Poverty and Inequality

HIES 2016

– **POVERTY**

– Measuring poverty

– Consumption aggregate

– Poverty lines

– Poverty rates and poverty gap

–**INEQUALITY**

– Gini Coefficient

– Lorenz Curve

Poverty

Measuring poverty

– The measure of welfare adopted to assess population living standards is based on household consumption expenditures.

– The main welfare measure, the **consumption aggregate**, was constructed by adding up expenditures of four expenditure components:

(i) food expenditures;

(ii) non-food, non-durable expenditures;

(iii) expenditures on durables; and

(iv) expenditures on housing.

Measuring poverty

Component of consumption aggregate	What's included	What's not included
Food expenditure	- Food consumed - Own productions - Gifts received - Food consumed outside home (restaurant, take-away, etc)	- Food purchased
Non-food non- durable expenditure	Includes a variety of household expenditures such as clothing, education, travel (abroad and inbound), cosmetics, bills, etc	- Expenditure on health - Lumpy expenditures such as weddings, birthday parties, hajj - Construction of houses - Debt - Transfers made to non-household members
Expenditure on durables (A measure of use-value, not purchase, of durable goods is the right measure to include in the consumption aggregate from a welfare point of view)	Pre-listed items were included in the survey and their user value was taken	- Initial price of purchasing durable goods
Expenditure on rent	- Actual rent paid by household - Expected rental value for owner occupied dwellings if they were to rent their home	

Measuring poverty

– All expenditure items are aggregated at the household level and the resulting nominal consumption aggregate is adjusted for

- (i) differences in purchasing power due to differences in price levels across the Maldives (spatial deflation), using a survey-based Paasche index and

- (ii) within-the-year inflation, using a monthly CPI covering the survey period to produce a real consumption aggregate.
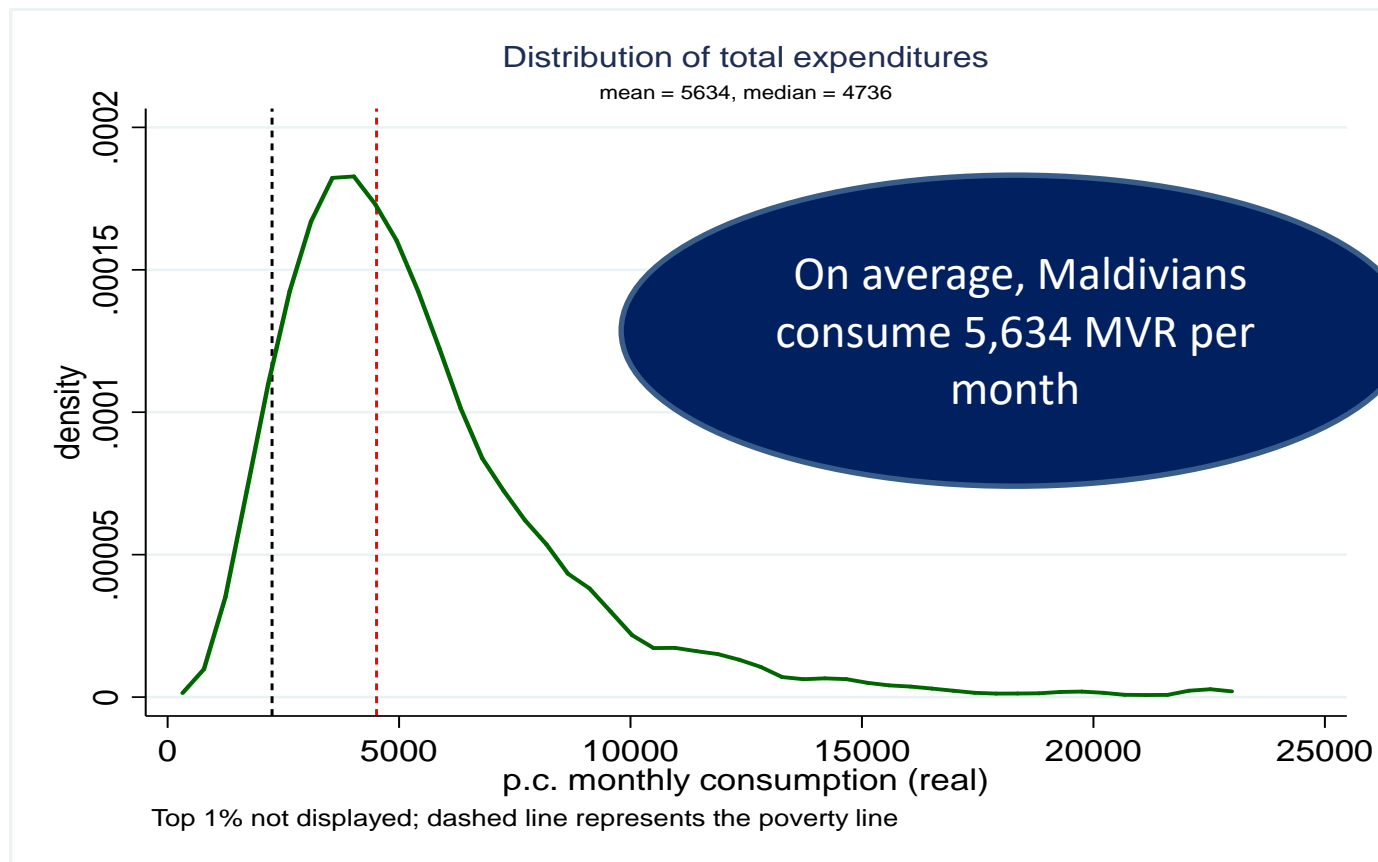
Approach used- where to set the poverty line

