to any successful strategy of poverty reduction, at least in the short-run.

In terms of occupation, casual labour in rural areas is quite high at around 21% and increasing among the poor, from 23 to 28% of economically active poor household members. There has been a corresponding decline in contributing family workers among the poor from 17.5% to 12% but not in own account workers. Together, these data suggest that the increasing 'casualisation' of poverty is due *primarily* to contributing family workers entering into casual employment and not, say, to growing landlessness associated with a fall in own-account work. It also suggests that the increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as labourers increasingly supplement contributing family work with casual labour.

With respect to land size, average farm size of 6.7 acres (or 2.71 hectares) is moderate by South-East Asian standards, though low by international standards. Poor households have significantly smaller farm size that non-poor households at 4.4 and 7.3 acres respectively. Overall, there has not been a worsening of the size distribution of farm land. In summary, small farm size is a correlate of poverty which has remained quite stable since 2005 among most consumption deciles, including the poorest.

Landlessness is a significant phenomenon at 24% of those whose primary economic activity is agriculture, which appears to have declined slightly from 26% in 2005. It is much higher among poor than non-poor households at 34% and 19% respectively and may have increased slightly for the former since 2005, from 32% to 34%, though this difference is not statistically significant. There may have been an increase in landlessness amongst the very poorest bottom decile from around 34% to 38% though the difference is not statistically significant. The highest rates of landlessness are found in Bago (41%), Yangon (39%) and Ayeyarwaddy (33%). In summary, landlessness is another important correlate of poverty which may have increased slightly over time, in particular among the very poorest. This finding suggests a more nuanced interpretation of the results of Table 1717 on occupational-types. While the *increasing* 'casualisation' of

poverty is not due *primarily* to an increase in landlessness, it may be a contributing factor among the poorest of the poor.

In terms of credit access, around one-third of agricultural households received a formal or informal loan for agricultural activities in 2009, compared with around 38% in 2004. Only around 11% of non-agricultural households took out such a loan to finance business activities in 2009, compared with around 15% in 2004. The average loan size to the poor is not insignificant amounting to around 60% of the annual food poverty line. Around half of agricultural credit is sourced informally, a share which has stayed relatively constant over time and which is similar for poor and non-poor households. In terms of debt, There has been a striking decline in the number of indebted households from around 48% to 30% between 2004 and 2009, a fall which is equally evident in poor and non-poor households. Debt levels of poor households, at 14% of total annual consumption expenditure, appear quite high. The policy implications of the analysis of credit and debt are not without complexity. On the one hand, there is a case for increasing formal credit access given low and declining coverage as well as the apparent ability of a significant number of households to pay off existing debts. On the other hand, the sustainability of some debt loads, in particular among the poor, appears uncertain given relatively high debt/consumption ratios.

5. Labour market

Section 5 reviews three key aspects of the labour market, namely participation rates (Section 5.1), unemployment rates (Section 5.2) and 'underemployment' rates (Section 5.3) before summarizing main findings (Section 5.4).

5.1 Labour Force Participation Rates

Labour force participation is defined as those who are working or available for work, for a given age group. It excludes the following population groups: those unable to work for health reasons; those doing unpaid domestic work fulltime; full-time students; full-time religious personnel; those who are physically or developmentally delayed and unable to work; those living on a pension or retired and others who are not seeking employment.

Table 27 presents data on labour force participation rates for the six months prior to the administration of questionnaires. The data is merged across the two rounds of the IHLCA-II, as there are very small differences between rounds. Five findings are quite significant:

i. Participation rates are high at around two-thirds (67%) of the population aged 15 and above, a rate which has increased slightly from its 2004 level of 64%.
ii. As in 2004-5, the poor have higher participation rates than the non-poor at 69% and 66% respectively.
iii. There are large differences between urban and rural participation rates at 60% and 70% respectively, and between male and female rates, at 82% and 54% respectively.
iv. Lowest participation rates occur in mainly urban Yangon (57%) and in Rakhine (58%), where economic dependency ratios were found to be very high (see Section 3, Table 14).
v. There are stark differences in child participation rates (ages 10-14) between the poor and non-poor at 18% and 10% respectively, and between participation rates of the poor and non-poor aged 15-24 at 72% and 62% respectively.

Together, these findings suggest that poverty is not primarily due to non-participation in the labour force but to low remuneration/returns for those who do participate (as found in Section 4.2 on the economic dependency ratio). In addition, they provide limited, additional support to the suggestion in Section 4.2 that increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as household members increasingly enter the labour force.

The much higher rates of child (aged 10-14) labour force participation among the poor raises questions about the possible intergenerational transmission of poverty and poverty traps. In order to probe this issue further, Table 26 presents data on enrolment rates for labour force participants and others, aged 10-14. The data show a quite striking difference between enrolment rates of labour force participants and non-participants at 11.6% and 78.3% respectively. In addition, poor labour force participants in this age group have even lower enrolment rates than non-poor participants at 9.9% and 12.7% respectively. Accordingly, labour force participants, aged 10-14 may constitute one sub-group of the poor that warrants special attention from a policy perspective.

Table 26 Enrolment Rates of 10-14 Year Olds

In Labour force			All (10-14)
Poor	Non Poor	All	
9.9	12.7	11.6	78.3
(1.9)	(1.3)	(1.2)	(0.9)

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 27 Labour Force Participation Rate: Past 6 Months (15 Years and Above)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	64.4 (2.0)	64.5 (1.7)	58.9 (4.0)	66.8 (2.3)	78.4 (3.2)	52.0 (3.1)	64.5 (1.6)	63.0 (1.5)
Kayah	71.9 (6.9)	72.9 (2.3)	68.7 (1.1)	75.4 (3.1)	83.7 (3.7)	61.9 (1.4)	72.8 (2.8)	66.9 (2.8)
Kayin	72.5 (4.1)	68.9 (1.1)	66.5 (2.7)	70.3 (0.4)	84.0 (2.1)	56.7 (1.4)	69.6 (0.2)	64.8 (2.3)
Chin	75.2 (1.3)	68.9 (5.4)	61.2 (0.6)	78.0 (0.6)	83.9 (2.1)	63.5 (2.8)	73.5 (2.3)	64.8 (4.0)
Sagaing	74.2 (1.0)	70.0 (0.9)	64.0 (1.3)	71.7 (0.8)	82.6 (0.6)	60.1 (1.2)	70.6 (0.9)	65.9 (1.3)
Tanintharyi	66.0 (1.5)	65.3 (2.1)	61.1 (0.9)	66.9 (0.8)	82.4 (1.8)	50.6 (1.3)	65.5 (1.0)	61.2 (1.1)
Bago	70.6 (2.4)	68.3 (1.6)	61.6 (0.9)	69.8 (1.7)	85.5 (0.9)	53.9 (2.8)	68.7 (1.6)	66.4 (1.8)
- Bago (E)	70.1 (0.7)	66.2 (0.5)	62.2 (1.4)	67.9 (0.2)	84.4 (1.6)	52.0 (0.6)	67.0 (0.5)	65.9 (1.1)
- Bago (W)	71.3 (7.3)	70.6 (2.8)	60.6 (0.6)	71.9 (3.5)	86.9 (0.9)	56.3 (6.7)	70.7 (3.4)	67.1 (4.7)
Magwe	74.9 (0.6)	73.3 (0.5)	62.2 (1.9)	75.1 (0.5)	84.4 (0.4)	64.9 (0.8)	73.7 (0.2)	69.1 (1.3)
Mandalay	73.2 (1.5)	67.2 (1.5)	61.4 (1.5)	71.9 (0.9)	82.6 (0.9)	57.1 (2.0)	68.8 (1.3)	65.5 (0.8)
Mon	65.0 (2.4)	64.5 (2.2)	63.2 (1.0)	64.9 (2.7)	81.7 (1.0)	48.6 (4.2)	64.6 (2.2)	59.7 (0.8)
Rakhine	58.5 (1.6)	58.4 (1.3)	57.1 (0.4)	58.9 (1.3)	79.3 (0.9)	40.0 (1.4)	58.4 (1.2)	57.2 (0.5)
Yangon	61.1 (2.1)	57.3 (1.2)	56.3 (1.3)	63.1 (2.4)	73.5 (1.4)	44.4 (1.2)	57.9 (1.3)	55.1 (1.8)
Shan	79.2 (1.3)	76.1 (0.9)	68.1 (1.3)	80.3 (1.1)	85.9 (1.1)	68.7 (1.2)	77.1 (0.9)	73.8 (1.2)
- Shan (S)	81.1 (1.8)	76.6 (0.4)	69.6 (0.5)	81.2 (2.5)	86.5 (2.2)	69.0 (1.6)	77.6 (0.6)	72.2 (1.7)
- Shan (N)	78.7 (1.9)	75.2 (2.0)	65.0 (2.6)	79.8 (1.3)	84.7 (2.2)	69.1 (2.2)	76.6 (2.2)	75.1 (2.2)
- Shan (E)	77.5 (3.7)	77.2 (3.8)	71.3 (3.3)	79.5 (2.7)	87.9 (3.5)	66.6 (2.9)	77.3 (3.6)	74.5 (2.8)
Ayeyarwaddy	67.8 (1.0)	64.8 (1.5)	61.1 (1.4)	66.7 (1.4)	84.7 (0.7)	48.6 (1.9)	65.8 (1.2)	64.6 (1.2)
Union 2010	**69.4 (0.6)**	**66.3 (0.5)**	**59.9 (0.7)**	**69.9 (0.5)**	**82.1 (0.4)**	**53.9 (0.7)**	**67.1 (0.5)**	**64.1 (0.5)**
Union 2005	**67.1 (0.5)**	**62.7 (0.6)**	**56.4 (0.8)**	**67.0 (0.5)**	**79.6 (0.4)**	**50.1 (0.7)**	**64.1 (0.5)**	
2010 Age 10-14	**18.2 (1.1)**	**10.4 (0.6)**	**4.4 (0.5)**	**14.6 (0.7)**	**12.5 (0.7)**	**12.4 (0.7)**	**12.5 (0.6)**	
2010 Age 15-24	**72.2 (0.9)**	**62.1 (1.0)**	**48.4 (1.3)**	**70.1 (0.8)**	**73.0 (0.9)**	**57.4 (1.1)**	**65.1 (0.9)**	
2010 Age 25-59	**75.5 (0.7)**	**76.1 (0.6)**	**72.4 (0.7)**	**77.5 (0.5)**	**94.2 (0.3)**	**60.4 (0.8)**	**76.0 (0.5)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

5.2 Unemployment

Table 28 presents data on the open unemployment rate in the six months prior to the administration of questionnaires. The open unemployment rate is defined as the percentage of the labour force aged 15 and above, who did not work during the above time prior. The data are merged across the two rounds of the IHLCA-II, as there were very small differences between the rounds. Four findings are quite significant:

i. Open unemployment is extremely low in Myanmar at around 1.7%, which is close to its 2004-5 level of 2%.
ii. The poor are slightly more likely to be unemployed than the non-poor, at 2.4% and 1.4% respectively, but the level of open unemployment of the poor is very low and unchanged from its 2005 level of 2.3%.
iii. Urban unemployment is three times that of rural unemployment at 3.5% and 1.1% respectively and unlike the participation rate, there is little difference between males and females.
iv. As with participation rates, the highest rates of open unemployment are in Rakhine (6.7%) and Yangon (4.4%), where poverty is also much more strongly associated with unemployment (high standard errors suggest caution, however, when interpreting these results).

The limited contribution of unemployment to poverty is not uncommon in countries which are primarily rural and lacking in provision of an extensive and formal safety net. In these situations, the relationship between poverty and lack of employment may be more starkly evidenced by the Time Rate of Unemployment (TRU), or the number of days within any reference period, that labour force participants are out of work. One indirect measure of the TRU is the unemployment rate in the seven days prior to the administration of questionnaires, on the assumption that those in casual or precarious employment are less likely to be employed over such a short period than those in more formal employment.

Data on this indicator are presented in Table 29 . As above, the data are merged across the two rounds of the IHLCA-II, as there were very small differences between the rounds. Two findings are relevant to note:

i. 'Seven-day' unemployment is very low in Myanmar at 2.5%, down from 3.1% in 2005.
ii. Surprisingly, the relationship between poverty and '7-day' unemployment is very similar to the relationship between poverty and '6 month' unemployment. The poor/non-poor breakdown is 3.7% and 2.1% respectively, with levels for the poor virtually identical between 2005 and 2010.

In summary, there is an association between poverty and open unemployment and between poverty and the Time Rate of Employment in Myanmar, but both are very small contributors to overall poverty. Only around 2.5% of the poor were unemployment over the past 6 months or 7 days. As argued above, poverty has much more to do with low returns to work than with the lack of work.

Table 28 Unemployment Rate: Past 6 Months (15 Years and Above)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	1.9 (0.6)	2.5 (0.7)	3.2 (1.3)	2.0 (0.4)	2.5 (0.6)	2.0 (0.4)	2.3 (0.5)	1.7 (0.3)
Kayah	0.0 (0.0)	0.6 (0.2)	0.7 (0.0)	0.4 (0.2)	0.6 (0.3)	0.4 (0.0)	0.5 (0.2)	0.0 (0.0)
Kayin	0.9 (0.8)	1.2 (1.0)	1.9 (1.9)	1.0 (0.7)	1.5 (1.2)	0.6 (0.6)	1.1 (0.9)	1.4 (0.9)
Chin	1.0 (0.6)	0.8 (0.5)	2.3 (0.4)	0.6 (0.5)	0.7 (0.2)	1.4 (1.2)	1.0 (0.6)	5.2 (2.5)
Sagaing	0.2 (0.1)	0.6 (0.2)	1.7 (0.4)	0.4 (0.1)	0.4 (0.1)	0.7 (0.2)	0.6 (0.2)	1.5 (0.5)
Tanintharyi	3.9 (2.7)	1.7 (0.6)	2.7 (1.1)	2.4 (1.4)	1.7 (0.6)	3.5 (2.0)	2.4 (1.2)	1.6 (0.4)
Bago	0.8 (0.6)	0.9 (0.4)	1.5 (0.3)	0.8 (0.5)	0.8 (0.4)	1.1 (0.4)	0.9 (0.4)	1.3 (0.2)
- Bago (E)	1.3 (1.0)	1.6 (0.6)	1.8 (0.5)	1.5 (0.8)	1.3 (0.7)	1.8 (0.6)	1.5 (0.7)	1.6 (0.1)
- Bago (W)	0.0 (0.0)	0.2 (0.0)	1.0 (0.3)	0.1 (0.0)	0.1 (0.1)	0.2 (0.0)	0.2 (0.0)	1.0 (0.5)
Magwe	0.5 (0.3)	0.6 (0.2)	3.1 (0.7)	0.3 (0.1)	0.5 (0.2)	0.7 (0.3)	0.6 (0.2)	1.1 (0.1)
Mandalay	1.1 (0.2)	1.0 (0.2)	2.1 (0.2)	0.6 (0.2)	0.8 (0.1)	1.2 (0.2)	1.0 (0.1)	1.4 (0.2)
Mon	2.2 (0.6)	1.6 (0.3)	2.4 (0.4)	1.6 (0.3)	1.0 (0.1)	2.8 (0.7)	1.7 (0.2)	2.4 (0.3)
Rakhine	10.6 (0.9)	3.8 (1.2)	7.2 (0.3)	6.5 (2.2)	5.1 (1.2)	9.5 (2.3)	6.7 (1.6)	5.7 (1.1)
Yangon	7.4 (2.8)	3.9 (0.5)	5.3 (0.7)	2.1 (0.6)	4.5 (0.9)	4.4 (0.8)	4.4 (0.7)	4.9 (1.1)
Shan	0.9 (0.5)	1.0 (0.4)	2.7 (0.7)	0.5 (0.1)	1.0 (0.2)	1.0 (0.3)	1.0 (0.3)	1.1 (0.3)
- Shan (S)	1.7 (0.6)	1.3 (1.0)	3.5 (0.9)	0.6 (0.3)	1.1 (0.5)	1.7 (0.5)	1.4 (0.5)	1.0 (0.7)
- Shan (N)	0.3 (0.2)	0.9 (0.2)	2.0 (0.1)	0.4 (0.1)	0.8 (0.1)	0.4 (0.2)	0.6 (0.1)	1.2 (0.5)
- Shan (E)	0.9 (0.5)	0.7 (0.2)	1.5 (0.4)	0.6 (0.1)	0.8 (0.4)	0.9 (0.1)	0.8 (0.2)	1.4 (0.6)
Ayeyarwaddy	0.9 (0.3)	0.5 (0.1)	1.5 (0.7)	0.4 (0.1)	0.5 (0.1)	0.8 (0.3)	0.6 (0.2)	1.0 (0.1)
Union 2010	**2.4 (0.3)**	**1.4 (0.1)**	**3.5 (0.4)**	**1.1 (0.2)**	**1.5 (0.2)**	**1.9 (0.2)**	**1.7 (0.2)**	**2.0 (0.2)**
Union 2005	**2.3 (0.3)**	**1.9 (0.2)**	**4.5 (0.6)**	**1.2 (0.1)**	**2.1 (0.2)**	**2.0 (0.2)**	**2.0 (0.2)**	
2010 Age 15-24	**4.0 (0.5)**	**3.4 (0.4)**	**9.8 (1.3)**	**2.4 (0.4)**	**3.3 (0.4)**	**4.1 (0.5)**	**3.6 (0.4)**	
2010 Age 25-59	**1.7 (0.3)**	**0.9 (0.1)**	**2.3 (0.3)**	**0.6 (0.1)**	**1.0 (0.1)**	**1.1 (0.2)**	**1.0 (0.1)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 29 Unemployment Rate: Past 7 Days (15 Years and Above)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	6.7 (2.0)	5.4 (1.2)	6.0 (2.4)	5.7 (0.7)	6.5 (0.5)	4.8 (0.8)	5.8 (0.6)	4.3 (1.7)
Kayah	3.1 (1.1)	1.3 (0.6)	2.1 (0.3)	1.1 (0.7)	2.1 (1.4)	0.7 (0.3)	1.5 (0.7)	0.2 (0.2)
Kayin	3.4 (1.2)	1.4 (1.0)	2.2 (2.2)	1.6 (0.3)	2.1 (1.0)	1.3 (0.2)	1.7 (0.6)	3.0 (1.6)
Chin	1.8 (1.4)	1.1 (0.9)	4.7 (2.2)	0.8 (0.7)	1.4 (1.0)	1.8 (1.7)	1.6 (1.3)	7.3 (3.4)
Sagaing	0.7 (0.3)	0.7 (0.2)	1.9 (0.4)	0.6 (0.1)	0.6 (0.2)	0.9 (0.3)	0.7 (0.2)	3.5 (0.9)
Tanintharyi	6.3 (3.9)	2.2 (0.8)	3.4 (1.3)	3.6 (2.1)	2.8 (1.2)	4.7 (2.7)	3.5 (1.8)	2.5 (0.1)
Bago	2.5 (0.3)	1.6 (0.5)	2.6 (0.5)	1.6 (0.5)	1.6 (0.5)	2.0 (0.5)	1.8 (0.5)	2.9 (0.7)
- Bago (E)	2.7 (0.2)	2.5 (0.5)	3.4 (0.5)	2.4 (0.4)	2.3 (0.5)	2.9 (0.3)	2.6 (0.4)	2.7 (0.3)
- Bago (W)	2.2 (0.3)	0.6 (0.1)	1.3 (0.3)	0.8 (0.1)	0.7 (0.2)	1.0 (0.1)	0.8 (0.1)	3.1 (2.0)
Magwe	1.2 (0.6)	1.2 (0.6)	3.4 (0.8)	0.9 (0.5)	0.8 (0.4)	1.5 (0.8)	1.2 (0.6)	2.1 (0.5)
Mandalay	1.9 (0.3)	1.4 (0.2)	2.5 (0.2)	1.2 (0.3)	1.2 (0.2)	1.9 (0.2)	1.5 (0.2)	1.9 (0.3)
Mon	5.1 (1.1)	2.7 (0.1)	3.4 (0.5)	3.1 (0.3)	2.3 (0.5)	4.4 (0.3)	3.1 (0.3)	2.8 (0.5)
Rakhine	13.6 (0.7)	5.3 (2.0)	9.9 (0.7)	8.4 (2.9)	7.3 (1.3)	11.4 (2.8)	8.8 (1.8)	6.9 (0.8)
Yangon	9.4 (2.8)	5.1 (0.8)	6.6 (1.2)	3.3 (0.3)	6.2 (1.4)	5.2 (0.8)	5.8 (1.0)	6.0 (1.3)
Shan	1.3 (0.6)	2.3 (0.8)	3.8 (1.3)	1.4 (0.4)	2.1 (0.7)	1.8 (0.5)	1.9 (0.6)	1.6 (0.4)
- Shan (S)	2.7 (0.4)	3.4 (1.2)	5.4 (1.5)	2.5 (0.1)	3.4 (1.2)	3.1 (0.5)	3.3 (0.9)	1.3 (0.8)
- Shan (N)	0.5 (0.3)	1.2 (0.4)	2.3 (0.3)	0.6 (0.2)	1.1 (0.3)	0.8 (0.3)	0.9 (0.2)	1.5 (0.5)
- Shan (E)	1.1 (0.5)	1.0 (0.1)	1.7 (0.3)	0.8 (0.1)	1.1 (0.4)	0.9 (0.1)	1.0 (0.2)	2.5 (0.7)
Ayeyarwaddy	1.6 (0.4)	0.8 (0.2)	1.7 (0.7)	0.9 (0.2)	0.8 (0.2)	1.6 (0.4)	1.1 (0.2)	2.1 (0.2)
Union 2010	**3.7 (0.4)**	**2.1 (0.2)**	**4.6 (0.6)**	**1.9 (0.3)**	**2.4 (0.2)**	**2.7 (0.2)**	**2.5 (0.2)**	**3.1 (0.3)**
Union 2005	**3.5 (0.3)**	**2.9 (0.3)**	**5.5 (0.7)**	**2.3 (0.2)**	**3.2 (0.3)**	**3.1 (0.2)**	**3.1 (0.3)**	
2010 Age 15-24	**5.3 (0.5)**	**4.4 (0.5)**	**11.4 (1.7)**	**3.3 (0.5)**	**4.3 (0.4)**	**5.2 (0.6)**	**4.7 (0.4)**	
2010 Age 25-59	**2.9 (0.4)**	**1.5 (0.2)**	**3.1 (0.5)**	**1.3 (0.2)**	**1.8 (0.2)**	**1.8 (0.2)**	**1.8 (0.2)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

5.3 Underemployment

The underemployment rate is here operationalised using the time-utilisation method. It is defined as the percentage of the working population, aged 15 years and older, who worked for less than 44 hours in the 7 days preceding the questionnaire. Table 30 present merged data for both rounds of the survey. In light of significant seasonal variation in this indicator, Table 31 and Table 32 present data for Rounds 1 and 2 respectively. There are a number of interesting results:

i. Overall, underemployment stood at around 37% of the working population in 2010, somewhat above its 2005 level of 34%.
ii. There are very slight differences between the poor (38%) and non-poor (37%) which are not statistically significant.
iii. Underemployment is more prevalent among females (41%) than males (35%) and in rural (38%) than urban (35%) areas.
iv. Underemployment appear highest in Kayah at 59%, where it is also associated with poverty, though high standard errors urge caution in interpreting this result.
v. The underemployment rate is much higher during round 2, conducted in May 2010 than in Round 1, conducted during, or just following, the harvest season in December-January, 2009-10. The respective rates are 45% and 30%.

