HUMAN SECURITY IN PAKISTAN

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INTRODUCTION

The report on *Human Security in Pakistan* comes at the right time. Pakistan is perilously close to being unable to honor its external debt repayment obligations. The year 2022 also saw the worst natural disaster in the form of floods, which cost the economy over $30 billion in the form of damage to output and destruction of the capital stock. Consequently, due to the severe stagflation, there has been a quantum jump in unemployment and poverty, leading to a big decline in human security.

The report represents the first step at quantification of the level of human security in Pakistan and its trend after 2001-02. It includes 87 indicators on diverse aspects of human security and goes well beyond the Human Development Index. The Human Security Index so derived shows a big fall after 2015-16.

The need to sustain the level of human security at this difficult time is proposed to be met by the design and implementation of a comprehensive Charter of the Economy. A financing plan is presented for resource mobilization through progressive tax reforms and strong containment of public expenditure. The fiscal space thus created is used to augment the components of human security, which are currently under the greatest threat.

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SUMMARY

PART I: WHAT IS HUMAN SECURITY?

Chapter 1: The Vision of Human Security

The concept of human security was first visualized by Mahbub ul Haq. He saw human security as the security of people, not just territory; security through development, not through arms and security of people everywhere.

The UNDP Human Development Report identified the basic characteristics of human security as universal, people-centered, and focusing on early prevention. Seven components of human security were listed, including economic, food, health, environment, personal safety, community protection, and political security.

The concept of human security in its broadest form is freedom from 'fear,' freedom from 'want', and freedom from 'inequality and exploitation.'

There are strong links between human development and human security. Also, human rights are an integral part of human security.

Human security can be used as a tool for policy and for programming by application of five principles, namely, people-centered, interconnected, comprehensive, context-specific, and preventive in nature.

Chapter 2: Developments in the Approach to Human Security

The first major application of the concept of human security was by the UNESCAP in 2010 by the development of a Human Security Index (HSI) for Asian countries with 11 components. Pakistan was ranked low at the 19th percentile of countries.

A more recent effort is the construction of an African Human Security Index for 10 African countries. This HSI has 7 major components and 18 individual indicators.

Chapter 3: The National Security Policy of Pakistan

The first National Security Policy (NSP) of Pakistan was announced in January 2022 for the period 2022 to 2026. The NSP articulates a citizen-centric 'Comprehensive National Security' framework and places economic security at the core of national security. It sees a symbiotic relationship between traditional and non-traditional security. The thematic sections include ensuring equality, securing the economic future, defense and territorial integrity, internal security, foreign policy in a changing world, and human security.

However, it is disappointing that the word ‘human’ was not included in the title of the Policy. Also, human security is seen as only one of the five thematic sections.

Chapter 4: The Human Security Index

This chapter constructs a human security index for the first time for Pakistan from 2001- 02 to 2020-22. There are four major components, namely, freedom from ‘fear,’ freedom from ‘want,’ freedom from ‘inequality’, and governance. At the second level, there are 23 sub-components. Finally, at the third level, there are 87 individual indicators. For each indicator, the source of data and the latest year for which information is available are indicated. 20 different sources of data have been accessed.

The number of indicators in each component of the HSI are as follows:

Freedom from ‘Fear’	27
Freedom from ‘Want’	44
Freedom from ‘Inequality’	11
Governance	5
TOTAL	**87**

PART II: ESTIMATION OF THE HUMAN SECURITY INDEX

Chapter 5: Statement of Methodology

The methodology of aggregation of indicators at each sub-component level, then to the component level, and finally to the HSI is indicated. Also, the methodology for quantifying the impact on the HSI of different components is presented.

Chapter 6: Index of Freedom from ‘Fear’

This Index of Freedom from ‘Fear’ has five group indices and 27 individual indicators. Among the five group indices, three show a long-run declining trend. These are territorial security, external financial vulnerability, and environmental protection. Two group indices, namely, personal safety and health hazards, reveal an improving trend since 2001-02.

The overall Index of Freedom from ‘Fear’ has an inverted U-shaped trend. It rises from 2001-02 to 2015-16 and then declines sharply up to the latest year. In fact, it is a matter of great concern that over the two decades, there has been a fall in this index from 0.450 in 2001-02 to 0.367 in the latest year.

The peak value of this index was attained in 2015-16 at 0.549. Out of the 27 individual indicators, 17 have declined in value since 2015-16, while 10 have shown some improvement.

Two of the group indices, viz., territorial security and external financial vulnerability, have a relatively strong correlation with the overall Index and will need to be focused on more in coming years.

Chapter 7: Index of Freedom from 'Want'

This Index of Freedom from 'Want' has nine group indices and 44 individual indicators. Among the group indices, four show a fall after 2015-16. These are food security, employment, energy security, and education. The other five group indices which show improvement are income, shelter, health, women and children.

The overall Index of Freedom from 'Want' shows an increase from 2001-02 to 2017-18 of 43.3% but a decline thereafter to the latest year of 1.4%. The biggest declines over the two decades are observed in food security and energy security of 19.6% and 7.1% respectively.

As expected, the highest correlation of a group index with the overall Index of Freedom from 'Want' is income. The least correlations are observed in the case of food security and energy security, implying that these are the two factors constraining improvement in the index.

Overall, 20 out of the 44 individual indicators show a deterioration with respect to the magnitude in 2001-02 and / or 2015-16. 24 indicators demonstrate a rising trend.

Chapter 8: Freedom from 'Inequality'

There are four group indices and 11 individual indicators in the Index of Freedom from 'Inequality.' Three of the group indices, viz., income inequality, regional disparities, and poverty, show a worsening trend. Consequently, the overall Index of Freedom from 'Inequality' shows a fall of 15.9% over the two decades. It is significant that gender inequality demonstrates a rising trend.

Both income inequality and regional disparities have a high correlation with the overall index and will need to be focused on. Out of the 11 individual indicators, 4 show a rising trend while 7 have declined over the years.

Chapter 9: Index of Governance

Good governance is a fundamental prerequisite for greater human security. Reliance has been placed on the assessment by international agencies of the quality of different types of governance in Pakistan. Two of the ratings are by the World Bank, one by the Heritage Foundation on Index of Economic Freedom, Corruption perceptions by Transparency International, and by the Economist Intelligence Unit on the functioning of democracy.

The overall Index of Governance has an inverted U-shaped trend. It improves by 26.8% from 2001-02 to 2015-16 and then falls by 7.4%. The World Bank Index of Governance Matters shows the biggest improvement, while the Index of Economic Freedom has a moderate increase. The other three indices show a deterioration either after 2001-02 and / or after 2015-16. The highest correlation of the overall Index of Governance is with the democracy and economic freedom indices.

Chapter 10: Estimates of the National Human Security Index

This is a key chapter and presents the magnitude and trends in the overall Human Security Index (HSI) of Pakistan. As highlighted earlier, there are four major components, 22 group indices, and 87 individual indicators.

One of the striking findings is the low absolute value of the national HSI. It has remained below 0.5 throughout the two decades with the exception of one year, 2015-16. Therefore, 2015-16 has been the best year for the HSI since 2001-02.

The trend is a well-defined inverted U-shaped curve. The HSI rises by 18% from 2001- 02 to 2015-16 and then falls by 14.1% from 2015-16 to the latest year. Consequently, over the two decades, there has been an improvement of only 1% in the HSI of Pakistan, as compared to an increase of 23.3% in the HDI during the same period. Therefore, the HDI significantly overstates the improvement in the lives of the people of the country.

The Index of Governance has the highest correlation with the HSI. In turn, this Index has a high correlation with the Indices of Freedom from 'Want' and 'Fear'. This highlights the crucial role of governance.

The bottom line is the contribution of change in each of the four component Indices to the decline in the HSI after 2015-16. By far, the biggest quantitative contribution of 67.5% is attributable to the fall in the Index of Freedom from 'Fear.' A smaller but significant impact of 23.2% has been registered by the Index of Freedom from 'Inequality.'

Out of the 22 sub-component group indices, 9 have shown an increase, while 13 have declined after 2015-16. The biggest declines are in the five group indices of external financial vulnerability, territorial security, environmental protection, energy security and poverty.

Chapter 11: The Human Security of Selected Countries

The objective of this Chapter is to construct a country cross-sectional HSI to see where Pakistan stands with respect to a group of countries, mostly from Asia. 12 Countries have been included in the analysis. These countries, in descending order of the latest HDI, are Türkiye, Thailand, Sri Lanka, Egypt, Indonesia, Vietnam, Philippines, Bangladesh, India, Nepal, Pakistan and Nigeria. Therefore, according to the HDI, Pakistan is ranked eleventh among these twelve countries.

The HSI of countries are based on the four component indices described above. There are 27 individual indicators with data of the latest year.

The overall HSI of Pakistan emerges with a ranking of ninth out of the twelve countries. Therefore, in relation to the HDI, Pakistan improves its ranking by two places and emerges with a HSI higher than that of Bangladesh and Nepal.

Pakistan performs exceptionally well in the ranking of the Index of Freedom from 'Fear' with a ranking of fourth and in the Index of Freedom from 'Inequality' with a ranking of eighth. It does poorly in the index of governance with a ranking of eleventh.

Pakistan does poorly at the group level in income per capita, energy security, education and health, external financial vulnerability and territorial security.

PART III: POLICIES, REFORMS, AND LAWS FOR ACHIEVING HIGHER HSI

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The key finding, as highlighted earlier, is that the absolute value of the HSI is low and the trend since 2001-02 is an inverted U-shaped curve. The magnitude of the HSI in 2001-02 was 0.429, which rose to a peak value of 0.504 in 2015-16, and has since declined to 0.433, thereby showing only a marginal improvement over the two decades. Also, Pakistan has a higher ranking among selected countries in the HSI than in the HDI.

From the viewpoint of identifying the key areas of focus in the strategy for improving the HSI, the approach is to find the groups in which Pakistan does poorly in both the time series and cross-sectional approaches.

These are as follows:

Common to both Approaches	In One Approach
• External Financial Vulnerability	• Income per Capita
• Territorial Security	• Poverty
• Governance	• Education and Health
• Energy Security	• Environmental Protection
	• Regional Disparities
	• Food Security
	• Gender Inequality

The National Security Policy, 2022-26, had identified the following areas for improving human security in Pakistan:

• Health Hazards
• Environmental Protection
• Food Security
• Shelter
• Employment
• Gender Inequality

Therefore, the above listings clearly identify the priority areas for improving the HSI. However, the big surprise is the lack of exclusion of a focus on external financial vulnerability in the National Security Policy. Already, by the beginning of 2022, the current account deficit had increased sharply, and foreign exchange reserves had started falling rapidly.

Chapter 13: Strategy for Avoiding Default: The Biggest Threat to Human Security

As identified earlier, Pakistan is perilously close to default in its external debt repayments. Other countries which have defaulted earlier have witnessed the worst form of stagflation. For example, Sri Lanka, which defaulted a year earlier, has since seen the GDP fall by 11% and the inflation rate rise to 64%. Inevitably, this leads to a quantum jump in unemployment and poverty and a big fall in the HSI.

Pakistan will need to use the available policy instruments to avoid default. This will require bringing the current account deficit down to very near zero level. In effect, the size of the trade deficit in goods and services will need to be curtailed to achieve the following:

Net secondary income = trade deficit + net primary income
(Including remittances)

The first instrument is higher import tariffs to promote import substitution and reduce the level of imports. There is evidence that Pakistan has over-liberalized its imports. The average MFN Tariff of Pakistan is only 11% as compared to 14% of Bangladesh and 18% of India. This has helped the latter two countries to restrict the size of their trade deficits.

Consequently, there should be an immediate escalation in import tariffs as follows:

Import Tariff	Present	Proposed
Slab 1	3%	5%
Slab 2	11%	15%
Slab 3	16%	22%
Slab 4	20%	30%

This will also lead to more import-based revenues.

Further, both the instruments of exchange rate depreciation and hike in the interest rates will need to be used intensively. Estimates are that a 60% devaluation of the rupee and an increase in the interest of up to 8 percentage points will be required to achieve a zero current account deficit in the second half of 2022-23. Similar big moves will be required in 2023-24. Consequently, with the big negative impact on other HSI indicators, the magnitude of the HSI could fall significantly below 0.4, even lower than the level in 2001-02.

Pakistan will need to have the IMF program umbrella till such time as the process of restructuring of debt repayment obligations is completed and some semblance of human security starts being restored.

Chapter 14: Charter of the Economy: The Financing Plan

The current period of adversity also provides an opportunity. The political leadership of Pakistan must move expeditiously to present a **'Charter of the Economy.'** This will not only reduce the risk of large-scale unrest but will also facilitate major structural reforms of progressive taxation, strong containment of public expenditure, and substantial increase in relief to the poor. Simultaneously, a measure of financial stability and higher development spending for raising the rate of growth will become possible.

The progressive tax reforms will focus on broad-basing the income tax system and increasing revenues from unearned capital income, agricultural income, property rental values, and income of under-taxed sectors like wholesale and retail trade, stock market, real estate, etc. In addition, there will be implementation of indirect tax reforms, especially the harmonization of the provincial sales tax on services with the federal sales tax on goods. Similarly, non-tax measures will involve escalation in service charges and tolls and higher flow of profits from SOEs and the SBP.

Strong measures will also be needed to achieve a significant reduction in public expenditure. This will require downsizing of both the federal and provincial governments, devolution of functions and avoiding the overlapping of functions, improved efficiency of SOEs, privatization of SOEs operating in competitive markets, and reduction in non-combat military expenditure.