- Poverty lines in the Maldives are estimated using a relative approach.
- It is defined in respect to half the median expenditure of the entire population.
- An individual is considered as poor if their level of consumption expenditures is not sufficient to satisfy basic needs,
  - or in other words, if their consumption expenditure falls below the minimum threshold identified by the poverty line.

Distribution of per capita exp.

Distribution of total p.c. monthly expenditures, Maldives

Distribution of total expenditures
mean = 5634, median = 4736

On average, Maldivians consume 5,634 MVR per month

Top 1% not displayed; dashed line represents the poverty line

Poverty Lines Used

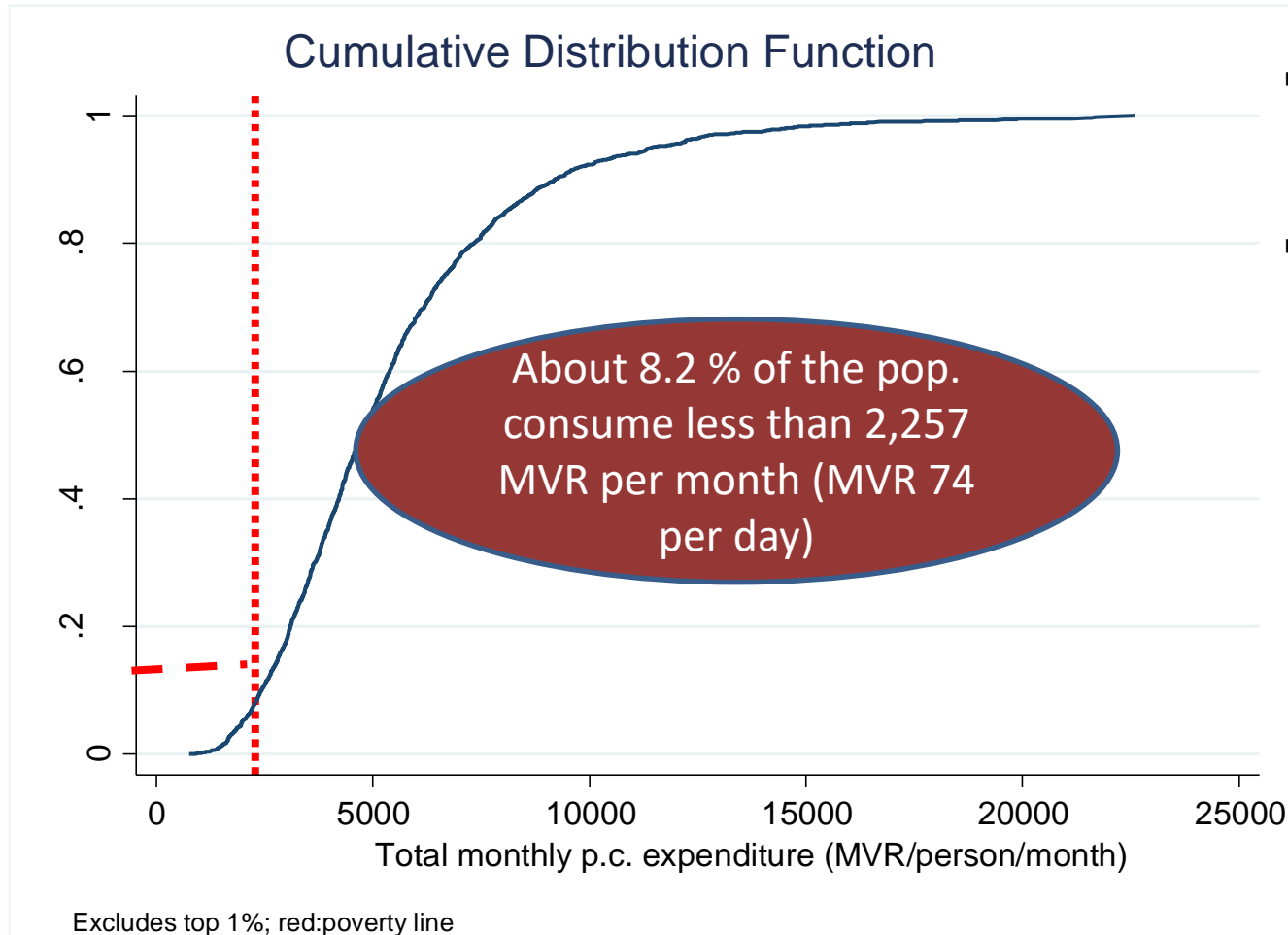| Poverty Line	Poverty line (Desc)	MVR
National Poverty Line	Half the median of **total expenditure**	MVR 74
High Poverty Line	Median of **total expenditure**	MVR 148
International Poverty Line	Upper middle- income poverty line	MVR 70

Poverty head count rate

Poverty is unequally distributed across the Maldives with higher poverty rates in the Atolls outside of Male'

POVERTY LINE	POVERTY RATE	POVERTY GAP
HALF THE MEDIAN OF TOTAL EXPENDITURES (MVR 74)	**8.2%**	**1.6%**
UPPER MIDDLE-INCOME (MVR 70)	**6.6%**	**1.3%**

- Most commonly used measure to display poverty incidence
- Identifies the share of population that lives below the poverty line
- Measured by comparing consumption of each household or individual to the poverty line.

Cumulative Distribution total per capita monthly expenditures

Cumulative Distribution Function

About 8.2 % of the pop. consume less than 2,257 MVR per month (MVR 74 per day)

Total monthly p.c. expenditure (MVR/person/month)

Excludes top 1%; red:poverty line

- The steep CDF is a cause of concern
- thus vulnerable to fall into poverty if their household situation changes

Poverty Gap

POVERTY LINE	POVERTY RATE	POVERTY GAP
NATIONAL POVERTY LINE - HALF THE MEDIAN OF TOTAL EXPENDITURES (MVR 74)	8.2%	1.6%
UPPER MIDDLE-INCOME (MVR 70)	6.6%	1.3%

- The poverty headcount rate only shows the proportion of the population that lives below and above a certain threshold but it is not able to show changes that occur near the threshold.