Underemployment appears to be a significant phenomenon in Myanmar with pronounced seasonal variation. It is not, however, closely associated with poverty. These findings provided added support for the view that poverty has much more to do with low returns to work than with the absence of work (as argued in the context of economic dependency ratios, labour force participation rates and unemployment). They also attest to the importance of poverty dynamics, or flows into and out of poverty over the course of the agricultural cycle

5.4 Summary

The importance of the labour market for poverty has already been shown in Section 4, **Error! Reference source not found.** in that around half of the poor are either employees or casual labourers. Section 5 has presented additional information on the relationship between the labour market and poverty.

In terms of labour force participation, overall rates are high at two-thirds (67%) of the population aged 15 and above and higher for the poor than non-poor at 69% and 66% respectively. There are stark differences in child participation rates (ages 10-14) between the poor and non-poor at 18% and 10% respectively, and between participation rates of the poor and non-poor aged 15-24 at 72% and 62% respectively. These findings suggest that poverty is not primarily due to non-participation in the labour force but to low remuneration/returns for those who do participate (as found in Section 4.2 on the economic dependency ratio). In addition, they provide limited, additional support to the suggestion in Section 4.2 that increases in consumption expenditure amongst the poor discussed in Section 2 may be due to an increase in work-time and effort, as household members increasingly enter the labour force. Finally, the much higher rates of child labour force participation among the poor raise questions about the possibility of the intergenerational transmission of poverty and poverty traps, as evidenced by low enrolment rates for working children.

In terms of unemployment, levels are extremely low in Myanmar at around 1.7%. The poor are more likely to be unemployed than the non-poor, at 2.4% and 1.4% respectively, but the level of open unemployment of the poor is still very low and unchanged from its 2005 level of 2.3%. The Time Rates of Unemployment (TRU), proxied by unemployment in the 7 days preceding the questionnaire is very low as well at 2.5%. The relationship between poverty and the TRU is very similar to the poverty/unemployment relationship described above. The poor/non-poor breakdown is 3.7% and 2.1% respectively, with levels for the poor virtually identical between 2005 and 2010. In summary, there is an association between poverty and open unemployment and between poverty and the Time Rate of

Employment in Myanmar, but both the relationship is weak and both are very small contributors to overall poverty. Poverty has much more to do with low returns to work than with the absence of work.

Finally, underemployment appears to be a significant phenomenon in Myanmar, with pronounced seasonal dimensions, which appears to have increased between 2005 and 2010. It is not, however, closely associated with poverty. These findings provided added support for the view that poverty has much more to do with low returns to work than with the absence of work (as argued in the context of economic dependency ratios, labour force participation rates and unemployment). They also attest to the importance of poverty dynamics, or flows into and out of poverty over the course of the agricultural cycle.

Table 30 Underemployment Rate: Past 7 Days, 44 Hours (15 Years and Above)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	53.2 (8.5)	46.3 (8.6)	44.9 (8.7)	49.4 (8.6)	46.7 (9.1)	50.3 (7.9)	48.2 (8.4)	36.7 (5.7)
Kayah	64.0 (13.7)	57.9 (1.1)	45.9 (5.1)	65.7 (3.9)	54.1 (3.0)	64.5 (2.1)	58.5 (2.4)	48.8 (5.3)
Kayin	50.9 (20.7)	49.7 (11.9)	54.0 (15.9)	49.1 (12.9)	49.2 (13.4)	50.9 (13.7)	49.9 (13.5)	34.9 (3.5)
Chin	51.4 (10.2)	38.1 (5.3)	38.0 (5.4)	50.4 (10.1)	44.1 (6.9)	52.9 (9.9)	47.9 (8.0)	50.7 (8.9)
Sagaing	46.6 (5.5)	44.6 (3.6)	43.8 (2.5)	45.1 (4.1)	42.2 (3.1)	48.2 (4.5)	44.9 (3.7)	37.3 (4.4)
Tanintharyi	39.7 (3.3)	35.8 (1.2)	30.4 (3.0)	39.0 (1.3)	33.9 (0.7)	41.6 (2.3)	37.1 (0.4)	36.3 (4.4)
Bago	25.9 (8.1)	32.7 (6.2)	29.8 (4.4)	31.7 (6.8)	29.5 (6.7)	34.4 (6.4)	31.5 (6.5)	26.8 (3.6)
- Bago (E)	12.6 (4.2)	20.9 (4.4)	22.0 (3.0)	18.7 (4.6)	16.7 (4.1)	22.8 (5.0)	19.2 (4.5)	20.5 (2.6)
- Bago (W)	46.1 (11.2)	44.5 (7.0)	42.6 (2.6)	45.0 (7.9)	43.4 (7.8)	46.7 (7.0)	44.8 (7.4)	34.8 (6.0)
Magwe	44.5 (6.1)	43.1 (4.3)	33.1 (2.6)	44.4 (5.0)	40.6 (4.4)	46.5 (4.6)	43.4 (4.5)	42.4 (6.0)
Mandalay	30.5 (3.5)	29.4 (3.6)	28.4 (2.7)	30.1 (4.1)	28.3 (3.1)	31.4 (3.3)	29.7 (3.2)	30.0 (3.3)
Mon	27.4 (4.3)	41.5 (5.3)	39.2 (2.2)	39.1 (6.5)	35.4 (5.2)	45.2 (4.3)	39.1 (5.1)	38.7 (3.8)
Rakhine	39.5 (2.6)	46.2 (1.0)	45.5 (1.4)	42.9 (0.6)	38.6 (1.3)	52.7 (2.6)	43.5 (0.8)	31.2 (4.5)
Yangon	32.2 (3.9)	33.5 (2.6)	34.3 (2.7)	30.6 (3.0)	29.4 (2.5)	38.8 (2.0)	33.3 (2.1)	30.4 (2.6)
Shan	46.4 (3.1)	38.6 (2.8)	35.6 (3.0)	43.0 (3.1)	39.3 (2.8)	43.9 (3.4)	41.4 (2.9)	42.1 (4.3)
- Shan (S)	49.7 (3.2)	41.2 (4.5)	35.0 (1.9)	46.5 (4.4)	41.9 (3.4)	45.4 (8.5)	43.5 (5.6)	33.1 (3.4)
- Shan (N)	44.2 (2.7)	34.3 (2.8)	35.0 (7.5)	39.1 (2.8)	35.3 (3.0)	41.8 (1.6)	38.3 (2.2)	43.7 (5.9)
- Shan (E)	47.0 (14.4)	43.0 (7.3)	39.2 (5.5)	46.6 (13.1)	43.8 (10.3)	46.2 (11.0)	44.8 (10.5)	67.0 (6.9)
Ayeyarwaddy	35.1 (4.9)	33.1 (3.2)	31.5 (0.9)	34.2 (4.4)	31.8 (3.8)	37.0 (3.5)	33.8 (3.7)	30.6 (0.9)
Union 2010	**38.0 (1.6)**	**37.3 (1.3)**	**34.8 (1.3)**	**38.3 (1.5)**	**34.9 (1.2)**	**41.0 (1.3)**	**37.5 (1.2)**	**33.9 (1.1)**
Union 2005	**34.5 (1.5)**	**33.7 (1.1)**	**34.6 (1.4)**	**33.8 (1.4)**	**31.0 (1.1)**	**38.0 (1.2)**	**33.9 (1.1)**	
2010 Age 15-24	**34.3 (2.0)**	**34.8 (1.7)**	**29.3 (2.0)**	**35.7 (1.7)**	**32.8 (1.4)**	**37.0 (1.8)**	**34.6 (1.5)**	
2010 Age 25-59	**39.3 (1.5)**	**37.8 (1.2)**	**35.9 (1.4)**	**39.0 (1.5)**	**35.0 (1.2)**	**42.3 (1.2)**	**38.1 (1.2)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 31 Underemployment Rate: Past 7 Days, 44 Hours (15 Years and Above - Round 1)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	48.9 (11.1)	44.2 (9.6)	46.7 (14.9)	45.2 (8.4)	42.5 (9.6)	49.8 (10.2)	45.6 (9.8)	33.8 (5.0)
Kayah	64.3 (30.9)	49.7 (0.3)	45.2 (0.9)	54.7 (4.9)	46.4 (3.5)	57.9 (4.6)	51.3 (3.7)	48.1 (1.1)
Kayin	48.8 (24.8)	34.5 (8.7)	40.7 (15.8)	36.5 (10.8)	34.7 (10.7)	40.4 (13.1)	37.2 (11.7)	29.0 (1.5)
Chin	50.6 (11.6)	41.4 (3.6)	37.1 (5.3)	50.5 (10.8)	46.9 (7.8)	49.9 (10.3)	48.1 (8.7)	50.4 (6.0)
Sagaing	40.5 (4.6)	33.7 (3.4)	42.2 (2.9)	33.6 (3.9)	31.7 (2.0)	38.3 (5.7)	34.7 (3.6)	32.2 (4.1)
Tanintharyi	40.4 (5.4)	34.1 (2.2)	26.5 (2.4)	38.7 (3.6)	33.2 (2.9)	40.6 (2.7)	36.2 (2.7)	35.7 (3.9)
Bago	16.0 (5.9)	20.9 (4.5)	26.6 (4.0)	19.2 (4.8)	17.2 (4.6)	24.1 (4.8)	20.1 (4.6)	22.6 (2.7)
- Bago (E)	7.1 (1.2)	11.4 (0.7)	19.8 (1.8)	9.0 (1.3)	7.6 (0.5)	14.7 (1.6)	10.5 (0.8)	20.0 (2.0)
- Bago (W)	29.6 (11.6)	30.3 (4.4)	37.8 (2.7)	29.5 (5.3)	27.6 (5.2)	33.7 (5.5)	30.2 (5.1)	25.6 (6.4)
Magwe	34.7 (5.6)	29.7 (4.5)	28.5 (1.6)	31.2 (5.1)	28.5 (4.4)	33.7 (5.0)	31.0 (4.5)	31.6 (5.3)
Mandalay	24.3 (3.7)	22.5 (2.0)	29.1 (3.2)	20.9 (3.1)	22.1 (2.0)	24.2 (2.3)	23.0 (2.0)	26.7 (3.0)
Mon	23.2 (7.9)	36.0 (4.8)	35.4 (2.7)	33.5 (6.4)	29.1 (6.0)	41.9 (2.9)	33.9 (5.2)	37.0 (4.8)
Rakhine	24.6 (2.0)	39.8 (2.6)	43.8 (1.6)	31.1 (1.2)	28.9 (2.3)	42.4 (3.1)	33.9 (2.5)	29.7 (4.5)
Yangon	32.3 (8.2)	32.5 (2.6)	34.1 (3.5)	27.8 (0.9)	28.5 (2.7)	38.1 (2.8)	32.5 (2.7)	30.0 (2.7)
Shan	37.6 (5.1)	32.6 (4.2)	34.4 (3.5)	34.4 (4.9)	32.5 (4.1)	36.6 (4.9)	34.4 (4.4)	38.5 (4.0)
- Shan (S)	47.3 (3.8)	38.0 (7.7)	35.0 (4.0)	42.4 (8.2)	39.4 (6.0)	41.8 (11.1)	40.5 (8.2)	26.7 (1.0)
- Shan (N)	30.1 (4.3)	25.4 (2.8)	33.3 (8.6)	26.0 (2.4)	24.3 (2.9)	30.7 (3.6)	27.3 (2.9)	43.2 (5.4)
- Shan (E)	42.6 (14.7)	37.4 (9.1)	35.5 (7.6)	41.1 (13.7)	37.9 (11.6)	42.3 (11.9)	39.8 (11.6)	63.3 (5.3)
Ayeyarwaddy	25.4 (4.5)	24.6 (2.8)	26.9 (1.5)	24.5 (3.5)	21.5 (2.8)	30.3 (3.4)	24.9 (2.9)	28.8 (1.0)
Union 2010	**30.4 (1.8)**	**29.4 (1.1)**	**33.4 (1.6)**	**28.5 (1.3)**	**26.7 (1.0)**	**33.6 (1.3)**	**29.7 (1.1)**	**30.3 (1.1)**
Union 2005	**30.8 (1.6)**	**30.1 (1.1)**	**35.1 (1.3)**	**28.9 (1.2)**	**27.3 (1.0)**	**34.5 (1.2)**	**30.3 (1.1)**	
2010 Age 15-24	**26.7 (2.3)**	**26.8 (1.4)**	**28.9 (2.4)**	**26.4 (1.5)**	**25.4 (1.3)**	**28.5 (1.7)**	**26.8 (1.4)**	
2010 Age 25-59	**31.8 (1.6)**	**30.0 (1.0)**	**34.3 (1.6)**	**29.0 (1.3)**	**26.8 (1.0)**	**35.3 (1.3)**	**30.4 (1.0)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 32 Underemployment Rate: Past 7 Days, 44 Hours (15 Years and above - Round 2)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	57.8 (10.6)	48.3 (9.9)	42.8 (7.5)	53.5 (10.6)	51.0 (11.4)	50.8 (8.5)	50.9 (10.1)	40.2 (6.5)
Kayah	63.7 (3.6)	65.3 (1.9)	46.4 (8.8)	76.0 (3.1)	61.1 (2.7)	70.7 (0.0)	65.1 (1.4)	49.5 (9.2)
Kayin	53.0 (16.7)	65.1 (16.2)	66.2 (16.2)	62.1 (16.4)	63.7 (17.4)	61.7 (15.1)	62.9 (16.4)	41.4 (6.7)
Chin	52.0 (9.5)	35.3 (6.9)	38.6 (5.6)	50.2 (10.0)	41.7 (6.4)	54.9 (10.1)	47.8 (7.9)	50.9 (11.2)
Sagaing	52.8 (6.7)	55.5 (4.5)	45.3 (3.4)	56.6 (4.7)	52.7 (4.3)	58.1 (4.6)	55.1 (4.3)	43.4 (5.0)
Tanintharyi	39.0 (1.3)	37.4 (3.8)	33.5 (5.4)	39.3 (1.3)	34.6 (3.2)	42.6 (3.3)	37.9 (2.4)	36.8 (5.0)
Bago	36.0 (10.9)	44.9 (8.5)	33.0 (4.9)	44.8 (9.4)	41.8 (9.2)	45.5 (8.4)	43.3 (8.9)	31.4 (5.7)
- Bago (E)	18.2 (9.5)	30.6 (8.6)	24.2 (4.4)	28.7 (9.7)	25.9 (8.5)	31.2 (9.0)	28.1 (8.7)	20.9 (3.3)
- Bago (W)	62.6 (9.9)	59.5 (9.7)	47.3 (4.6)	61.4 (10.5)	59.2 (10.3)	61.2 (8.3)	60.0 (9.5)	45.8 (6.7)
Magwe	54.3 (7.5)	56.7 (6.8)	37.6 (4.5)	57.9 (6.4)	52.9 (5.7)	59.6 (6.4)	56.1 (6.0)	53.3 (7.7)
Mandalay	36.9 (4.4)	36.1 (5.5)	27.7 (3.0)	39.3 (6.0)	34.4 (5.0)	38.5 (4.8)	36.3 (4.9)	33.3 (4.1)
Mon	31.5 (1.3)	47.0 (6.0)	42.8 (2.2)	44.6 (6.7)	41.8 (4.5)	48.3 (5.8)	44.3 (5.1)	40.4 (3.3)
Rakhine	54.8 (4.1)	53.5 (2.5)	47.2 (1.5)	56.4 (2.5)	48.4 (4.2)	65.9 (2.5)	54.0 (2.8)	33.0 (4.8)
Yangon	32.2 (3.9)	34.6 (4.1)	34.5 (4.0)	33.4 (6.9)	30.4 (4.8)	39.5 (2.8)	34.2 (3.8)	30.8 (2.7)
Shan	55.1 (3.1)	44.3 (2.2)	36.7 (2.8)	51.4 (2.8)	45.8 (2.5)	50.8 (2.7)	48.0 (2.4)	45.6 (5.3)
- Shan (S)	52.0 (2.8)	44.1 (1.6)	35.0 (0.1)	50.2 (1.1)	44.2 (1.0)	48.6 (5.9)	46.2 (3.1)	39.5 (7.4)
- Shan (N)	58.2 (3.3)	43.2 (5.2)	36.6 (7.3)	52.0 (5.4)	46.1 (5.2)	52.8 (3.3)	49.2 (4.2)	44.2 (6.4)
- Shan (E)	51.6 (14.6)	48.9 (5.9)	42.8 (3.7)	52.5 (12.9)	49.9 (9.4)	50.4 (10.7)	50.1 (9.8)	70.4 (8.4)
Ayeyarwaddy	44.6 (6.0)	41.9 (4.5)	36.0 (2.8)	44.1 (5.7)	42.3 (5.2)	43.7 (4.8)	42.8 (4.9)	32.5 (1.5)
Union 2010	**45.6 (1.9)**	**45.2 (1.8)**	**36.2 (1.7)**	**48.3 (2.0)**	**43.0 (1.8)**	**48.6 (1.7)**	**45.3 (1.7)**	**37.8 (1.4)**
Union 2005	**38.3 (1.8)**	**37.5 (1.4)**	**34.0 (1.5)**	**39.0 (1.7)**	**34.9 (1.4)**	**41.8 (1.5)**	**37.8 (1.4)**	
2010 Age 15-24	**42.1 (2.2)**	**42.7 (2.3)**	**29.7 (2.5)**	**45.0 (2.3)**	**40.0 (1.9)**	**45.8 (2.4)**	**42.5 (2.0)**	
2010 Age 25-59	**46.8 (2.0)**	**45.6 (1.8)**	**37.4 (1.8)**	**49.1 (2.0)**	**43.3 (1.8)**	**49.3 (1.5)**	**45.8 (1.6)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

6. Housing, Water and Sanitation

Section 6 presents begins with a review of housing characteristics, in particular roof type (Section 6.1), and proceeds to address access to three key dimensions of well-being: safe water (Section 6.2), improved sanitation (Section 6.3) and electricity (Section 6.4). All of these data were collected in Round 1 only, given that they are unlikely to vary seasonally. A summary of key findings is presented in Section 6.5.

6.1 Housing Characteristics (Roof-Type)

Table 33 presents data on the material used in the construction of the roof. A distinction is made between 'quality' and 'sub-standard' construction materials. For roofing, 'sub-standard' includes: i) thatch/leaves/palm/dhani and ii) bamboo while 'quality' comprises i) tin pieces; ii) tiles; iii) corrugated metal; iv) wood shingles and cement. Quality roofing is important in itself, as a dimension of well-being or quality of life, as well as sometimes being used as a proxy for consumption poverty.

There are a number of important results:

i. Overall, around 53% of households have quality roofing in 2010, a statistically significant increase from its 2005 level of 44%.
ii. There are large differences between the poor and non-poor, at 32% and 59% respectively.
iii. Access for the poor has increased from its 2005 level of 27.8%, a change which is not statistically significant.
iv. There is quite significant state/divisional variation, with particularly low levels in Rakhine (20%) and Ayeyarwaddy (39%).
v. There appear to be some quite large increases at the state/region level, though many differences are not statistically significant.

In summary, access to quality roofing has increased significantly overall, though slightly less so for the poor, with significant remaining gaps between states/regions. If sub-quality roofing is interpreted as a proxy for poverty, these findings provide support for the drop in poverty rates found in Section 2.

Table 33 Access to 'Quality' Roofing (Population %, Round 1)

State, Region and Union	2010			2005		
	Poor	Non Poor	Total	Poor	Non Poor	Total
Kachin	36.1 (4.0)	67.8 (3.4)	59.9 (4.0)	25.6 (7.7)	54.7 (6.8)	43.0 (5.1)
Kayah	45.9 (4.0)	79.1 (4.8)	76.3 (3.8)	50.5 (6.1)	56.5 (8.1)	54.8 (7.6)
Kayin	71.4 (9.9)	68.3 (5.0)	68.7 (3.1)	26.6 (4.8)	57.6 (4.1)	54.6 (2.4)
Chin	83.2 (2.9)	77.7 (8.8)	81.4 (5.0)	73.0 (1.6)	86.9 (6.7)	77.4 (2.7)
Sagaing	24.0 (3.6)	47.7 (3.0)	44.7 (2.6)	19.5 (3.1)	40.7 (4.2)	35.9 (3.6)
Tanintharyi	11.0 (4.1)	35.6 (7.8)	28.6 (7.4)	4.9 (2.1)	23.5 (6.7)	18.2 (5.9)
Bago	22.6 (2.7)	48.3 (4.5)	44.4 (4.0)	18.5 (1.0)	40.9 (4.9)	35.0 (4.2)
- Bago (E)	27.4 (3.6)	43.1 (4.0)	40.6 (3.5)	18.0 (1.6)	36.5 (1.3)	31.7 (1.7)
- Bago (W)	16.7 (3.8)	53.6 (7.9)	48.5 (7.2)	19.0 (1.4)	45.6 (9.9)	38.5 (8.5)
Magwe	10.6 (2.5)	43.2 (4.4)	35.7 (4.0)	13.5 (2.3)	26.5 (4.9)	21.6 (3.6)
Mandalay	39.8 (5.6)	62.0 (3.7)	57.0 (4.2)	30.9 (6.7)	52.3 (3.3)	45.0 (4.4)
Mon	37.9 (9.7)	66.2 (7.2)	62.3 (7.8)	36.4 (7.2)	52.8 (11.3)	50.0 (9.6)
Rakhine	5.0 (2.9)	28.1 (9.2)	19.6 (8.5)	9.9 (5.9)	19.6 (10.8)	16.4 (9.1)
Yangon	57.3 (12.1)	89.6 (4.7)	85.5 (6.2)	50.9 (13.5)	83.5 (3.5)	79.5 (6.3)
Shan	73.2 (3.1)	77.2 (6.7)	76.1 (5.3)	58.4 (5.4)	73.5 (6.9)	67.3 (6.3)
- Shan (S)	66.0 (3.1)	73.3 (13.7)	71.8 (11.3)	54.5 (7.4)	73.1 (13.6)	66.9 (13.7)
- Shan (N)	76.4 (4.2)	80.6 (1.9)	79.1 (1.3)	61.0 (7.8)	70.8 (3.0)	66.2 (2.9)
- Shan (E)	76.6 (10.6)	83.5 (7.0)	80.8 (8.2)	59.5 (10.0)	83.8 (3.4)	72.6 (8.2)
Ayeyarwady	19.0 (2.2)	46.5 (3.0)	39.0 (3.5)	20.5 (4.7)	40.2 (5.3)	35.1 (4.9)
UNION	**32.0 (2.2)**	**58.6 (1.8)**	**52.9 (1.9)**	**27.8 (1.9)**	**50.3 (2.1)**	**44.1 (2.0)**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

6.2 Access to Safe Drinking Water

Table 34 presents data on access to safe drinking water. Safe drinking water includes: i) private tap water. ii) public tap/stand pipe; iii) tube well/bore hole; iv) protected hand dug well and v) protected spring/pond/rainwater. It excludes: i) commercial bottled water; ii) water sold by any means; iii) unprotected hand dug well; iv) unprotected spring/pond/rainwater; v) river/stream and vi) lake/dam. It should be noted that bottled water does not qualify as a safe drinking water source (see below). Access requires that a safe drinking water source is within 30 minutes walking distance, according to questionnaire respondents, or approximately 1 kilometre.[22] Five findings are relevant to note:

i. Overall, access to safe drinking water stood at around 70% in 2010, a statistically significant increase from its 2005 level of 63%.
ii. There are differences in access between the poor and non-poor, at 62% and 72% respectively, and between rural and urban dwellers, at 65% and 81% respectively.
iii. Access to the poor has increased over time from its 2005 level of 59%, a change which is not statistically significant.
iv. There is quite significant state/divisional variation, with particularly low levels in Ayeyarwaddy (45%), Rakhine (50%) and Tanintharyi (56%).
v. There appear to be some quite large increases at the state/region level, though high standard errors urge caution in interpreting these results.
vi. There is a significant drop in urban access from 89.6% to 81.4% of households. The likely explanation involves greater use of bottled water as the primary drinking water source among urban households, which increased from 6% to 13.4% (not shown in Table 34).