The overall impact will be the creation of substantial 'fiscal space' with an increase in the tax-to-GDP ratio and non-tax-to-GDP ratio of 3% of the GDP and 0.75% of the GDP, respectively. The expenditure containment will be equivalent to 1.5% of the GDP. Overall, the 'fiscal space' from the reforms will be equivalent to 5.25% of the GDP.

The **Charter of the Economy** will use this fiscal space for the following:

- Increase in the level of pro-poor spending by 150% from 1% of the GDP to 2.5% of the GDP.
- Increase in spending on social sectors from 2.25% of the GDP to 3.0% of the GDP, an increase of 34%.
- Rise in development spending (excluding social sectors) from 1.75% of the GDP to 2.75% of the GDP, a jump of 57%.
- Reduction in the budget deficit from 6.5% of the GDP to 4.5% of the GDP, a cut of over 30%. This will also lead to a primary surplus of over 1% of the GDP.

The next chapter indicates how the additional funds can be used to maximize the increase in the HSI.

Chapter 15: Policies, Reforms and Laws for Higher HSI

The first priority has to be poverty alleviation. Following the floods and the recent stagflation, the incidence of poverty has risen to almost 40%. The estimated poverty gap is Rs 11,820 per month per poor household on average. Therefore, the national poverty gap is estimated at Rs 1700 billion. BISP cash transfers of Rs 400 billion in 2022-23 are only 22% of this gap.

The report contains various forms of pro-poor interventions for 2.5% of the GDP. The target beneficiaries are poor households primarily through BISP cash transfers, small farmers, less skilled workers, 'idle' youth, SMEs, minorities, female workers, child labor, the disabled and transgender.

The problem of falling and increasingly unsustainable territorial security in the form of military spending will be largely resolved due to the larger revenue cover and creation of a primary surplus. There will be less pressure on a big containment of defense expenditure.

Environmental protection has also been accorded high priority in the National Security Policy. Increased development spending will enable the faster completion of major dams, an expanded program of forestation, projects for climate adaptation and disaster preparedness, rehabilitation of the irrigation system, and investment in solar and wind energy. This will simultaneously raise the level of energy security.

The education and health sectors will begin to function better with the additional spending. Priority will need to be given to the expansion and improvement of the school network, more funding for vocational and technical training, and the establishment of a network of IT Institutes to promote exports.

The primary emphasis in improving gender equality will need to be on interventions in the labor market. This will include the promulgation and implementation by provincial governments of laws relating to equal access and equal remuneration. In addition, there is a need for affirmation action by provision of gender quotas in public services and a special tax credit for hiring women to employers. Also, a law needs to be introduced for the banning of child labor.

Food security needs to be enhanced not by offering a free wheat bag to people in long queues with the risk of being trampled but through the major augmentation of the size of the BISP cash transfer per poor household and also by increasing the coverage of the program. Subsidized credit to small farmers will facilitate food production not only for self-consumption but also for the market.

Shift to renewable energy, as highlighted above, will augment energy security. In addition, substantial improvements are required in the transmission and distribution system through replacement investment and by improving the billing recovery process. As in India, the case for handing over the management of DISCOs to provincial governments may be examined. In addition, substantial fiscal incentives may be offered for oil and gas exploration.

The focus on regional disparities has to be on facilitating faster and more inclusive development in Balochistan, a province that has fallen substantially behind over the last two decades, and serious local security issues have emerged.

The next NFC Award must increase the share in the horizontal sharing formula of backwardness / poverty and inverse population density. This should lead to a major increase in the revenue share of Balochistan. Also, federal support should be forthcoming to the province on investment in highways, water resources and oil/gas exploration.

One other major area for improving the HSI is better governance and more effective functioning of democracy. A series of recommendations are made in the report relating to 'good' economic governance; voice, transparency and accounting; strengthening regulatory agencies; enabling more ease of doing business; consolidating the Federation, rightsizing government and devolving to local governments.

PART IV: REGIONAL HSI IN PAKISTAN

The objective of this last part of the report is to regionally disaggregate the national HSI down first to the provincial level and then further to the divisional level within provinces.

Chapter 16: The Provincial Human Security Index

As usual, there are four components of the HSI. There are also the same number of sub-components. Due to the absence of regionally disaggregated data in some cases, the number of indicators is down from 87 to 78.

The provincial level of HDI has been estimated earlier by UNDP [2020]. The ranking is Sindh at the top, followed by Punjab, then Khyber-Pakhtunkhwa, and the lowest HDI in Balochistan.

The results are a similar ranking of HSI but with a bigger spread. The HSI of Sindh is 0.485, while that of Punjab, Khyber-Pakhtunkhwa and Balochistan is 0.469, 0.430 and 0.307 respectively. The absolute magnitude of the HSI's is also lower than the HDIs.

The construction of the provincial HSI enables the identification of three key areas of focus in each province for improvement in the HSI as follows:

PUNJAB	SINDH	KHYBER-PAKHTUNKHWA	BALOCHISTAN
• Health	• Intra-Provincial Disparity	• Energy Security	• Poverty
• Energy Security	• Education	• Extent of Self-Reliance	• Income
• Extent of Self-Reliance	• Income Inequality	• Food Security	• Energy Security

Chapter 17: The Human Security Index at the Divisional Level of the Provinces

There are 30 divisions in Pakistan, with an average population of 7.5 million. 9 divisions are in Punjab, and 7 each in the other three Provinces.

The following Indices have been used to construct the HSI of each division as follows:

- Human Development Index
- % of Food Secure Population (a proxy for incidence of Poverty)
- Access to Residential Services

There are altogether 15 indicators, given the limited availability of data. Most indicators represent an aggregation of district magnitudes to the divisional level, with population weights.

There are 6 divisions in Pakistan with an HSI above 0.5; 9 divisions have an HSI between 0.4 and 0.5, while the remaining 15 divisions have an HSI value below 0.4. the highest division HSI value of 0.689 is of Karachi division, and the lowest HSI at only 0.192 is of Naseerabad and Zhob divisions in Balochistan. This difference of 259% highlights the very large regional disparities in the HIS in Pakistan.

The inter-divisional inequality is the largest in Sindh. It is the least in Punjab, while Balochistan and Khyber-Pakhtunkhwa have an intermediate level of inequality when the PASHUM ratio is used to measure inequality within a province. However, when the PALMA ratio is used, the inequality among divisions is larger in Punjab than in Khyber-Pakhtunkhwa.

The report concludes with one technical annexure and four statistical annexures.

PART I

WHAT IS HUMAN SECURITY?

Chapter: 1

THE VISION OF HUMAN SECURITY

The vision of human security is the 'brainchild and final legacy' of the outstanding economist Mahbub ul Haq. Earlier, he had undertaken pioneering work on human development.

1.1 The Vision of Human Security

The central motivation behind the concept of human security is clearly indicated in his book *Reflections on Human Development* (1996) as follows:

Security to be interpreted as:
• Security of people, not just territory
• Security of individuals, not just nations
• Security through development, not through arms
• Security of people everywhere – in their homes, in their jobs, in their streets, in their communities and in their environment.

He emphasized that "human security is not a concern with weapons; it is a concern with human dignity. In the last analysis, it is a child who did not die at birth, a disease that did not spread, an ethnic tension that did not explode, a dissident who was not silenced, or a human spirit that was not crushed".

The UNDP Human Development Report of 1994 articulated the vision of Mahbub ul Haq as follows:

- Identified four basic characteristics of human security: universal, people-centered, interdependent, and focusing on early prevention.
- Listed seven interconnected 'components' or seven specific values of human security that needed to be protected as follows:

1. ECONOMIC
2. FOOD
3. HEALTH
4. ENVIRONMENT
5. PERSONAL SAFETY
6. COMMUNITY PROTECTION
7. POLITICAL SECURITY

The concept of human security and its application has evolved considerably. In its final and broadest form, human security is defined as ***freedom from 'fear,' freedom from 'want', and life with dignity.***

Freedom from fear refers to the protection of individuals from direct threats to their safety and physical integrity. This includes violence arising from actions by external states, from the actions of the state against its citizens, from the actions of groups against groups, and from the action of individuals against individuals. Also, it focuses on the threats created by environmental degradation, contagious diseases, natural disasters, etc.

Freedom from want refers to the protection of basic needs and the economic, social, and cultural aspects of life and livelihoods.

Life with dignity refers to the promotion of an improved quality of life and enhancement of human welfare that permits people to make choices and seek opportunities that empower them. It emphasizes the need for less *inequality and exploitation*.

In the final analysis, the concept of human security poses as the center of its focus on the well-being of individuals and communities in addition to the survival of states. Threats can be to their *survival* (physical abuse, violence, persecution or even death, disease), to their *livelihoods* (unemployment, food insecurity, energy insecurity, etc.), and to their *dignity* (lack of human rights, inequality, exclusion, discrimination, etc.)

Beyond *territorial security*, human security focuses on two types of threats. The first is more localized threats, which are particular to different societies or regions and vary by level of development and geographical location. Second, there are threats that are global and could spill beyond national frontiers. Such transnational threats could include disparities in global income, international migration of displaced populations, environmental degradation like climate change, drug and arms trafficking, smuggling and international terrorism.

Two examples clearly highlight the impact of transnational threats. The first is the terrorist attack of 9/11 in New York which led to the invasion of Afghanistan by the US armed forces. The second is the global spread of COVID-19, the communicable disease. More recently, the Russia-Ukraine war has led to a global upsurge in commodity prices and a slowdown of the world economy.

1.2 Human Development and Human Security

The human development concept is concerned first with building human capabilities through investment in people and, secondly, using those capabilities fully through an enabling environment for growth and employment, Mahbub ul Haq asserted that for human development to take place, economic growth is essential. But equal attention must be given to the quality of economic growth and its distribution.

The links between growth and human development have to be created through investment in education, health, skill development, job creation, women's empowerment, and equitable distribution of assets, as well as through social safety nets and political and cultural freedom. While all of these components of human development reduce people's depreciation and enhance their capability and opportunity in society, the last three–social safety nets, political and cultural freedom–have the additional advantage of protecting people from 'downside risks', thus highlighting the critical connection between the concepts of human development and human security.

1.3 Human Rights and Human Security

The link between human rights and human security is equally strong. **The Universal Declaration of Human Rights** and the **Declaration on the Right to Development** assert that civil and political rights, as well as economic, social, and cultural rights, constitute an integral part of human rights. Together these two documents form the foundation for 'human rights and fundamental freedoms that are the birthright of all human beings; their protection and promotion is the first responsibility of government.'

Under the overall umbrella of human rights, human development can enrich peoples' lives, while human security can protect those in need. And when all three concepts come together to promote, protect, and reduce risks of conflicts, downturns, and devastation, the potential for achieving peace is enhanced.

1.4 Operationalization of Human Security

Human security can a used as a tool for policy and programming by the use of the following *five principles*, which apply to both processes and outcomes. Efforts must be made for simultaneous application of the five principles.

These principles include:

- ***People-centered:*** The individual/community is at the center of the analysis. His/her role as both actors (agents) and subjects (beneficiaries) of policies, programs, and projects should be recognized, as well as the broad range of insecurities that threaten the survival, livelihood, and dignity of individuals. Furthermore, the human security approach recognizes that such variables as gender, age, socio-economic status, geography, ethnicity, culture, and religion impact the way that individuals and groups feel human security in their lives and develop capabilities to mitigate threats and develop resilience.

  Therefore, in practical terms, people-centered policies and programming for human security are based on an analysis of *needs* (as current and recurring deficits of the community or individuals), *vulnerabilities* (as structural issues/weaknesses that expose one to future risks and future challenges to security), as well as *capacities* (which include what exist that could prevent vulnerabilities if properly used/developed). At the community level, these, for example, include traditional practices, coping mechanisms, human and social capital, environmental resources, knowledge, and assets. These capacities and resources provide a foundation for empowerment strategies.

- ***Interconnected:*** Because threats to human security are mutually reinforcing and interlined in a domino effect both across sectors and across regions, their linkages should be understood in order to avoid negative harms while promoting multiplying effects of positive interventions.

- ***Comprehensive:*** Human security components, such as economic, food, environmental, health, personal, community, and political security, are mutually reinforcing both through positive and negative externalities. Because threats are interconnected, human insecurities cannot be tackled in isolation via fragmented stand-alone responses. Instead, the human security approach recognizes the need for comprehensive/holistic approaches and integrated strategies that stress the need for cooperative and multi-sectoral responses.

- ***Context-specific:*** Although the human security framework is universal, in that it is relevant to people everywhere, insecurities vary considerably across different settings and at different times. Local situations also need to be contextualized within the larger context to be sustainable.

- ***Preventive:*** The human security approach insists on preventive measures which avert downside risks and mitigate their impacts from escalating (across insecurities) when they happen. An emphasis on early prevention rather than late intervention is a significantly more cost-effective way to deal, for example, with impoverishment, inequalities, and social exclusion than with the potential consequences of societal collapse and war.

  The preventive aspect of programming, for example, can be developed and reinforced by: a) early warning system, b) analyzing and targeting structural root causes of insecurities, c) targeting long-term solutions which address structural and behaviour conditions, and d) emphasizing on developing capacities through empowerment.

1.5 Components of Human Security

The Human Development Report of 1994 also identified seven-interrelated components of human security, as shown in Chart 1.1. Overall, the above vision statement of human security and its operationalization provide an adequate basis for empirical research on the state of human security in Pakistan and areas of relative failure in providing a modicum of security to the people of the country.

