

# CHAPTER 1

## 1.1 Introduction

This report presents household Income and consumption expenditure data for the year 2004-05. The format of the report is almost the same as of the HIES that were conducted during the years 1998-99 and 2001-02. In this report all the variables have been presented by consumption quintiles on the pattern of 2001-02. In the following chapter (Chapter 2) the main findings of the report are summarised; in chapter 3, the concepts and definitions that are used in the report are explained and in chapter 4, the sample design is outlined. The methodology of consumption quintiles is explained in Appendix-A. After that, nineteen major tables are presented.

## 1.2 Recent Developments in HIES

There has been some developments in HIES during the 1990s, and it is important that readers should aware of some of these. The Household Integrated Economic Survey (HIES) has been conducted, with some breaks, since 1963. In 1990 HIES questionnaire was revised in order to address the requirements of a new system of national accounts. The four surveys of 1990-91, 1992-93, 1993-94 and 1996-97 were conducted using the revised questionnaire. In 1998-99 and 2001-02, the HIES data collection methods and questionnaire were changed to reflect the integration of the HIES with the Pakistan Integrated Household Survey (PIHS). The current round of HIES part of first round of PSLM Survey has been conducted covering 14708 households taken as sub-sample of the 77,000 households of PSLM Survey-CWIQ part. Main objective of the current HIES is to derive poverty indicators. The questionnaire used for this round is not exactly matched with the earlier rounds (1998-99 & 2001-02) of the questionnaire of HIES. However, the consumption part of this survey has been intact, exactly used in 2001-02 so that poverty indicators be worked out exactly on the same methodology used for 1998-99 and 2001-02. Income data has been obtained but in a very broad way which differ from earlier HIES format where income data used to be obtained by using detailed different types of sheets for agriculture, non-agriculture and transfer payments.

**Data Collection Methods:** Before merging of HIES with PIHS in 1998-99, the data of HIES surveys was collected by male enumerators using public transport where only male household members could be interviewed. From the year 1998-99 under the PIHS the income and consumption data of the HIES Survey is now collected by mobile teams of both male and female enumerators. Female enumerators in each field team interview the female household members as well as male enumerator collects the data from the male respondents.

# CHAPTER 2

## 2.1 Main findings

This chapter summarizes and assesses the key results of the 2004-05 data set and compares them with the HIES data (1998-99 and 2001-02). Specific sections examine changes in average household size; main sources of income; consumption patterns; and the consumption of the major food items. These results are given in a summarized form, whereas the main tables in the main body of the report provide more detailed disaggregation. In addition, this chapter provides comments on the key findings; and investigates the implications of these changes for people's welfare i.e. the impact on the poor and on the rich.

It is important to note that in the main tables of this report the key distributions are examined across five standardized per capita consumption expenditure quintiles. Each quintile contains 20 % of the total sample households. For example, in the first quintile contain lowest twenty percent of the total households and in the second quintile the next better of twenty percent of the total households and so on in the fifth quintile it contain the richest 20 % of the total households.

The quintile approach provide a better distributional and welfare analysis for the reasons that each quintile contain twenty percent of the households with respect to their welfare standard, quintiles are calculated by per capita consumption expenditure. The per capita terms, and consumption expenditure reflects people's welfare better than income.

### 1.1 Household size

The national average household size is 6.75 members. It is slightly lower than the average household size calculated for the year 2001-02. The ratios between urban and rural areas remained constant. (See table-2.2 A).

TABLE 2.2.A AVERAGE HOUSEHOLD SIZE

AREA	1998-99	2001-02	2004-05
Total	6.8	6.96	6.75
Urban	6.7	6.87	6.63
Rural	6.8	7.00	6.80

The average household size is disaggregated by quintiles and the first quintile covers 20% lowest of the total households and second quintile is having next better of 20% of the total households and so on. The richest 20% households cover under the fifth quintile. The average household size shows decreasing trend from 1<sup>st</sup> quintile to the 5<sup>th</sup> quintile. It gives understanding that

the richest households have comparatively low family size than the middle class income and poor households. (See table 2.2.B)

**TABLE 2.2.B AVERAGE HOUSEHOLD SIZE BY QUINTILES, 2004-05**

AREA	Quintiles					Total
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
Pakistan	8.66	7.62	6.98	6.31	5.20	6.75
Urban	9.30	7.91	7.46	6.90	5.43	6.63
Rural	8.53	7.55	6.81	6.03	4.94	6.80

For further analysis we see the differences in household size between rural and urban areas and between provinces. The differences of household size between rural and urban areas are statistically significant. Household size in Sindh & Balochistan has decreased as compared to 2001-02. The household size in other two provinces i.e. NWFP and Punjab are almost at the same level compared to 2001-02.