Table 37 in Appendix presents data from other major surveys conducted in Myanmar which have collected data on access to safe drinking water. The data are not strictly comparable because of differences in indicator definition and population coverage. As a result, information on levels may not be expected to converge. Nevertheless, trend data from UNICEF's Multiple Indicator Cluster Surveys (MICS) undertaken in 1995, 1997 and 2000 do reveal a consistent pattern of improving access over time.

In summary, access to safe drinking water has increased modestly overall, though less so for the poor, with significant remaining gaps between states/regions and between urban and rural areas.

[22] Access to Safe Drinking Water is defined in the same was as in the 2005 *Poverty Profile* to allow for consistent comparisons. It differs from the MDG indicator, Population Proportion Using Improved Drinking Water Sources in the following ways: i) the MDG indicator is about 'use', not access, and accordingly does not require the water source to be within 30 minutes walking distance; ii) the MDG indicator excludes all surface water sources including ponds whereby the present definition includes protected ponds (the IHLCA questionnaire did not distinguish between protected spring/pond or rainwater); iii) the MDG indicator includes bottled water if a secondary improved source is also available, whereby the present definition excludes bottled water altogether (the IHLCA questionnaire only asked for the main household source of water and not whether or not there was a safe secondary source).

Table 34 Access to Safe Drinking Water (Population %, Round 1)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	80.7 (6.0)	92.9 (3.2)	95.9 (1.8)	87.0 (3.8)	89.4 (4.1)	83.9 (6.3)
Kayah	77.3 (4.9)	89.4 (0.5)	91.8 (4.8)	85.9 (1.7)	88.0 (1.1)	88.5 (4.6)
Kayin	77.8 (13.0)	77.2 (4.0)	80.3 (1.4)	76.7 (6.8)	77.3 (5.5)	55.4 (2.5)
Chin	99.5 (0.6)	99.4 (0.7)	100.0 (0.0)	99.3 (0.8)	99.4 (0.6)	77.0 (6.6)
Sagaing	64.9 (5.4)	74.2 (2.1)	78.6 (3.6)	71.8 (2.6)	72.8 (2.6)	59.9 (4.4)
Tanintharyi	55.6 (13.6)	56.7 (11.1)	56.8 (12.2)	56.2 (12.0)	56.4 (11.6)	53.5 (7.6)
Bago	81.9 (7.8)	81.2 (6.0)	87.1 (9.8)	80.4 (5.6)	81.3 (6.2)	65.8 (7.6)
- Bago (E)	92.2 (5.3)	90.8 (4.9)	99.7 (0.3)	89.6 (5.0)	91.1 (4.8)	73.1 (4.5)
- Bago (W)	65.3 (15.1)	69.8 (9.8)	64.6 (18.2)	69.6 (9.7)	69.1 (10.6)	55.8 (7.0)
Magwe	64.4 (5.4)	61.9 (6.7)	85.3 (6.0)	60.2 (5.9)	62.6 (5.6)	56.8 (8.5)
Mandalay	67.7 (8.2)	79.4 (4.0)	88.2 (2.9)	71.5 (5.8)	76.3 (4.8)	75.5 (3.9)
Mon	65.2 (9.6)	82.8 (4.7)	82.1 (2.4)	79.4 (6.5)	79.9 (5.6)	86.6 (2.3)
Rakhine	42.6 (15.7)	54.9 (12.2)	73.7 (3.8)	43.2 (12.4)	49.5 (14.0)	41.4 (14.8)
Yangon	57.6 (14.2)	80.3 (6.3)	81.8 (5.6)	61.0 (18.1)	76.7 (6.9)	86.1 (6.3)
Shan	81.3 (3.8)	84.0 (2.6)	91.2 (2.8)	80.6 (3.5)	83.1 (2.8)	65.1 (8.3)
- Shan (S)	83.3 (1.5)	85.7 (1.9)	88.3 (4.3)	84.0 (1.7)	85.1 (1.5)	52.8 (19.2)
- Shan (N)	76.8 (6.3)	79.2 (3.9)	93.0 (2.7)	74.3 (5.1)	78.3 (4.5)	74.4 (9.4)
- Shan (E)	89.9 (6.2)	94.5 (2.4)	96.8 (1.7)	91.0 (5.1)	92.4 (4.2)	75.8 (11.0)
Ayeyarwaddy	44.1 (7.0)	44.9 (3.0)	61.3 (5.9)	41.5 (5.3)	44.6 (4.1)	36.1 (5.3)
Union 2010	**62.2 (3.4)**	**71.9 (1.6)**	**81.4 (2.3)**	**65.2 (2.3)**	**69.4 (1.9)**	**62.6 (2.3)**
Union 2005	**59.4 (2.9)**	**64.2 (2.2)**	**89.6 (1.1)**	**55.3 (2.4)**	**62.6 (2.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

6.3 Access to Improved Sanitation

Table 35 presents data on access to improved sanitation. Improved sanitation includes: i) flush toilet connected to sewage system or septic tank; ii) pour flush toilet with water seal; iii) covered pit latrine with foot step lid and iv) direct and indirect covered pit latrine without foot step lid. It excludes: i) open pit latrine; ii) bucket/pan latrine; iii) surface/hanging latrine and iv) no facilities. Access is based on the type of facility typically used by the household. Five findings are relevant to note:

i. Overall, access to improved sanitation stood at around 79% in 2010, a statistically significant increase from its 2005 level of 67%.
ii. There are differences in access between the poor and non-poor, at 72% and 82% respectively, and moderate differences between rural and urban dwellers, at 77% and 84% respectively.
iii. Access to the poor has increased in statistically significant fashion from its 2005 level of 59%.
iv. There is moderate regional/state variation, with particularly low levels in Rakhine (54%).
v. There appear to be some quite large increases at the state/region level, e.g. Rakhine, though high standard errors urge caution in interpreting these results.

In summary, access to improved sanitation has increased over time, at higher rates for the poor, with moderate remaining gaps along state/divisional lines and between the poor and non-poor.

6.4 Access to Electricity

Table 36 presents data on access to electricity. Access to electricity is based on questionnaire responses to questions about the main source of lighting for their dwelling. Access includes provision from public, communal and private sources. Five findings are important to note:

i. Overall, access to electricity stood at around 48% in 2010, a statistically significant increase from its 2005 level of 38%.
ii. There are very large differences in access between the poor and non-poor, at 28% and 55% respectively, and between rural and urban dwellers, at 34% and 89% respectively.
iii. Access to the poor has increased from its 2005 level of 20%, a change which is statistically significant.
iv. There is significant state/divisional variation, with particularly low levels in Rakhine (26%), Ayeyarwaddy (30%), Magwe (31%) and Bago (32%).
v. There appear to be some quite large and statistically significant increases at the state/region level, in particular a jump from 15% to 50% in Chin.

In summary, access to electricity has improved over time, at faster rates for the poor, with significant remaining gaps along state/divisional lines and very large differences between the poor and non-poor.

Table 35 Access to Improved Sanitation (Population %, Round 1)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	81.5 (4.3)	84.6 (1.6)	79.3 (2.6)	85.4 (1.0)	83.7 (0.7)	80.1 (3.5)
Kayah	100.0 (0.0)	94.5 (0.9)	92.5 (3.7)	96.5 (1.2)	95.1 (0.8)	79.0 (2.4)
Kayin	77.8 (2.3)	79.9 (1.6)	83.2 (2.6)	78.8 (1.6)	79.5 (1.7)	65.9 (10.5)
Chin	86.6 (4.0)	85.0 (6.6)	89.5 (6.2)	85.1 (4.2)	86.2 (4.1)	66.3 (7.3)
Sagaing	75.8 (4.2)	85.0 (1.8)	85.2 (4.5)	83.3 (2.0)	83.6 (2.1)	72.2 (3.6)
Tanintharyi	59.9 (4.8)	77.1 (5.4)	92.9 (1.5)	65.0 (7.0)	71.3 (6.4)	53.4 (12.5)
Bago	58.4 (10.6)	80.7 (3.2)	79.2 (6.9)	76.2 (4.7)	76.6 (4.6)	65.1 (3.9)
- Bago (E)	76.6 (5.4)	85.1 (2.1)	83.7 (0.2)	83.3 (2.7)	83.4 (2.4)	72.3 (4.0)
- Bago (W)	29.3 (1.8)	75.4 (2.2)	71.1 (17.9)	67.8 (0.7)	68.1 (2.4)	55.6 (0.6)
Magwe	71.9 (1.4)	78.3 (2.3)	89.1 (2.2)	75.3 (2.5)	76.6 (2.0)	56.0 (4.9)
Mandalay	75.3 (4.0)	83.0 (1.8)	82.3 (3.7)	80.4 (2.0)	80.9 (2.2)	72.0 (3.8)
Mon	79.2 (2.9)	88.6 (1.3)	88.2 (2.1)	86.8 (1.7)	87.1 (1.6)	79.0 (1.3)
Rakhine	49.0 (10.7)	58.4 (11.5)	86.4 (2.1)	45.9 (7.3)	54.3 (11.8)	35.8 (12.8)
Yangon	69.4 (6.5)	85.4 (3.7)	82.8 (4.8)	83.0 (7.6)	82.8 (4.0)	76.2 (7.0)
Shan	81.1 (5.6)	80.1 (3.6)	85.8 (2.9)	78.8 (5.0)	80.5 (3.8)	63.4 (4.0)
- Shan (S)	87.5 (2.0)	83.5 (1.7)	82.8 (4.5)	85.2 (2.7)	84.6 (1.9)	68.4 (6.3)
- Shan (N)	80.4 (7.0)	73.7 (4.8)	87.1 (1.8)	73.2 (5.7)	76.2 (4.4)	59.9 (2.1)
- Shan (E)	71.1 (19.9)	88.7 (5.4)	92.9 (1.6)	76.5 (14.5)	80.6 (12.6)	57.6 (23.1)
Ayeyarwaddy	79.2 (3.6)	84.0 (2.7)	87.7 (5.1)	81.4 (3.3)	82.4 (3.0)	74.8 (2.9)
Union 2010	**71.5 (2.2)**	**81.6 (1.0)**	**84.1 (2.0)**	**77.2 (1.3)**	**79.0 (1.2)**	**67.3 (1.7)**
Union 2005	**58.7 (1.8)**	**71.4 (1.9)**	**75.6 (2.4)**	**64.4 (2.0)**	**67.3 (1.7)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 36 Access to Electricity (Population %, Round 1)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	28.2 (8.4)	62.0 (7.5)	77.4 (8.7)	45.4 (5.4)	53.6 (8.2)	40.8 (3.9)
Kayah	43.6 (9.2)	79.6 (5.3)	100.0 (0.0)	61.9 (3.8)	76.6 (5.3)	60.1 (2.6)
Kayin	45.6 (9.9)	44.1 (5.1)	93.0 (3.8)	34.8 (4.3)	44.3 (3.1)	27.7 (7.0)
Chin	50.2 (15.0)	51.0 (8.7)	79.0 (4.8)	40.7 (17.2)	50.5 (9.9)	14.7 (1.1)
Sagaing	35.5 (4.2)	52.1 (5.2)	86.1 (2.3)	43.8 (4.4)	50.0 (4.6)	32.9 (5.2)
Tanintharyi	32.7 (7.9)	64.3 (5.8)	81.7 (12.7)	47.7 (3.9)	55.3 (6.2)	34.5 (6.0)
Bago	17.7 (4.6)	33.9 (4.0)	77.0 (4.5)	24.3 (5.7)	31.5 (4.1)	16.8 (2.9)
- Bago (E)	26.5 (2.9)	39.0 (3.2)	80.1 (6.1)	29.1 (7.5)	37.0 (2.9)	20.3 (2.6)
- Bago (W)	7.0 (4.7)	28.6 (7.1)	72.6 (1.3)	19.5 (7.7)	25.6 (6.5)	13.2 (5.3)
Magwe	18.5 (1.8)	35.1 (6.4)	89.4 (3.1)	24.4 (3.3)	31.3 (4.9)	28.1 (4.1)
Mandalay	25.6 (5.6)	59.5 (3.9)	90.5 (1.1)	36.8 (5.4)	51.9 (5.1)	37.1 (3.7)
Mon	62.7 (8.2)	75.1 (5.2)	80.8 (0.5)	71.7 (6.6)	73.4 (4.9)	52.3 (6.1)
Rakhine	7.4 (5.8)	37.4 (12.8)	76.7 (3.3)	11.5 (2.4)	26.4 (12.3)	23.2 (12.2)
Yangon	55.3 (15.9)	88.9 (3.4)	95.5 (1.2)	53.9 (14.9)	84.6 (5.5)	79.5 (5.7)
Shan	50.8 (3.4)	68.1 (8.6)	91.3 (1.8)	54.0 (6.1)	63.2 (7.2)	47.0 (6.8)
- Shan (S)	43.7 (3.7)	66.3 (21.2)	90.1 (4.9)	50.1 (16.5)	61.9 (20.5)	47.3 (19.8)
- Shan (N)	49.1 (5.2)	67.2 (7.0)	91.7 (3.5)	53.2 (5.7)	61.0 (5.1)	48.4 (5.4)
- Shan (E)	69.1 (11.9)	80.5 (3.0)	95.9 (2.3)	70.2 (5.9)	76.0 (6.7)	41.4 (14.5)
Ayeyarwaddy	14.5 (5.6)	35.4 (6.8)	80.1 (7.1)	19.8 (3.3)	29.7 (6.8)	25.0 (7.8)
Union 2010	**27.9 (2.5)**	**54.5 (2.2)**	**89.0 (1.1)**	**34.3 (1.8)**	**48.8 (2.3)**	**38.0 (2.3)**
Union 2005	**20.4 (1.7)**	**44.6 (2.6)**	**81.3 (1.5)**	**22.4 (1.7)**	**38.0 (2.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

6.5 Summary

Section 6 has presented data on various aspects of housing, water and sanitation conditions in Myanmar.

In terms of 'quality' roofing, which is sometimes used as a proxy of consumption poverty, around 53% of households had access in 2010, a statistically significant increase from its 2005 level of 44%. There are large differences between the poor and non-poor, at 32% and 59% respectively, though access for the poor has increased from its 2005 level of 27.8%, a change which is not statistically significant. There is quite significant state/divisional variation, with particularly low levels in Rakhine (20%) and Ayeyarwaddy (39%). In summary, access to quality roofing has increased significantly overall, though slightly less so for the poor, with significant remaining gaps between states/regions. If sub-quality roofing is interpreted as a proxy for poverty, these findings provide support for the drop in poverty rates found in Section 2.

In terms of safe drinking water, overall access has increased in statistically significant fashion between 2005 and 2010, from 63% to 70% respectively. There are differences in access between the poor and non-poor, at 62% and 72% respectively, and between rural and urban dwellers, at 65% and 81% respectively. Access to the poor has increased over time from its 2005 level of 59%, a change which is not statistically significant. Particularly low levels are found in Ayeyarwaddy (45%), Rakhine (50%) and Tanintharyi (56%). In summary, access to safe drinking water has increased modestly overall, though less so for the poor, with significant remaining gaps between states/regions and between urban and rural areas.

With respect to improved sanitation, overall access has increased in statistically significant fashion between 2005 and 2010, from 67% to 79% respectively. There are large differences in access between the poor and non-poor, at 72% and 82% respectively, and moderate differences between rural and urban dwellers, at 77% and 84% respectively. Access to the poor has increased from its 2005 level of 59%, a change which is statistically significant. Particularly low levels are found in Rakhine (54%), though in this state, access appears to have increased over time (high standard errors urge caution in interpreting this result). In summary, access to improved sanitation has increased over time, at higher rates for the poor, with moderate remaining gaps along state/divisional lines and between the poor and non-poor

In terms of electricity, overall access has increased in statistically significant fashion between 2005 and 2010, from 38% to 48% respectively. There are very large differences in access between the poor and non-poor, at 28% and 55% respectively, and between rural and urban dwellers, at 34% and 89% respectively. Access to the poor has increased from its 2005 level of 20%, a change which is statistically significant. Particularly low levels are found in Rakhine (26%), Ayeyarwaddy (30%), Magwe (31%) and Bago (32%). In summary, access to electricity has improved over time, at faster rates for the poor, with significant remaining gaps along state/divisional lines and very large differences between the poor and non-poor.

Overall, these data suggest a process of general improvement across all indicators, though with remaining gaps along state/divisional and poverty lines. Rakhine State has tended to fare among the worst for all the indicators presented.

6.6 Appendix Tables

Table 37 Access to Safe Drinking Water (Results of Major Surveys)

Region	MICS* 1995	MICS** 1997	MICS*** 2000	FRHS**** 2001 (PR)	IHLCA (2005) Rural	Urban	Poor	Non Poor	Total
Union	59.7	66	71.5	63	55.30	89.61	59.40	64.27	62.62
Urban	78.1	87.9	89.3	77.9					
Rural	49.6	59.9	65.8	58					
Kachin	67	68	75		79.04	97.20	78.80	88.00	83.89
Kayah	64	37	62.6		83.50	97.00	87.70	89.00	88.54
Kayin	74	62	43		53.08	70.71	40.70	57.50	55.44
Chin	62	57	41.9		74.85	84.67	72.80	88.90	77.04
Mon	69	69	66.4		84.68	94.67	79.10	88.66	86.58
Rakhine	33	60	47		33.85	71.67	42.60	40.60	41.39
Shan (N)	69	58	75.8		69.28	94.34	68.20	80.90	74.37
Shan (E)	68	63	56.4		71.54	94.85	67.50	85.80	75.83
Shan (S)	45	57	58.2		46.25	78.37	40.80	61.40	52.81
Ayeyarwaddy	43	58	60.2		30.06	76.36	43.10	32.80	36.06
Bago (E)	66	82	82.9		69.22	93.72	73.40	73.0	73.11
Bago (W)					53.35	82.66	57.73	54.90	55.82
Magway	54	56	76.9		53.71	94.06	51.82	60.93	56.77
Mandalay	75	68	77.2		68.65	96.31	66.60	81.48	75.50
Sagaing	60	62	78.5		57.76	74.50	58.50	60.50	59.94
Tanintharyi	57	54	51.8		49.21	79.39	52.80	53.90	53.50
Yangon	66	84	90.6		63.77	97.38	93.5	84.68	86.07

*Safe and convenient drinking water = piped water, public tap, borehole/tube-well, protected well/spring; available in the home or from a source located less than 100 yards from home.

** Safe drinking water = piped water, public tap, borehole/tubewell, protected well/spring, pond and covered rain water.

*** Safe drinking water = piped water, public tap, tube well, protected well/spring, protected pond/rain water.

**** Safe drinking water = piped water, protected well.

7. Health and Nutrition

Section 7 begins with a review of immunization coverage (Section 7.1) and proceeds to present data on maternal health, in particular antenatal health coverage and births attended by skilled personnel (Section 7.2), Morbidity (Section 7.3), Nutrition, specifically moderate and acute malnutrition, (Section 7.4), access to health care (Section 7.5) and household expenditure on health (Section 7.6). Key findings are summarized in Section 7.7 followed by the results of other major surveys in Appendix (Section 7.8).

7.1 Immunisation Coverage

Table 38 presents data on the proportion of 1 year-old children immunized against measles, which is an indicator of immunization coverage.[23] Four findings are relevant to note:

i. Overall, immunisation coverage stood at around 82% in 2010, a modest, though not statistically significant, increase from its 2005 level of 80%.
ii. There are considerable differences in coverage between the poor and non-poor, at 76% and 86% respectively, and differences between rural and urban dwellers, at 80% and 92% respectively.
iii. Coverage of the poor has fallen slightly from its 2005 level of 78%, a change which is not statistically significant.
iv. There is moderate regional/state variation, with particularly low levels in Rakhine (68%).

In summary, immunisation coverage against measles has increased modestly overall, though has declined slightly for poor households. Remaining gaps exist between the between states/regions, urban and rural dwellers and between poor and non-poor households.

[23] Data on Immunisation rates for Polio and DPT are presented in Table 46 and Table 47 respectively in Section 7.8 (Appendix Tables).