Chart 1.1: The Individual Set of Human Security Indicators

Type of Security	Main threats	Requires
Economic security	Persistent poverty, unemployment	An assured basic income—either from productive and remunerative work (through employment by the public or private sector, wage employment, or self-employment) or from government-financed social safety nets.
Food security	Hunger, famine, inability to purchase food, bad quality food, etc.	All people at all times should have both physical and economic access to basic food— that they should be entitled to food by growing it for themselves, by buying it, or by using the public food distribution system.
Health security	Deadly infectious diseases, unsafe food, malnutrition, lack of access to basic healthcare, women's productive health, etc.	Access to healthcare and health services, including safe and affordable family planning.
Environmental security	Environmental degradation, resource depletion, natural disasters, pollution, etc.	A healthy physical environment, and security from environmental threats such as the degradation of the local ecosystems, air and water pollution, deforestation, desertification, salinization, natural hazards, and man-made disasters.

Personal security	Various forms of violence, including sudden, unpredictable violence (e.g., threats from the state through physical torture inflicted by the military or police), threats from other groups of people such as ethnic or religious conflicts, threats from individuals or gangs against other individuals or street violence, threats directed against women such as domestic violence, abuse or rape, directed against children such as child abuse, neglected child labor, or child prostitution, and threats to one's self such as suicides or drug abuse.	A protective environment that prevents violence curbs it and instigates adequate punishments. Law and order are necessary but also a respect for human rights.
Community security	Interethnic, religious, and other identity- based tensions, disrespect for the integrity of cultural/group diversity, marginalization, exclusion, discrimination, etc., including violations of women's rights as a group.	Security from oppressive traditional practices and discriminatory practices and beliefs against ethnic or indigenous groups, women, refugees, etc.
Political security	Political repression, human rights abuses, state-induced violence, fear, torture, ill-treatment or disappearance, political detention, imprisonment, etc.	Respect for human rights, protection from military dictatorships or abuse, and from political or state repression.
Source: *UNDP, 1994.*		

Chapter: 2

DEVELOPMENTS IN THE APPROACH TO HUMAN SECURITY

The objective of this chapter is to highlight recent advances in the concept of human security and in empirical applications to measure the level and variation in human security. Also, an assessment is made of its acceptance internationally and by countries.

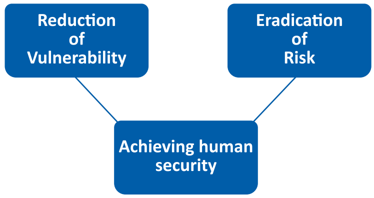
2.1 Conceptual Advances

The evolution of the concept of human security was extended by the *Independent Commission of Disarmament and Security* to account for the "securitization" of individuals by including issues like inequality, poverty, environmental degradation, chronic illness, and disease, and also enhanced horizontally by shifting the focus from state security to the security of the individual.

Efforts have also been made to explicitly identify the security components of freedom from 'fear' and freedom from 'want' as follows:

Freedom from 'Fear'	Freedom from 'Want'
• Personal Security	• Economic Security
• Community Security	• Food Security
• Political Security	
• Environmental Security	

Further, the concept of human security from the viewpoint of a safeguarding approach is as follows:



2.2 Empirical Applications

The first application in terms of measuring the level of human security was undertaken by the UNESCAP for selected Asian countries in 2010. Indicators were classified into three groups — Economic Fabric Index, Environmental Fabric Index and Social Fabric Index. There were altogether 30 indicators.

Pakistan was included in the list of countries. The Human Security Index (HSI) values of Pakistan and its components are shown in Table 2.1.

Table 2.1: Index Value of Pakistan in Different Components of the Human Security Index (HSI), 2010

	Index Value*
Economic Fabric Index	0.606
• Gini-Adjusted Income Index	0.582
• Financial Governance Index	0.653
Environmental Fabric Index	0.502
• Environmental Vulnerability Index	0.292
• Environmental Protection Index	0.278
• Emissions per Capita Index	0.693
Social Fabric Index	0.391
• Diversity Index	0.326
• Peacefulness Index	0.457
• Information Empowerment Index	0.393
• Governance Index	0.163
• Health Index	0.556
• Food Security Index	0.450
Overall HSI	0.499

**a minimum value of 0 and maximum value of 1*

Source: *UNESCAP (2010)*

Pakistan has an overall HSI of 0.499. It was ranked low at the 19th percentile of countries, below Sri Lanka, China, India, Indonesia, Malaysia, Philippines, Thailand, Turkey and Vietnam. However, it had a higher HSI than Afghanistan, Bangladesh and Nepal.

Table 2.1 indicates that it does poorly with a HSI below 0.400 in the following:

I	II	III	IV	V
Environmental Vulnerability Index	**Environmental Protection Index**	**Diversity Index**	**Information Empowerment Index**	**Governance Index**

Components where the index value is between 0.400 and 0.600 are as follows:

	Index Value
• Gini-Adjusted Income Index	0.582
• Peacefulness Index	0.457
• Health Index	0.556
• Food Security Index	0.450

High values of HSI components above 0.600 are observed in the following:

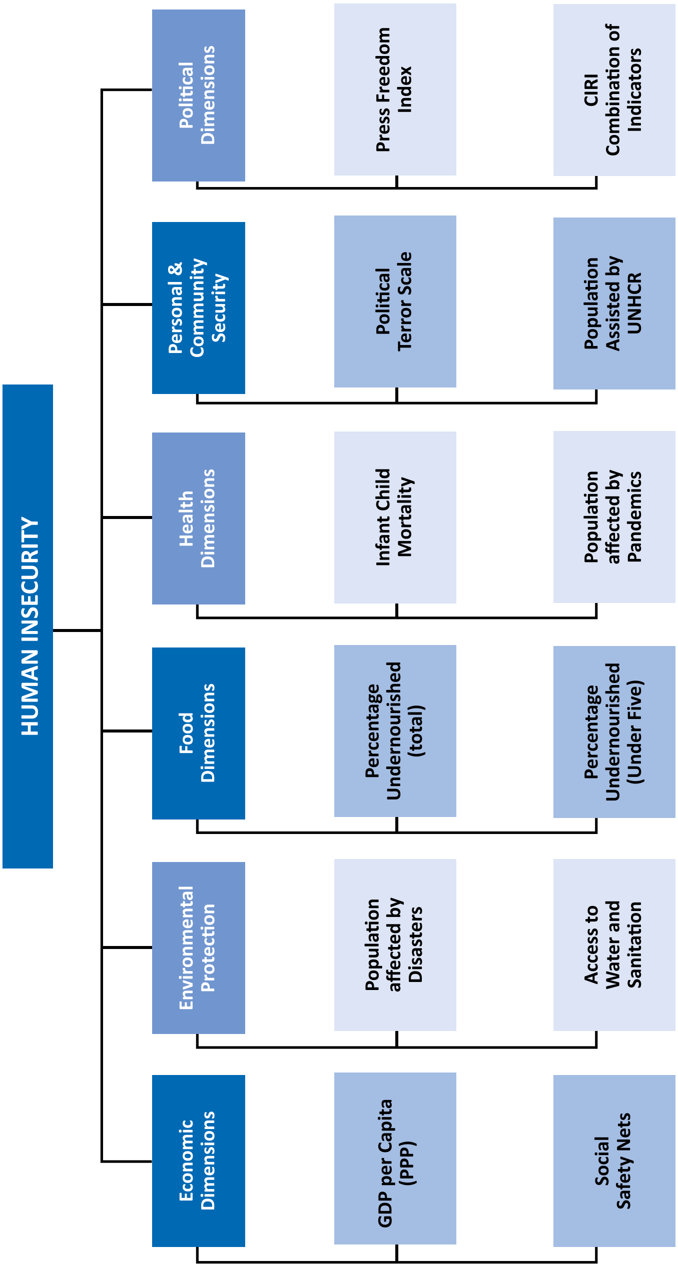
	Index Value
• Financial Governance Index	0.653
• Emissions per Capita Index	0.693

Earlier, the UNDP Human Development Report of 1994 used a number of indicators of human security. It was termed as the Human Insecurity Index (HISI). It had components and individual indicators, as shown in Chart 2.1.

A more recent attempt is that of construction of the African Human Security Index (AHSI). Work is still in progress, but Saad Badaoui (2021) has built a composite index for 10 African countries. The components used by him for constructing the AHSI are shown in Chart 2.2.

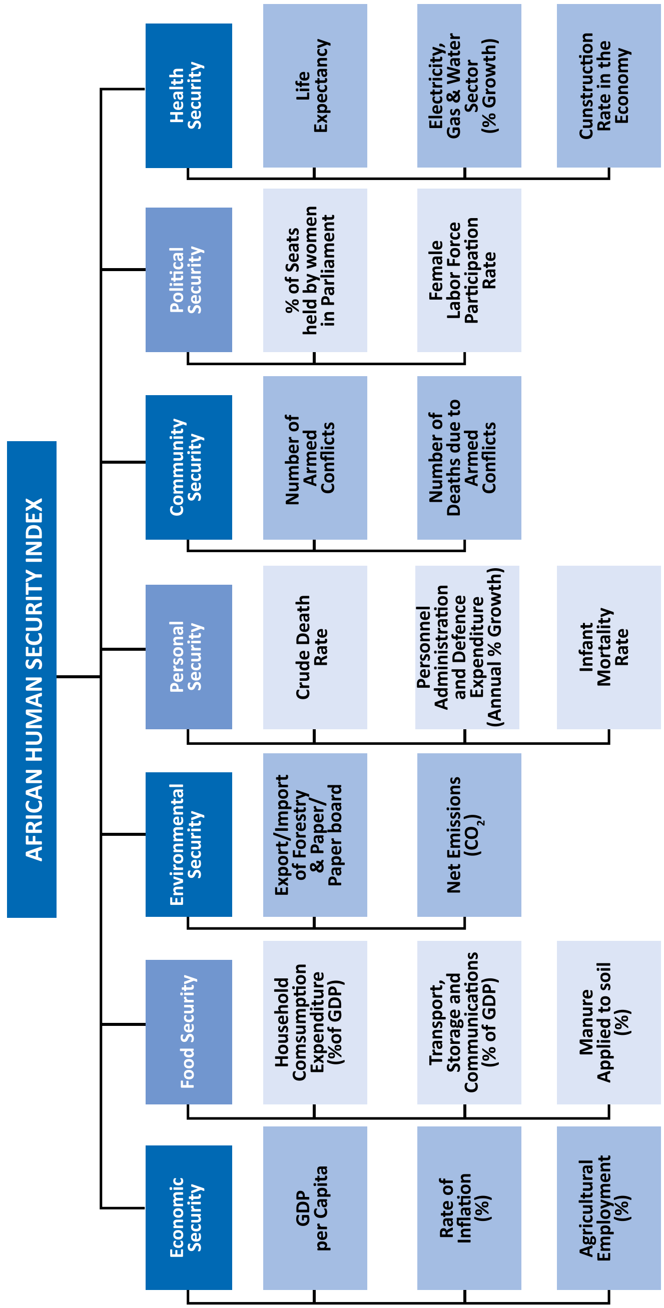
Finally, a HSI is being developed by the CROP institute. The objective is to identify indicators that may be used by development analysts/strategists/implementers by emphasizing outcomes rather than modalities. The HSI is conceptually framed in a trinity of economic, environmental and social fabric.

Chart 2.1: Human Insecurity Indicators and Index



Source: *UNDP Human Development Report, 1994*

Chart 2.2: Components of the African HIS



Source: *Saad Badaoui (2021)*

2.3 Support for the Concept and Application of Human Security

A *Commission on Human Security* was established in January 2001 in response to the UN Secretary General's call at the 2000 Millennium Summit for a world *"free from want"* and *"free from fear."* This was accompanied by the creation of the United Nations Trust Fund on Human Security. The Fund carries out and finances activities carried out by UN organizations to demonstrate the value-added of the human security system.

Today, Canada and Norway are the most ardent supporters of the human security concept at the country level. The Government of Japan, for instance, covers comprehensively all the channels that are considered threats to dignity and human survival, like violations of human rights, environmental degradation, transnational organized crime, refugees, illicit drugs, poverty, infectious diseases, such as AIDS, and anti-personnel land-mines and supports endeavors to face these threats. Other nations, such as Canada, Austria, Chile, Jordan, Ireland, Switzerland, Slovenia, Netherlands. Norway and Thailand have adopted a narrower definition of human security. These countries emphasize on human rights law, children in armed conflict, small arms, and antipersonnel landmines.

There is a need to highlight *Bhutan's Gross National Happiness Index* (GNH). The GNH is based on the principle that "sustainable development should take a holistic approach towards progress and give equal importance to non-economic aspects of wellbeing." The idea behind the creation of the GNH was to provide policymakers the means to verify the impact that key decisions have on the population in general and to also provide incentives for improving overall policy decisions. The GNH is built on four fundamental pillars: good governance, sustainable socio-economic development, cultural preservation and environmental preservation.

These four aspects are broken down further into seven domains: psychological well-being, health, education, time use, cultural diversity and resilience, and living standards. The GNH lens requires that all government decisions and policies must be evaluated in terms of their potential impact on any of the seven dimensions before implementation. The proof of the pudding is in the eating, as they say, in that the poverty rate has been reduced from 36% to 12% from 2007 to 2017 in Bhutan, according to the World Bank.

In Pakistan, a National Security Policy for 2022-26 was announced on the 14^{th} of January 2022, which represents a major step forward from the traditional notion of security as defense, military preparedness, and sovereignty. The focus now in the policy is to take a holistic approach and include human security and the well-being of citizens; underlining this paradigmatic shift is the emphasis on economic security, promoting equitable economic development, and removing regional disparities. However, this citizen-centric policy is still to be presented to the Parliament.