**TABLE 2.2.C HOUSEHOLD SIZE BY URBAN/RURAL AREAS AND BY PROVINCES.**

AREA	2001-02 (PIHS)	2004-05 (PSLM)
Total	6.96	6.75
Urban	6.87	6.63
Rural	7.00	6.80
Punjab	6.54	6.55
Sindh	7.54	6.71
NWFP	7.66	7.71
Balochistan	7.37	6.88

## 2.3 Consumption and income

In table 2.3.A the pattern of consumption expenditure of households is explained among urban and rural areas and by quintiles. It shows that level of consumption expenditure in urban areas is higher than the rural areas. Further analyses by quintiles reveals that average consumption expenditure of the richest class in urban areas are more than three time higher than the lowest income class and double than the same income class living in the rural areas.

Similarly, if we analyze the average household income by urban/rural and by quintiles, we see that different income class households have the same pattern likewise the expenditure pattern. Among total households 20% households of highest income level, are having the average income more than three times than the lowest income level of 20% households in urban areas and

more than double in rural areas, which are having the same income level. The income ratio between urban and rural households is also on the same pattern as is observed for expenditure pattern.

**TABLE: 2.3.A AVERAGE MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE AND AVERAGE MONTHLY INCOME BY QUINTILES AND AREAS, 2004-05**

QUINTILES	AVERAGE MONTHLY CONSUMPTION EXPENDITURE PER HOUSEHOLD			AVERAGE MONTHLY INCOME PER HOUSEHOLD		
	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL
1 <sup>st</sup>	5621	5086	5171	6203	5446	5567
2 <sup>nd</sup>	6752	6384	6458	7239	6588	6719
3 <sup>rd</sup>	7994	7239	7440	8549	7104	7488
4 <sup>th</sup>	9830	8381	8856	10462	8273	8990
5 <sup>th</sup>	17043	11819	14619	19233	12658	16182
<b>TOTAL</b>	<b>12079</b>	<b>7712</b>	<b>9121</b>	<b>13371</b>	<b>7929</b>	<b>9685</b>

Table 2.3.B reveals the per capita consumption expenditure in urban/ rural areas and by quintiles. The average individual expenditures for the richest class in urban areas are more than five times than the poor class. If it is analyzed on similar lines for rural areas we see it different. The average per capita expenditure are almost the same for poor both in urban and rural areas whereas for rich class it is high in urban areas than the rural areas, which gives understanding that more wealth is concentrated in urban areas than in the rural areas.

**TABLE 2.3 B. PER CAPITA MONTHLY CONSUMPTION EXPENDITURE BY URBAN/RURAL AREAS AND QUINTILES, 2004-05**

QUINTILES	Average per capita consumption expenditure		
	URBAN	RURAL	TOTAL
1 <sup>ST</sup>	606	596	598
2 <sup>ND</sup>	857	848	850
3 <sup>RD</sup>	1075	1067	1069
4 <sup>TH</sup>	1431	1397	1410
5 <sup>TH</sup>	3142	2402	2816
<b>TOTAL</b>	<b>1825</b>	<b>1139</b>	<b>1356</b>

## 2.4 Consumption pattern

The consumption expenditure pattern for different commodity groups shows consistent trend from 1998-99 to 2004-05. While food expenditure share is more or less relatively high compare to all other commodity groups at Pakistan level. In percentage term, food expenditure are at same level for rural areas however, there is slight increase in urban areas compared to 2001-02.

The most significant observation to think has come up from the comparison of consumption share over the preceding years is that the share level of most of the commodity groups has gone down, which probably due to the reason that the share of Transport group has increased to 5.20% compared to 3.87% in 2001-02.

Secondly, the housing share is relatively high whereas, the next high share goes to fuel & lighting, which has almost equal level in urban and rural areas with respect to the year 2001-02.

Further analysis reveals that Apparel, footwear, Transport & Communication and Cleaning / Laundry has gradually decreasing trend towards the consumption share from 1998-99 to 2004-05. (Table 2.4)

**TABLE 2.4 PERCENTAGE OF CONSUMPTION EXPENDITURE BY COMMODITY GROUPS**

COMMODITY GROUPS	1998-99			2001-02			2004-05		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Food, drinks & tobacco	40.76	54.86	49.15	38.85	54.42	48.30	40.01	54.53	48.33
Apparel, textile, foot-wear	6.41	8.75	7.80	5.63	7.23	6.60	5.27	6.49	5.97
Transport & communication	4.39	2.50	3.27	4.36	3.56	3.87	6.23	4.44	5.20
Cleaning & laundry	3.80	3.97	3.90	3.73	3.85	3.80	3.75	3.65	3.69
Recreation & entertainment	0.39	0.07	0.20	0.77	0.27	0.47	0.67	.13	0.36
Education	5.55	2.20	3.56	5.52	2.39	3.62	4.31	1.97	2.97
Housing (rent & other costs)	21.45	8.78	13.92	21.49	7.88	13.23	20.10	7.69	12.99
Fuel & lighting	6.52	7.30	6.98	7.55	8.09	7.88	7.48	8.07	7.82
Miscellaneous	10.71	11.56	11.22	12.10	12.31	12.22	12.17	13.04	12.67