Table 38 Proportion of 1 Year Olds Fully Immunised Against Measles

State Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	66.4 (13.1)	64.0 (10.4)	70.4 (21.1)	65.0 (11.1)	65.0 (11.0)	79.8 (9.0)
Kayah	65.7 (26.4)	100.0 (0.0)	100.0 (0.0)	93.1 (6.2)	93.6 (6.2)	89.6 (14.9)
Kayin	100.0 (0.0)	82.0 (9.6)	95.7 (4.1)	86.2 (5.1)	87.0 (4.8)	76.6 (15.4)
Chin	57.3 (14.2)	60.3 (29.5)	19.7 (25.8)	83.8 (7.3)	58.5 (20.2)	62.9 (14.0)
Sagaing	89.5 (4.3)	86.5 (7.6)	83.6 (9.1)	87.6 (6.3)	87.1 (5.7)	78.8 (1.8)
Tanintharyi	94.9 (3.3)	89.7 (3.9)	79.0 (10.8)	95.0 (0.6)	92.0 (1.8)	75.2 (4.8)
Bago	56.7 (22.4)	67.4 (9.9)	96.2 (4.3)	61.6 (12.0)	64.6 (11.1)	80.9 (5.6)
- Bago (E)	64.0 (30.5)	78.7 (9.4)	100.0 (0.0)	72.2 (14.7)	74.5 (13.9)	87.4 (6.5)
- Bago (W)	39.1 (47.6)	51.2 (19.1)	91.3 (9.1)	44.2 (20.0)	48.8 (19.2)	69.0 (4.4)
Magwe	83.8 (11.1)	79.6 (5.7)	100.0 (0.0)	79.4 (7.5)	81.2 (6.7)	87.5 (2.6)
Mandalay	77.9 (7.9)	91.4 (4.0)	89.6 (5.0)	84.9 (7.6)	86.5 (6.1)	89.6 (3.1)
Mon	65.7 (4.6)	97.8 (2.2)	100.0 (0.0)	91.7 (5.0)	92.8 (4.9)	79.5 (1.4)
Rakhine	61.1 (9.5)	78.1 (6.4)	76.3 (13.4)	67.3 (8.6)	68.2 (6.7)	66.8 (8.2)
Yangon	74.0 (7.9)	96.3 (1.6)	97.6 (2.4)	72.2 (4.8)	91.8 (3.0)	80.0 (4.7)
Shan	50.5 (9.6)	78.9 (6.2)	90.1 (8.9)	65.5 (7.3)	70.0 (8.5)	82.0 (10.4)
- Shan (S)	33.6 (1.2)	75.3 (10.6)	85.9 (23.0)	53.8 (2.8)	60.3 (14.1)	96.1 (5.4)
- Shan (N)	69.1 (18.7)	82.0 (10.5)	94.1 (5.9)	75.7 (14.7)	79.4 (12.0)	59.9 (6.1)
- Shan (E)	69.0 (3.8)	78.7 (5.3)	100.0 (0.0)	72.3 (3.7)	73.6 (4.8)	84.6 (7.0)
Ayeyarwaddy	87.7 (5.3)	91.2 (1.9)	94.1 (4.4)	89.1 (1.8)	89.9 (1.7)	78.4 (5.1)
Union 2010	**75.5 (3.4)**	**85.6 (1.8)**	**91.5 (2.6)**	**79.6 (2.3)**	**82.3 (2.0)**	**80.3 (3.4)**
Union 2005	**78.4 (2.4)**	**81.4 (1.8)**	**79.7 (2.1)**	**80.4 (1.9)**	**80.3 (3.4)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

7.2 Maternal Health

Table 39 presents data on antenatal care coverage. This indicator is defined as the proportion of women having given birth in the past five years who used skilled health personnel for antenatal care at least once during their last pregnancy. Skilled health personnel include the following: i) doctor; ii) nurse; iii) mid-wife and iv) Lady Health Visitor. It excludes traditional birth attendants and voluntary health workers. Four findings are relevant to note:

i. Overall, antenatal care coverage stood at around 83% in 2010, which is virtually identical to its 2005 level.
ii. There are moderate differences in access between the poor and non-poor, at 77% and 86% respectively, and differences between rural and urban dwellers, at 81% and 93% respectively.
iii. Coverage of the poor has increased slightly from its 2005 level of 76%, a change which is not statistically significant.
iv. There is moderate regional/state variation, with particularly low levels in Chin (60%) and Rakhine (67%).

Table 40 presents data on the proportion of births attended by skilled personnel. 'Skilled health personnel' is defined in the same way as above for antenatal care coverage. There are a number of key findings.

i. Overall, 78% of births were attended by skilled personnel in 2010, a modest increase from its 2005 level of 73%.
ii. There are considerable differences between the poor and non-poor, at 69% and 81% respectively, and differences between rural and urban dwellers, at 74% and 93% respectively.
iii. Coverage of the poor has increased slightly from its 2005 level of 65%, a change which is not statistically significant.
iv. Particularly low levels are found in Rakhine (55%) and Chin (61%), despite apparent improvements in both these states over time (these changes are not statistically significant).

In summary, indicators of maternal health have stayed at relatively high levels or increased modestly with remaining gaps between states/regions, urban and rural dwellers and between poor and non-poor households.

Table 39 Antenatal Care Coverage, At Least One Visit (%)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	89.1 (2.9)	86.7 (5.1)	99.6 (0.2)	85.2 (4.6)	87.4 (3.9)	83.7 (2.4)
Kayah	100.0 (0.0)	97.5 (3.0)	88.6 (17.6)	100.0 (0.0)	97.8 (2.5)	97.1 (2.8)
Kayin	93.9 (7.2)	87.7 (1.2)	93.4 (3.7)	88.4 (2.7)	89.0 (2.7)	72.1 (11.9)
Chin	57.5 (11.6)	66.0 (9.2)	97.5 (2.9)	48.3 (7.7)	60.1 (9.7)	63.1 (11.6)
Sagaing	87.5 (3.8)	81.5 (2.8)	91.1 (3.2)	81.3 (2.2)	82.5 (2.2)	81.6 (4.5)
Tanintharyi	70.1 (13.4)	88.7 (4.6)	84.4 (10.5)	82.9 (8.0)	83.2 (8.3)	89.6 (2.8)
Bago	70.6 (12.8)	84.9 (3.0)	94.9 (3.1)	79.9 (5.7)	81.7 (5.1)	82.6 (1.4)
- Bago (E)	84.4 (6.5)	87.6 (4.0)	97.0 (3.7)	85.2 (6.0)	86.8 (4.4)	81.9 (1.8)
- Bago (W)	49.3 (25.1)	80.8 (4.3)	89.5 (2.0)	72.0 (10.0)	73.5 (9.8)	83.6 (1.2)
Magwe	80.8 (5.1)	88.8 (3.3)	86.1 (11.5)	86.3 (3.5)	86.3 (3.8)	89.1 (0.9)
Mandalay	77.7 (3.5)	88.6 (2.0)	90.5 (3.0)	83.3 (3.3)	85.1 (2.1)	86.9 (1.5)
Mon	100.0 (0.0)	96.0 (1.7)	100.0 (0.0)	95.9 (2.3)	96.6 (1.5)	91.5 (1.7)
Rakhine	64.7 (6.6)	69.1 (2.8)	75.1 (9.8)	66.2 (4.3)	67.0 (3.9)	59.0 (5.9)
Yangon	81.2 (7.7)	97.4 (1.8)	96.7 (2.4)	88.4 (3.1)	94.2 (3.1)	95.4 (2.8)
Shan	80.9 (3.6)	83.1 (4.8)	97.1 (1.9)	78.6 (3.7)	82.5 (4.1)	79.5 (3.4)
- Shan (S)	80.7 (6.7)	81.2 (12.2)	96.1 (5.1)	76.6 (9.5)	81.1 (10.9)	86.4 (6.5)
- Shan (N)	81.8 (7.9)	84.9 (5.5)	97.6 (1.8)	80.7 (4.2)	84.1 (3.9)	77.2 (1.5)
- Shan (E)	79.4 (3.7)	82.8 (5.7)	99.1 (0.3)	77.2 (4.5)	81.4 (4.2)	63.0 (18.4)
Ayeyarwaddy	76.9 (3.4)	79.9 (3.6)	91.5 (4.8)	77.3 (3.2)	78.9 (3.2)	79.6 (4.5)
Union 2010	**77.2 (2.2)**	**85.7 (1.0)**	**93.3 (1.4)**	**80.8 (1.4)**	**83.3 (1.2)**	**82.5 (1.4)**
Union 2005	**75.5 (2.1)**	**86.4 (1.3)**	**92.9 (1.2)**	**79.5 (1.4)**	**82.5 (1.4)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 40 Births Attended by Skilled Personnel (%)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	76.0 (2.8)	83.4 (4.4)	92.7 (7.1)	79.1 (4.7)	81.2 (2.7)	66.6 (5.3)
Kayah	100.0 (0.0)	87.6 (0.8)	86.7 (19.6)	89.8 (3.1)	89.3 (0.5)	80.8 (6.6)
Kayin	94.0 (5.9)	80.9 (1.4)	97.2 (2.2)	81.8 (2.8)	83.6 (2.5)	58.8 (10.0)
Chin	57.3 (9.7)	70.5 (10.7)	98.3 (2.4)	49.7 (7.8)	61.3 (9.0)	45.2 (9.1)
Sagaing	81.2 (7.0)	73.3 (7.1)	90.5 (3.3)	72.5 (6.2)	74.6 (5.8)	67.1 (7.3)
Tanintharyi	72.5 (10.2)	84.8 (4.5)	88.3 (9.7)	79.0 (6.3)	81.2 (6.7)	79.7 (4.3)
Bago	61.6 (14.6)	79.6 (3.0)	87.5 (8.0)	73.9 (6.7)	75.5 (5.8)	69.9 (3.6)
- Bago (E)	73.9 (5.2)	81.3 (2.9)	86.0 (13.5)	78.6 (5.4)	79.6 (2.7)	76.2 (3.8)
- Bago (W)	42.5 (32.7)	76.9 (6.9)	91.3 (5.5)	66.7 (13.4)	68.8 (13.8)	60.6 (0.1)
Magwe	74.2 (5.4)	81.9 (3.9)	87.0 (9.2)	78.9 (3.9)	79.4 (4.1)	76.3 (1.5)
Mandalay	75.1 (2.2)	87.6 (2.0)	88.9 (4.6)	81.8 (3.1)	83.6 (1.8)	83.9 (2.2)
Mon	96.8 (4.1)	95.7 (0.9)	100.0 (0.0)	95.0 (1.6)	95.9 (0.9)	91.2 (1.1)
Rakhine	45.0 (13.6)	64.4 (11.9)	78.1 (11.9)	52.8 (11.0)	55.2 (10.3)	48.5 (4.3)
Yangon	76.6 (8.8)	95.3 (2.6)	96.6 (2.4)	80.4 (3.9)	91.7 (3.8)	87.5 (2.1)
Shan	83.9 (3.1)	83.2 (5.1)	99.0 (0.9)	79.2 (3.9)	83.4 (3.7)	78.5 (4.4)
- Shan (S)	78.4 (2.9)	89.2 (3.7)	100.0 (0.0)	82.4 (3.2)	86.5 (4.6)	86.8 (3.6)
- Shan (N)	88.7 (3.0)	76.6 (8.4)	97.9 (1.8)	75.1 (6.8)	79.6 (6.4)	73.9 (5.1)
- Shan (E)	85.3 (3.5)	87.4 (6.4)	99.1 (0.3)	83.6 (4.9)	86.6 (4.1)	63.9 (20.3)
Ayeyarwaddy	63.7 (2.2)	73.9 (3.0)	88.9 (4.8)	68.0 (3.1)	70.4 (2.3)	64.8 (6.3)
Union 2010	**69.3 (2.8)**	**81.4 (1.5)**	**92.6 (1.6)**	**74.2 (1.7)**	**77.9 (1.5)**	**72.5 (1.7)**
Union 2005	**64.6 (2.0)**	**76.9 (1.8)**	**88.6 (1.7)**	**67.9 (1.8)**	**72.5 (1.7)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

7.3 Morbidity

Table 41 presents merged data on self-reported morbidity, as there was very little variation between the two rounds of the IHLCA. This indicator is defined as the population percentage who declared having been hospitalized, staying in bed all day, or reducing their activities because of illness or injury in the 30 days preceding the survey. It should be noted that self-reports of morbidity often introduce a bias when comparing the situation of poor and non-poor population groups. The former often apply a higher standard when determining what constitutes illness and/or are less able to stay in a hospital or in bed, or reduce activities. Accordingly, the non-poor often appear with higher levels of morbidity. There are a number of key findings.

i. Overall, self-reported morbidity stood as 5.4% of the population in 2010, virtually identical to its 2005 level of 5.3%.
ii. As explained above, these data show slightly higher levels of morbidity for the non-poor than the poor, at 5.5% and 5.1% respectively.
iii. Morbidity of the poor has stayed virtually constant from its 2004 level of 5.3%.
iv. There data do not reveal significant differences between urban and rural areas but do suggest higher rates of morbidity among females than males, at 4.9% and 5.9% respectively.
v. Comparatively higher levels are found in Kayin (8.9%), Chin (8.1%), Kayah (8.0%) and Rakhine (8.0%).

In summary, self-reported morbidity levels have remained unchanged over time but reflect the self-report bias found in the literature whereby the poor appear less ill than the non-poor.

Table 41 Self-Reported Morbidity Incidence

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	5.3 (1.0)	6.0 (0.9)	4.1 (0.5)	6.4 (0.9)	5.6 (1.1)	6.0 (0.8)	5.8 (0.9)	7.5 (1.0)
Kayah	6.5 (2.3)	8.2 (0.3)	8.6 (0.6)	7.7 (0.2)	6.3 (0.3)	9.8 (0.4)	8.0 (0.0)	6.4 (1.4)
Kayin	9.2 (2.5)	8.8 (1.5)	8.0 (0.4)	9.1 (1.9)	7.5 (1.8)	10.3 (1.5)	8.9 (1.6)	8.9 (2.6)
Chin	8.3 (2.4)	7.9 (0.7)	8.3 (2.2)	8.1 (1.7)	7.9 (2.0)	8.3 (1.7)	8.1 (1.8)	7.7 (1.2)
Sagaing	4.3 (1.6)	4.4 (0.7)	5.9 (1.7)	4.1 (0.6)	3.8 (0.6)	4.9 (1.0)	4.4 (0.8)	4.5 (0.4)
Tanintharyi	5.9 (1.4)	8.2 (1.1)	10.4 (0.9)	6.6 (1.4)	6.4 (1.4)	8.4 (1.4)	7.5 (1.4)	6.5 (0.9)
Bago	5.4 (0.7)	5.3 (0.6)	6.2 (1.1)	5.2 (0.5)	4.8 (0.4)	5.8 (0.7)	5.3 (0.6)	7.0 (1.0)
- Bago (E)	6.3 (1.0)	6.3 (0.3)	7.9 (0.3)	6.0 (0.4)	5.5 (0.3)	7.0 (0.6)	6.3 (0.4)	8.1 (1.6)
- Bago (W)	3.9 (0.2)	4.1 (0.9)	3.2 (1.0)	4.2 (0.7)	3.8 (0.4)	4.3 (1.1)	4.1 (0.8)	5.5 (0.3)
Magwe	5.1 (0.7)	5.4 (0.8)	4.8 (1.3)	5.4 (0.7)	4.6 (0.5)	5.9 (0.7)	5.3 (0.6)	5.7 (0.9)
Mandalay	3.5 (0.2)	4.3 (0.7)	3.8 (0.7)	4.2 (0.5)	3.7 (0.3)	4.4 (0.7)	4.1 (0.5)	4.1 (0.5)
Mon	3.5 (0.8)	3.5 (0.4)	3.5 (0.4)	3.5 (0.4)	3.0 (0.3)	3.9 (0.6)	3.5 (0.4)	3.4 (0.5)
Rakhine	6.8 (0.8)	9.0 (1.7)	7.5 (1.8)	8.2 (0.9)	7.2 (1.1)	8.9 (1.3)	8.0 (1.1)	6.9 (1.7)
Yangon	5.1 (0.5)	4.9 (0.9)	5.0 (0.8)	5.0 (1.7)	4.4 (0.7)	5.5 (0.9)	5.0 (0.8)	4.4 (1.0)
Shan	2.9 (1.1)	4.5 (1.1)	4.4 (0.6)	3.9 (1.3)	4.0 (1.2)	4.0 (0.9)	4.0 (1.0)	4.6 (1.2)
- Shan (S)	5.7 (0.9)	6.4 (2.2)	6.4 (0.8)	6.2 (2.2)	6.4 (2.2)	6.1 (1.3)	6.3 (1.8)	6.4 (2.9)
- Shan (N)	1.4 (0.8)	2.7 (0.9)	2.9 (0.7)	2.0 (0.9)	1.9 (0.9)	2.5 (0.9)	2.2 (0.9)	3.2 (0.9)
- Shan (E)	1.6 (0.4)	2.6 (0.8)	2.0 (0.6)	2.2 (0.6)	2.1 (0.3)	2.2 (0.8)	2.1 (0.6)	2.6 (0.2)
Ayeyarwaddy	5.7 (1.1)	7.1 (0.8)	7.0 (0.9)	6.6 (0.9)	6.2 (0.8)	7.1 (0.9)	6.7 (0.8)	5.3 (0.3)
Union 2010	**5.1 (0.3)**	**5.5 (0.3)**	**5.3 (0.4)**	**5.4 (0.3)**	**4.9 (0.2)**	**5.9 (0.3)**	**5.4 (0.3)**	**5.3 (0.3)**
Union 2005	**5.3 (0.3)**	**5.3 (0.3)**	**4.3 (0.4)**	**5.6 (0.3)**	**5.2 (0.3)**	**5.4 (0.3)**	**5.3 (0.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

7.4 Nutrition

Table 42 and Table 43 43 present data on moderate and severe malnutrition, respectively. Malnutrition is here defined as weight for age. Incidence of moderate and severe malnutrition represents the population proportion falling below two and three standard deviations, respectively, of a reference population norm for children under five. It should be noted that weight for age is often interpreted as a composite nutritional indicator which takes into account stunting (height for age) and wasting (weight for height).

With respect to moderate malnutrition, Table 42 reveals a number of important findings:

i. Overall, moderate malnutrition stood at 32% in 2010, a non-statistically significant decline from its 2005 level of 34%.
ii. There are differences between the poor and non-poor, at 35% and 30.6% respectively, and between rural and urban dwellers, at 33.7% and 25.5% respectively, though males and females have virtually identical levels.
iii. Malnutrition among the poor has declined from its 2005 level of 37.9%, a change which is not statistically significant.
iv. Particularly high levels are found in Rakhine (53%) and Shan (S) (48%).

In terms of severe malnutrition, Table 43 presents a very similar picture as above, namely:

i. Overall, severe malnutrition stood at 9.1% in 2010, a non-statistically significant decline from its 2005 level of 9.4%.
ii. There are differences between the poor and non-poor, at 10.2% and 8.6% respectively, and between rural and urban dwellers, at 9.7% and 6.9% respectively.
iii. Unlike moderate malnutrition, females have higher rates than males at 10% and 8.3% respectively.
iv. Malnutrition among the poor has declined from its 2005 level of 11.3%, a change which is not statistically significant.
v. Particularly high levels are found in Shan (S) (18.5%) and Rakhine (16.3%).

Overall, these data suggest a pattern of modest improvement over time. As such they are broadly consistent with findings of declines in food poverty and poverty presented in Chapter 2. In addition, they are consistent with findings of the 1995, 1997 and 2000 Multiple Indicator Cluster Surveys (MICS) which reveal a similar downward trend over time (see Appendix Tables).

Table 42 Moderate Malnutrition (Weight for Age), Under 5 (%)

State, Region and Union	2010							2005 Total
	Strata		Poverty Status		Gender		Total	
	Urban	Rural	Poor	Non poor	Male	Female		
Kachin	40.4 (6.6)	23.0 (8.9)	20.6 (14.8)	28.0 (8.8)	27.7 (10.1)	21.9 (8.4)	25.3 (9.4)	28.2 (0.6)
Kayah	44.1 (28.3)	13.4 (2.5)	9.1 (9.9)	20.4 (6.0)	19.8 (0.1)	17.5 (8.8)	18.7 (3.7)	21.0 (6.5)
Kayin	26.2 (5.9)	29.7 (1.3)	16.0 (3.3)	32.3 (1.8)	30.6 (3.1)	28.0 (1.0)	29.3 (1.7)	30.0 (8.1)
Chin	35.9 (8.6)	32.6 (13.3)	33.2 (10.2)	33.8 (6.3)	33.5 (8.1)	33.3 (10.1)	33.4 (9.1)	31.7 (6.7)
Sagaing	29.9 (6.7)	31.5 (3.2)	35.0 (2.4)	30.5 (2.9)	27.5 (2.6)	34.8 (4.5)	31.3 (2.7)	28.5 (3.4)
Tanintharyi	32.2 (9.8)	24.9 (6.1)	27.4 (3.2)	26.1 (8.8)	20.3 (6.2)	32.6 (8.5)	26.6 (6.4)	28.9 (1.7)
Bago	36.4 (5.6)	25.4 (3.2)	25.6 (2.4)	27.2 (4.8)	30.9 (2.2)	22.9 (5.9)	26.8 (3.6)	29.1 (2.7)
- Bago (E)	39.2 (4.2)	24.4 (3.6)	30.6 (5.0)	25.3 (5.8)	33.4 (3.5)	19.5 (6.0)	26.5 (4.3)	31.8 (1.2)
- Bago (W)	30.4 (14.0)	26.9 (5.3)	18.8 (3.1)	30.1 (6.8)	26.8 (2.8)	27.6 (9.3)	27.2 (6.0)	24.0 (6.8)
Magwe	19.0 (4.0)	38.9 (4.3)	35.8 (6.6)	38.3 (5.2)	38.0 (5.9)	36.9 (5.1)	37.4 (4.6)	42.3 (4.1)
Mandalay	13.6 (1.4)	31.5 (3.1)	30.8 (4.7)	25.1 (2.3)	28.4 (2.9)	25.4 (4.7)	27.0 (2.5)	33.0 (3.8)
Mon	16.0 (4.0)	26.0 (4.1)	19.5 (3.0)	24.8 (5.2)	21.2 (7.8)	26.8 (5.9)	24.2 (4.8)	35.1 (9.2)
Rakhine	34.1 (5.9)	54.4 (1.8)	56.7 (4.2)	48.7 (2.8)	51.8 (2.8)	53.6 (4.0)	52.8 (2.4)	60.5 (3.3)
Yangon	24.5 (5.9)	34.1 (2.8)	38.2 (11.6)	23.9 (2.5)	25.8 (8.3)	29.2 (2.4)	27.3 (4.4)	27.0 (5.0)
Shan	32.4 (13.1)	32.1 (4.5)	33.6 (5.3)	31.6 (2.4)	33.1 (1.5)	31.0 (3.5)	32.2 (2.1)	29.8 (5.3)
- Shan (S)	59.1 (13.6)	45.8 (0.8)	46.3 (0.8)	49.0 (5.2)	45.6 (5.1)	52.9 (2.0)	48.3 (4.0)	34.2 (7.9)
- Shan (N)	8.4 (3.4)	19.3 (4.9)	25.1 (7.6)	14.4 (5.0)	18.1 (2.8)	16.5 (6.3)	17.2 (4.6)	26.5 (7.3)
- Shan (E)	2.3 (0.5)	21.9 (4.2)	24.9 (7.0)	12.4 (4.7)	20.3 (4.3)	16.9 (3.6)	18.7 (4.1)	25.3 (5.1)
Ayeyarwaddy	32.5 (3.2)	34.2 (4.1)	33.5 (4.0)	34.3 (3.8)	34.6 (3.2)	33.4 (5.9)	34.0 (3.7)	36.2 (4.0)
Union 2010	**25.5 (2.7)**	**33.7 (1.3)**	**35.2 (2.0)**	**30.6 (1.2)**	**31.7 (1.5)**	**32.3 (1.6)**	**32.0 (1.2)**	**34.3 (1.3)**
Union 2005	**31.4 (3.0)**	**35.0 (1.4)**	**37.9 (1.5)**	**32.1 (1.5)**	**34.4 (1.5)**	**34.1 (1.5)**	**34.3 (1.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 43 Severe Malnutrition (Weight for Age), Under 5 (%)