The contents of the National Security Policy of Pakistan are presented in the next chapter. A Human Security Index will be constructed for the first time in Pakistan in this report which is the need of the time.

Chapter: 3

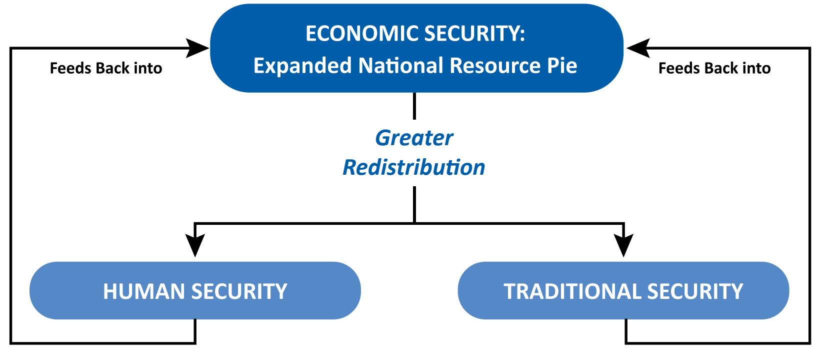
THE NATIONAL SECURITY POLICY OF PAKISTAN

'A country is as secure as its most vulnerable citizen. The safety, security, dignity, and prosperity of citizens will remain the ultimate purpose of Pakistan's national security.'

3.1 The Policy Statement*

The National Security Policy (NSP) 2022-2026 is the first national security policy document of Pakistan. The NSP articulates a citizen-centric 'Comprehensive National Security' framework. It recognizes that traditional and non-traditional threats and opportunities together impinge on overall national security. *The Policy places economic security at the core of national security, emphasizing a geo-economic vision to supplement the focus on geo-strategy, and recognizes that sustainable and inclusive economic growth is needed to expand our national resource pie.* Achieving this will allow greater availability of resources to bolster both traditional and human security as shown below. The foremost aim of our foreign policy and military capability will remain peace and stability in the region and beyond, based on mutual respect and sovereign equality.

Symbiotic Relationship Between Traditional and Non-Traditional Security



* The text here is a replication of the official statement by the Security Division, Government of Pakistan.

National Security Vision

Pakistan is envisioned as an Islamic welfare state, internationally relevant and aligned with universal principles of justice, equality, and tolerance, seeking a peaceful neighborhood based on mutual co-existence, regional connectivity, and shared prosperity. A secure and economically resilient Pakistan, empowered by diversity of culture and demographic dividends while ensuring fundamental rights and social justice without discrimination on the basis of caste, creed, or belief and promoting good governance through strengthening of institutions, transparency, accountability, and openness as articles of faith. The thematic sections are as follows:

Ensuring Equality

An Islamic Republic based on the principles of equality and justice, empowered by diversity of culture, ensuring fundamental rights and social justice without discrimination, and delivering on its social contract with its people through good governance to strengthen national esteem and cohesion.

- Promoting 'unity in diversity' and patriotism by cherishing our ethnic, religious, cultural, and linguistic diversity.
- Strengthening the federal nature of Pakistan's structure by adhering to democratic principles and ensuring harmony among federating units and territories.
- Promoting transparency and effective and equitable delivery of public services to strengthen the state-citizen contract.

Securing Our Economic Future

Achieve economic security and sovereignty through sustainable growth, inclusive development, and financial solvency:

- Addressing the three critical economic challenges linked to national security: external imbalance, socio-economic inequalities, and geographic disparities between developed and under-developed regions of Pakistan.
- Channelizing Pakistan's geo-economically pivotal location for trade, investment, and connectivity.
- Moving towards a market-based energy sector and prioritizing indigenous energy resource development while securing dependable international access to energy sources.
- Ensuring access to affordable quality education and ushering in an era of technological innovation to produce globally competitive human resources.

Defence and Territorial Integrity

Ensure the defense and territorial integrity of Pakistan in all their manifestations:

- Defending our territorial integrity and guaranteeing border security at all costs.
- Deterring war through full-spectrum deterrence within the precincts of credible minimum nuclear deterrence in concert with our conventional military capabilities and all elements of national power.
- Maintaining a cost-effective and adaptive military focused on modernization and optimization of force structures.
- Strengthening space-based technology and its application to meet future challenges.
- Combating hybrid warfare through enhancing information and cyber security while confronting disinformation, influence operations, and economic coercion, among other hybrid warfare tools.

Internal Security

A stable and secure Pakistan where citizens enjoy their constitutional privileges and are protected against violence, extremism, and crime, and where the rule of law is upheld equally for all.

- Ensuring writ of the state across the country to guarantee the security of life and property of all citizens.
- Pursuing a policy of zero-tolerance towards terrorism, extremism, and violent sub-nationalisms.
- Fighting the menace of organized crime to ensure a safe environment for intellectual and economic activity.
- Developing an equitable, responsive, and citizen-focused justice system that preserves all rights guaranteed by the Constitution.

Foreign Policy in a Changing World

Secure Pakistan's interests and position in the comity of nations through political and economic diplomacy.

- Cultivating broad-based relationships with global powers based on shared convergence on strategic and economic interests.
- Seeking regional peace through normalization of relations in our immediate neighborhood on the basis of mutual respect and sovereign equality.
- Ensuring a just and peaceful resolution of the Jammu and Kashmir dispute in accordance with UNSC resolutions.
- Enhancing the role of economic diplomacy in our foreign policy initiatives.

- Leveraging our diversity and vast potential while countering negative perceptions about Pakistan and proactively engaging Pakistani diaspora on national issues.

Human Security

Pakistan's youth is the future of our country. Equipping them with the necessary tools and environment for their productive contribution towards to the nation will help leapfrog Pakistan into the future.

- Ensuring population stabilization and management, urban planning, reenergizing the rural economy, and the equitable development of smaller cities and towns to decrease urban migration.
- Pursuing youth-focused policies to promote skills development and entrepreneurship.
- Guaranteeing food security by increasing cultivatable land, adopting climate-resilient agriculture, and legislating against illegal market practices.
- Improving preventive healthcare, strengthening disease surveillance and prevention, and instituting pandemic and epidemic response mechanisms.
- Mainstreaming climate adaptation and strengthening robust disaster preparedness, management, and response mechanisms.
- Developing a cohesive response to looming water scarcity through improved storage capacity, sustainable water management, and protecting transboundary water rights.
- Enabling participation of women and transgender persons in all avenues of public life and maximizing their inclusion in public institutions and decision-making forums.

3.2 Comments

The new National Security Policy for 2022-2026, which is described above, represents a major step forward from the traditional notion of security as defense, military preparedness, and sovereignty. The focus now in the policy is to take a holistic approach and include human security and the well-being of citizens. Underlining this paradigmatic shift is the emphasis on economic security by reducing external financial vulnerability, promoting equitable economic development, and removing regional disparities. However, this citizen-centric policy is still to be presented to the Parliament.

It is significant that the term 'human' has not been included in the title of the policy. This testifies to the continued orientation towards the traditional notion of security. Human security has been included as only one of the six components. Two of the components of defense and territorial integrity and internal security continue to have the same inclination to the traditional notion of security. Clearly, more progressive steps will need to be taken to focus on the broader concept of human security in the country.

Hence, the key research and policy analysis components of this project on Human Security include the following:

i) Identification in a comprehensive manner of the multiple dimensions of human security;

ii) Quantification of trends in each dimension of security over the last twenty years;

iii) Identification of the positive correlation and the trade-offs between different dimensions of security;

iv) Development of key components in operational terms of the strategy for enhancing national human security.

A Human Security Index will be constructed for Pakistan in this report. This is the urgent need of the time.

Chapter: 4

THE HUMAN SECURITY INDEX

One of the prime objectives of the report is to construct a Human Security Index (HSI) for Pakistan, which truly reflects the various security concerns of the people and is able to gauge the change in the level of security over the last two decades.

The Chapter is in three parts. The first part describes the structure of the proposed HSI in terms of the hierarchy of indicators of security. The second part identifies indicators at the lowest level of the hierarchy and the sources of data on these indicators. The time series is from 2001-02, in five yearly intervals, to the most recent year for which data is available.

4.1 The HSI for Pakistan

As highlighted in Chapter One, we have preferred to go back to the original concept of human security as enunciated by Mahbub ul Haq. He saw human security as primarily consisting of the following:

Freedom from 'Want'

Freedom from 'Fear'

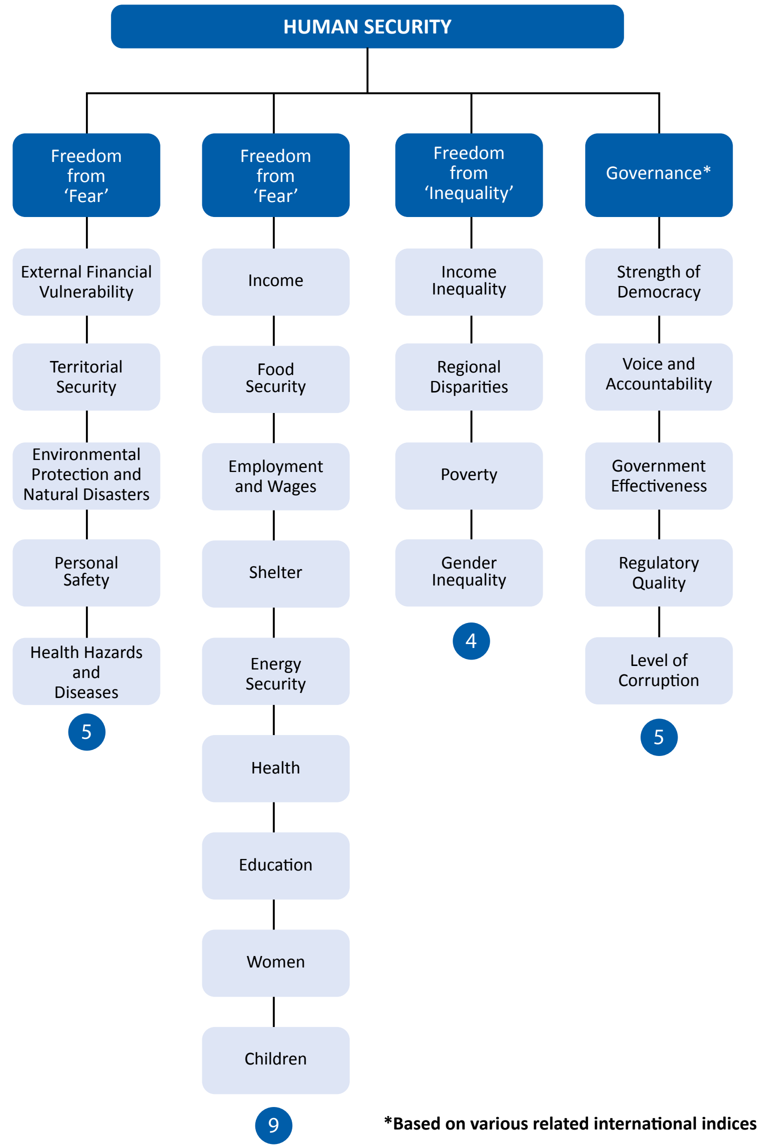
Two more dimensions have been added by us to reach a more comprehensive coverage of human security, as follows:

Freedom from 'Inequality' and 'Oppression'

Quality of Governance

At the second level, the components are shown in Chart 4.1. This comprehensive coverage of human security has not been achieved before.

Chart 4.1: Components of Human Security



4.2 The Individual Indicators

The list of individual indicators in different components of the HSI is shown in Chart 4.2.