Totals may be different from 100 due to rounding

## 2.5 Monthly household consumption expenditure on major food items

Table 2.5A shows the percentage share of expenditure on major food items. Out of the total food expenditure 17 food items contribute 82.32 per cent at overall. In rural areas it has 84.41 per cent and in urban areas these items have 78.27 per cent share. If it is compared with the same 17 food items for the year 2001-02 we see that overall expenditure level has gone up both at urban and rural level. For food items major share of consumption expenditure is incurred on wheat, milk, vegetables, and sugar almost equally in urban and rural areas.

**TABLE 2.5.A PERCENTAGE MONTHLY EXPENDITURE ON 17 MAJOR FOOD ITEMS, 2004-05**

<b>FOOD ITEMS</b>	<b>URBAN</b>	<b>RURAL</b>	<b>TOTAL</b>
Wheat	12.47	17.79	15.91
Rice	3.05	3.43	3.29
Pulses	2.19	2.45	2.36
Vegetable ghee	5.05	7.14	6.40
Tea	2.35	2.60	2.51
Milk (fresh)	16.91	17.63	17.38
Butter	0.31	1.55	1.12
Mutton	3.40	1.38	2.09
Beef	5.47	4.29	4.70
Chicken	4.43	2.99	3.50
Fish	0.94	0.75	0.81
Fruits	5.06	3.24	3.95
Vegetables	9.02	9.71	9.47
Salt	0.23	0.21	0.22
Spices	3.27	3.07	3.15
Sugar	3.93	5.36	4.86
Gur	0.19	0.82	0.60
<b>Total</b>	<b>78.27</b>	<b>84.41</b>	<b>82.32</b>

Further disaggregation of expenditure on major food items by quintiles shows the consumption pattern among different income classes according to their needs and preferences. Among the food items, the lowest income class accorded more priority to wheat, milk, ghee, and vegetables, sugar, whereas the richest class has different priority. They spend more on milk, wheat, vegetables, fruits, mutton, beef, sugar and chicken etc. The poor spend 90.22 % of the total food expenditure on these seventeen major food items, while the rich class spends 81.07 %, which means that they have different preferences for consumption expenditures. (Table 2.5.B).

**TABLE 2.5.B PERCENTAGE EXPENDITURE BY HOUSEHOLD ON MAJOR FOOD ITEMS BY QUINTILES, 2004-05**

FOOD ITEMS	QUINTILES					TOTAL
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
Wheat	24.77	20.75	18.00	15.54	10.28	15.91
Rice	3.70	3.51	3.75	3.27	2.87	3.29
Pulses	2.87	2.67	2.52	2.36	1.99	2.36
Vegetable ghee	9.13	8.05	7.51	6.51	4.24	6.40
Tea	2.81	2.81	2.72	2.56	2.16	2.51
Milk(Fresh)	15.91	16.91	17.40	18.30	17.44	17.38
Butter	0.42	0.83	1.00	1.38	1.35	1.12
Mutton	0.32	0.61	0.90	1.50	4.24	2.09
Beef	3.81	4.54	4.84	5.21	4.67	4.70
Chicken	1.62	2.29	3.00	3.65	4.75	3.50
Fish	0.63	0.73	0.84	0.73	0.94	0.81
Fruits	2.23	2.68	3.29	3.91	5.38	3.95
Vegetables	10.59	10.41	10.00	9.53	8.42	9.47
Salt	0.25	0.23	0.23	0.21	0.20	0.22
Spice	3.31	3.28	3.26	3.18	2.96	3.15
Sugar	5.79	5.74	5.45	4.92	3.86	4.86
Gur	1.06	0.85	0.79	0.47	0.32	0.60
<b>Total</b>	<b>90.22</b>	<b>88.89</b>	<b>88.50</b>	<b>87.23</b>	<b>81.07</b>	<b>82.32</b>

Per capita consumption (quantities) of major food items is also presented by urban/rural in table 2.5.C.