State, Region and Union	2010							2005 Total
	Strata		Poverty Status		Gender		Total	
	Urban	Rural	Poor	Non poor	Male	Female		
Kachin	7.7 (7.0)	4.2 (2.2)	4.2 (2.1)	4.8 (3.4)	5.2 (2.0)	3.8 (3.0)	4.6 (2.1)	9.0 (0.9)
Kayah	13.6 (8.7)	2.5 (0.1)	0.0 (0.0)	5.2 (2.2)	1.5 (1.4)	7.7 (3.9)	4.4 (2.0)	3.5 (1.5)
Kayin	2.2 (1.0)	5.9 (1.7)	0.0 (0.0)	6.8 (1.8)	5.8 (2.4)	5.3 (0.8)	5.6 (1.5)	5.8 (1.0)
Chin	11.4 (1.0)	8.3 (4.7)	6.9 (3.8)	14.3 (4.0)	10.3 (3.4)	7.6 (3.9)	9.0 (3.8)	4.6 (0.3)
Sagaing	12.2 (4.4)	10.4 (1.5)	6.4 (2.8)	11.5 (1.2)	7.5 (1.5)	13.4 (1.8)	10.6 (1.0)	5.9 (0.8)
Tanintharyi	5.8 (2.3)	6.9 (2.2)	6.7 (1.9)	6.6 (2.0)	4.6 (2.6)	8.5 (0.6)	6.6 (1.5)	6.6 (1.6)
Bago	8.4 (2.8)	9.3 (1.5)	6.7 (1.2)	9.9 (2.0)	9.4 (1.4)	8.9 (2.1)	9.2 (1.3)	8.7 (1.3)
- Bago (E)	10.0 (1.7)	10.6 (1.9)	11.5 (2.7)	10.2 (2.2)	11.5 (1.5)	9.5 (2.9)	10.5 (1.5)	10.1 (0.6)
- Bago (W)	4.9 (6.7)	7.3 (3.1)	0.0 (0.0)	9.5 (4.0)	6.1 (3.4)	8.0 (3.4)	7.1 (3.2)	6.0 (3.2)
Magwe	0.4 (0.4)	7.3 (1.1)	5.3 (2.0)	7.6 (2.0)	3.2 (1.2)	10.0 (1.4)	6.8 (1.1)	9.5 (1.6)
Mandalay	4.2 (1.5)	7.0 (1.3)	7.3 (2.4)	5.8 (1.4)	6.8 (1.2)	5.8 (2.4)	6.3 (1.1)	8.9 (2.5)
Mon	1.7 (1.8)	2.8 (1.1)	6.1 (4.9)	2.1 (0.7)	3.7 (3.2)	1.7 (0.8)	2.6 (1.2)	10.4 (4.4)
Rakhine	8.7 (3.6)	17.0 (1.1)	17.6 (2.3)	15.0 (1.6)	16.8 (2.2)	15.9 (1.5)	16.3 (0.7)	26.8 (0.7)
Yangon	7.5 (5.3)	8.9 (1.3)	12.5 (7.0)	6.5 (3.3)	6.6 (3.9)	9.7 (4.9)	7.9 (4.0)	4.5 (1.2)
Shan	12.6 (2.0)	10.1 (2.8)	16.9 (6.0)	8.1 (0.8)	8.4 (1.6)	13.2 (2.4)	10.6 (1.8)	7.6 (2.4)
- Shan (S)	23.2 (2.4)	17.3 (1.6)	34.6 (1.6)	13.4 (2.2)	14.3 (0.4)	25.4 (2.4)	18.5 (0.8)	9.8 (4.2)
- Shan (N)	3.2 (2.3)	4.0 (1.7)	6.4 (2.2)	3.0 (1.8)	2.0 (1.4)	5.6 (2.0)	3.9 (1.6)	5.4 (1.9)
- Shan (E)	0.0 (0.0)	2.0 (0.7)	2.1 (1.0)	1.3 (0.8)	0.4 (0.3)	3.2 (0.9)	1.7 (0.5)	7.2 (4.0)
Ayeyarwaddy	4.4 (2.7)	13.0 (1.9)	12.3 (2.2)	11.8 (1.4)	12.1 (2.1)	11.8 (1.4)	12.0 (1.5)	9.9 (1.4)
Union 2010	**6.9 (2.0)**	**9.7 (0.5)**	**10.2 (1.0)**	**8.6 (0.6)**	**8.3 (0.7)**	**10.0 (0.8)**	**9.1 (0.6)**	**9.4 (0.6)**
Union 2005	**8.0 (1.3)**	**9.7 (0.8)**	**11.3 (0.8)**	**8.2 (0.7)**	**9.3 (0.8)**	**9.5 (0.8)**	**9.4 (0.6)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

7.5 Access to Health Care

Table 44 presents data on physical access to health care which is defined as those living within one hour's walking distance (1.23 miles) of a hospital (including township hospitals, public specialized hospitals and station hospitals) or health centre (including rural health centers, sub-rural health centers, maternal and child health centers). The information is from the Key Informant Questionnaire administered at the community which asks the distance in miles from the centre of the village/ward to the health facility. In order to calculate standard errors, this distance has been imputed to all questionnaire respondents in that village/ward. There are a number of interesting results.

i. Overall, access to health care stood at around 81% in 2010, compared to 65% in 2005, an increase which is statistically significant.
ii. There are slight differences in access between the poor and non-poor, at 77% and 82% respectively, and large differences between rural and urban dwellers, at 75% and 96% respectively.
iii. Access for the poor has increased from its 2005 level of 57%, a change which is statistically significant.
iv. There is considerable regional/state variation, with particularly low levels in Sagaing (62%) and Chin (68%).
v. There appear to be some quite large increases at the state/region level, e.g. Chin State, though high standard errors urge caution in interpreting these results.

In summary, access to health care has improved quite substantially since 2005, in particular for the poor, with large remaining gaps between urban and rural dwellers

7.6 Expenditure on Health

Table 45 presents data on health expenditures in 2009 kyats and health expenditure shares. Health expenditure includes insurance, inpatient stays in public or private hospitals, outpatient care at public or private facilities, home visits, dental care, care from traditional healers and other related expenses. These data provide information on two different issues. First, they give an indication of the financial burden associated with health care costs, in particular for the poor. Second, they proxy access to higher quality, but higher cost, health care. Three findings are relevant to note:

i. Overall, health shares of expenditure were around 5% in 2010, almost identical to their 2005 level.
ii. Shares of the poor are considerably lower than the non-poor, at 3.7% and 5.1% respectively, as is the case with shares of rural vs. urban dwellers, at 4.4% and 5.9% respectively.
iii. The non-poor pay close to three times the amount of the poor on health, in absolute terms, which suggests much better access to higher quality care.

In summary, *in relative terms*, the burden for the poor of health expenditure is less than that of the non-poor though the quality of health received by the latter is likely higher.

Table 44 Access to Health Care (Population %)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	93.2 (2.4)	96.8 (0.4)	100.0 (0.0)	94.2 (1.3)	95.8 (0.8)	74.6 (4.2)
Kayah	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Kayin	82.4 (13.3)	76.7 (1.5)	96.0 (4.7)	74.1 (3.4)	77.7 (3.5)	68.7 (3.1)
Chin	71.8 (8.2)	57.6 (11.4)	82.5 (18.1)	63.5 (3.3)	68.1 (8.3)	36.5 (12.5)
Sagaing	70.5 (6.4)	60.7 (7.9)	97.8 (1.5)	56.4 (8.2)	62.2 (7.7)	54.0 (3.9)
Tanintharyi	71.7 (9.9)	82.4 (7.3)	98.5 (1.6)	72.8 (9.8)	78.8 (9.0)	61.6 (6.2)
Bago	81.7 (7.5)	80.0 (6.5)	100.0 (0.0)	77.4 (7.5)	80.3 (6.5)	59.2 (7.9)
- Bago (E)	90.2 (7.2)	88.1 (9.2)	100.0 (0.0)	86.5 (10.5)	88.5 (8.7)	65.7 (8.1)
- Bago (W)	68.4 (15.5)	70.6 (9.0)	100.0 (0.0)	66.9 (11.2)	70.2 (9.4)	50.8 (8.8)
Magwe	70.4 (8.5)	72.0 (6.4)	93.1 (6.3)	69.1 (6.8)	71.5 (6.8)	49.7 (5.4)
Mandalay	74.5 (5.5)	83.9 (3.4)	96.8 (2.2)	75.3 (4.1)	81.4 (3.7)	67.0 (3.5)
Mon	100.0 (0.0)	98.3 (1.7)	100.0 (0.0)	98.2 (1.7)	98.6 (1.4)	79.1 (4.3)
Rakhine	66.0 (2.6)	82.2 (5.4)	98.8 (1.5)	68.9 (1.4)	75.1 (5.3)	48.1 (14.6)
Yangon	85.6 (7.4)	95.5 (1.6)	96.2 (3.1)	86.0 (5.0)	93.9 (2.2)	94.4 (2.6)
Shan	71.9 (8.3)	81.0 (6.2)	93.7 (4.9)	73.0 (7.2)	78.0 (6.1)	59.7 (4.8)
- Shan (S)	91.5 (1.4)	93.8 (4.5)	100.0 (0.0)	90.8 (3.3)	93.2 (4.0)	63.4 (10.4)
- Shan (N)	64.8 (6.0)	68.5 (7.9)	83.4 (14.5)	62.7 (7.1)	67.1 (4.3)	54.4 (8.8)
- Shan (E)	54.2 (21.8)	67.9 (9.0)	100.0 (0.0)	48.9 (14.9)	61.5 (15.2)	64.7 (12.8)
Ayeyarwaddy	83.6 (3.6)	86.8 (3.1)	95.2 (3.3)	84.0 (3.9)	85.7 (3.2)	63.9 (7.1)
Union 2010	**77.0 (1.8)**	**82.2 (1.7)**	**96.5 (1.3)**	**75.3 (1.9)**	**80.9 (1.6)**	**64.9 (2.0)**
Union 2005	**57.3 (2.4)**	**68.4 (2.2)**	**96.2 (1.2)**	**53.8 (2.2)**	**64.9 (2.0)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 45 Health Expenditure/Shares (December, 2009 Kyat)

State, Region and Union	By Strata				By Poverty				Total					
	Urban		Rural		Poor		Non Poor		Value (K)			Share %		
	Value (K)	Share %	Value (K)	Share %	Value (K)	Share %	Value (K)	Share %	2010	2005	% Change 2005 2010	2010	2005	% Change 2005 2010
Kachin	28,824 (9854)	5.0 (1.75)	27,961 (6437)	5.4 (1.16)	16,218 (2763)	4.8 (0.71)	32,117 (8359)	5.3 (1.28)	28,183 (6591)	37,945 (7634)	-26	5.3 (1.17)	7.7 (1.24)	-31
Kayah	37,905 (20037)	5.6 (2.75)	34,495 (11272)	5.7 (2.19)	19,961 (619)	5.7 (0.03)	37,251 (378)	5.7 (0.15)	35,809 (527)	23,594 (2519)	52	5.7 (0.15)	4.8 (0.69)	18
Kayin	21,725 (2112)	3.4 (0.26)	20,462 (1707)	3.7 (0.26)	23,264 (7558)	6.5 (1.86)	20,257 (613)	3.3 (0.11)	20,669 (1286)	30,700 (3349)	-33	3.6 (0.24)	5.0 (0.67)	-28
Chin	27,611 (8335)	6.3 (1.98)	15,161 (5149)	4.4 (1.58)	17,730 (7967)	5.7 (2.49)	19,499 (5915)	4.1 (1.13)	18,329 (7170)	35,743 (9153)	-49	5.0 (1.91)	9.0 (3.22)	-45
Sagaing	27,454 (7401)	4.2 (1.01)	19,624 (1239)	3.6 (0.20)	18,358 (6796)	5.3 (1.85)	21,118 (1359)	3.6 (0.19)	20,768 (1954)	22,633 (2889)	-8	3.7 (0.30)	4.3 (0.59)	-14
Tanintharyi	46,998 (15974)	7.0 (1.38)	34,021 (2243)	6.7 (0.43)	15,448 (1698)	4.8 (0.58)	45,477 (4967)	7.1 (0.54)	36,928 (5906)	34,432 (7456)	7	6.8 (0.61)	6.2 (1.66)	9
Bago	84,831 (37367)	13.1 (5.40)	24,230 (3201)	4.4 (0.46)	13,515 (3521)	3.9 (1.01)	35,770 (7829)	5.9 (1.19)	32,439 (6912)	27,350 (1432)	19	5.7 (1.12)	5.3 (0.15)	7
- Bago (E)	33,576 (1023)	5.8 (0.05)	33,794 (6667)	6.0 (0.91)	18,065 (6531)	5.3 (1.87)	36,755 (5395)	6.1 (0.62)	33,760 (5741)	36,517 (895)	-8	6.0 (0.75)	7.0 (0.26)	-14
- Bago (W)	158,177 (72413)	20.9 (9.18)	14,563 (1626)	2.6 (0.19)	7,945 (1483)	2.3 (0.42)	34,754 (14894)	5.7 (2.31)	31,039 (12871)	17,673 (2742)	76	5.4 (2.14)	3.5 (0.37)	52
Magwe	34,248 (3263)	5.4 (0.70)	21,760 (4328)	4.3 (0.88)	11,533 (1917)	3.4 (0.59)	26,544 (4459)	4.7 (0.82)	23,097 (3407)	18,936 (3326)	22	4.5 (0.68)	4.1 (0.52)	10
Mandalay	25,766 (2525)	3.8 (0.36)	15,845 (2988)	3.2 (0.57)	7,921 (842)	2.5 (0.22)	21,718 (3221)	3.6 (0.53)	18,639 (2385)	19,247 (2167)	-3	3.4 (0.44)	3.9 (0.40)	-13
Mon	86,936 (46622)	13.1 (5.53)	26,520 (3864)	4.9 (0.77)	18,408 (5123)	5.4 (1.48)	40,787 (18704)	6.8 (2.84)	37,684 (15497)	27,117 (6273)	39	6.6 (2.50)	4.9 (1.39)	35
Rakhine	15,533 (2408)	2.7 (0.45)	17,004 (1671)	3.9 (0.36)	8,112 (889)	2.5 (0.30)	21,661 (2624)	3.9 (0.59)	16,669 (1433)	17,076 (1384)	-2	3.6 (0.43)	3.6 (0.36)	0
Yangon	48,619 (14423)	6.6 (1.27)	24,719 (2259)	4.8 (0.73)	12,678 (1219)	3.8 (0.32)	46,683 (11923)	6.4 (1.15)	42,347 (10352)	41,918 (12412)	1	6.2 (1.08)	5.7 (1.14)	10
Shan	25,179 (2670)	4.0 (0.47)	12,705 (2550)	2.7 (0.60)	6,337 (1295)	2.0 (0.40)	19,508 (2565)	3.4 (0.55)	15,781 (1964)	20,035 (1740)	-21	3.1 (0.46)	4.3 (0.51)	-27
- Shan (S)	25,985 (1882)	3.9 (0.60)	16,786 (4066)	3.4 (1.11)	9,711 (510)	3.0 (0.08)	21,862 (4083)	3.7 (1.01)	19,498 (1711)	29,871 (1456)	-35	3.6 (0.83)	5.9 (0.96)	-38
- Shan (N)	22,347 (6798)	3.6 (0.73)	11,028 (2682)	2.4 (0.52)	4,424 (1668)	1.4 (0.52)	17,969 (4075)	3.1 (0.62)	13,319 (3843)	12,069 (3572)	10	2.7 (0.62)	2.8 (0.75)	-1
- Shan (E)	30,448 (9263)	5.7 (1.70)	5,043 (1455)	1.2 (0.33)	6,143 (3060)	1.9 (0.93)	13,818 (7049)	2.7 (1.29)	10,778 (5200)	12,617 (2193)	-15	2.4 (1.09)	2.9 (0.56)	-16
Ayeyarwady	25,998 (3484)	4.3 (0.76)	32,102 (6483)	6.4 (1.17)	15,723 (2790)	4.7 (0.79)	36,905 (5789)	6.3 (0.77)	31,101 (4811)	31,864 (3139)	-2	6.0 (0.71)	5.9 (0.44)	2
UNION	**39,959 (6183)**	**5.9 (0.71)**	**22,595 (1385)**	**4.4 (0.25)**	**12,338 (840)**	**3.7 (0.24)**	**31,245 (2383)**	**5.1 (0.33)**	**27,219 (1901)**	**26,923 (1895)**	**1**	**4.9 (0.29)**	**5.0 (0.27)**	**-1**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

7.7 Summary

Section 7 has presented data on various aspects of the health situation in Myanmar.

In terms of immunisation against measles, coverage stood at around 82% in 2010, a modest increase from its 2005 level of 80%. There are considerable differences in coverage between the poor and non-poor, at 76% and 86% respectively, and between rural and urban dwellers, at 80% and 92% respectively. Coverage of the poor has fallen slightly from its 2005 level of 78%, a change which is not statistically significant. There is moderate regional/state variation, with particularly low levels in Rakhine (67%). In summary, immunisation coverage against measles has increased modestly overall, though has declined slightly for poor households. Remaining gaps exist between the between states/regions, urban and rural dwellers and between poor and non-poor households

With respect to maternal health, antenatal care coverage stood at around 83% in 2010, virtually identical to its 2005 level. There are moderate differences in access between the poor and non-poor, at 77% and 86% respectively, and differences between rural and urban dwellers, at 81% and 93% respectively. Particularly low levels are found in Chin (60%) and Rakhine (67%). Overall, 78% of births were attended by skilled personnel in 2010, similar to its 2005 level of 73%. There are considerable differences between the poor and non-poor, at 69% and 81% respectively, and differences between rural and urban dwellers, at 74% and 93% respectively.
Once again, particularly low levels are found in Rakhine (55%) and Chin (61%). In summary, indicators of maternal health have stayed at relatively high levels or increased modestly with remaining gaps between states/regions, urban and rural dwellers and between poor and non-poor households

In terms of morbidity, self-reported morbidity stood as 5.4% of the population in 2010, virtually identical to its 2005 level of 5.3%. These data show slightly higher levels of morbidity for the non-poor than the poor, at 5.5% and 5.1% respectively, which is undoubtedly due to self-report bias. Comparatively higher levels are found in Kayin (8.9%), Chin (8.1%), Kayah (8.0%) and Rakhine (8.0%). In summary, self-reported morbidity levels have remained unchanged over time but reflect the self-report bias found in the literature whereby the poor appear less ill than the non-poor.

With respect to moderate malnutrition, levels stood at 32% in 2010, a non-statistically significant decline from its 2005 level of 34%. There are differences between the poor and non-poor, at 35% and 30.6% respectively, and between rural and urban dwellers, at 33.7% and 25.5% respectively. Malnutrition among the poor has declined from its 2005 level of 37.9%, a change which is not statistically significant. Particularly high levels are found in Rakhine (53%) and Shan (S) (48%).

In terms of severe malnutrition, levels stood at 9.1% in 2010, a non-statistically significant decline from its 2005 level of 9.4%. There are differences between the poor and non-poor, at 10.2% and 8.6% respectively, and between rural and urban dwellers, at 9.7% and 6.9% respectively. Unlike moderate malnutrition, females have higher rates than males at 10% and 8.3% respectively. Malnutrition among the poor has declined from its 2005 level of 11.3%, a change which is not statistically significant. Particularly high levels are found in Shan (S) (18.5%) and Rakhine (16.3%). Overall, these data suggest a pattern of modest improvement over time and are broadly consistent with findings of declines in food poverty and poverty presented in Chapter 2.

Access to health care stood at around 81% in 2010, compared to 65% in 2005, an increase which is statistically significant. There are slight differences in access between the poor and non-poor, at 77% and 82% respectively, and large differences between rural and urban dwellers, at 75% and 96% respectively. Access to the poor has increased over time from its 2005 level of 57%, a change which is statistically significant. Particularly low levels are found in Sagaing (62%) and Chin (68%). In summary, access to health care has improved quite substantially since 2005, in particular for the poor, with large remaining gaps between urban and rural dwellers.

Overall, health shares of expenditure were around 5% in 2010, almost identical to their 2005 level. Shares of the poor are significantly lower than the non-poor, at 3.7% and 5.1% respectively, as is the case with

shares of rural vs. urban dwellers, at 4.4% and 5.9% respectively. The non-poor pay close to three times the amount of the poor on health, which suggests much better access to higher quality care.