Chart 4.2: List of Individual Human Security Indicators

Indicators	Direction of Improvement in Human Security	Sources of Data*	Latest Year
A. FREEDOM FROM 'FEAR'			
Territorial Security			
• Total Defence Expenditure as % of GDP	+	MOF, BD and PES	2021-22
• Real Defence Expenditure per Capita	+	PES	2021-22
• % of Defence Expenditure financed by Revenues	+	MOF, BD	2021-22
• The ratio of Defence to Health and Education Expenditures	-	MOF, PRSP Data Base	2020-21
External Financial Vulnerability			
• Real Effective Exchange Rate	+	SBP	Dec. 2022
• External Debt as % of GDP	-	"	"
• Foreign Exchange Reserve Cover of Imports (months)	+	"	"
• Reserves as % of External Debt	+	"	"
• Current Account Surplus/Deficit as % of GDP	+	"	"
• Reserves as % of External Financing Requirement	+	"	"
Environmental Protection and Natural Disasters			
• Incidence and Cost of Natural Disasters	-	Multiple	2022
• CO_2 Emissions	-	WB, WDI	2021
• Forest Area	+	PSY	2020
• Level of Water Stress	-	PSY	2020
• Renewable Internal Water Resources	+	PSY	2020
Personal Safety			
• Expenditure on Law and Order as % of GDP	+	MOF, PRSP Data Base	2020-2021
• Weighted Crimes per 1000 Population • *(Index: 2001-02 =100)*	-	PSY	2020
• % of Workers injured or getting the disease in the workplace	-	LFS, PBS	2020-21
• Number of Traffic Accidents	-	PSY	2020

Chart 4.2: List of Individual Human Security Indicators

	Indicators	Direction of Improvement in Human Security	Sources of Data*	Latest Year
	• Number of Fatalities	-	PSY	2020
	• Number of Terrorist Attacks	-	PIPS	2022
	• Number of Persons Killed	-	”	2022
	Health Hazards and Diseases			
	• Life Expectancy (Years)	+	WDI	2021
	• % of Deaths from Communicable Diseases • (*Including COVID-19*)	-	WDI, WHO	2021
	• % OF Births with Female Attendant	+	PSLSMS	2019-20
	• Infant Mortality (per 1000 births)	-	WDI	2021
	• Incidence of Child Wasting and Stunting	-	PSLSMS	2019-20
	TOTAL NUMBER OF INDICATORS			**27**
B.	**FREEDOM FROM ‘WANT’**			
	Income			
	• Real Per Capita Income (*at 2005-06 prices*)	+	PES	2022 (Dec)
	Food Security			
	• Per Capita Food Consumption (*calories per day*)	+	PC	2020-21
	• Share of Domestic Production in Food Consumption	+	PES	2021-22
	• Relative Price of Food vs CPI	-	”	2022 (Dec)
	• Cereal Consumption per capita	+	”	2020-21
	• Wheat Stocks per Capita	+	”	2021-22
	Employment and Wages			
	• Unemployment Rate (%)	-	LFS, PBS	2020-21
	• Labor Force Participation Rate (%)	+	”	2020-21
	• % of Marginal Workers in Labor Force	-	”	”
	• % of Employment in the Informal Sector	-	”	”
	• Average Real Wage Rate (*with same occupational distribution*)	+	”	”
	• Skill Premium	+	”	2020-21

Chart 4.2: List of Individual Human Security Indicators

Indicators	Direction of Improvement in Human Security	Sources of Data*	Latest Year
Shelter			
• % of Housing Units Owned	+	PSLSMS	2019-20
• % of Units with Pucca Roof	+	”	”
• % of Units with Pucca Walls	+	”	”
• % of Units with only one room	-	”	”
• % of Units with Electricity	+	”	”
• % of Units with Access to Tap Water	+	”	”
• % of Units with Flush Toilet	+	”	”
Energy Security			
• Gas Consumption per Capita	+	PES	2021-22
• Electricity Consumption per Capita	+	”	”
• Petroleum Consumption per Capita	+	”	”
• Domestic Gas Production as % Consumption	+	”	”
• % of Electricity Generation from Renewable Sources	+	NEPRA	2022
• Relative Price Index of Energy with respect to the CPI	-	PBS	2022 (Dec)
Education			
• Literacy Rate	+	PSLSMS, PBS	2019-20
• Government Expenditure on Education as % of GDP	+	MOF, PRSP Data Base	2020-21
• Share of Expenditure on Primary Education	+	”	”
• Net Enrollment Rates:			
• Primary	+	PSLSMS, PBS	2019-20
• Middle	+	”	”
• High	+	”	”
• % of Government Schools Enrollment	+	AEPAM, MORE	2021
Health			
• Government Health Expenditure as % of GDP	+	PRSP, MOF	2021-22

Chart 4.2: List of Individual Human Security Indicators

	Indicators	Direction of Improvement in Human Security	Sources of Data*	Latest Year
	• Hospital Beds per 1000 people	+	PSY	2020
	• Physicians per 1000 people	+	PSY	2020
	• Nurses and Midwives per 1000 people	+	PSY	2020
	Women			
	• School Enrollment, Primary (%)	+	PSLSMS	2019-20
	• School Enrollment, Secondary (%)	+	”	”
	• Unemployment Rate (%)	-	LFS	2020-21
	• Employment to Population Ratio (%)	+	LFS	2020-21
	• Literacy Rate (%)	+	PSLSMS	2019-20
	• Life Expectancy (Years)	+	WDI	2021
	Children			
	• % of Children out of School	-	AEPAM	2021
	• % of Children in Labor Force	-	LFS, PBS	2020-21
	TOTAL NUMBER OF INDICATORS			**44**
C.	**FREEDOM FROM ‘INEQUALITY’**			
	Income and Expenditure Inequality			
	• Income Inequality (PALMA Ratio)	-	WB, WDI & SPDC	2021
	• Inequality in Food Expenditure (PALMA Ratio)	-	HIES, PBS	2018-19
	Regional Disparities			
	• PALMA Ratio of Per Capita GRP of Provinces	-	Pasha (2018)	2018
	• Rural to Urban Income Ratio	+	HIS	2018-19
	Poverty			
	• Incidence of Poverty (*% of Population*)	-	Pasha SPDC	2022 2018
	Gender Inequality (*Female to Male*)			
	• Primary Education	+	PSLSMS, PBS	2019-20
	• Secondary Education	+	”	”
	• Literacy Rate	+	”	”
	• Labor Force Participation Rate	+	LFS, PBS	2020-21

Chart 4.2: List of Individual Human Security Indicators			
Indicators	Direction of Improvement in Human Security	Sources of Data*	Latest Year
• Relative Wage (*from the same distribution of occupations*)	+	"	"
• Unemployment Rate	-	"	"
TOTAL NUMBER OF INDICATORS			**11**
D. GOVERNANCE			
• CPIA Rating	+	World Bank	2021
• Governance Matters	+	World Bank	2021
• Index of Economic Freedom	+	Heritage Foundation	2022
• Corruption Perception Index (CPI)	-	Transparency International	2022
• Democracy Index	+	EIU	2022
TOTAL NUMBER OF INDICATORS		**5**	

**Sources: AEPAM = Academy of Educational Planning and Management, BD = Budget Documents, EIU = Economist Intelligence Unit, HIES = Household Integrated Economic Survey, LFS = Labor Force Survey, MOE = Ministry of Education, MOF = Ministry of Finance, NEPRA = National Electric Power Regulatory Authority, PBS = Pakistan Bureau of Statistics, PC = Planning Commission, PES = Pakistan Economic Survey, PIPS = Pakistan Institute of Peace Studies, PRSP = Poverty Reduction Strategy Policy, PSLSMS = Pakistan Social and Living Standards Measurement Survey, PSY = Pakistan Statistical Yearbook, SBP = State Bank of Pakistan, SPDC = Social Policy and Development Centre, WB = World Bank, WDI = World Development Indicators, WHO = World Health Organization*

The number of indicators is presented in Table 4.1. There are altogether 87 indicators. The Actual values of these indicators are given in Statistical Annexes while the index values are presented in the respective chapters.

Table 4.1: Number of Indicators			
Dimension / Component	Number of Individual Indicators	Dimension / Component	Number of Individual Indicators
A. FREEDOM FROM 'FEAR'	**27**	**B. FREEDOM FROM 'WANT'**	44
• Territorial Security	4	• Income	1
• External Financial Vulnerability	6	• Food Security	5
• Environmental Protection & Natural Disasters	5	• Employment and Wages	6
• Personal Safety	7	• Shelter	7
• Health Hazards and Diseases	5	• Energy Security	6

Table 4.1: Number of Indicators			
		• Education	7
		• Health	4
		• Women	6
		• Children	2
C. FREEDOM FROM 'INEQUALITY'	**11**	**D. GOVERNANCE**	5
• Income Inequality	2	• CPIA Rating	1
• Regional Disparities	2	• Governance Matters	1
• Poverty	1	• Index of Economic Freedom	1
• Gender Inequality	6	• Corruption Perception Index	1
		• Democracy Index	1
TOTAL: 87 Indicators for the HSI			

PART II

ESTIMATION OF THE HUMAN SECURITY INDEX

Chapter: 5

STATEMENT OF METHODOLOGY

The previous chapter has highlighted the choice of indicators at three levels for measuring the HSI at the national level. The objective of this chapter is the presentation of the methodology to identify the trends in these indicators.

5.1 Methodology of Construction of HSI

There are two types of indicators. The first type is of indicators in which a rise over time represents an improvement in the level of human security. In this case, the values are represented as follows:

$$V_i : i = 1, 2, \quad \ldots T$$

where T is the number for which the data has been collected on the indicator. Then

$$V = Max\,(V_1, V_2 \ldots, V_T)\; x\; 1.333^*$$

$$V = Min\,(V_1, V_2 \ldots, V_T)\; x\; 0.667^*$$

and the index for the particular year is given by

$$I_i = \frac{V_i - V_{Min}}{V_{Max} - V_{Min}} \; . \quad . \quad . \quad . \quad . \quad . \quad . (1)$$

In the opposite case, where a fall in the value of an indicator implies an improvement, then

$$I_i = \frac{V_{Max} - V_i}{V_{Max} - V_{Min}} \; . \quad . \quad . \quad . \quad . \quad . \quad . (2)$$

**To provide the requisite range for the index.*

The time series of each indicator has been constructed from 2001-02 to the latest year for which the information is available at intervals. As such, there are observations for the following years: 2001-02, 2005-06, 2010-11, 2015-16, 2017-18, 2018-19, and last year. There are, therefore, seven index values over time for each indicator.

Aggregation of individual indices into a group index is performed in the following manner:

$$GI = Group\ Index$$

then

$$GI = (I_1\, I_2 \ldots I_n)^{1/n}. \quad . \quad . \quad . \quad . \quad . \quad . (3)$$

where n is the number of indicators in the group.

5.2 Analysis of Trends

There is need also to determine the correlation among indicators over time in their trends. This is estimated with the Rank Correlation coefficient of the rankings of magnitudes of years between any two indicators.

5.3 Quantification of Contribution by Factors

If a composite index, I, has the following index value

$$I = (I_1\, I_2 \ldots I_n)^{1/n}$$

Then, as an approximation, we have, where are the growth rates,

$$gI = \frac{1}{n}\,[gI_1 + gI_2 + \ldots . gI_n] \, . \quad . \quad . \quad . \quad . \quad . \quad . (4)$$

Based on the above methodology, we proceed to describe the process of construction of the four major components of HSI and the trends observed at different levels in the coming chapters.

Chapter: 6

INDEX OF FREEDOM FROM 'FEAR'

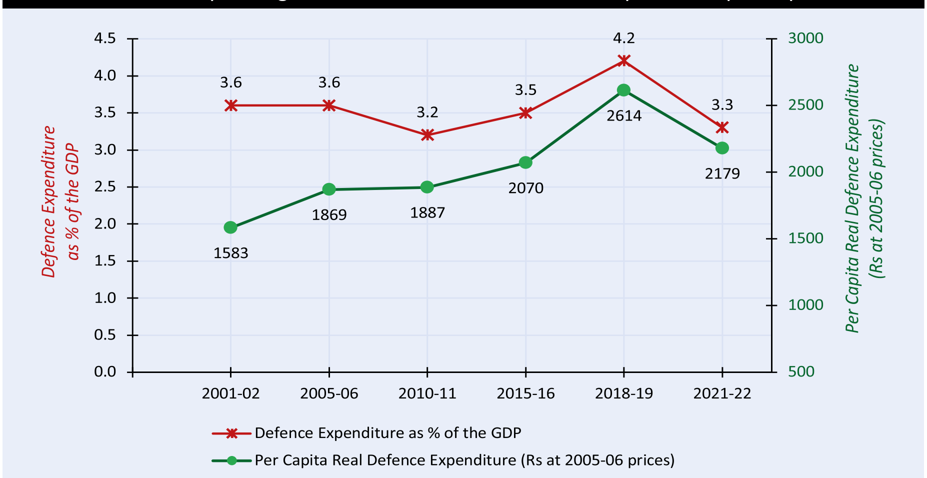
This index has five group indices at the second level and 27 individual indices at the third level. The group and individual indices are described below.

6.1 Territorial Security

This refers to the traditional indicator of security, which is the strength of the military establishment. This is measured by the level of defense spending, which corresponds to the expenditure on defense services, military pensions, and civil armed forces. The estimate is up to 2021-22.

Two indicators have been used to measure the level of defense expenditure. The first is the level of defense spending as a percentage of the GDP, and the second is real defense expenditure per capita at 2005-06 prices. The trends in these two indicators are shown in Chart 6.1.

Chart 6.1: Defence Spending as % of GDP* and Real Defence Expenditure per Capita



**The GDP has been reestimated from 2015-16 onwards by the PBS with an upward adjustment in 2015-16 of 12.5%. However, there is no backward extrapolation.*

There is a visible upward trend up to 2018-19. Initially, greater priority was attached to military expenditure in the presence of a military government. Thereafter, the rampant increase in acts of terrorism necessitated a more spread-out and stronger military network. The fall in 2021-22 is the consequence of severe emerging budgetary constraints.

The third indicator quantifies the sustainability of defense spending. This is the extent to which the defense budget can be financed by net revenues of the federal government after meeting first the obligation of debt servicing. This was fully the case in the earlier years, but it has fallen sharply from 100% in 2015-16 to 29% in 2021-22.

Box 6.1: Financing of Defence Expenditure solely by Borrowing

The deterioration in the financial position of the Federal government is amply demonstrated by the fact that the entire defense budget of Pakistan is likely for the first time to be fully financed by borrowing in 2022-23, as shown below:

	2020-23 (Projected) Rs in Billion)
NET REVENUES	**4,850**
Tax Revenues	7,300
Non-Tax Revenues	1,750
Less Transfer to Provinces	4,200
DEBT SERVICING	**5,200**
Net Revenues after Debt Servicing	***-350***
Defence Expenditure	***2,189***
Financing by:	
By net revenues	**0**
By borrowing	**100**

The current financial year is likely to witness virtually full financing of defense expenditure with borrowing by the federal government, as shown in Box 6.1. This indicates that with rising pressure on the containment of the primary budget deficit, there may be a need to move towards a cut in defense spending, especially the non-combat-related component.