**TABLE 2.5.C PER CAPITA MONTHLY CONSUMPTION OF MAJOR FOOD ITEMS, 2004-05**

FOOD ITEMS	UNIT	URBAN	RURAL	TOTAL
Wheat	Kg	6.88	8.81	8.20
Rice	Kg	0.93	1.08	1.03
Pulses	Kg	0.25	0.25	0.24
Vegetable ghee	Kg	0.58	0.71	0.67
Tea	Grams	74.25	71.40	72.31
Milk (fresh)	Ltr	6.17	6.91	6.67
Butter	Grams	14.08	58.75	44.58
Mutton	Kg	0.13	0.05	.07
Beef	Kg	0.39	0.30	.33
Chicken	Kg	0.32	0.18	.23
Fish	Kg	0.08	0.05	.06
Fruits	Kg	1.19	0.67	.84
Vegetables	Kg	4.33	4.12	4.19
Salt	Kg	0.31	0.35	.33
Sugar	Kg	1.21	1.36	1.31
Gur	Kg	0.06	0.23	.17

Further analysis of consumption pattern is presented in table 2.8.D, where household consumption expenditure on fuel and lighting is disaggregated into eight different components. We can see that major share of expenditure in urban areas is incurred on electricity and gas. In rural areas the main source of energy is firewood however, percentage share of expenditure on electricity is being increased rapidly.

**TABLE 2.5.D HOUSEHOLD EXPENDITURE ON FUEL AND LIGHTING (PERCENTAGE)**

FUEL ITEMS	1998-99			2001-02			2004-05		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Firewood	7.92	35.34	24.96	6.57	28.50	20.23	7.54	32.14	22.08
Kerosene	3.94	4.92	4.65	2.04	5.33	4.09	0.84	4.22	2.84
Charcoal	0.09	0.03	0.06	0.10	0.04	0.06	0.01	0.13	0.08
Coal	0.01	0.11	0.07	0.03	0.11	0.08	0.00	0.16	0.09
Dung cake	1.68	9.88	6.78	1.35	9.54	6.45	0.77	5.47	3.55
Gas	24.86	2.46	12.18	21.93	4.88	12.43	23.89	5.31	12.91
Electricity	56.63	23.81	42.73	60.84	37.71	46.43	63.05	41.66	50.41
Others	4.85	15.58	8.67	4.15	13.89	10.22	2.19	10.90	8.03

Disaggregation by quintiles shows that the rich households mostly use electricity and gas whereas the poor prefer lower cost products such as firewood, dung cake and others (agricultural waste, candles, matches and electric items). (Table 2.5.E)

**TABLE 2.5.E PERCENTAGES OF HOUSEHOLD EXPENDITURE ON FUEL AND LIGHTING BY QUINTILES, 2004-05**

FUEL AND LIGHTING	QUINTILES					
	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	4 <sup>TH</sup>	5 <sup>TH</sup>	TOTAL
Firewood	32.41	31.33	29.18	22.91	12.81	22.08
Kerosene	4.93	4.34	3.68	3.22	1.22	2.84
Charcoal	0.16	0.04	0.02	0.07	0.12	0.08
Coal	0.11	0.19	0.13	0.10	0.04	0.09
Dung cake	5.25	5.16	5.20	3.67	1.80	3.55
Gas	4.41	5.86	8.40	12.93	19.41	12.91
Electricity	38.81	41.84	44.68	49.27	59.37	50.41
Others	14.93	11.23	8.72	7.82	5.24	8.03

## CHAPTER 3

### Concepts and definitions

In this chapter the major concepts and definitions used in the report are outlined, and divided into four main parts. The first part consists of definitions of the household and its members, the second part covers concepts and definitions of employment status, income, financial and assets transactions, the third part covers consumption expenditure, and the fourth education.

#### 3.1 Definition of household and household members

**Household:** A Household may be either a single person household or a multi-person household. A single person household is one where the individual makes provision for own food and other essentials of living, without combining with any other person and has no usual place of residence elsewhere.

A multi-person household is a group of two or more persons who make some common provision for food or other essentials of living and which has no usual place of residence elsewhere. The persons constituting the group may pool their incomes and have a common budget to a greater or lesser extent; they may be related or unrelated or a combination of both. The general criterion to be used in identifying the members of a multi-person household relates to whether they live and eat together and have no usual place of residence elsewhere.

**Head of the household:** If a person lives alone, that person is considered as the head of the household. If a group of persons live and eat together as defined above, the head of the household is that person who is considered as the head by the household members. In practice, when husband, wife, married and unmarried children form a single household, the husband is generally reported as the "head". When parents, brothers and sisters comprise a household, the household generally reports either a parent or the eldest brother or sister as the head. When a household consists of several unrelated persons either the respondent or the eldest household member is selected as the "head". In special dwelling units the resident person in-charge (e.g. manager) may be reported as the "head".

**Household members:** Household members are all such persons or group of persons in a household who normally live and eat together and consider the living quarter/space occupied by them as their usual place of residence. Such persons may be related or unrelated to each other. All such persons who normally live and eat in the household and are present at the time of enumeration and those who are temporarily absent for reasons such as, visiting, travelling in connection with business, attending schools/ colleges/ universities/ polytechnics/

other educational institutions, admitted in hospitals, outside tours etc., are treated as household members. Visitors, purely temporary boarders and lodgers, transients, servants and guests, etc. who consider their usual place of residence to be elsewhere but are found staying with the sample household are not household members.