7.8 Appendix Tables

Table 46 Proportion of One Year Old Children Immunised Against Polio (3 Doses)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	56.3 (22.5)	60.7 (11.7)	73.7 (17.5)	58.8 (15.7)	54.8 (17.7)	66.0 (17.1)	58.9 (15.6)	70.4 (7.7)
Kayah	65.7 (26.4)	100.0 (0.0)	100.0 (0.0)	93.1 (6.2)	100.0 (0.0)	80.5 (8.6)	93.6 (6.2)	77.4 (14.5)
Kayin	100.0 (0.0)	83.5 (9.4)	93.9 (7.1)	87.4 (5.8)	91.3 (4.6)	83.6 (6.7)	88.0 (4.8)	62.5 (8.8)
Chin	71.9 (13.4)	83.8 (6.0)	55.8 (6.0)	89.3 (5.2)	75.5 (9.6)	78.3 (12.0)	76.7 (10.4)	52.0 (21.7)
Sagaing	58.3 (16.6)	75.6 (12.5)	64.0 (16.2)	72.9 (12.2)	63.7 (14.4)	77.5 (10.9)	71.8 (10.7)	66.0 (6.6)
Tanintharyi	88.6 (4.4)	78.2 (9.5)	66.8 (7.7)	86.6 (6.9)	80.2 (4.0)	86.9 (11.7)	82.9 (6.0)	59.0 (8.8)
Bago	67.6 (16.3)	58.7 (9.7)	83.2 (12.8)	58.8 (8.4)	57.6 (12.6)	63.8 (8.1)	60.9 (8.8)	84.6 (4.5)
- Bago (E)	79.6 (12.3)	69.7 (9.8)	100.0 (0.0)	70.1 (3.4)	71.7 (8.3)	73.1 (9.1)	72.5 (3.6)	89.3 (4.6)
- Bago (W)	39.1 (47.6)	43.1 (20.4)	61.1 (27.2)	40.2 (17.7)	41.4 (26.1)	43.5 (9.3)	42.3 (18.6)	75.9 (8.5)
Magwe	78.1 (9.2)	69.1 (9.7)	100.0 (0.0)	69.7 (8.4)	59.6 (9.7)	83.0 (6.6)	72.4 (7.8)	89.3 (2.1)
Mandalay	65.3 (12.0)	90.2 (4.6)	84.4 (5.6)	79.3 (11.9)	86.5 (7.3)	74.4 (12.5)	81.0 (9.5)	71.6 (3.0)
Mon	45.5 (7.2)	75.0 (9.6)	70.0 (17.4)	70.9 (16.9)	65.3 (3.8)	74.5 (19.0)	70.8 (12.4)	69.1 (9.6)
Rakhine	65.5 (15.1)	63.9 (10.1)	70.4 (17.7)	64.3 (13.6)	67.5 (12.5)	62.2 (12.0)	64.8 (12.2)	46.7 (3.2)
Yangon	79.2 (10.6)	81.8 (6.0)	86.3 (6.8)	67.5 (9.2)	85.0 (8.1)	73.2 (4.5)	81.2 (5.7)	80.9 (9.5)
Shan	41.9 (3.6)	60.9 (18.6)	90.4 (8.6)	47.2 (13.5)	63.1 (12.7)	46.0 (17.4)	55.2 (14.5)	46.1 (6.4)
- Shan (S)	46.3 (1.0)	39.9 (41.8)	85.9 (23.0)	31.1 (11.0)	53.3 (19.7)	28.7 (34.1)	42.2 (26.1)	55.0 (13.1)
- Shan (N)	25.4 (5.0)	80.0 (10.6)	94.3 (5.7)	63.8 (17.9)	75.0 (17.8)	64.4 (10.3)	70.0 (14.2)	37.7 (5.9)
- Shan (E)	52.4 (13.8)	47.6 (8.2)	100.0 (0.0)	46.8 (7.4)	58.2 (9.3)	39.9 (8.6)	50.1 (8.2)	28.0 (9.9)
Ayeyarwaddy	85.5 (5.5)	92.5 (5.7)	92.3 (6.2)	89.6 (5.3)	83.9 (7.2)	97.4 (0.9)	90.0 (5.0)	68.2 (8.7)
Union 2010	**71.0 (4.1)**	**77.4 (3.1)**	**84.0 (3.3)**	**72.9 (3.3)**	**74.7 (2.9)**	**75.9 (3.6)**	**75.3 (2.9)**	**68.9 (2.4)**
Union 2005	**64.3 (3.1)**	**71.7 (2.9)**	**74.7 (5.7)**	**67.4 (2.4)**	**69.5 (2.9)**	**68.1 (2.7)**	**68.9 (2.4)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 47 Proportion of One Year Old Children Immunised Against DPT (3 Doses)

State and Region, and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	55.1 (22.2)	57.1 (14.0)	73.7 (17.5)	56.1 (16.8)	53.3 (18.3)	61.4 (19.9)	56.3 (16.8)	54.8 (11.1)
Kayah	65.7 (26.4)	100.0 (0.0)	100.0 (0.0)	93.1 (6.2)	100.0 (0.0)	80.5 (8.6)	93.6 (6.2)	72.8 (12.7)
Kayin	100.0 (0.0)	83.4 (9.3)	93.9 (7.1)	87.4 (5.7)	91.0 (4.4)	84.1 (6.8)	87.9 (4.7)	62.6 (8.3)
Chin	63.7 (6.0)	83.8 (6.0)	55.8 (6.0)	81.5 (8.2)	71.5 (4.2)	72.2 (9.7)	71.8 (6.0)	40.1 (25.0)
Sagaing	59.4 (10.5)	77.5 (10.3)	89.0 (8.2)	71.6 (10.9)	60.8 (13.4)	82.1 (7.3)	73.5 (10.0)	59.1 (6.9)
Tanintharyi	89.3 (5.0)	76.2 (10.4)	66.8 (7.7)	85.6 (9.2)	79.6 (6.7)	85.9 (11.9)	82.1 (8.0)	58.7 (12.5)
Bago	66.2 (17.4)	60.8 (14.4)	85.1 (11.3)	60.2 (14.3)	65.6 (13.1)	59.0 (15.9)	62.1 (13.8)	73.9 (9.1)
- Bago (E)	78.3 (14.4)	83.1 (7.3)	100.0 (0.0)	80.5 (7.4)	86.3 (9.8)	78.7 (8.9)	81.7 (7.0)	73.9 (16.2)
- Bago (W)	39.1 (47.6)	30.0 (23.2)	70.7 (21.4)	27.5 (23.6)	43.1 (25.2)	17.0 (18.9)	31.8 (23.8)	74.0 (10.0)
Magwe	78.1 (9.2)	66.5 (7.8)	92.9 (5.5)	68.7 (7.9)	57.4 (9.0)	81.7 (5.7)	70.8 (6.9)	81.3 (4.0)
Mandalay	64.6 (12.1)	87.1 (5.7)	83.6 (4.6)	76.3 (13.6)	82.6 (7.8)	74.2 (13.4)	78.9 (9.8)	61.7 (4.8)
Mon	50.1 (8.5)	86.5 (6.7)	100.0 (0.0)	77.7 (11.2)	83.5 (6.4)	79.0 (15.1)	80.9 (11.2)	60.6 (12.9)
Rakhine	53.9 (13.0)	59.5 (10.2)	50.9 (22.0)	56.3 (11.1)	59.2 (11.3)	52.7 (10.2)	56.0 (10.8)	38.6 (5.0)
Yangon	74.1 (15.1)	79.6 (10.3)	80.5 (8.0)	72.0 (21.8)	77.6 (14.2)	80.5 (6.8)	78.5 (11.0)	79.6 (8.0)
Shan	51.4 (15.4)	73.3 (8.5)	90.0 (8.8)	61.5 (7.3)	65.1 (9.6)	68.6 (7.9)	66.7 (6.6)	31.8 (10.8)
- Shan (S)	78.5 (0.4)	68.8 (18.8)	85.9 (23.0)	68.9 (3.6)	62.2 (15.5)	84.5 (5.3)	72.3 (10.7)	34.4 (26.1)
- Shan (N)	24.8 (5.2)	79.8 (10.6)	93.7 (5.8)	63.6 (17.9)	74.3 (17.9)	64.6 (10.2)	69.7 (14.2)	30.9 (5.7)
- Shan (E)	15.0 (6.6)	54.7 (9.6)	100.0 (0.0)	30.6 (10.6)	43.4 (19.5)	22.0 (5.1)	33.8 (11.4)	20.8 (8.5)
Ayeyarwaddy	83.8 (4.6)	87.7 (4.8)	89.3 (7.0)	85.8 (4.3)	81.4 (5.6)	92.3 (3.3)	86.3 (3.4)	59.8 (10.1)
Union 2010	**68.9 (3.6)**	**77.4 (2.8)**	**83.0 (3.7)**	**72.2 (3.0)**	**72.9 (3.2)**	**76.5 (2.9)**	**74.6 (2.7)**	**60.8 (3.3)**
Union 2005	**55.4 (4.3)**	**64.0 (3.4)**	**71.1 (5.0)**	**58.1 (3.6)**	**60.9 (4.1)**	**60.6 (3.2)**	**60.8 (3.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 48 Weight for Age (Results of Major Surveys)

Region	Percent of underweight children under 5						IHLCA (2005): Poverty Profile			
	MICS 1995		MICS 1997		MICS 2000					
	Weight for Age		Weight for Age		Weight for Age		moderately underweight		severely underweight	
	% below -2 SD	% below -3 SD	% below -2 SD	% below -3 SD	% below -2 SD	% below -3 SD	rural	urban	rural	urban
Union	42.9	15.8	38.6	12.6	35.3	7.9	34.35		9.4	
Urban	39.9	12.7	32.9	10.9	29.6	5.5	31.50		8.0	
Rural	44.0	16.8	40.4	13.3	37.0	8.6	35.10		9.8	
Kachin	37.0	16.0	21.0	4.0	27.3	7.7	29.44	23.83	9.25	8.41
Kayah	29.0	11.0	39.0	11.0	35.9	6.7	20.47	22.27	1.48	8.24
Kayin	46.0	15.0	39.0	15.0	40.1	9.9	29.62	32.16	5.32	9.09
Chin	52.0	27.0	45.0	16.0	41.3	9.0	30.66	38.16	4.25	6.51
Mon	41.0	14.0	39.0	12.0	33.5	5.8	34.27	39.24	9.70	14.33
Rakhine	56.0	29.0	53.0	21.0	48.1	16.9	58.46	80.22	25.37	40.60
Shan (north)	37.0	12.0	33.0	12.0	22.1	3.7	26.50	26.89	4.79	9.62
Shan (east)	48.0	23.0	40.0	20.0	38.7	8.7	26.03	22.86	6.35	10.03
Shan (south)	35.0	12.0	35.0	11.0	35.6	9.7	36.13	23.43	10.96	3.24
Ayeyarwaddy	44.0	17.0	42.0	15.0	36.8	6.7	35.97	37.92	9.90	9.65
Bago (E)	44.0	16.0	44.0	14.0	37.4	8.6	31.38	34.20	9.88	11.30
Bago (W)							23.23	37.29	5.78	10.09
Magway	51.0	20.0	44.0	15.0	36.5	5.7	42.48	41.42	9.69	7.49
Mandalay	42.0	15.0	36.0	11.0	31.2	6.9	33.98	30.36	9.61	6.88
Sagaing	42.0	14.0	32.0	7.0	31.5	5.8	27.61	38.14	5.47	9.62
Tanintharyi	42.0	15.0	40.0	19.0	40.1	15.7	32.00	16.91	7.74	2.49
Yangon	35.0	9.0	33.0	7.0	33.4	5.8	30.87	25.88	4.38	4.55
New settlement area	41.0	13.0								

8. Education

Section 8 begins with a review of literacy rates (Section 8.1) and proceeds to examine enrollment rates (Section 8.2), physical access to schools (Section 8.3), educational attainment, specifically years of schools of the household head (Section 8.4) and educational expenditures (8.5). There is a final section summarizing key results (Section 8.6) along with Appendix Tables which provide results of other major surveys undertaken in Myanmar (Section 8.7)

8.1 Literacy

Table 49 presents data on literacy rates for those aged 15 and above. Literacy is defined as those able to easily read and understand a simple text, and solve simple mathematical problems or any individual who has completed the second standard. The literacy rate is a measure of the effectiveness of the primary education system over the long-term and may also be considered a proxy measure of social progress and economic achievement. There are four key results:

i. Overall, literacy stood at around 90% in 2010, compared to 85% in 2005, an increase which is statistically significant
ii. There are large differences in literacy rates between the poor and non-poor, at 84% and 93% respectively, though literacy of the poor has registered a statistically significant increase from its 2005 level of 79%.
iii. There are considerable differences between rural and urban dwellers, at 89% and 95% respectively and between females and males at 89% and 96% respectively.
iv. There is regional/state variation, with lower levels found in Rakhine (75%) and Shan (75%).

The relatively high levels of literacy are broadly confirmed by the results of other surveys presented in Table 49 in Appendix. Both the State of the World's Children Survey (SWOC) 1991 and the 2000 Multiple Indicator Cluster Survey found levels of literacy at very close to 90% using a somewhat less restrictive definition than in the IHLCA.

In summary, literacy levels have increased somewhat from already high levels, with proportionate gains for the poor. Modest gaps persist between poor and non-poor households, males and females and urban and rural households with much larger differences along state/division lines.

Table 49 Literacy Rates (15 and Above)

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	82.7 (4.8)	89.0 (1.4)	91.5 (0.9)	85.4 (2.3)	93.2 (1.6)	86.3 (2.0)	87.2 (2.5)	86.0 (1.8)
Kayah	78.3 (8.9)	85.5 (1.0)	89.2 (0.3)	81.8 (4.2)	92.4 (1.6)	79.1 (1.0)	84.7 (1.9)	76.5 (3.5)
Kayin	90.5 (4.7)	88.7 (2.9)	93.9 (1.5)	87.9 (3.6)	93.4 (2.1)	88.8 (3.4)	89.0 (3.2)	81.7 (4.1)
Chin	87.7 (5.1)	86.6 (4.6)	88.2 (5.1)	87.1 (5.2)	95.1 (2.7)	82.7 (5.2)	87.4 (5.0)	84.3 (3.4)
Sagaing	90.9 (1.1)	93.7 (0.5)	95.9 (1.2)	92.8 (0.4)	96.5 (0.4)	92.0 (0.7)	93.3 (0.4)	88.7 (1.6)
Tanintharyi	83.8 (2.4)	91.6 (1.8)	92.3 (2.6)	88.0 (1.7)	93.9 (1.6)	88.5 (2.3)	89.0 (1.9)	85.8 (1.9)
Bago	93.0 (2.6)	96.0 (1.3)	96.0 (1.8)	95.4 (1.5)	98.0 (0.7)	94.8 (1.7)	95.5 (1.5)	87.4 (1.7)
- Bago (E)	92.5 (2.4)	94.3 (1.3)	94.7 (3.4)	93.8 (1.1)	97.2 (0.2)	92.8 (2.0)	93.9 (1.5)	85.4 (2.8)
- Bago (W)	93.8 (6.9)	97.9 (1.2)	98.0 (1.1)	97.2 (2.0)	99.0 (0.7)	97.1 (1.8)	97.3 (1.9)	89.8 (1.9)
Magwe	90.0 (2.5)	93.5 (2.9)	96.2 (1.0)	92.1 (3.1)	96.4 (1.3)	91.8 (3.2)	92.6 (2.7)	83.5 (3.3)
Mandalay	86.9 (2.3)	92.4 (2.1)	95.6 (1.0)	89.0 (2.8)	96.5 (0.7)	88.3 (2.7)	91.0 (2.1)	86.5 (1.5)
Mon	90.7 (1.7)	93.2 (0.7)	97.5 (1.8)	91.7 (1.5)	95.4 (0.3)	92.8 (1.3)	92.8 (0.8)	88.0 (1.9)
Rakhine	62.8 (4.1)	84.1 (3.2)	89.7 (0.5)	70.6 (3.9)	90.7 (2.3)	71.9 (5.5)	75.1 (4.6)	65.8 (5.6)
Yangon	89.9 (1.2)	97.0 (0.8)	97.0 (0.7)	92.4 (2.0)	97.6 (0.5)	95.1 (0.9)	95.9 (0.8)	93.7 (1.1)
Shan	66.7 (5.8)	79.5 (3.6)	89.5 (2.3)	70.2 (4.3)	87.6 (1.9)	73.6 (3.7)	75.2 (4.1)	65.6 (4.2)
- Shan (S)	74.3 (1.3)	85.1 (4.5)	92.2 (1.5)	78.3 (3.3)	88.9 (4.5)	80.8 (4.9)	82.6 (5.3)	71.9 (8.9)
- Shan (N)	66.5 (4.9)	78.1 (3.8)	90.9 (2.0)	68.8 (4.9)	87.4 (2.5)	72.1 (2.7)	73.6 (3.9)	67.1 (3.8)
- Shan (E)	54.2 (25.8)	59.7 (11.4)	75.1 (8.4)	50.8 (18.8)	83.0 (6.0)	55.3 (17.6)	57.2 (17.7)	41.6 (17.3)
Ayeyarwaddy	92.9 (2.0)	95.4 (0.7)	97.6 (1.0)	94.0 (1.3)	97.2 (0.5)	94.0 (1.4)	94.7 (1.1)	89.8 (0.7)
Union 2010	**84.3 (1.1)**	**92.6 (0.5)**	**95.3 (0.5)**	**88.7 (0.8)**	**95.6 (0.3)**	**89.3 (0.7)**	**90.6 (0.6)**	**84.9 (0.8)**
Union 2005	**78.8 (1.2)**	**87.6 (0.6)**	**92.1 (0.6)**	**82.1 (0.9)**	**88.2 (0.7)**	**82.0 (0.9)**	**84.9 (0.8)**	
Change (%)	**6.9**	**5.7**	**3.5**	**8.0**	**8.4**	**8.9**	**6.6**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

8.2 Enrolment

Table 50 and Table 51 present data on net enrolment rates for primary and secondary education respectively. Net enrolment rates present the number of enrolled students of official (primary or secondary) school age as a percentage of the total population of children of official (primary or secondary) school age. The indicator attempts to measure both the coverage and efficiency of the education system, though it is an imperfect gauge of both.[24]

With respect to net enrolment in primary, there are six interesting findings:

i. Overall, net primary enrolment stood at around 88% in 2010, a statistically significant increase from its 2005 level of 85%.
ii. There are large differences in enrolment rates between the poor and non-poor, at 81% and 90% respectively.
iii. Net primary enrolment rates of the poor increased slightly from their 2005 level of 80%.
iv. There are noticeable differences between rural and urban dwellers, at 87% and 92% respectively.
v. There are no differences in net enrolment rates along gender lines.
vi. In terms of state-level variation, the lowest enrolment rates, by a wider margin, are found in Rakhine (71%).

With respect to net enrolment in secondary, five findings are relevant to note:

i. Overall, net secondary enrolment stood at around 53% in 2010, a statistically significant increase from its 2005 level of 42%.
ii. There are large differences between the poor and non-poor, at 35% and 59% respectively, though the secondary enrolment rate of the poor has increased in statistically significant fashion from its 2005 level of 28%.
iii. There are large differences between rural and urban dwellers, at 47% and 75%, respectively.
iv. As with primary enrolment, there are no differences along gender lines.
v. In terms of state-level variation, the lowest secondary enrolment rates, by a wide margin, are found in Rakhine State (32%).

In summary, net primary enrolment rates have increased slightly from already high levels and have stayed constant for the poor. Net secondary enrolment has increased considerably with large gains for the poor. Significant gaps remain between states/regions, urban and rural dwellers and poor and non-poor households.

[24] For example, a lower net enrolment rate may reflect later or early entry into school rather than non-attendance, dropouts or grade repetition.

Table 50 Net Enrolment Rate in Primary

State, Region and Union	2010							2005 Total
	Pov0065rty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	91.5 (2.7)	93.0 (3.1)	94.4 (4.0)	91.9 (2.1)	93.0 (2.7)	92.1 (3.3)	92.6 (2.9)	88.6 (1.0)
Kayah	100.0 (0.0)	95.8 (0.3)	95.9 (6.5)	96.4 (2.1)	94.9 (2.7)	97.8 (2.3)	96.3 (0.2)	93.1 (5.3)
Kayin	76.6 (4.4)	89.0 (0.7)	79.9 (13.6)	88.2 (1.7)	84.6 (1.1)	90.1 (1.9)	87.2 (0.2)	86.4 (1.2)
Chin	83.9 (1.8)	91.4 (2.5)	91.0 (1.1)	84.7 (2.9)	86.6 (1.2)	85.1 (3.7)	85.8 (2.2)	81.4 (4.0)
Sagaing	92.9 (2.9)	94.3 (1.0)	90.9 (2.1)	94.5 (0.8)	93.9 (0.8)	94.3 (1.0)	94.1 (0.6)	90.1 (1.2)
Tanintharyi	79.6 (3.0)	87.9 (0.7)	86.7 (1.4)	84.8 (1.1)	87.2 (1.5)	83.3 (2.0)	85.2 (0.6)	86.3 (1.4)
Bago	72.3 (3.4)	88.1 (2.3)	88.2 (1.4)	84.0 (3.1)	87.4 (2.5)	81.3 (3.3)	84.5 (2.8)	84.3 (1.6)
- Bago (E)	77.1 (0.2)	90.2 (0.4)	88.3 (0.3)	86.9 (0.9)	88.9 (1.2)	85.2 (0.4)	87.1 (0.8)	84.2 (2.8)
- Bago (W)	64.4 (6.4)	85.2 (0.9)	88.0 (3.5)	80.0 (0.5)	85.3 (0.7)	75.4 (0.3)	80.7 (0.4)	84.4 (1.7)
Magwe	85.6 (2.6)	94.3 (1.0)	93.5 (2.0)	91.6 (1.3)	93.4 (1.7)	90.1 (1.2)	91.7 (1.2)	87.6 (2.7)
Mandalay	87.4 (2.3)	92.1 (1.7)	91.2 (3.1)	90.6 (1.5)	91.6 (1.5)	89.9 (2.0)	90.7 (1.4)	89.0 (1.5)
Mon	82.7 (4.1)	88.2 (2.3)	82.6 (7.8)	88.6 (1.2)	87.8 (2.6)	87.3 (2.9)	87.5 (2.5)	82.9 (1.7)
Rakhine	63.7 (3.8)	78.3 (3.9)	88.6 (2.1)	68.8 (4.6)	68.5 (3.6)	74.3 (6.4)	71.4 (3.7)	66.7 (4.5)
Yangon	86.4 (2.7)	95.0 (0.8)	94.3 (1.2)	91.3 (1.6)	94.3 (1.2)	92.5 (1.6)	93.4 (0.8)	87.5 (2.2)
Shan	82.8 (6.2)	88.9 (1.9)	92.9 (2.8)	85.5 (2.9)	84.8 (2.3)	89.1 (3.3)	86.8 (2.3)	79.0 (1.9)
- Shan (S)	93.1 (1.2)	90.9 (4.3)	94.1 (6.2)	91.1 (1.5)	88.3 (4.4)	95.7 (0.6)	91.5 (2.5)	79.2 (4.2)
- Shan (N)	80.9 (6.3)	86.6 (1.5)	94.5 (2.8)	81.9 (3.6)	83.9 (2.7)	85.2 (2.5)	84.6 (2.2)	79.0 (2.6)
- Shan (E)	62.6 (16.2)	87.1 (1.2)	83.0 (6.4)	73.3 (10.9)	71.3 (9.3)	78.9 (10.1)	75.1 (9.7)	77.6 (2.3)
Ayeyarwaddy	85.0 (3.0)	88.8 (3.1)	93.5 (3.7)	86.7 (2.5)	86.7 (3.4)	88.3 (2.9)	87.5 (2.8)	87.6 (1.6)
Union 2010	**81.3 (1.3)**	**90.3 (0.7)**	**91.8 (1.0)**	**86.7 (0.7)**	**87.8 (0.8)**	**87.6 (0.9)**	**87.7 (0.7)**	**84.7 (0.7)**
Union 2005	**80.1 (1.1)**	**87.2 (0.7)**	**87.6 (1.3)**	**84.0 (0.8)**	**84.2 (0.8)**	**85.2 (0.8)**	**84.7 (0.7)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 51 Net Enrolment Rate in Secondary