The last indicator of territorial security is the ratio of expenditure on defense to the expenditure on health and education. This indicates the extent to which targeting for territorial security may divert resources from other forms of human security. This ratio has shown a visible decline from 2.10 in 20001-02 to 1.07 in 2021-22, as shown in Table 6.1.

The Territorial Security Index reached a peak in 2017-18 but fell sharply thereafter. Consequently, the Index in 2021-22 is even lower than in 2001-02.

Table 6.1: Trend in Index of Territorial Security

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Total Defence Expenditure as % of GDP							
Index	0.428	0.428	0.314	0.400	0.543	0.600	0.343
2. Real Defence Expenditure per Capita (Rs, at 2005-06 prices)							
Index	0.218	0.335	0.342	0.418	0.594	0.642	0.462
3. % of Defence Expenditure financed by Federal Net Revenues after Debt Servicing							
Index	1.000*	1.000*	0.814	1.000*	0.719	0.186	0.120
4. The ratio of Defence Expenditure to health and education expenditure							
Index	0.334	0.569	0.683	0.822	0.810	0.751	0.830
OVERALL INDEX	**0.420**	**0.534**	**0.494**	**0.608**	**0.658**	**0.481**	**0.354**

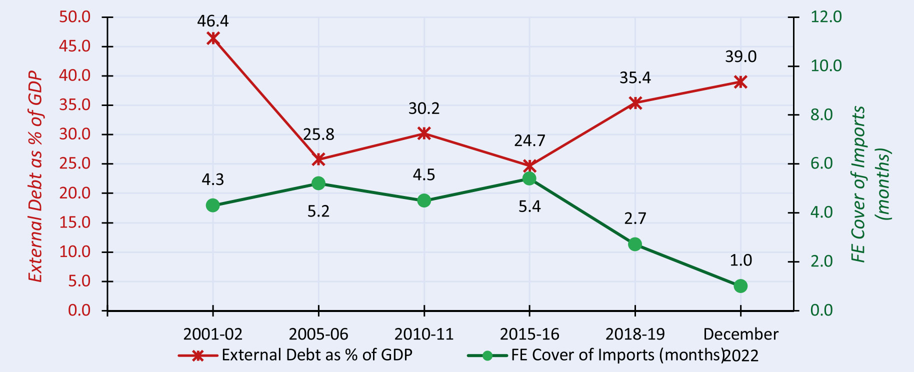
**Restricted to 1.000*

6.2 External Financial Vulnerability

Pakistan finds itself very close to a default position because of very low foreign exchange reserves in the presence of large external financing requirements for external debt repayments and for financing the current account deficit in the balance of payments.

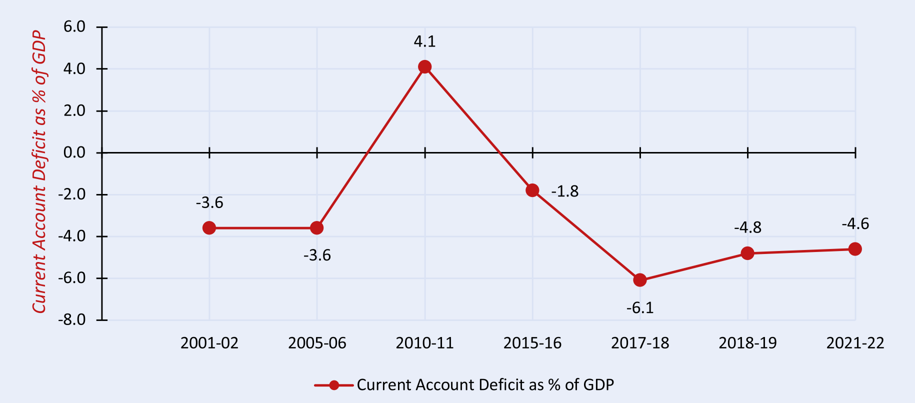
The level of external debt as of end-December 2022 stands at $126 billion, equivalent to 39% of the GDP. It has risen sharply from less than 25% of the GDP in 2015-16, as shown in Chart 6.2. Perhaps even more worrying is that currently, the import cover by foreign exchange reserves is only one month.

Chart 6.2: Indicators of Financial Vulnerability: Level of External Debt as % of GDP and Foreign Exchange Cover of Imports (in months)



The root cause of this problem is the large current account deficit annually since 2017-18, as shown in Chart 6.3. There have been years when imports have been significantly more than double the exports.

Chart 6.3: Current Account Deficit / Surplus as % of GDP



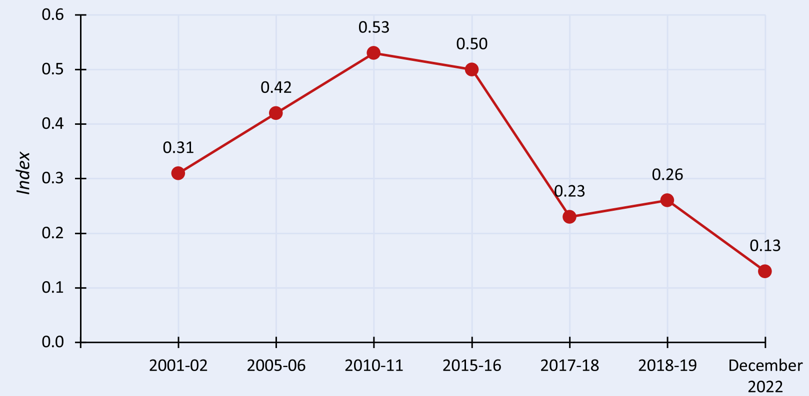
There are altogether six indicators in this Index, as shown in Table 6.2. Four of these indicators show a strong declining trend. For example, foreign exchange reserves as a percentage of external debt have fallen from a peak of over 34 percent in 2005-06 to only 4% by December 2022. Further, reserves as a percentage of foreign exchange requirements are down to only 37%.

Table 6.2: External Financial Vulnerability

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Real Effective Exchange Rate							
Index	0.395	0.418	0.403	0.581	0.452	0.348	0.338
2. External Debt *(as % of GDP)*							
Index	0.360	0.753	0.682	0.781	0.692	0.527	0.480
3. Foreign Exchange Reserves *(in months of imports)*							
Index	0.729	0.376	0.400	0.447	0.129	0.271	0.047
4. Reserves as % of External Debt							
Index	0.535	0.733	0.567	0.633	0.228	0.314	0.034
5. Current Account Deficit *(as % of GDP)*							
Index	0.800	0.215	0.486	0.375	0.139	0.340	0.410
6. Foreign Exchange Reserves as % of External Financing Requirements							
Index	0.019	0.294	0.741	0.311	0.113	0.064	0.046
OVERALL INDEX	**0.307**	**0.419**	**0.530**	**0.496**	**0.228**	**0.263**	**0.130**

The trend in the overall Index of External Financial Vulnerability is shown in Chart 6.4. It rose to a peak of 0.568 in 2010-11, when Pakistan had a large current account surplus. Since then, it has been falling and is down to 0.140 only in December 2022. A comparison is made of the vulnerability of 11 countries, which are considered to be in a financially weak position in Box 6.2.

Chart 6.4: The External Financial Vulnerability Index, 2001-02 to (December) 2022



The extent of external financial vulnerability is perhaps the biggest security threat currently to the people of Pakistan. Already the country is seeing inflation at over 30%, and industrial production is, more or less, at a standstill or falling due to a shortage of imported raw materials and inputs. A rising trend of unemployment and poverty is being witnessed.

Box 6.2: The External Vulnerability Index

An External Variability Index (EVI) has been constructed by Pasha (2022) of countries which were considered to be in a precarious financial position as of the end of 2021.

	EVI		EVI
1. Nigeria	0.285	6. Egypt	0.539
2. Ghana	0.440	7. Kenya	0.542
3. Türkiye	0.488	8. Argentina	0.569
4. Ecuador	0.519	9. Ethiopia	0.637
5. Pakistan	**0.535**	10. Sri Lanka	0.764

The indicators are (1) External debt as % of GNI; (2) External debt as % of Exports; (3) Reserves as % of External Debt; (4) Debt Service as % of Exports; (5) Short-term Debt as % of External Debt. The ranking is as follows:

The smaller the EVI, the less the vulnerability. Sri Lanka was the most vulnerable country and has since defaulted. The EVI score of Pakistan is 0.535, indicating an intermediate level of vulnerability. It is estimated that by the end of 2022, the EVI of Pakistan has fallen to 0.412.

There is an extraordinary drop in the index of external financial vulnerability to only 0.130 in end-2022. This is a clear indication of the high risk of default. The index has generally been declining since 2010-11, yet no major reforms have been taken to secure the economy from a crisis in the external balance of payments.

6.3 Personal Safety

The personal safety index has three components, as follows:

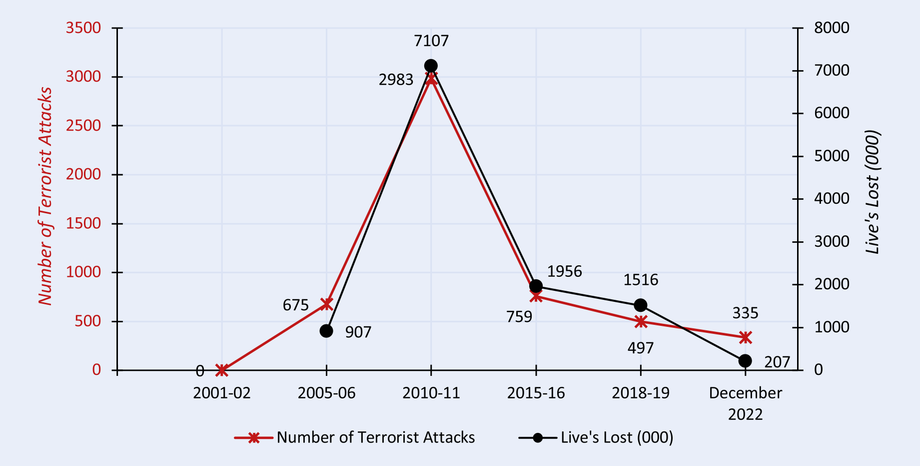
I	II	III
Incidence of Crime	Incidence of Injuries	Incidence of Terrorism and Violence

Potentially, the greatest threat to lives and property in Pakistan is acts of terrorism. These acts started after Pakistan joined the USA after 9/11 in the war in Afghanistan. It is estimated that the cumulative lives cost is over 80,000, including military personnel and civilians. The economic losses aggregate to over $225 billion.

The peak of acts of terror was in 2010-11. After the attack on children in the Army Public School, as shown in Chart 6.5. there was a consensus on a National Plan against Terrorism in December 2014, which was very effectively implemented by the Military through *Zarb-e-Azb*.

The trend in number of terrorist attacks and lives lost is shown in Chart 6.5.

Chart 6.5: Trend in Number of Terrorist Attacks and Lives Lost



There has recently been an upsurge in acts of terrorism, especially in Khyber-Pakhtunkhwa and Balochistan. This could emerge once again as a major threat to human security in Pakistan.

Table 6.3: Indicators of Personal Safety	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
INCIDENCE OF CRIME							
1. Expenditure on Law and Order as % of GDP							
Index	0.657	0.154	0.577	0.313	0.804	0.657	0.674
2. Weighted Crimes per 10,000 population *(Index 2001-02 = 100)*							
Index	0.739	0.624	0.592	0.567	0.563	0.560	0.380
INCIDENCE OF INJURIES/FATALITIES							
3. % of Workers Injured or Getting Diseases in the Workplace							
Index	0.491	0.678	0.520	0.376	0.438	0.573	0.746
4. Number of Traffic Accidents							
Index	0.545	0.608	0.581	0.652	0.421	0.460	0.584
5. Number of Fatalities							
Index	0.481	0.615	0.534	0.700	0.396	0.398	0.502
INCIDENCE OF TERRORISM							
6. Number of Terrorist Attacks							
Index	1.000	0.830	0.250	0.812	0.875	0.891	0.948
Number Killed							
Index	1.000	0.867	0.250	0.793	0.840	0.891	0.968
OVERALL INDEX	**0.674**	**0.563**	**0.446**	**0.572**	**0.552**	**0.590**	**0.656**

The values of the indicators of personal safety are shown in Table 6.3. The Table reveals that the overall index of personal safety has had a cyclical pattern. It declined sharply in 2010-11 when terrorism was at its peak. Thereafter, it has shown a better trend. However, a rise in the incidence of crime is observed, especially in the primate city of Karachi. Box 6.3 shows the safety factor in relation to crime in some South Asian cities. Karachi has a lower safety factor than Lahore and Rawalpindi but higher than that of Dhaka and Delhi.

Box 6.3: Incidence of Crime in South Asian Countries

The website *numbeo.com* gives a ranking of the incidence of crime globally in a number of cities. The cities of South Asia have the following safety factors as of 2022:

City	Safety Factor*	City	Safety Factor*
PAKISTAN		SOUTH ASIA	
• Karachi	45.8	• Delhi	40.8
• Rawalpindi	50.1	• Dhaka	36.8
• Lahore	63.6	• Mumbai	55.0
		• Chennai	59.8
		• Kathmandu	63.0

**Ranges from 0 to 100. The higher the value, the higher the safety.*

Karachi has the lowest safety factor among the three big Pakistani cities. However, Delhi and Dhaka have even lower safety factors.

6.4 Health Hazards and Diseases

Ever since 2019, when the global epidemic of COVID-19 spread, there has been great concern about the transmission of epidemics. By the time COVID-19 receded, there had been over 1.6 million people affected and as many as 30,644 deaths in Pakistan.