**Absent household members** such as migrant workers in the Middle East, are not considered to be part of the household and their income (as far as made available to the household) is included as remittances received. As these persons are not present, consumption expenditures also do not include expenses on their account.

**Family members** include husband, wife/wives, unmarried sons and daughters and other direct dependents such as parents, unmarried sisters, brothers, separated/divorced sisters and daughters. Other related persons, servants, boarders and lodgers who have no other place of residence elsewhere and who live and eat within the household with or without payment are considered members of the household, but not members of the family.

### **3.2 Employment status, income, financial and other transactions**

**Employed persons.** A person is considered employed if he/she worked for at least one hour during the month preceding the interview or, even if did not work in the last month, he/she had a job or ran an enterprise such as shop, business, farm or service establishment during the last year.

**Employment status.** Employed persons are divided in the following categories: employer, paid employee, self-employed and own account worker, unpaid family helper, and agricultural labourers (owner cultivator, share-cropper, and contract cultivator). An employer is a person who owns an enterprise and works himself as well as employs individuals for pay to help him/ her in his/her enterprise but may have others working for him/ her without pay. An employee is a person who works for others in exchange for wages and a salary that is paid in cash or in kind. A self-employed or own account worker is a person who, though owning an enterprise, does not employ any person for pay, to help him/ her in his/ her enterprise but may have others working for him/her without pay, such as family helpers. The self-employed are divided into two categories:

- Those who run their own business or enterprise themselves without the help of any other person.
- Those own account workers who run their own business, enterprise with the help of unpaid family helpers only.

**Unpaid family helper** is a member of the family who works for the family enterprise without being paid. Although they are not paid, their efforts result in an

increase in the household income; therefore they are considered employed persons.

**Earners** are all those persons aged 10 years and above who provide the household with material return, in cash or in kind. Earners are divided into two categories, economically active and not economically active. All employed persons are included amongst the economically active. Pensioners and those who receive incomes from renting buildings and land (i.e. landlords) are classed as not economically active.

**Industry divisions** represent the activities of the firm, office, establishment or department in which a person is employed or the kind of business in which he/she works. Industry divisions are divided into: agriculture/fishing; mining and quarrying; manufacturing; electricity/gas and water; construction; trade/hotels and restaurants; transport and storage; finance and real estate; community services; and other activities not defined.

**Major occupation groups** describe the nature of work usually undertaken by an individual. Where a person performs more than one occupation during the year the main occupation is recorded. Main occupational groups are: legislators/senior officials and managers; professionals; technicians and associate professionals; clerks; service workers/shop and market sales workers; skilled agriculture and fishery workers; craft and related trade workers; plant and machine operators and assemblers; elementary occupations; and armed forces.

**Household income** is the sum of monetary income and income "in kind". Household income consists of receipts, which, as a rule, are of a recurring nature and are received regularly by the household or by individual household members usually at annual or at more frequent intervals. Household income is derived from the following main sources: crops, Livestock, shop, other business, govt.service, private service, property (non-agriculture), gifts/cash, sale of assets, remittances both foreign and domestic and others.

Household income in cash includes all money receipts such as wages, salaries, rent from land and property, income from self-employment, gifts, and assistance.

Household income "in kind" includes wage payments in kind, goods and services transferred free of charge by an enterprise (including farm products) to an employee and to the household of the owner or part owner of the enterprise; it also includes the value of home production that is consumed within the household (e.g. agricultural products, livestock products etc.). Where an employee buys from his employer, for his household consumption, goods and services at concessionary/subsidised prices and thus obtains a significant advantage, the value of these concessions/subsidies is also taken into account as income "in kind". Remittances in kind, gifts and assistance, Zakat and other transfers in kind are considered income "in kind". The estimated net rental value of owner occupied housing is in principle also treated as income "in kind" and, as

is the estimated gross rental value to the occupier of rent-free housing, whether obtained as wages "in kind" or otherwise.

**Imputed income** is the estimated value at current market prices of the goods and services received by the household for which no cash payment is made. Imputed income includes the estimated value of home produced goods consumed by the household, rent from owner occupied and rent free dwellings, gifts and assistance received in kind and wages and salaries paid in kind free of cost by the employers.

### 3.3 Consumption expenditure

**Household expenditure:** household consumption expenditure refers to all money expenditure by the household and individual members on goods intended for consumption and expenses on services. Also included is the value of goods and services received "in kind" or "own produced" which are consumed by the household.

**Paid for and unpaid for:** For household income and expenditure purposes, household consumption expenditure is classified into two main categories: "paid" and "unpaid" expenditure. The expenditure on consumption items is reported under columns, "paid and consumed" and "unpaid and consumed".

**Paid and Consumed:** For the purpose of household income and expenditure, the category of "paid and consumed" refers to i). All *cash* payments or ii). Purchases on *credit* or iii). under *barter* (exchange) arrangements with other goods and services by the household to obtain goods and services which were consumed during the reference period.