- The poverty gap index measures the depth of poverty by determining the gap between the actual state of an individual and the poverty line.

Poverty Gap – budget needed

- Poverty gap index provides a measure of the aggregate size of the monetary transfer required to bring the poor out of poverty, assuming perfect targeting were possible.

- Given a national population of 378,691 in 2016, and using the poverty line of 2,257 MVR per capita per month (MVR 74 per person per day), a poverty gap index of 1.6 % of the poverty line, implies that **an average transfer of 37 MVR per person per month would be needed to eliminate poverty** (**total budget of 1.14 million MVR per month**).

Distrbn. p.c. exp. Male' vs Atolls

Large differences in per capita expenditures in Male' and the Atolls

Distribution of total expenditures
mean Male'= 7375, mean Atolls= 4380
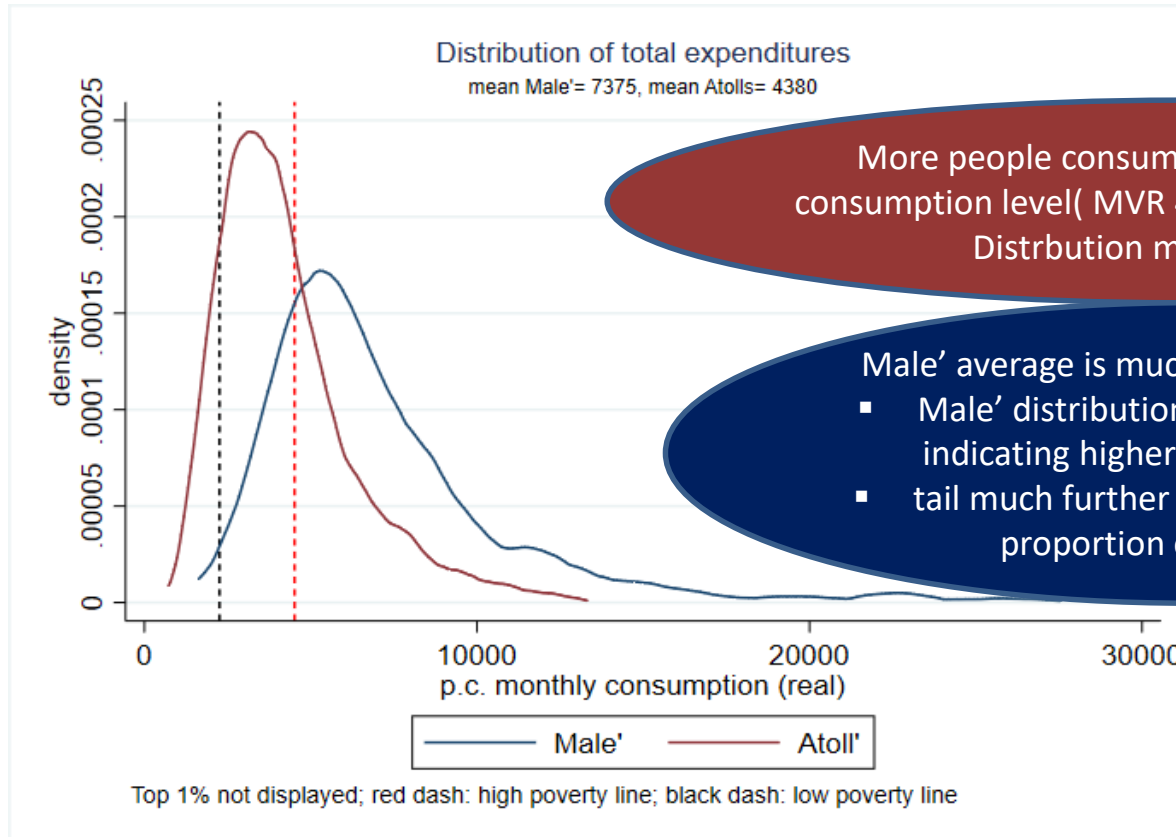
More people consume around the average consumption level(MVR 4380) compared to Male'. Distrbution much narrower