State, Region and Union	2010							2005 Total
	Poverty Status		Strata		Gender		Total	
	Poor	Non poor	Urban	Rural	Male	Female		
Kachin	60.4 (11.5)	71.7 (5.5)	84.9 (3.8)	64.5 (5.7)	66.2 (9.4)	72.3 (3.7)	68.9 (6.9)	51.8 (3.3)
Kayah	66.6 (13.2)	73.1 (0.5)	83.1 (1.1)	67.6 (3.5)	66.7 (5.1)	79.4 (1.1)	72.4 (1.7)	71.9 (6.7)
Kayin	50.2 (22.4)	53.3 (1.5)	76.1 (8.5)	50.1 (5.3)	48.0 (7.1)	57.8 (2.7)	52.8 (5.0)	48.8 (4.6)
Chin	52.8 (1.0)	65.6 (5.4)	91.0 (0.7)	48.7 (3.6)	58.3 (3.7)	53.7 (1.5)	55.9 (1.1)	47.6 (8.0)
Sagaing	39.7 (4.5)	60.9 (3.2)	72.3 (3.5)	55.0 (2.9)	55.9 (3.1)	58.2 (1.9)	57.0 (2.4)	45.7 (4.0)
Tanintharyi	38.3 (5.2)	62.6 (6.3)	72.2 (13.7)	49.6 (4.4)	50.2 (6.3)	59.4 (8.0)	54.5 (7.1)	37.7 (2.6)
Bago	22.6 (5.9)	51.5 (3.1)	66.8 (5.3)	42.8 (3.6)	47.6 (3.7)	43.5 (3.2)	45.8 (3.2)	36.0 (2.2)
- Bago (E)	31.2 (5.1)	56.0 (4.0)	67.5 (7.8)	48.2 (2.2)	54.2 (1.6)	47.5 (3.6)	51.2 (1.6)	37.6 (2.7)
- Bago (W)	10.2 (1.7)	44.3 (3.7)	64.7 (7.2)	35.0 (3.1)	36.9 (2.0)	37.6 (3.7)	37.2 (2.7)	33.6 (4.3)
Magwe	35.1 (4.5)	49.4 (3.4)	78.4 (2.0)	42.6 (1.7)	47.6 (3.2)	42.9 (2.0)	45.0 (2.3)	39.5 (2.7)
Mandalay	41.6 (1.8)	61.9 (4.0)	75.8 (3.7)	49.7 (3.8)	56.1 (3.0)	56.7 (3.6)	56.4 (3.2)	43.4 (2.6)
Mon	45.3 (3.9)	66.0 (1.8)	76.2 (6.7)	60.5 (2.1)	59.6 (2.5)	66.9 (4.8)	63.4 (1.6)	49.2 (5.0)
Rakhine	13.8 (1.6)	45.9 (2.7)	60.6 (1.0)	26.0 (2.1)	33.5 (2.4)	30.2 (3.3)	32.0 (2.7)	25.0 (5.0)
Yangon	56.2 (7.4)	77.1 (3.0)	80.8 (2.9)	58.4 (5.3)	72.9 (3.1)	74.9 (4.4)	73.8 (3.5)	65.4 (2.9)
Shan	41.6 (6.8)	57.6 (4.5)	77.6 (2.8)	45.8 (5.3)	49.0 (4.3)	54.6 (4.9)	51.8 (4.5)	31.5 (4.6)
- Shan (S)	50.9 (1.7)	60.7 (2.7)	78.5 (1.7)	53.4 (1.0)	55.5 (3.4)	59.5 (2.4)	57.5 (2.8)	32.0 (12.1)
- Shan (N)	33.0 (3.0)	53.8 (8.8)	80.4 (3.6)	37.0 (7.3)	41.9 (5.1)	49.9 (9.1)	46.0 (6.8)	31.5 (3.9)
- Shan (E)	37.3 (16.9)	55.7 (5.7)	66.1 (3.6)	41.3 (13.3)	44.7 (13.2)	49.8 (12.1)	47.2 (12.5)	29.7 (11.9)
Ayeyarwaddy	29.4 (2.9)	54.8 (2.6)	66.0 (5.6)	43.2 (2.6)	47.1 (2.9)	44.5 (4.1)	45.9 (3.2)	39.7 (3.2)
Union 2010	**35.0 (1.5)**	**59.2 (1.2)**	**75.2 (1.8)**	**46.5 (1.0)**	**52.1 (1.1)**	**52.9 (1.2)**	**52.5 (1.1)**	**42.2 (1.3)**
Union 2005	**28.3 (1.1)**	**49.3 (1.3)**	**62.4 (1.6)**	**36.4 (1.2)**	**42.1 (1.4)**	**42.2 (1.4)**	**42.2 (1.3)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

8.3 Access

Table 52 and Table 53 present data on physical access to primary and secondary schools respectively. Access is defined as those living within a one hour walk (1.23 miles) of the school in question. The information is from the Key Informant Questionnaire administered at the community which asks the distance in miles from the centre of the village/ward to the school. In order to calculate standard errors, this distance has been imputed to all questionnaire respondents in that village/ward.

With respect to access to a primary school, there are a number of interesting results.

i. Overall, physical access to primary schools stood at around 91% in 2010, virtually unchanged from its 2005 level.
ii. There are slight differences in access between the poor and non-poor, at 89% and 92% respectively.
iii. Access for the poor appears to have fallen slightly from its 2005 level of 91%, but this change is not statistically significant.
iv. Somewhat larger differences are found between rural and urban dwellers, at 89% and 96% respectively.
v. The lowest levels of access are found in Chin (73%) and Kayin (75%), though the large drops in the indicator value for these states since 2005 raise caution about interpretation of results.

With respect to access to secondary school, five findings are relevant to note.

i. Overall, physical access to secondary school stood at around 34% in 2010, a slight and statistically insignificant increase from its 2005 level of 32%.
ii. There are considerable differences in access between the poor and non-poor, at 27% and 36% respectively.
iii. Access for the poor has increased from its 2005 level of 24% though the change is not statistically significant.
iv. Large differences are found between rural and urban dwellers, at 24% and 61% respectively.
v. The lowest levels of access are found in Rakhine (23%) and Magwe (22%), despite improvements in both these states since 2005.

In summary, access to primary education has stayed unchanged from its relatively high levels in 2005. Secondary access has increased slightly with modest remaining gaps between poor and non-poor households and very large differences between urban and rural dwellers.

Table 52 Access to a Primary School (%)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	95.2 (3.0)	94.7 (5.2)	100.0 (0.0)	92.9 (5.9)	94.9 (4.5)	93.4 (3.3)
Kayah	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)	86.3 (14.2)
Kayin	62.3 (17.8)	77.1 (0.8)	64.3 (29.6)	76.5 (1.7)	74.5 (3.7)	98.9 (0.9)
Chin	70.5 (3.4)	81.1 (11.4)	95.6 (4.9)	66.2 (4.4)	73.3 (4.4)	87.2 (10.3)
Sagaing	91.1 (5.1)	91.7 (2.7)	99.4 (0.6)	90.4 (3.0)	91.6 (3.0)	92.9 (4.1)
Tanintharyi	63.9 (21.4)	74.3 (16.7)	88.5 (11.9)	65.4 (20.1)	70.8 (18.8)	97.5 (2.5)
Bago	88.6 (7.6)	89.5 (4.2)	95.2 (3.6)	88.5 (4.8)	89.4 (4.7)	88.2 (6.3)
- Bago (E)	94.6 (3.5)	90.0 (5.9)	97.4 (3.0)	89.8 (5.8)	90.9 (5.5)	95.8 (2.1)
- Bago (W)	79.4 (21.2)	89.0 (8.8)	91.2 (10.9)	87.0 (10.5)	87.4 (10.6)	78.2 (10.2)
Magwe	90.0 (4.9)	86.5 (6.8)	93.3 (5.4)	86.8 (6.1)	87.5 (6.1)	86.5 (3.3)
Mandalay	90.4 (2.1)	92.6 (3.0)	96.6 (1.4)	90.2 (3.4)	92.0 (2.6)	95.4 (1.9)
Mon	98.1 (2.0)	96.8 (3.2)	100.0 (0.0)	96.4 (3.9)	97.0 (3.0)	94.9 (1.7)
Rakhine	86.2 (3.6)	90.1 (2.4)	98.5 (1.9)	85.8 (4.5)	88.4 (2.3)	72.1 (6.5)
Yangon	96.7 (2.5)	95.5 (2.3)	95.4 (2.7)	96.5 (3.9)	95.7 (2.2)	96.8 (1.5)
Shan	89.3 (3.7)	92.6 (2.4)	96.8 (1.5)	89.8 (3.5)	91.5 (2.6)	85.0 (3.0)
- Shan (S)	97.7 (3.9)	94.6 (5.0)	96.8 (1.4)	94.8 (7.0)	95.4 (5.2)	80.6 (5.9)
- Shan (N)	84.1 (5.1)	92.6 (3.3)	99.6 (0.4)	86.6 (4.9)	89.4 (4.2)	89.6 (2.2)
- Shan (E)	87.8 (4.2)	83.2 (7.2)	88.6 (11.3)	84.3 (1.9)	85.4 (1.8)	85.0 (6.6)
Ayeyarwaddy	94.1 (2.9)	94.0 (2.5)	100.0 (0.0)	93.0 (3.3)	94.0 (2.6)	96.1 (1.8)
Union 2010	**89.3 (1.6)**	**91.5 (1.2)**	**96.0 (1.3)**	**89.1 (1.5)**	**90.9 (1.2)**	**91.4 (1.0)**
Union 2005	**90.8 (1.4)**	**91.6 (0.9)**	**96.4 (0.9)**	**89.6 (1.4)**	**91.4 (1.0)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 53 Access to a Secondary School (%)

State, Region and Union	2010					2005 Total
	Poverty Status		Strata		Total	
	Poor	Non poor	Urban	Rural		
Kachin	42.6 (15.9)	51.1 (10.3)	82.1 (10.0)	36.0 (7.3)	48.6 (11.9)	45.5 (12.7)
Kayah	34.2 (8.7)	51.6 (7.4)	100.0 (0.0)	21.8 (0.1)	49.6 (5.7)	27.0 (3.3)
Kayin	41.9 (8.6)	40.0 (10.6)	90.9 (10.7)	30.6 (14.4)	40.4 (10.2)	23.6 (9.3)
Chin	24.6 (8.1)	35.4 (10.2)	64.6 (7.7)	15.6 (4.7)	27.5 (8.3)	23.6 (6.3)
Sagaing	32.2 (6.5)	25.8 (4.5)	70.5 (5.7)	19.6 (3.7)	26.7 (4.5)	20.6 (4.2)
Tanintharyi	33.1 (7.9)	38.3 (6.7)	60.8 (4.4)	29.1 (8.2)	36.5 (7.4)	31.2 (7.3)
Bago	36.1 (6.8)	39.8 (6.6)	81.1 (6.2)	33.0 (6.2)	39.1 (5.9)	25.7 (5.0)
- Bago (E)	39.0 (11.0)	39.6 (8.3)	81.0 (8.7)	32.3 (8.7)	39.5 (8.9)	30.4 (9.4)
- Bago (W)	31.6 (10.2)	40.0 (12.3)	81.2 (3.6)	33.8 (10.7)	38.7 (10.2)	19.6 (2.4)
Magwe	25.3 (14.2)	21.2 (7.5)	59.5 (6.0)	18.0 (9.7)	22.3 (9.1)	12.6 (2.1)
Mandalay	24.5 (4.0)	34.2 (6.5)	58.9 (5.4)	20.9 (5.1)	31.7 (5.8)	30.4 (3.4)
Mon	69.7 (8.7)	56.7 (5.9)	78.4 (3.5)	54.6 (8.4)	58.8 (6.2)	47.3 (7.5)
Rakhine	15.8 (4.2)	29.1 (3.9)	42.4 (10.2)	18.3 (4.4)	23.3 (2.7)	17.3 (2.8)
Yangon	20.5 (5.4)	47.4 (10.7)	47.0 (12.9)	29.9 (5.3)	43.2 (9.9)	68.6 (2.4)
Shan	22.2 (5.2)	42.8 (7.4)	86.7 (5.8)	20.0 (4.1)	36.0 (5.8)	24.1 (2.8)
- Shan (S)	30.8 (3.7)	50.5 (13.9)	93.8 (7.0)	28.3 (1.0)	45.5 (12.5)	25.9 (8.1)
- Shan (N)	17.0 (3.8)	35.5 (8.9)	74.6 (10.0)	16.0 (7.8)	28.5 (6.4)	19.8 (0.9)
- Shan (E)	20.1 (13.8)	34.8 (7.3)	95.5 (1.8)	5.7 (4.5)	28.0 (10.7)	31.9 (7.5)
Ayeyarwaddy	25.2 (6.3)	29.7 (7.3)	78.2 (7.4)	19.2 (4.5)	28.3 (6.9)	31.4 (9.0)
Union 2010	**26.8 (2.2)**	**36.3 (2.4)**	**61.1 (6.1)**	**24.2 (1.9)**	**33.9 (2.2)**	**31.8 (1.9)**
Union 2005	**24.3 (1.8)**	**35.3 (2.2)**	**75.2 (2.6)**	**16.5 (1.4)**	**31.8 (1.9)**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

8.4 Attainment

Table 54 presents data on the level of education completed by the household head. This indicator is a measure of the overall coverage of the educational system over the long term, as well as a proxy for social progress. There are a number of key results:

i. Around two-thirds (65%) of household heads have achieved only primary education or less, a figure which has remained virtually constant since 2005.
ii. Only around 15% of household heads have completed secondary school or higher.
iii. Around 22% of poor household heads have completed middle school or higher, compared to around 40% of non-poor household heads.
iv. There are significant differences across strata, in that 75% of rural dwellers have only a primary education or less compared to 37% of urban residents.

Overall, levels of education attainment are low in Myanmar with large gaps between poor and non-poor households and between urban and rural dwellers.

8.5 Educational Expenditures

Table presents data on educational expenditures in 2009 kyats and education expenditure shares. Educational expenditure includes transportation costs, fees, contributions to schools, textbooks, private tutoring and miscellaneous other expenses. These data provide information on two different issues. First, they give an indication of the financial burden associated with education costs, in particular for the poor. Second, they proxy access to higher quality, but higher cost, education. Three findings are relevant to note:

i. Overall, education shares of expenditure were around 2% in 2010, down from their 2005 level of around 3%.
ii. Shares of the poor are lower than the non-poor, at 1.2% and 1.8% respectively, as is the case with shares of rural vs. urban dwellers, at 1.5% and 2.2% respectively.
iii. The non-poor pay close to three times the amount of the poor on education, in absolute terms, which may suggest better access to higher quality education.

In summary, *in relative terms*, the burden for the poor of education is less than that of the non-poor though the quality of education received by the latter is likely higher.

Table 54 Education Level of the Household Head

State, Region and Union	Never attended school/ KG or 1st standard	Monastic school	Primary school (2nd to 4th std)	Middle school (5th to 8th std)	secondary school (9th to 10th std)	Post-secondary education	Total
Kachin	18.5 (2.7)	7.9 (0.3)	35.7 (3.5)	23.4 (3.0)	10.4 (1.5)	4.1 (1.5)	100.0
Kayah	20.2 (2.9)	3.6 (1.3)	34.1 (11.1)	29.9 (4.7)	8.6 (2.5)	3.6 (0.2)	100.0
Kayin	10.8 (3.4)	8.2 (3.6)	49.9 (6.2)	20.8 (1.5)	8.2 (0.5)	2.2 (0.2)	100.0
Chin	14.0 (6.3)	0.0 (0.0)	46.3 (9.2)	23.5 (2.6)	12.5 (3.4)	3.7 (2.1)	100.0
Sagaing	3.2 (0.9)	11.8 (2.2)	59.6 (3.6)	15.7 (0.8)	6.4 (0.9)	3.2 (0.7)	100.0
Tanintharyi	8.9 (1.4)	15.4 (1.5)	48.2 (6.2)	17.4 (5.3)	8.4 (2.9)	1.7 (0.6)	100.0
Bago	3.0 (1.2)	5.9 (2.3)	60.4 (3.2)	20.3 (1.6)	7.8 (0.7)	2.6 (0.4)	100.0
- Bago (E)	4.9 (1.5)	7.1 (2.5)	54.2 (2.2)	22.3 (1.6)	8.1 (0.9)	3.3 (0.2)	100.0
- Bago (W)	0.9 (0.5)	4.6 (3.4)	67.0 (0.9)	18.1 (3.0)	7.5 (1.4)	1.9 (0.6)	100.0
Magwe	4.2 (1.4)	12.2 (3.4)	59.3 (7.5)	15.6 (1.6)	6.1 (1.8)	2.5 (0.6)	100.0
Mandalay	6.7 (1.4)	13.2 (3.9)	46.1 (3.5)	20.8 (1.1)	9.3 (1.5)	4.0 (0.8)	100.0
Mon	6.9 (1.7)	6.4 (1.6)	47.3 (0.7)	22.8 (1.5)	12.4 (0.4)	4.1 (0.2)	100.0
Rakhine	16.7 (4.2)	14.4 (4.2)	37.0 (4.5)	17.5 (0.8)	10.7 (5.0)	3.7 (1.5)	100.0
Yangon	4.0 (0.6)	4.0 (0.7)	27.2 (2.1)	27.6 (1.2)	26.4 (2.4)	10.7 (1.5)	100.0
Shan	23.0 (3.9)	17.1 (4.5)	36.6 (3.2)	16.3 (2.8)	5.8 (1.3)	1.3 (0.4)	100.0
- Shan (S)	18.3 (7.6)	8.9 (0.5)	42.7 (3.1)	22.5 (1.4)	6.6 (3.3)	1.0 (0.2)	100.0
- Shan (N)	22.7 (5.0)	24.5 (7.9)	33.7 (5.7)	11.2 (2.7)	5.8 (1.3)	2.1 (0.9)	100.0
- Shan (E)	41.3 (10.9)	21.1 (5.7)	23.9 (10.0)	11.2 (2.9)	2.4 (1.1)	0.0 (0.0)	100.0
Ayeyarwaddy	2.4 (0.9)	5.6 (1.2)	58.3 (3.5)	20.9 (0.5)	9.4 (1.8)	3.4 (1.3)	100.0
- Urban	4.9 (0.5)	3.8 (0.5)	28.4 (1.3)	27.1 (0.8)	24.2 (1.2)	11.6 (1.1)	100.0
- Rural	7.8 (0.7)	11.5 (1.1)	55.3 (1.4)	17.8 (0.4)	6.1 (0.4)	1.4 (0.1)	100.0
- Poor	12.5 (1.3)	13.3 (1.6)	52.8 (1.6)	15.9 (0.6)	4.7 (0.6)	0.7 (0.2)	100.0
- Non Poor	5.6 (0.4)	8.4 (0.9)	46.9 (1.5)	21.5 (0.5)	12.6 (0.8)	5.1 (0.4)	100.0
Union 2010	**7.1 (0.6)**	**9.5 (0.9)**	**48.1 (1.3)**	**20.3 (0.4)**	**10.9 (0.8)**	**4.1 (0.4)**	**100.0**
Union 2005	**11.9 (0.7)**	**19.8 (0.8)**	**34.8 (0.9)**	**19.4 (0.6)**	**10.0 (0.7)**	**4.1 (0.5)**	**100.0**
Change (%)	**-40.7**	**-52.1**	**38.3**	**4.4**	**9.0**	**1.6**	

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 55 Education Expenditure/Shares (December, 2009 Kyats)

State, Region and Union	By Strata				By Poverty				Total					
	Urban		Rural		Poor		Non Poor		Value (K)			Share %		
	Value (K)	Share %	Value (K)	Share %	Value (K)	Share %	Value (K)	Share %	2010	2005	% Change 2005-2010	2010	2005	% Change 2005-2010
Kachin	14,036 (1626)	2.6 (0.23)	14,807 (2270)	3.0 (0.43)	8,877 (1654)	2.8 (0.49)	16,493 (2264)	2.9 (0.43)	14,609 (1740)	13,551 (780)	8	2.9 (0.39)	3.0 (0.24)	-3
Kayah	15,640 (1159)	2.5 (0.15)	15,072 (3430)	2.7 (0.40)	7,744 (745)	2.3 (0.14)	15,978 (2604)	2.6 (0.32)	15,291 (2511)	10,700 (2717)	43	2.6 (0.31)	2.3 (0.48)	13
Kayin	11,348 (3689)	1.8 (0.46)	8,146 (1527)	1.5 (0.30)	3,441 (218)	1.0 (0.05)	9,500 (2229)	1.6 (0.37)	8,671 (1886)	8,626 (652)	1	1.6 (0.33)	1.5 (0.16)	5
Chin	14,202 (1004)	3.4 (0.30)	6,513 (294)	2.0 (0.11)	7,170 (212)	2.4 (0.10)	11,007 (1950)	2.4 (0.42)	8,470 (665)	5,983 (1325)	42	2.4 (0.24)	1.7 (0.58)	47
Sagaing	13,112 (1683)	2.1 (0.26)	9,657 (392)	1.8 (0.07)	4,182 (483)	1.3 (0.15)	11,030 (408)	1.9 (0.08)	10,162 (447)	11,035 (1294)	-8	1.9 (0.08)	2.2 (0.24)	-14
Tanintharyi	17,045 (2126)	2.7 (0.11)	10,949 (1073)	2.3 (0.07)	6,203 (534)	2.0 (0.19)	14,746 (1337)	2.5 (0.11)	12,314 (1507)	11,887 (1645)	4	2.4 (0.08)	2.3 (0.17)	5
Bago	8,379 (731)	1.5 (0.09)	4,516 (139)	0.8 (0.05)	2,512 (314)	0.8 (0.10)	5,485 (232)	1.0 (0.05)	5,040 (227)	6,100 (515)	-17	0.9 (0.05)	1.3 (0.07)	-25
- Bago (E)	10,638 (258)	2.0 (0.07)	6,026 (184)	1.1 (0.06)	3,563 (601)	1.1 (0.20)	7,347 (418)	1.3 (0.08)	6,741 (378)	7,255 (622)	-7	1.3 (0.08)	1.5 (0.08)	-14
- Bago (W)	5,148 (880)	0.9 (0.06)	2,991 (284)	0.6 (0.07)	1,225 (126)	0.4 (0.04)	3,562 (340)	0.6 (0.07)	3,238 (312)	4,880 (816)	-34	0.6 (0.07)	1.0 (0.13)	-41
Magwe	10,189 (1607)	1.7 (0.16)	5,837 (446)	1.2 (0.12)	3,430 (505)	1.1 (0.16)	7,160 (725)	1.3 (0.14)	6,303 (549)	6,579 (540)	-4	1.3 (0.13)	1.5 (0.05)	-13
Mandalay	14,450 (872)	2.2 (0.10)	7,509 (767)	1.6 (0.12)	3,858 (425)	1.2 (0.12)	11,074 (695)	1.9 (0.09)	9,464 (818)	9,804 (1057)	-3	1.8 (0.10)	2.1 (0.23)	-13
Mon	17,865 (2520)	3.1 (0.28)	13,380 (871)	2.6 (0.09)	5,195 (725)	1.6 (0.22)	15,660 (531)	2.8 (0.05)	14,209 (614)	10,478 (202)	36	2.7 (0.05)	2.0 (0.12)	35
Rakhine	10,383 (1478)	1.9 (0.29)	6,277 (528)	1.5 (0.10)	1,627 (197)	0.5 (0.06)	10,470 (647)	2.0 (0.16)	7,212 (763)	10,925 (2045)	-34	1.6 (0.10)	2.4 (0.37)	-33
Yangon	15,828 (1472)	2.3 (0.31)	10,857 (665)	2.2 (0.02)	4,643 (684)	1.4 (0.21)	15,968 (1301)	2.3 (0.27)	14,524 (954)	11,287 (1001)	29	2.3 (0.25)	1.6 (0.34)	40
Shan	13,086 (1809)	2.1 (0.35)	7,216 (714)	1.6 (0.15)	4,433 (1074)	1.4 (0.34)	10,333 (694)	1.8 (0.14)	8,663 (1006)	8,672 (520)	0	1.8 (0.17)	1.9 (0.17)	-8
- Shan (S)	10,714 (31)	1.7 (0.14)	9,348 (451)	2.0 (0.09)	5,045 (437)	1.6 (0.18)	10,888 (81)	1.9 (0.20)	9,751 (575)	11,554 (288)	-16	1.9 (0.17)	2.4 (0.35)	-22
- Shan (N)	17,787 (4020)	2.9 (0.60)	6,308 (1449)	1.4 (0.27)	4,692 (1981)	1.5 (0.63)	10,691 (1657)	1.9 (0.25)	8,632 (2208)	6,832 (876)	26	1.8 (0.35)	1.6 (0.12)	13
- Shan (E)	9,396 (1495)	1.9 (0.22)	3,329 (1328)	0.8 (0.31)	2,491 (1333)	0.8 (0.42)	6,147 (1948)	1.2 (0.34)	4,699 (1768)	4,848 (2281)	-3	1.1 (0.37)	1.1 (0.44)	-5
Ayeyarwady	12,216 (1611)	2.1 (0.17)	5,967 (1040)	1.3 (0.22)	3,289 (584)	1.0 (0.19)	8,390 (1645)	1.5 (0.27)	6,992 (1423)	9,137 (681)	-23	1.4 (0.26)	1.8 (0.10)	-20
UNION	**13,979 (648)**	**2.2 (0.14)**	**7,524 (269)**	**1.5 (0.05)**	**3,806 (216)**	**1.2 (0.07)**	**10,714 (351)**	**1.8 (0.07)**	**9,243 (327)**	**9,408 (319)**	**-2**	**1.8 (0.06)**	**1.8 (0.08)**	**-4**

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

8.6 Summary

Section 8 has presented data on various aspects of the educational system in Myanmar.