**Unpaid and Consumed:** Unpaid and consumed expenditure refers to the market value of goods and services received as "income in kind" by the household or individual members of the household. The unpaid and consumed expenditure is classified into three sub-categories:

- Wages and salaries in kind consumed
- Own produced and consumed
- Receipts from assistance, gifts, dowry, inheritances and other sources

**“Wages and salaries in kind consumed”** category includes wages and salaries paid “in kind” like food, clothing and housing provided free of charge by the employer, either at the work place or consumption out of the workplace. In addition to the income “in kind” received by the employees, this category includes similar other facilities. Therefore, other consumption items like free telephone, car and domestic servants are to be included if applicable. The valuation of these consumed items should be based on current local market value.

**"Own produced and consumed"** category refers to the items and value of items produced for commercial or non-commercial purposes by the household/non-financial unincorporated enterprise and utilised in its own consumption such as food grains produced and used by farm households, shoes made and used by shoe makers, net rental value of owner occupied housing, small amounts of vegetables produced, knitting wearing apparel, etc. during the reference period. The commodities consumed do not necessarily have to be produced during the reference period.

**"Receipts from assistance, gifts, dowry, inheritances and other sources"** category relates to commodities consumed during the reference period obtained by means of assistance, gifts (nazrana etc.) and other sources like remittances in kind from relatives, dowry in kind, presents from relatives, etc. Again they should be valued at current local market prices.

**Indirect taxes** are included in household consumption expenditures, such as sales taxes and payments made for (consumption) of goods and services. Payments made for commercial expenditures are excluded e.g. expenditure on diesel to operate vans for commercial purposes are not included.

**Durable Goods:** Durable goods include those items with a life expectancy of one year or more such as furniture, fixtures, clocks, wrist watches, television, radio, cutlery, kitchen utensils, etc.

**Non-Durable Goods:** Non-durable goods include those items with a life expectancy of less than one year such as food, clothing, fuel and lighting, footwear, medicines, etc.

**Accommodation expenses** include the amounts paid for renting accommodation, the rental value of rent – free accommodation and the estimated rent of owner-occupied dwellings at current market prices. Housing expenditure also includes expenses incurred on repairs, re-decoration and minor improvements of the dwellings, insurance, water and conservancy charges and other housing expenses.

**Per capita consumption** is calculated by dividing the total consumption of the households by the number of household members.

**Taxes** are not classified as household consumption, but in a separate expenditure category. Taxes, fines and fees included within the expenditure categories of the household are: house and property tax; license fees for TV/VCR, fire arms and driving license; registration and renewal fees for car, motorcycle and scooter; fines, choolah tax, birth and marriage taxes, pet keeping taxes, etc.

### 3.4 Education

**Literacy** is defined as the percentage of literate population aged 10 years and above over the total population aged 10 years and above. Literate people are those able to read a newspaper with understanding, to write a simple letter and perform simple sums.

**No formal education** describes the situation where an individual never attended school.

# CHAPTER 4

## SAMPLE DESIGN

### 1.1 Universe:

The universe of HIES Survey consists of all urban and rural areas of all four provinces as defined by the Provincial Governments. Military restricted areas have been excluded from the scope of the survey.

### 4.2 Sampling Frame:

Separate sampling frames have been used in the survey for urban areas and rural areas as under.

#### Urban area:

FBS has developed its own urban area frame. All urban areas known as cities/towns of the urban domain of the sampling frame have been divided into small compact areas known as enumeration blocks (E.Bs). Each enumeration block comprises about 200-250 households. Each Enumeration block has been divided into low, middle and high-income group, keeping in view the status of the living of majority of households. This frame has been updated during 2003 and used for drawing samples from the urban areas. There are 26800 enumeration blocks in all urban areas of the country.

#### Rural areas:

With regard to the rural areas, the lists of villages/mouzas/dehs according to population Census, 1998 have been used as sampling frame. In this frame, each village/mouza/deh is identifiable by its name, Had Bast number and Cadastral map etc. There are 50,588 mouzas/villages/dehs in the rural sub-universe of the survey

### 4.3 Sample size and its Allocation:

In view of the variability for the characteristics for which estimates are prepared, population distribution, field resources available and reliability constraints a sample size of 14,776 households was considered appropriate to provide reliable estimates of key characteristics at the National/provincial level with urban/rural breakdown. The entire sample of households ((SSUs) has been drawn from 1045 Primary Sampling Units (SSUs) out of which 486 are urban and 559 are rural. This sample size has been considered sufficient to produce estimates of key variables at national and provincial level at 95% level of confidence with 5% to 7% margin of error.