Male' average is much higher at MVR 7375
- Male' distribution is shifted to the right, indicating higher levels of consumption
- tail much further to the right show small proportion of consumes a lot

Top 1% not displayed; red dash: high poverty line; black dash: low poverty line

Poverty rates Male' vs Atolls

POVERTY LINE	TOTAL	MALE'	ATOLLS
NATIONAL POVERTY LINE (HALF THE MEDIAN OF TOTAL EXPENDITURES) MVR 74	8.2%	1.7%	12.8%
UPPER MIDDLE-INCOME MVR 70	6.6%	1.5%	10.4%

- Poverty is high in Atolls compared to Male'

- Measured by comparing consumption of each household or individual to the poverty line.
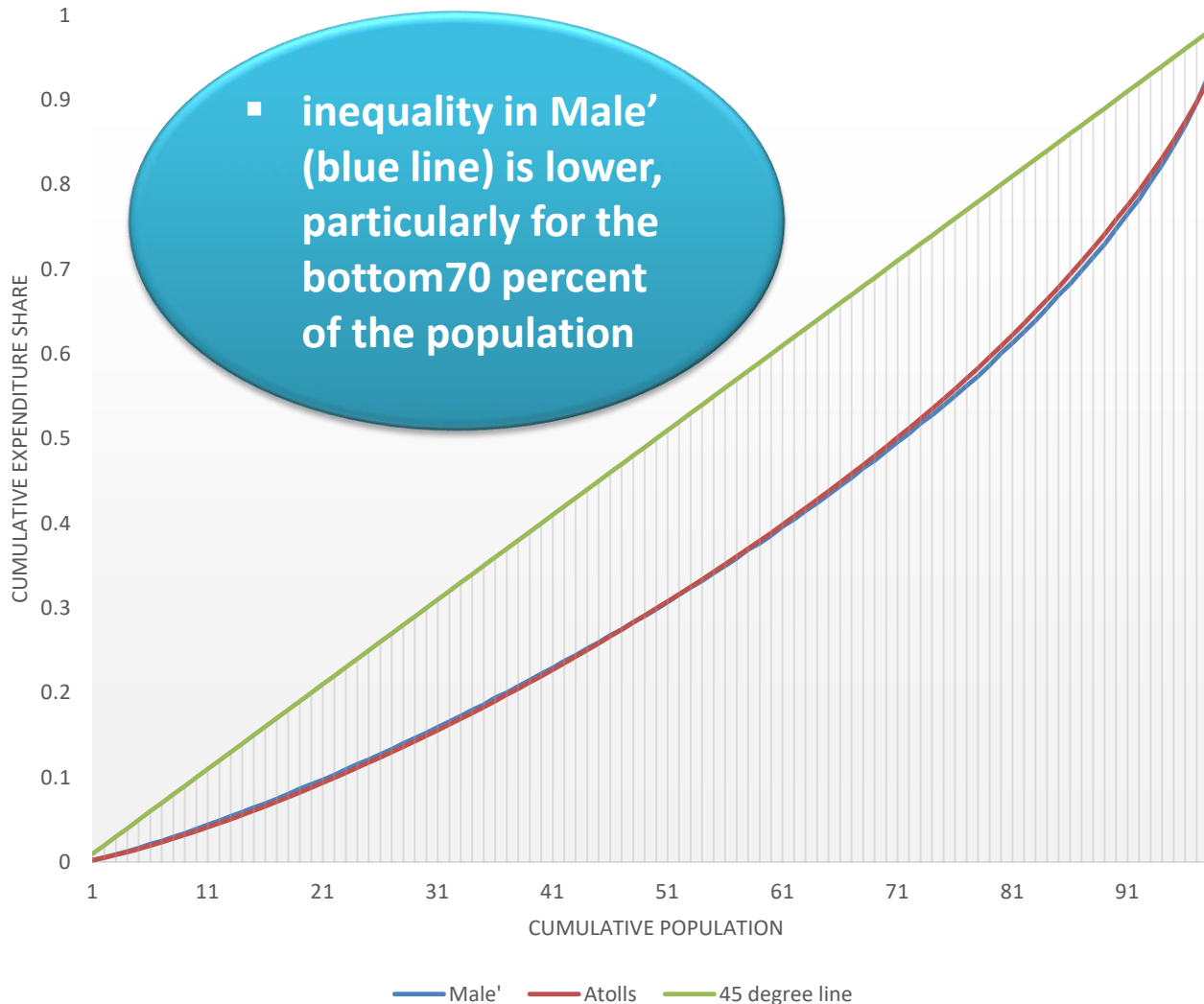
Inequality