The percentage of deaths from communicable diseases like TB and Malaria has increased, as shown in Table 6.4, from 44.4% in 2001-02 to 73.2% in 2020 due to COVID-19. Both preventive and curative health expenditures have risen significantly from 0.6% of the GDP in 2010-11 to 1.4% of the GDP by 2020-21. This has been facilitated by the additional transfer of revenues to the provincial governments after the 7th NFC Award in 2009-10.

Table 6.4: Index of Health Hazards and Diseases

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Life Expectancy (Years)							
Index	0.445	0.473	0.520	0.560	0.570	0.580	0.590
2. % of Deaths from Communicable Diseases*							
Index	0.713	0.742	0.782	0.827	0.846	0.836	0.327
3. % of births with Female Attendant							
Index	0.091	0.186	0.329	0.484	0.641	0.673	0.705
4. Infant Mortality *(per 1000 births)*							
Index	0.376	0.435	0.522	0.638	0.683	0.705	0.749
5. Incidence of Child Wasting or Stunting							
Index	0.432	0.442	0.398	0.492	0.574	0.682	0.700
OVERALL INDEX	**0.342**	**0.412**	**0.488**	**0.583**	**0.656**	**0.690**	**0.589**

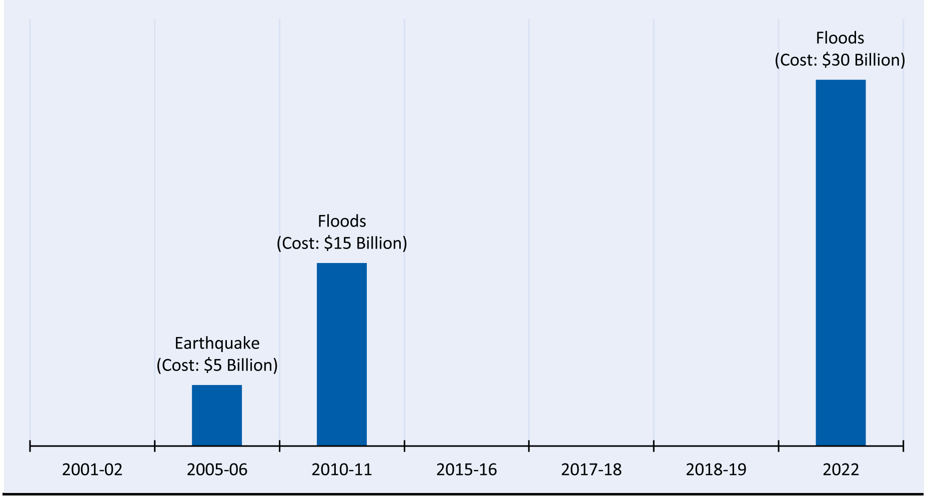
**Including the deaths from COVID-19*

Overall, most of the health numbers have shown a rising trend, although they are still low by international standards and were affected by COVID-19. There has been a sizeable improvement over the two decades in the Index of Health Hazards and Diseases of over 72%.

6.5 Environmental Protection and Natural Disasters

Pakistan has witnessed a number of major national disasters during the last two decades, as shown in Chart 6.6.

Chart 6.6: Incidence and Costs of Major Natural Disasters



The recent floods of 2022 are the worst natural disaster in the history of Pakistan. Over 33 million people have been affected. Also, 12% of the crop output in the Kharif season has been destroyed. Estimates are that the total cost to the economy is over $30 billion.

Consequently, the health hazards index has fallen by over 16% in 2020-21. Three indicators of environmental protection, including the forest area, level of water stress, and renewable water resources per capita, also show sizeable declines, according to Table 6.5.

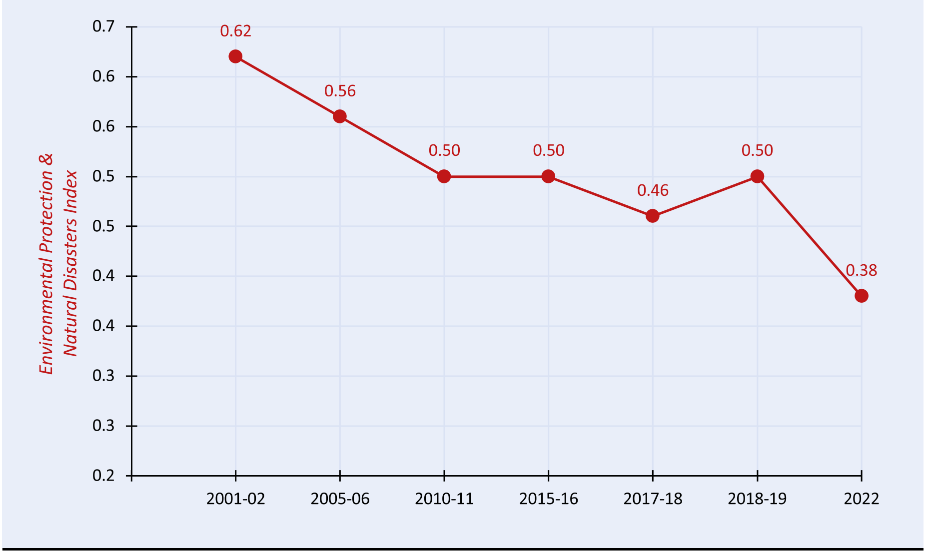
Overall, the index of Environmental Protection has fallen by almost 40% since 2001- 02. This is a critical area for future human security in Pakistan.

Table 6.5: Environmental Protection and Natural Disasters

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Incidence and Cost of Natural Disasters							
Index	1.000	0.812	0.624	1.000	1.000	1.000	0.250
2. CO_2 Emission *(Kg per 201 US$ of GDP)*							
Index	0.446	0.467	0.527	0.507	0.426	0.588	0.609
3. Forest Area *(% of land area)*							
Index	0.557	0.523	0.489	0.422	0.400	0.378	0.305
4. Level of Water Stress *(Fresh Water Withdrawal as % of Available Resources)*							
Index	0.611	0.573	0.542	0.446	0.445	0.493	0.598
5. Renewable Internal Water Resource per Capita *(Cu Meters)*							
Index	0.611	0.492	0.384	0.320	0.295	0.283	0.271
OVERALL INDEX	**0.621**	**0.562**	**0.507**	**0.498**	**0.468**	**0.499**	**0.376**

The environmental protection and natural disasters index consistently shows a downward trend, as shown in Chart 6.7, culminating with the worst floods in 2022.

Chart 6.7: Trends in the Environmental Protection and Natural Disasters Index



6.6 Overall Index of Freedom from 'Fear'

The magnitude and trends in the index of freedom from 'fear' and its components are shown in Table 6.6. Overall, it has effectively followed an inverted U-shaped trend. It showed a rising trend after 2001-02, and the index reached the peak value of 0.543 in 2015-16, as shown in Chart 6.7. Since then, it has declined by 23% to only 0.367 in the latest year.

Table 6.6: Trend in the Overall Index of Freedom from 'Fear' and its components

Index of	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Territorial Security	0.420	0.534	0.494	0.608	0.658	0.481	0.354
2. External Financial Vulnerability	0.307	0.419	0.530	0.496	0.228	0.268	0.130
3. Personal Safety	0.674	0.563	0.446	0.572	0.552	0.590	0.656
4. Health Hazards and Diseases	0.342	0.412	0.488	0.583	0.565	0.690	0.589
5. Environmental Protection and Natural Disasters	0.621	0.562	0.507	0.498	0.468	0.499	0.376
OVERALL INDEX OF FREEDOM FROM 'FEAR'	**0.450**	**0.493**	**0.492**	**0.549**	**0.480**	**0.483**	**0.367**

The two biggest factors contributing to the fall are territorial sovereignty and external financial vulnerability. As shown above, environmental protection and natural disasters have also played a role. These trends are clearly revealed in the enclosed charts of the indices.

The rank correlation of the components over time with the Overall index of freedom from fear are presented below:

Rank Correlation Coefficient of the Components of the Overall Index of Freedom from Fear	
• Territorial Security	0.661
• External Financial Vulnerability	0.446
• Personal Safety	0.446
• Health Hazards and Diseases	0.375
• Environmental Protection and Natural Disasters	0.374

It is significant that the highest correlation is with territorial security.

Finally, the nature of trends, improving or worsening, has been identified for each individual indicator in Chart 6.9. Out of the 27 indicators, 11 have shown an improving trend while 16 have revealed a worsening with respect to recent years and/or in relation to 2001-02. The agenda for enhancing human security will focus especially on the latter set of indicators.

Chart 6.8: Trends of Indices

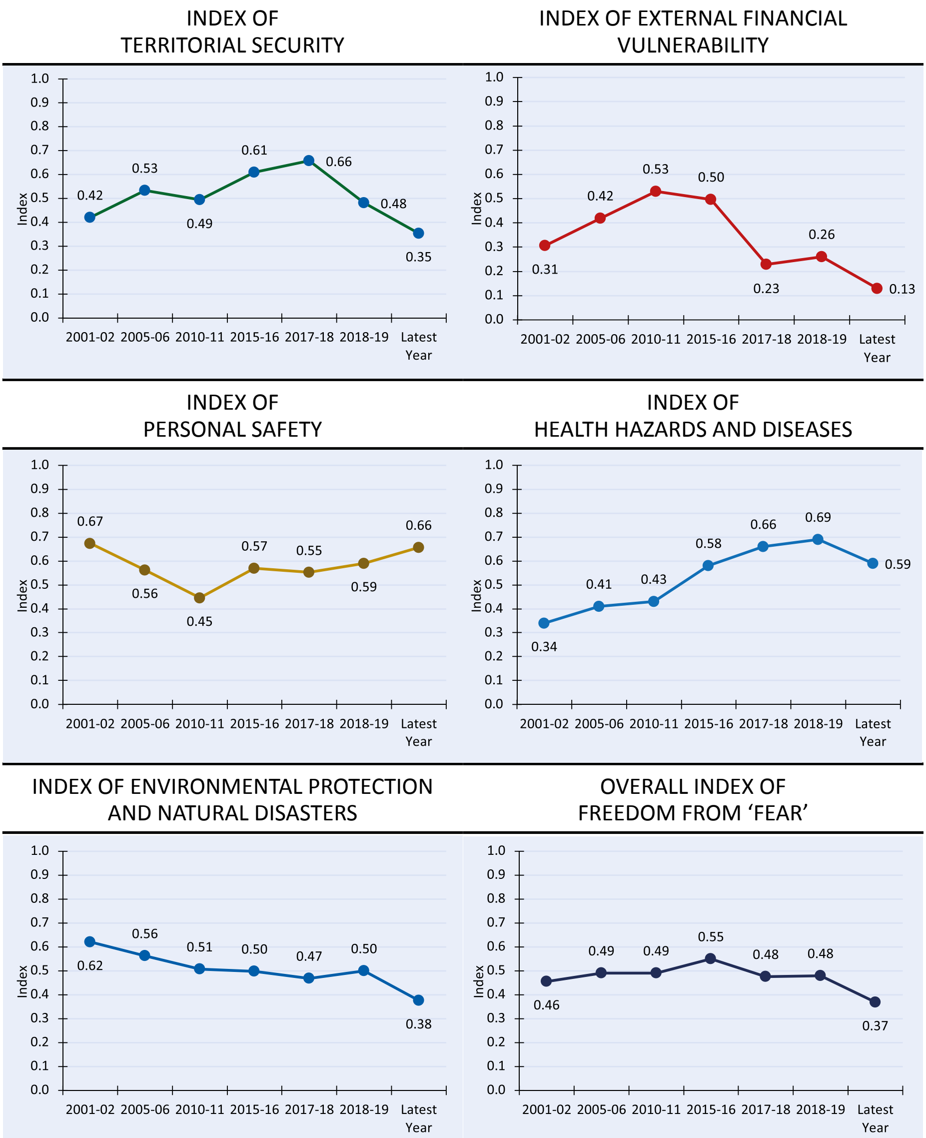


Chart 6.9: Recent Trends in Indicators

WORSENING	IMPROVING
TERRITORIAL SECURITY	
• Defence Expenditure as % of GDP** • Real Defence Expenditure per Capita* • % of Defence Expenditure financed by revenues**	• The ratio of Defence Expenditure to Expenditure on Education and Health
3	1
EXTERNAL FINANCIAL VULNERABILITY	
• Real Effective Exchange Rate** • External Debt as % of GDP* • Foreign Exchange Reserves Cover *(in months of imports)*** • Reserves as % of External Debt** • Foreign Exchange Reserves as % of External Financing Requirements* • Current Account Deficit as % of GDP*	
6	0
PERSONAL SAFETY	
• Weighted Crimes per 10,000 population** • Number of Terrorist Attacks* • Number Killed*	• Expenditure on Law and Order as % of GDP • % of Workers Injured or Getting Disease in Place of Work • Number of Traffic Accidents • Number of Fatalities
3	4
HEALTH HAZARDS AND DISEASES	
• % of Deaths from Communicable Diseases**	• Life Expectancy • % of Births with Female Attendant • Infant Mortality • Incidence of Child Stunting or Wasting
1	4
ENVIRONMENTAL PROTECTION AND NATURAL DISASTERS	
• Incidence and Cost of Natural Disasters** • Forest Area *(% of land area)*** • Level of Water Stress* • Renewable Internal Water Resources per capita**	• CO_2 Emissions
4	1
TOTAL	
17	10

**One star shows worsening either with respect to recent years or 2001-02.*

***Two starts indicate both worsening with respect to recent years and 2001-02.*

Chapter: 7

INDEX OF FREEDOM FROM 'WANT'

The group and individual indices of the index of freedom from 'want' index are described below:

7.1 Income

The real per capita income has the trend shown in Table 7.1.