The number of sample primary sampling and secondary sampling units covered in the survey are as follows:

Province/Area	Sample PSUs			Sample SSUs		
	Urban	Rural	Total	Urban	Rural	Total
Punjab	210	226	436	2511	3607	6118
Sindh	125	125	250	1497	1980	3477
NWFP	91	118	209	1088	1878	2966
Balochistan	60	90	150	713	1434	2147
<b>TOTAL</b>	<b>486</b>	<b>559</b>	<b>1045</b>	<b>5809</b>	<b>8899</b>	<b>14708</b>

#### 4.4 Stratification Plan:

Stratification scheme is adopted keeping in view the geographical level of estimates to be built-up and to control the variation in the under study characteristics of the survey population. The detail of the scheme is as under.

##### Urban Area:

With respect to the urban areas each of Karachi, Lahore, Gujranwala, Faisalabad, Rawalpindi, Multan, Sialkot, Sargodha, Bahawalpur, Hyderabad, Sukkur, Peshawar, Quetta and Islamabad being large size cities have been treated as independent stratum. Each of these cities has further been sub-stratified according to low, middle, high-income groups based on the information collected in respect of each enumeration block. After excluding the population of large sized cities the remaining urban population in each defunct administrative division in all provinces has been grouped and treated as an independent stratum.

##### Rural Area:

In the rural areas, the population of each district in Punjab, Sindh and N.W.F.P Provinces has been grouped together to constitute a stratum. For Balochistan province each of defunct administrative Division has been taken as a stratum.

#### 4.5 Sample Design:

A two-stage stratified sample design has been adopted for this survey.

##### Selection of primary sampling Units (PSUs).

Enumeration blocks in the urban domain and mouzas/dehs/villages in rural domain have been taken as primary sampling units (PSUs). Sample PSUs from each ultimate stratum/sub-stratum have been selected by probability proportional to size (PPS) method of sampling scheme. In this survey population of rural areas and households for urban areas have been adopted as measure of size for selecting Primary Sampling Units (PSUs) from the strata/ sub-strata formed in urban and rural sub-universes of the survey.

##### Selection of Secondary Sampling Units (SSUs):

Households within each sample Primary Sampling Units (PSU) have been considered as secondary sampling units (SSUs). 16 and 12 households have been selected from each sample village and enumeration block respectively by random systematic sampling scheme with a random start.

## Appendix A: Consumption quintiles

Consumption quintiles are used to distinguish the population according to their welfare: poorest households are grouped together into the 1st quintile, those with higher consumption into the 2nd quintile, and so on. Five quintiles rank the population from the poorest 20% to the richest 20%. The main aim of quintile is to analyze how social and economic indicators change in relation to people's welfare. For instance, the government wants to know whether poorer households have access to basic services (immunization, schools, safe water etc.) or whether there are significant differences between the poor and the rich. Furthermore, policy makers are interested to know how consumption patterns and income sources of poorer households are different from those of richer households. Estimates by quintiles describe distributional differences, thus representing an important tool of analysis.

Quintiles are calculated for the four provinces together (Punjab, Sindh, NWFP and Balochistan) so that the first quintile contains in all provinces households with the same welfare. However, if one province is relatively richer than others its population will not be evenly distributed in each quintile, but mostly concentrated in the higher quintiles. In fact, only at the overall level each quintile contains 20% of the population, but in urban areas, where people usually are richer, upper quintiles contain higher population percentages, and the opposite is true in rural areas (see table 1 and 2).

Consumption expenditure is used as a proxy to assess people's welfare. Expenditure is calculated at the household level but it is adjusted by household size and its composition. The adjustment is necessary to assess a proper ranking of households. Reasons can become clear with some examples. Imagine two households both with a monthly consumption expenditure of Rs. 3000. However, it would be wrong to say that both households enjoy the same welfare without considering their household size and composition. For instance, one household may be composed by one single individual whereas the other by five people.

**Ranges of Per Capita Consumption Expenditure for Consumption quintiles**

Quintiles	1 <sup>st</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	4 <sup>TH</sup>	5 <sup>TH</sup>
<b>Ranges of Per Capita Consumption Expenditure</b>	Up to Rs.751	Rs.752 to Rs.961	Rs.962 to Rs.1215	Rs.1216 to Rs.1715	Rs.1716 and above

The following tables summarise some important information about quintiles.