Gini Coefficient
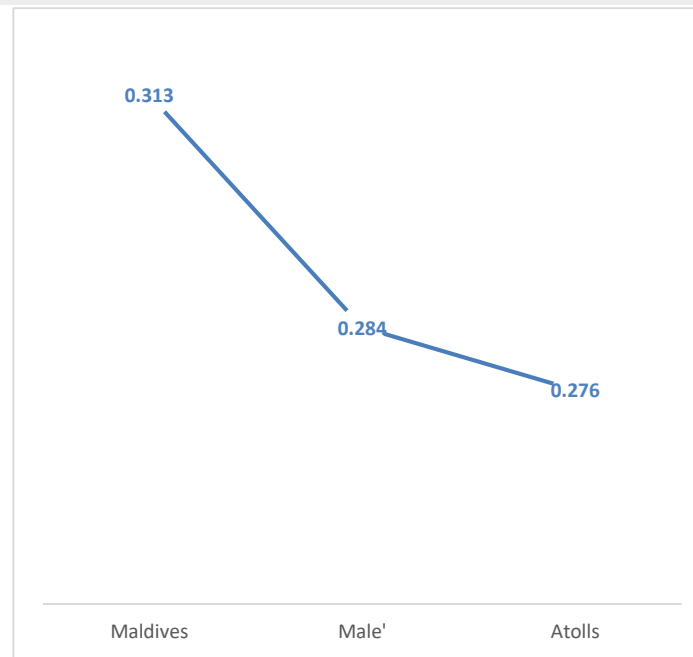
- Gini index measures the extent to which the distribution of consumption among individuals or households differs from a perfectly equal one.
- A value of 0 represents absolute equality with everybody consuming the same amount, a value of 1 absolute inequality, where all consumption is concentrated in one person.

Lorenz Curve

inequality in Male' (blue line) is lower, particularly for the bottom70 percent of the population

Lorenz curve, the expenditure shares for the complete continuum—from poorest 0 percent to the richest 100 percent for the country
If consumption were equally distributed across, we would have perfect equality, which is represented by the 45-degree line.

Legend: Male' — Atolls — 45 degree line

Y-axis: CUMULATIVE EXPENDITURE SHARE
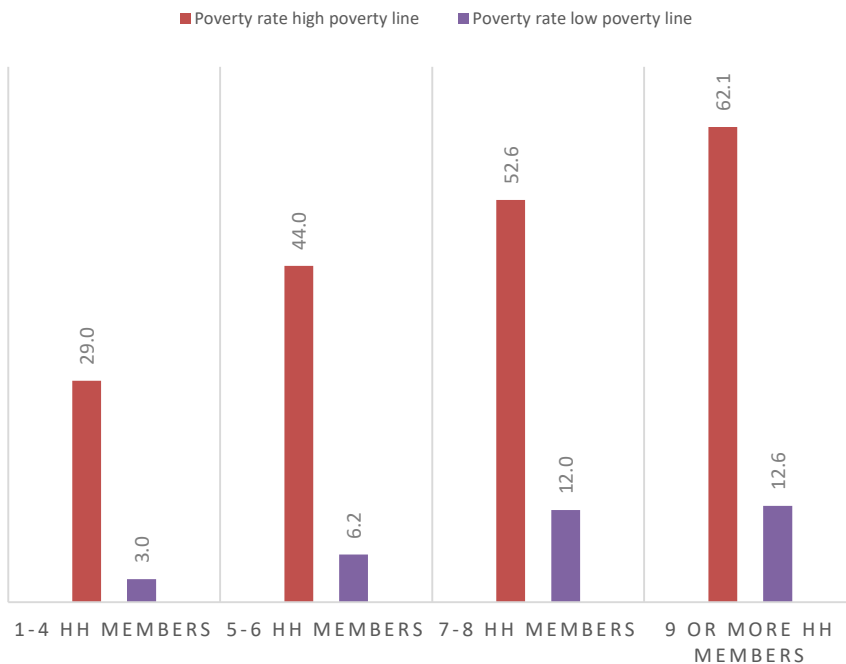X-axis: CUMULATIVE POPULATION