In terms of literacy, overall rates stood at around 90% in 2010, compared to 85% in 2005, an increase which is statistically significant. There are large differences between the poor and non-poor, at 84% and 93% respectively, though literacy of the poor has registered a statistically significant increase from its 2005 level of 79%. There are considerable differences between rural and urban dwellers, at 89% and 95% respectively and between females and males at 89% and 96% respectively. The lowest levels of literacy are found in Rakhine (75%) and Shan (75%). In summary, literacy levels have increased somewhat from already high levels, with proportionate gains for the poor. Modest gaps persist between poor and non-poor households, males and females and urban and rural households with much larger differences along state/division lines.

Net primary enrolment stood at around 88% in 2010, a statistically significant increase from its 2005 level of 85%. There are large differences in enrolment rates between the poor and non-poor, at 81% and 90% respectively. Net primary enrolment rates of the poor increased slightly from their 2005 level of 80%. Noticeable differences are found between rural and urban dwellers, at 87% and 92% respectively, though not along gender lines. The lowest net primary enrolment rates are found in Rakhine State (71%). In summary, net primary enrolment rates have increased slightly from already high levels and have stayed constant for the poor. Significant gaps remain between states/regions, urban and rural dwellers and poor and non-poor households.

Net secondary enrolment stood at around 53% in 2010, a statistically significant increase from its 2005 level of 42%. There are large differences between the poor and non-poor, at 35% and 59% respectively, though the secondary enrolment rate of the poor has increased in statistically significant fashion from its 2005 level of 28%. Large differences are found between rural and urban dwellers, at 47% and 75%, respectively, though not between males and females. Once again, the lowest rates are found in Rakhine State (32%). In summary, net secondary enrolment has increased considerably with large gains for the poor. Significant gaps remain between states/regions, urban and rural dwellers and poor and non-poor households.

With respect to access to a primary school, defined in terms of physical distance, levels stood at around 91% in 2010, virtually unchanged from 2005. There are slight and statistically insignificant differences in access between the poor and non-poor, at 89% and 92% respectively, while larger differences are found between rural and urban dwellers, at 89% and 96% respectively. The lowest levels of access are found in Chin (73%) and Kayin (75%). In terms of access to secondary school levels stood at around 34% in 2010, a slight and statistically insignificant increase from its 2005 level of 32%. There are considerable differences in access between the poor and non-poor, at 27% and 36% respectively, and access for the former has increased from its 2005 level of 24% though the change is not statistically significant. Big differences are found between rural and urban dwellers, at 24% and 61% respectively. The lowest levels of access are found in Rakhine (23%) and Magwe (22%), despite apparent improvements in both these states since 2005. In summary, access to secondary school has increased slightly with modest remaining gaps between poor and non-poor households and very large differences between urban and rural dwellers.

In terms of educational attainment, around two-thirds (65%) of household heads have achieved only primary education or less, a figure which has remained virtually constant since 2005. Only around 15% of household heads have secondary school or higher. Around 22% of poor households heads have completed middle school or higher, compared to around 40% of non-poor household heads There are significant differences across strata, in that 75% of rural dwellers have only a primary education or less compared to 37% of urban residents. Overall, levels of education attainment are low in Myanmar with large gaps between poor and non-poor households and between urban and rural dwellers

With respect to education expenditure, overall, education shares were around 2% in 2010, down 4% from their 2005 level. Shares of the poor are lower than the non-poor, at 1.2% and 1.8% respectively, as is the case with shares of rural vs. urban dwellers, at 1.5% and 2.2% respectively. The non-poor pay close to three times the amount of the poor on education, in absolute terms, which may suggest better access to higher quality education. In summary, *in relative terms*, the burden for the poor of education is less than that of the non-poor though the quality of education received by the latter is likely higher.

8.7 Appendix Tables

Table 56 Literacy Rates, 15 and Above (Results of Major Surveys)

Region	SWOC (1991)*			MICS 2000*			IHLCA (2007)	
	M	F	Total	M	F	Total	rural	urban
Union	93.9	84.1	88.8	93.7	86.2	89.7	84.93	
Urban	96	89.2	92.4	97.9	93.3	95.4	92.10	
Rural	92.2	79.9	85.8	92.3	83.6	87.7	82.10	
Kachin	89.4	79.6	84.3	90.0	82.2	85.8	84.22	90.11
Kayah	79.1	68.5	73.9	83.7	73.4	78.4	70.81	85.41
Kayin	85.7	71	77.6	79.0	68.7	73.5	79.98	91.50
Chin	84.4	70.6	77.3	84.1	65.7	74.7	81.74	92.63
Mon	92.4	88.2	90.2	91.9	84.5	88.0	86.68	93.38
Rakhine	87.5	88.6	92.7	79.3	63.1	70.8	59.69	86.62
Shan (north)	90.9	77.1	83.8	74.2	61.7	67.7	63.84	78.20
Shan (east)				49.7	30.0	40.6	34.69	64.64
Shan (south)				88.3	67.8	77.4	66.37	86.13
Ayeyarwaddy	96.4	92	94.1	98.1	95.0	96.5	88.97	93.43
Bago (E)	96.7	88.2	92.2	98.8	93.8	96.2	84.11	91.68
Bago (W)							89.24	93.69
Magway	97.1	79.1	87.4	98.3	87.1	92.3	82.33	93.61
Mandalay	95.2	85.7	90.2	99.0	92.4	95.5	84.34	91.64
Sagaing	97.2	82.7	89.4	96.2	89.8	92.7	88.07	92.39
Tanintharyi	97.7	92.8	95	96.6	94.0	95.2	84.97	88.76
Yangon	93.9	87	90.4	98.2	94.7	96.3	89.60	94.94

* Adult literacy defined as the percent of the population, aged 15 years and over, able to read and write in any language with reasonable understanding.

9. Conclusion: Trends in Well-being in Myanmar, 2005-2010

Section 9 brings together the information in the Poverty Profiles which bear on the question of what has happened to well-being between 2005 and 2010 in Myanmar. A somewhat arbitrary distinction is drawn between 'economic' and 'social' dimensions of well-being. The former includes relevant information presented mainly in Sections 2-5 while the latter includes data from Sections 6-8. Economic dimensions are discussed in Section 9.1, followed by social dimensions in Section 9.2

9.1 Trends in Economic Dimensions of Well-being

According to the data summarised in Table 57 , there have been eight main areas of improvement between 2005-2010, namely:

1. food poverty;
2. poverty;
3. caloric intake
4. asset ownership;
5. land size;
6. inequality,
7. consumption expenditure;
8. debt.

There have been statistically significant declines in food poverty and in poverty across all FGT poverty measures. Caloric intake has increased for the bottom decile, which represented the 'food poor' in 2005, and for the second and third deciles. Small asset holdings have increased across the consumption distribution, at a faster rate for the poorest deciles. Both relative and absolute measures of inequality have improved. Consumption expenditure has increased for all but the top decile and at a much higher rates for the lower deciles. The size distribution of land holdings has remained quite stable or improved slightly. Finally, both the percentage of households reporting debt, and the debt burden per indebted household, have fallen. Data on roof-type and malnutrition, summarised in the following Section, are also consistent with improvements in economic well-being.

On the other hand, findings in four areas suggest a deterioration in economic dimensions of well-being, namely:

1. the food share in consumption;
2. landlessness;
3. credit access;
4. underemployment.

The food share in consumption has risen across the bottom three deciles and begins to fall only towards the top of the consumption distribution. There appears to have been an increase in landlessness among the bottom decile, i.e. the very poorest, and among the poor overall. Credit access for agricultural activities has declined overall, and for the poor in particular. Underemployment has increased somewhat, though is not closely associated with poverty.

In addition, it should be recalled the some of the apparent increases in consumption expenditure may be due to an increase in labour time and effort as a higher percentage of workers have entered the labour market, and others have supplemented contributing family work with casual labour.

Overall, these data present a mixed picture. Certain economic aspects of well-being have improved markedly, while others have deteriorated or stagnated. *In light of these conflicting results, caution is urged in the interpretation of data on poverty levels and trends, in particular on the magnitude of the decline in poverty*

Table 57 Trends in Economic Well-being, 2005-2010

		Improvement						Deterioration						No Change	
		Deciles				Poor	All	Deciles				Poor	All	Poor	All
		1	2	3	4			1	2	3	4				
	Food Poverty														
1	P0						X*								
2	P1						X*								
3	P2						X								
	Poverty														
4	P0						X*								
5	P1						X*								
6	P2						X*								
	Poverty Proxies														
7	Caloric Intake	X*	X	X									X		
8	Food Share						X*	X*	X*	X*	X				
	Asset Ownership														
9	TV	X*	X*	X*	X*										
10	Radio/Stereo	X*	X*	X*	X*										
11	Bicycle		X	X	X			X							
12	Motor-Cycle	X*	X*	X*	X*										
	Inequality														
13	Share of Bottom 20%						X								
14	Consumption Gap						X								
15	Consumption Exp.	X*	X*	X*	X*	X*	X								
16	**Land Size**	X*	X	X	X*	X	X								
17	**Landlessness**		X		X		X	X		X		X			
18	**Credit Access (Agriculture)**											X*	X*		
	Debt														
19	% of Households					X*	X*								
20	Total Debt/Cons. Exp.					X	X								
21	**Unemploymemt**													X	X
22	**Time Rate of Unemployment**													X	X*
23	**Underemployment**											X	X*		

* Statistically significant at 95%

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

9.2 Trends in Social Dimensions of Well-being

Table 58 presents data on trends in social dimensions of well-being. Here the picture is much more unambiguous than in the case of economic well-being. Almost all indicators appear to have improved, many in statistically significant fashion. The two exceptions concern measles immunisation coverage and access to primary school for the poor which have fallen slightly. These latter changes are not statistically significant. In summary, IHLCA data suggest a broad improvement in the social dimensions of well-being between 2005 and 2010.

Table 58 Trends in 'Social' Well-being, 2005-2010

						No Change	
		Poor	All	Poor	All	Poor	All
1	Quality Roofing	X	X*				
2	Access to Safe Drinking Water	X	X*				
3	Access to Improved Sanitation	X*	X*				
4	Access to Electricity	X*	X*				
5	Immunisation		X	X			
6	Antenatal Care Coverage	X					X
7	Births Attended by Skilled Personnel	X	X*				
8	Self Reported Morbidity					X	X
9	Moderate Malnutrition	X	X				
10	Severe Malnutrition	X	X				
11	Access to Health Care	X*	X*				
12	Literacy	X*	X*				
13	Net Primary Enrolment	X	X*				
14	Net Secondary Enrolment	X*	X*				
15	Access to Primary School			X			X
16	Access to Secondary School	X	X				

* Statistically significant at 95%

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

10. Statistical Appendix

Table 59 and Table 60 below present results of tests of statistical significance of the mean differences in indicators of economic and social well being discussed in the text and summarily presented in Section 9. The formula used to calculate these differences is as follows:

$$SE(MeanDif_{2005,\ 2010}) = \sqrt{(var_{2005} + var_{2010}) * (1 - 0.5R)}$$

This formula takes into account the fact the 2005 and 2010 samples are not independent, in that there is a 50% panel. The *R* value is 0.6, based on estimates from the panel data.

Table 59 Economic Well-being: Statistical Appendix

Indicator		2005	2010	Mean Difference	Mean Difference Confidence Interval		p value
	Food Poverty						
1	P0	0.096	0.048	0.048	0.034	0.062	0.000
2	P1	0.013	0.006	0.007	0.005	0.010	0.000
3	P2	0.003	0.001	0.002	-0.002	0.006	0.276
	Poverty						
4	P0	0.321	0.256	0.065	0.030	0.100	0.000
5	P1	0.064	0.041	0.023	0.015	0.031	0.000
6	P2	0.070	0.010	0.060	0.058	0.062	0.000
	Poverty Proxies						
7	Caloric Intake						
	D1	2577.000	2656.000	79.000	13.988	144.012	0.017
	D2	2992.000	3015.000	23.000	-42.242	88.242	0.490
	D3	3142.000	3161.000	19.000	-55.480	93.480	0.617
	D4	3317.000	3302.000	-15.000	-57.515	87.515	0.682
	All	3441.000	3405.000	36.000	-40.701	112.701	0.358
8	Food Share						
	D1	72.400	74.100	1.700	0.282	3.118	0.019
	D2	72.000	73.400	1.400	0.083	2.717	0.038
	D3	71.600	73.300	1.700	0.551	2.849	0.004
	D4	72.200	71.700	0.500	-2.226	1.226	0.569
	All	69.400	68.000	1.400	0.041	2.759	0.043

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 59 Economic Well-being: Statistical Appendix (Cont.)

Indicator					2005	2010	Mean Difference	Mean Difference Confidence Interval		p value
		Asset Ownership								
9			TV							
				D1	6.890	15.280	8.390	5.416	11.364	0.000
				D2	9.560	20.230	10.670	7.029	14.311	0.000
				D3	13.010	24.970	11.960	7.600	16.320	0.000
				D4	15.320	30.540	15.220	11.762	18.678	0.000
				All	25.460	39.660	14.200	10.203	18.197	0.000
10			Radio/Stereo							
				D1	14.170	23.590	9.420	5.218	13.622	0.000
				D2	17.950	29.220	11.270	7.301	15.239	0.000
				D3	19.930	33.120	13.190	9.385	16.995	0.000
				D4	19.890	35.980	16.090	11.703	20.477	0.000
				All	27.480	37.480	10.000	6.598	13.402	0.000
11			Bicycle							
				D1	27.090	26.980	0.110	-5.647	5.867	0.968
				D2	33.420	36.230	2.810	-1.881	7.501	0.242
				D3	37.270	39.690	2.420	-2.427	7.267	0.327
				D4	39.390	44.170	4.780	-0.166	9.726	0.059
				All	41.480	44.260	2.780	-1.535	7.095	0.208
12			Motor-Cycle							
				D1	3.130	10.570	7.440	3.825	11.055	0.000
				D2	3.910	11.870	7.960	5.464	10.456	0.000
				D3	5.450	14.630	9.180	6.701	11.659	0.000
				D4	6.100	18.560	12.460	9.565	15.355	0.000
				All	9.740	24.190	14.450	11.980	16.920	0.000
	Inequality									
13			Share of Bottom 20%		11.100	12.000	0.900	-1.088	2.888	0.373
14			Consumption Gap		573260.285	525929.379	47330.906	-33236.245	127898.056	0.250
15			Consumption Exp.							
				D1	247827.000	281494.000	33667.000	30922.746	36411.254	0.000
				D2	319508.000	348782.000	29274.000	28392.650	30155.350	0.000
				D3	366053.000	391039.000	24986.000	24101.193	25870.807	0.000
				D4	407208.000	429125.000	21917.000	21340.597	22493.403	0.000
				Poor	304601.000	318689.000	14088.000	10949.204	17226.796	0.000
				All	513003.000	526110.000	13107.000	-15341.772	41555.772	0.368

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 59 Economic Well-being: Statistical Appendix (Cont.)

Indicator		2005	2010	Mean Difference	Mean Difference Confidence Interval		p value
16	Land Size						
	D1	3.170	3.880	0.710	0.255	1.165	0.002
	D2	4.140	4.600	0.460	-0.022	0.942	0.061
	D3	4.910	5.370	0.460	-0.377	1.297	0.280
	D4	4.940	5.760	0.820	0.078	1.562	0.030
	Poor	4.100	4.400	0.300	-0.164	0.764	0.204
	All	6.110	6.690	0.580	-0.248	1.408	0.171
17	Landlessness						
	D1	33.770	37.960	4.190	-3.742	12.122	0.298
	D2	31.810	29.820	1.990	-3.290	7.270	0.459
	D3	29.190	30.600	1.410	-3.520	6.340	0.575
	D4	25.740	23.330	2.410	-2.926	7.746	0.379
	Poor	31.800	33.600	1.800	-3.761	7.361	0.529
	All	25.720	23.610	2.110	-0.676	4.896	0.139
18	Credit Access (Agriculture)						
	Poor	36.700	29.700	7.000	1.425	12.575	0.014
	All	38.084	33.017	5.067	1.112	9.022	0.012
	Debt						
19	% of Households						
	Poor	53.000	33.000	20.000	16.170	23.830	0.000
	All	48.400	30.200	18.200	14.953	21.447	0.000
20	Total Debt/Cons. Exp.						
	Poor	15.000	14.100	0.900	-1.671	3.471	0.490
	All	21.900	20.800	1.100	-4.561	6.761	0.704
21	Unemploymemt						
	Poor	2.300	2.400	0.100	-0.796	0.596	0.779
	All	2.036	1.687	0.350	-0.064	0.763	0.097
22	Time Rate of Unemployment						
	Poor	3.500	3.700	0.200	-1.027	0.627	0.638
	All	3.133	2.545	0.588	0.031	1.145	0.038
23	Underemployment						
	Poor	34.500	38.000	3.500	-0.098	7.098	0.056
	All	33.950	37.491	3.541	0.840	6.242	0.010

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 60 Social Well-being: Statistical Appendix

Indicator		2005	2010	Mean Difference	Mean Difference Confidence Interval		p value
1	**Quality Roofing**						
	Poor	27.800	32.000	4.200	-0.578	8.978	0.085
	All	44.100	52.900	8.800	4.275	13.325	0.000
2	**Access to Safe Drinking Water**						
	Poor	59.400	62.200	2.800	-4.548	10.148	0.453
	All	62.600	69.400	6.800	1.889	11.711	0.007
3	**Access to Improved Sanitation**						
	Poor	58.700	71.500	12.800	8.119	17.481	0.000
	All	67.300	79.000	11.700	8.246	15.154	0.000
4	**Access to Electricity**						
	Poor	20.400	27.900	7.500	2.468	12.532	0.036
	All	38.000	48.800	10.800	5.466	16.134	0.000
5	**Immunisation**						
	Poor	78.400	75.500	2.900	-9.809	4.009	0.412
	All	80.284	82.251	1.967	-2.375	6.309	0.373
6	**Antenatal Care Coverage**						
	Poor	75.500	77.200	1.700	-3.289	6.689	0.503
	All	82.469	83.293	0.825	-2.146	3.795	0.589
7	**Births Attended by Skilled Personnel**						
	Poor	64.600	69.300	4.700	-1.008	10.408	0.107
	All	72.453	77.939	5.486	1.860	9.112	0.003
8	**Self reported morbidity**						
	Poor	5.300	5.100	0.200	-0.496	0.896	0.575
	All	5.300	5.400	0.100	-0.596	0.796	0.779
9	**Moderate Malnutrition**						
	Poor	37.900	35.200	2.700	-1.435	6.835	0.201
	All	34.300	32.000	2.300	-0.603	5.203	0.121
10	**Severe Malnutrition**						
	Poor	11.300	10.200	1.100	-1.011	3.211	0.308
	All	9.400	9.100	0.300	-1.091	1.691	0.674

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

Table 60 Social Well-being: Statistical Appendix (Cont.)

Indicator		2005	2010	Mean Difference	Mean Difference Confidence Interval		p value
11	Access to Health Care						
	Poor	57.300	77.000	19.700	14.738	24.662	0.000
	All	64.900	80.900	16.000	11.778	20.222	0.000
12	Literacy						
	Poor	78.800	84.300	5.500	2.828	8.172	0.000
	All	84.900	90.600	5.700	4.046	7.354	0.000
13	Net Primary Enrolment						
	Poor	80.100	81.300	1.200	-4.001	1.601	0.401
	All	84.700	87.700	3.000	1.377	4.623	0.000
14	Net Secondary Enrolment						
	Poor	28.300	35.000	6.700	3.620	9.780	0.000
	All	42.200	52.500	10.300	7.499	13.101	0.000
15	Access to Primary School						
	Poor	90.800	89.300	1.500	-1.993	4.993	0.401
	All	91.400	90.900	0.500	-2.071	3.071	0.704
16	Access to Secondary School						
	Poor	24.300	26.800	2.500	-2.181	7.181	0.294
	All	31.800	33.900	2.100	-2.678	6.878	0.390

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010

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