**TABLE 1. DISTRIBUTION OF NUMBER OF HOUSEHOLDS BY PROVINCE, REGION AND QUINTILES**

REGION AND PROVINCE	1 <sup>st</sup> QUINTILE	2 <sup>nd</sup> QUINTILE	3 <sup>rd</sup> QUINTILE	4 <sup>th</sup> QUINTILE	5 <sup>th</sup> QUINTILE	OVERALL
<b>URBAN AREAS</b>	<b>540</b>	<b>726</b>	<b>959</b>	<b>1267</b>	<b>2317</b>	<b>5809</b>
Punjab	259	301	409	501	1041	2511
Sindh	92	144	214	339	708	1497
NWFP	130	174	198	244	342	1088
Balochistan	59	107	138	183	226	713
<b>RURAL AREAS</b>	<b>1737</b>	<b>1872</b>	<b>1873</b>	<b>1889</b>	<b>1528</b>	<b>8899</b>
Punjab	768	672	652	758	757	3607
Sindh	389	448	472	417	254	1980
NWFP	407	463	421	335	252	1878
Balochistan	173	289	328	379	265	1434
<b>OVERALL</b>	<b>2277</b>	<b>2598</b>	<b>2832</b>	<b>3156</b>	<b>3845</b>	<b>14708</b>
Punjab	1027	973	1061	1259	1798	6118
Sindh	481	592	686	756	962	3477
NWFP	537	637	619	579	594	2966
Balochistan	232	396	466	562	491	2147

**TABLE 2. PERCENTAGE OF POPULATION BY PROVINCE, REGION AND QUINTILES**

REGION AND PROVINCE	1 <sup>st</sup> QUINTILE	2 <sup>nd</sup> QUINTILE	3 <sup>rd</sup> QUINTILE	4 <sup>th</sup> QUINTILE	5 <sup>th</sup> QUINTILE	OVERALL
<b>URBAN AREAS</b>	<b>11.20</b>	<b>12.74</b>	<b>17.34</b>	<b>22.44</b>	<b>36.28</b>	<b>100.00</b>
Punjab	13.05	13.44	18.31	21.38	33.82	100.00
Sindh	7.07	10.31	15.12	24.26	43.23	100.00
NWFP	16.71	18.47	19.35	20.21	25.26	100.00
Balochistan	10.49	13.41	19.73	26.96	29.41	100.00
<b>RURAL AREAS</b>	<b>25.16</b>	<b>22.53</b>	<b>20.32</b>	<b>18.70</b>	<b>13.29</b>	<b>100.00</b>
Punjab	26.23	20.80	18.04	19.29	15.65	100.00
Sindh	23.56	24.36	24.30	18.29	9.49	100.00
NWFP	26.06	26.24	21.93	15.02	10.75	100.00
Balochistan	17.26	21.81	23.55	25.94	11.43	100.00
<b>OVERALL</b>	<b>20.73</b>	<b>19.43</b>	<b>19.37</b>	<b>19.89</b>	<b>20.58</b>	<b>100.00</b>
Punjab	22.08	18.49	18.12	19.95	21.36	100.00
Sindh	16.53	18.37	20.38	20.84	23.89	100.00
NWFP	24.51	24.95	21.50	15.88	13.15	100.00
Balochistan	15.88	20.09	22.77	26.15	15.11	100.00

**TABLE 3. AVERAGE HOUSEHOLD SIZE BY PROVINCE, REGION AND QUINTILES**

<b>REGION AND PROVINCE</b>	<b>1<sup>st</sup> QUINTILE</b>	<b>2<sup>nd</sup> QUINTILE</b>	<b>3<sup>rd</sup> QUINTILE</b>	<b>4<sup>th</sup> QUINTILE</b>	<b>5<sup>th</sup> QUINTILE</b>	<b>OVERALL</b>
<b>URBAN AREAS</b>	<b>9.30</b>	<b>7.91</b>	<b>7.46</b>	<b>6.90</b>	<b>5.43</b>	<b>6.63</b>
Punjab	8.83	7.46	7.10	6.73	5.40	6.54
Sindh	10.26	8.51	7.80	7.05	5.40	6.54
NWFP	10.35	8.83	8.74	7.43	5.97	7.77
Balochistan	10.72	9.53	8.77	7.16	5.50	7.27
<b>RURAL AREAS</b>	<b>8.53</b>	<b>7.55</b>	<b>6.81</b>	<b>6.03</b>	<b>4.94</b>	<b>6.80</b>
Punjab	8.14	7.19	6.49	6.05	4.93	6.56
Sindh	9.04	7.90	6.88	5.60	4.46	6.71
NWFP	9.37	8.16	7.67	6.51	5.86	7.69
Balochistan	8.98	7.65	7.01	6.30	4.62	6.79
<b>OVERALL</b>	<b>8.66</b>	<b>7.62</b>	<b>6.98</b>	<b>6.31</b>	<b>5.20</b>	<b>6.75</b>
Punjab	8.26	7.25	6.67	6.26	5.15	6.55
Sindh	9.24	8.04	7.14	6.24	5.15	6.71
NWFP	9.47	8.24	7.81	6.69	5.90	7.71
Balochistan	9.18	7.86	7.27	6.46	4.93	6.88

### Data quality

After data collection, all questionnaires were analyzed at the headquarters of the Federal Bureau of Statistics in Islamabad. In order to reduce measurement errors, data entry programs used included a number of in built consistency checks, which alerted the data entry operator of inconsistencies, allowing the operator to immediately correct data entry mistakes.