- HIES in 2016 survey and questionnaire design revisions undertaken includes important survey improvements to bring the HIES up to international standards, particularly in the measurement of poverty.

- However, these improvements also hinder comparability with past survey years and thus no comparable trends in poverty can be constructed
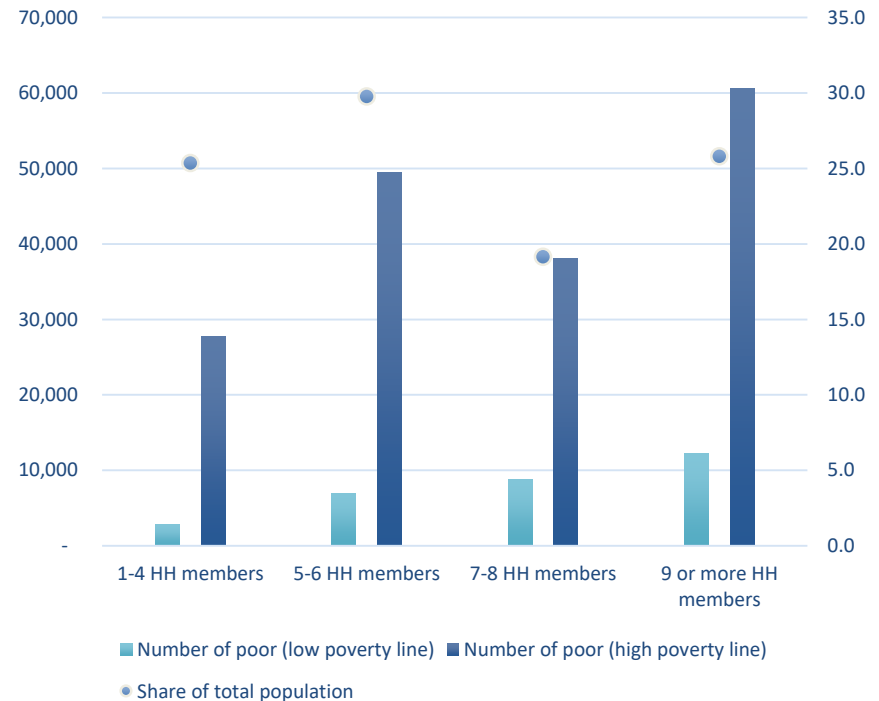
WHO ARE POOR IN MALDIVES? – DEMOGRAPHY

Poverty rates by household size

Legend: Poverty rate high poverty line (red), Poverty rate low poverty line (purple)

- 1-4 HH MEMBERS: 29.0 / 3.0
- 5-6 HH MEMBERS: 44.0 / 6.2
- 7-8 HH MEMBERS: 52.6 / 12.0
- 9 OR MORE HH MEMBERS: 62.1 / 12.6

Population share and poor population by household size

Legend: Number of poor (low poverty line), Number of poor (high poverty line), Share of total population

Categories: 1-4 HH members, 5-6 HH members, 7-8 HH members, 9 or more HH members

- Poverty rate increases with household size.

- The highest number of poor lives in large households of 9 members or more.

Poverty rates and share in population, by education level of head of household

Legend:
- Share of total population
- Poverty rate high poverty line
- Poverty rate low poverty line

Chart values:
- Below Primary: Share 20.7, High poverty line 62.9, Low poverty line 13.8
- Primary: Share 43.4, High poverty line 53.3, Low poverty line 9.7
- Secondary: Share 19.3, High poverty line 34.8, Low poverty line 3.8
- Above Secondary: Share 19.3, High poverty line 19.3, Low poverty line 1.5

- 64 percent of the population belongs to household where the head of household has below primary or only primary education.

- having an educated household head does not completely eliminate the risk of poverty- almost 2 percent of households live in households where the head of household having secondary education are poor

- Poverty rates decrease sharply with increasing educational attainment of household heads

Poverty rates, share in population, by employment status of head of household

EMPLOYMENT STATUS OF HEAD OF HOUSEHOLD	POVERTY RATE (LOW POVERTY LINE)	POVERTY RATE (HIGH POVERTY LINE)	SHARE OF POOR POPULATION (LOW POVERTY LINE)	SHARE OF POOR POPULATION (HIGH POVERTY LINE)	SHARE OF TOTAL POPULATION
EMPLOYED	6.6	43.7	51.0	59.5	63.4
UNEMPLOYED	8.8	41.8	1.5	1.2	1.4
POTENTIAL LABOR FORCE	11.5	54.3	8.8	7.3	6.3
INACTIVE	10.8	50.2	35.7	29.3	27.2

- Poverty rates in households whose heads are unemployed are at 8.8 percent while poverty rates in households whose heads are employed are at 6.6 percent.
- Despite higher poverty rates, the large majority of the poor population belongs to households whose household head is employed, due to the large population share.
- In other words, the employment status of the head of the household does not sharply differentiate poor households from non-poor households.

CAN THE RESULTS OF HIES 2016 BE COMPARED WITH 2009/10?

- Due to substantial improvements in the methodology in the HIES 2016 survey and questionnaire design, 2016 estimates cannot be compared to past estimates:

    - Substantial improvements in in questionnaire and survey design to apply international standards on poverty measurement

    - Inclusion of rent and durable goods (assets) in welfare aggregate

    - Change from diary to recall of food items and the data represents for consumed food in HIES 2016.

    - Relative poverty line was set using half the median of *total* expenditures as poverty threshold. (the median and half the median expenditure of Atolls used in 2009/10).

- Direct comparisons to the past are not possible due to survey improvements. However, we can say that *poverty is measured much better* than in the past.

- The methodology used in poverty measurement is always updated with the latest improvement.

- The poverty line in the Maldives uses a relative concept, which means that the poverty line is set relative to the median expenditure of all Maldivians.

- This means that relative poverty is redefined every time new data becomes available as the median expenditure changes.

- As the measure to which poverty is compared to (e.g., median consumption expenditure) is revised upwards, so is the poverty line. For example, if everyone's consumption doubles, the level of poverty remains the same using a relative concept.

- Due to this absolute poverty line has become the preferred choice of poverty measurement in many countries as it is fixed in terms of the level of well-being. In absolute poverty measurement, the poverty line is set in reference to a bundle of consumption that has a fixed purchasing power chosen to cover basic needs.

- An absolute poverty line also allows us to overcome the undesirable effect of the relative poverty line which can show constant poverty even when the standard of living of the poor has risen.

- The Cost of Basic Needs (CBN) approach is most commonly used in absolute poverty measurement. It estimates the cost of acquiring enough food for adequate nutrition—measured by a certain amount of calories per day per person—and then adds the cost of other essential non-food expenditures.

- HIES 2016 was designed with the aim to derive a poverty measure based on absolute poverty line. However, due to various data challenges encountered, it was not possible for this methodological change, without further improvements in data quality.

- Learning from the data challenges faced in HIES 2016, concerted efforts will be made to address these issues in the next Household Income and Expenditure Survey in Maldives, to measure poverty using Absolute poverty approach.