Table 7.1: Trend in Real Per Capita Income

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2022 (Latest Year)
Index*	0.240	0.387	0.418	0.554	0.609	0.626	0.630
(at 2005-06 prices)							

The impact of the floods has been included in the estimate for the latest year. The impact of the floods is shown in Box 7.1.

Box 7.1: Impact of the Floods

The key magnitudes of the impact of the floods of 2022 are as follows:

SUMMARY OF THE IMPACT OF THE FLOODS

Loss of Lives
1,596

Injured
30,000

Flood Affected People
33 million

Damage of Cropped Area
8.3 million acres

Loss of Livestock
2 million

Houses Destroyed or Damaged
2 million

Schools Damaged
17,566

Bridges Destroyed
243

Roads Damaged
5,000 km

The overall cost of the floods is estimated at a colossal

$ 30 billion

7.2 Food Security

This refers to the availability of an adequate amount of nutritious and affordable food measured by the level of per capita food consumption (calories per day). Fortunately, the calorie consumption per capita has increased from 2361 calories per day in 2001-02 to 2735 calories per day in 2020-21. This is confirmed by data from households in the bottom two quintiles, as shown in Box 7.2.

Box 7.2: Nutrition Intake in the Bottom Two Income Quintiles

The Household Integrated Economic Survey (HIES) of the PBS gives the per capita food consumption in the bottom two quintiles. These are shown below:

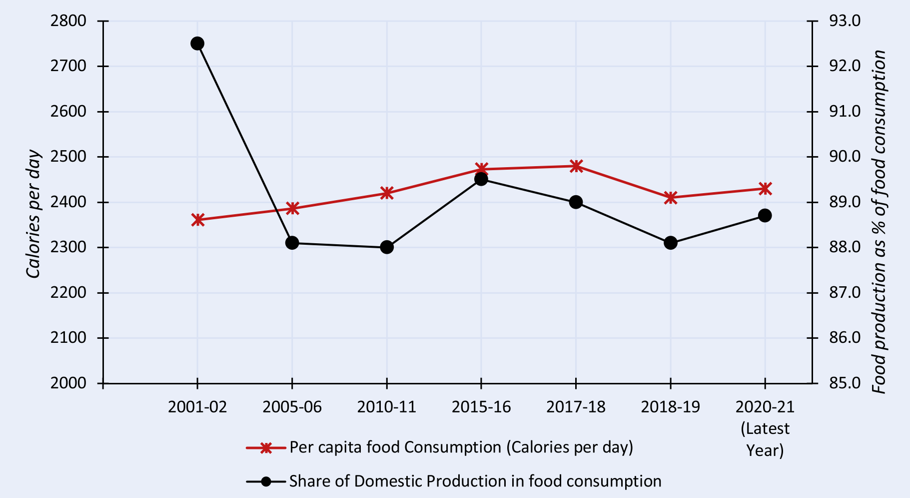
Per Capita Nutrition Intake in the Lower Two Quintiles
(Monthly Per Capita Consumption)

Item	Unit	2010-11	2015-16	2018-19
Wheat and Wheat Flour	Kg	7.40	6.75	6.96
Rice	Kg	0.86	0.84	0.92
Pulses	Kg	0.23	0.26	0.31
Milk (fresh)	Ltr	4.13	4.31	4.57
Vegetable Ghee	Kg	0.67	0.64	0.75
Potato	Kg	0.95	1.09	1.20
Tomato	Kg	0.27	0.37	0.44
Onion	Kg	0.67	0.74	0.82
Other Vegetables	Kg	1.18	1.62	1.80
Sugar	Kg	1.08	1.17	1.19
Food Expenditure per Capita *(at 2010-11 prices)*		**989**	**961**	**991**

It is reassuring that from 2010-11 to the latest survey of 2018-19, the consumption of basic food items has generally shown some increase.

The second indicator is the share of domestic production in food consumption. The trend in this indicator is shown in chart 7.1.

Chart 7.1: Per capita food consumption (calories per day) and Share of domestic production in food consumption



Domestic production is not enough to meet the increasing need for food consumption of the population. There are numerous factors that are responsible for a falling share of domestic production in food consumption, like climate change, rising agricultural input prices relative to output prices, water shortages, etc.

Box 7.3: The High Rate of Inflation in Food Prices

The year 2022-23 is witnessing a veritable explosion in food prices.

Rate of Inflation in Food Prices
(Year on Year, Mid-March)

	2022	2023
Wheat Flour	21.3	56.3
Onions	10.8	233.9
Rice	3.0	78.8
Pulses	-29.6	69.4
Milk	8.7	37.4
Sugar	-10.9	20.6
Vegetable Ghee	49.9	38.0
Overall Food Prices*	**14.5**	**45.0**

This has increased the cost of nutrition substantially, thereby raising the poverty line and leading to a big increase in the incidence of poverty in 2022.

The third indicator is the relative price of food. It has increased over time, as shown in table 7.2 in relation to the overall consumer price index. This rising trend is further reinforced by the ongoing wheat flour crisis. The rise in food prices in the first nine months of 2022-23 is shown in Box 7.3.

The fourth indicator of food security is cereal consumption per capita. Cereals are significant sources of iron, protein, vitamin E, vitamin B complex, fiber and carbohydrates. Sadly, this indicator also showed a downward trend till 2018-19, with a slight improvement in 2020-21.

The last indicator is the wheat stock per capita. This has shown a fluctuating trend, as highlighted in the table 7.2. Wheat is the staple food of Pakistan. Efforts should be made to smooth out wheat stocks per capita so that human security is ensured for the masses of the country.

Overall, the food security index has shown a fluctuating trend in Pakistan.

Table 7.2: Trend in the Index of Food Security

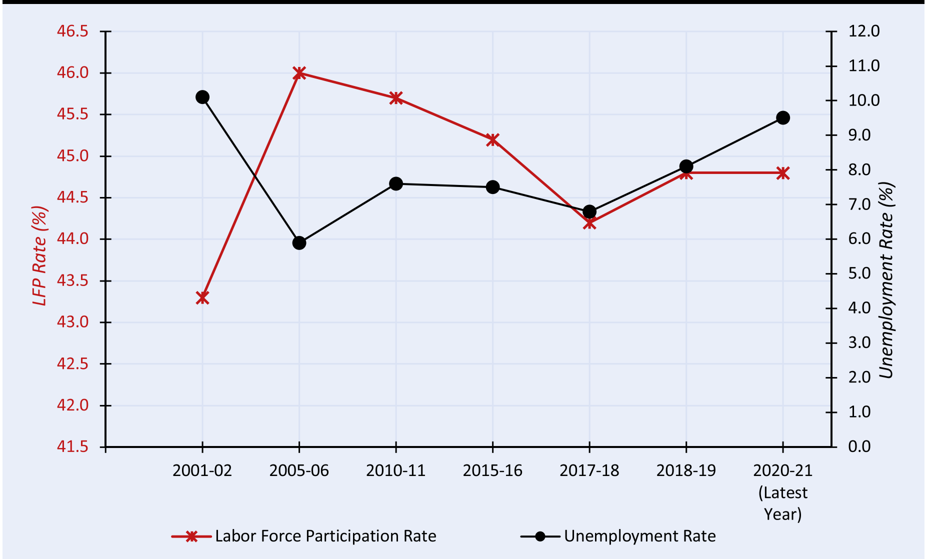
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Per capita food Consumption (Calories per day)							
Index	0.458	0.472	0.492	0.523	0.527	0.486	0.498
2. Share of Domestic Production in food consumption							
Index	0.523	0.455	0.454	0.477	0.469	0.455	0.464
3. Relative Price of food							
Index	0.682	0.653	0.509	0.517	0.521	0.511	0.409
4. Cereal consumption per capita							
Index	0.588	0.470	0.445	0.354	0.342	0.331	0.443
5. Wheat stock per capita							
Index	0.509	0.136	0.274	0.684	0.386	0.262	0.392
OVERALL INDEX	**0.547**	**0.389**	**0.425**	**0.500**	**0.443**	**0.396**	**0.440**

7.3 Employment and Wages

The first indicator of employment and wages is the unemployment rate. In the case of Pakistan, the unemployment rate has shown a fluctuating trend. A worrying feature is that the unemployment rate is generally higher for the more educated workers.

The second indicator is the labor force participation rate, and this represents the active workforce of an economy. The Labor Force survey by the PBS reports that this rate in the year 2020-21 was 44.8 percent. The trend values of these two indicators are shown in chart 7.2. Clearly, as the unemployment rate in the economy increases, it takes the many vulnerable workers below the poverty line.

Chart 7.2: Labor force participation rate and Unemployment rate



The third indicator is the percentage of marginal workers in the labor force, especially women in residual jobs. The index value of this indicator has shown some improvement over time. To ensure human security, efforts should be made to further decrease the percentage of marginal workers in the labor force of Pakistan.

The fourth indicator of employment and wages is the percentage of employment in the informal sector. This indicator shows limited access of workers to job security or to the labor welfare services. Table 7.3 shows that this index has declined sharply over the years, indicating a rising share of workers in the informal sector.

The fifth indicator is the average real wage. The major determinant to assess the market conditions for labor is to identify the trend in the average real wage. The change in the incidence of poverty among the masses can also be gauged through this indicator. In recent years, the average real wage has shown a downward trend, especially in view of a higher rate of inflation. The sixth indicator is the skill premium. Table 7.3 shows that skill premium in Pakistan has fallen from 2017-18 onwards, indicating a lower private rate of return to higher education and specialized skills.

Table 7.3: Trend in the Index of Employment and Wages

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21 Latest Year
1. Unemployment Rate *(%)*							
Index	0.347	0.789	0.610	0.621	0.795	0.558	0.593
2. Labor Force Participation Rate *(%)*							
Index	0.446	0.529	0.520	0.504	0.476	0.492	0.492
3. % Marginal Workers in Labor Force							
Index	0.329	0.396	0.628	0.830	0.652	0.681	0.661
4. % employment in the Informal Sector							
Index	0.638	0.544	0.566	0.524	0.458	0.467	0.430
5. Average Real Wage							
Index	0.401	0.477	0.326	0.505	0.590	0.549	0.523
6. Skill Premium							
Index	0.229	0.244	0.247	0.257	0.635	0.438	0.386
OVERALL INDEX	**0.379**	**0.467**	**0.456**	**0.510**	**0.590**	**0.525**	**0.505**

The year 2022-23 is likely to end with a big increase in the unemployment rate, as shown in Box 7.4.

Box 7.4: Big Increase in Unemployment in 2022

The year 2022 is likely to have ended with a big increase in the number of unemployed by 2 million. This will raise the unemployment rate for the first time to almost 8%.

This is the consequence of the massive damage inflicted by the floods and the big constraint on imports which has created shortages of inputs and, consequently a big fall in industrial production.

The GDP growth rate is likely to be negative 1%, with agricultural and industrial sectors contracting respectively by 3% to 4%. The projections of employment are as follows:

(million)

	2021-22	2022-23
Labor Force	73.5	75.0
Employed	69.6	69.1
Unemployed	3.9	5.9
Unemployment Rate (%)	5.6	7.9

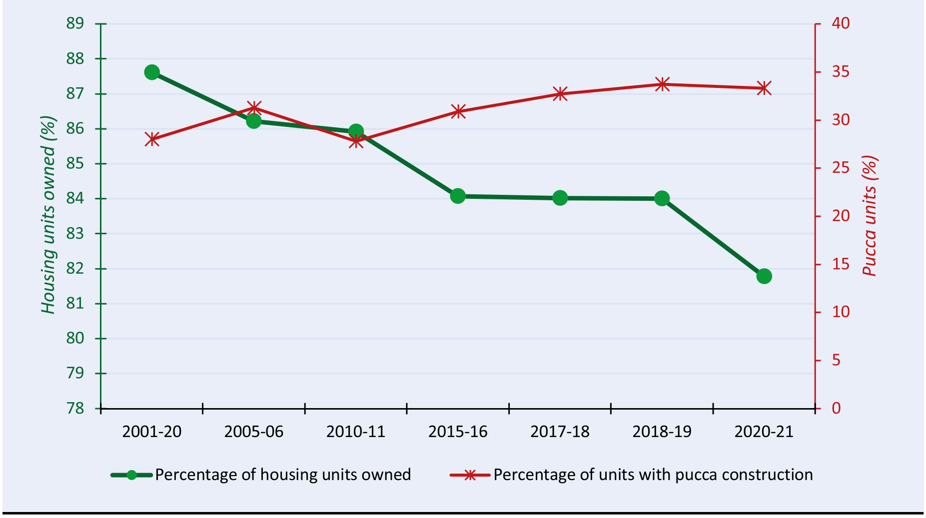
7.4 Shelter

Shelter refers to the basic human need for secure and safe living. Adequate shelter is vital for human well-being, survival, and health, and it is considered as a basic human right by the United Nations. The first indicator of shelter is the percentage of housing units owned in Pakistan. According to Pakistan Social and Living Standard Measurement Survey (PSLSMS) of 2020-21, the percentage of housing units owned in Pakistan is 81.8%. The value of this indicator has declined in recent years as shown in Chart 7.3.

The second indicator is the percentage of units with pucca roofs. With the passage of time, this indicator has shown a rising trend till 2018-19 and thereafter fallen slightly, with the index value down to 0.559 in 2020-21.

The third indicator of shelter is the percentage of housing units with pucca walls. According to PSLSMS 2020-21, approximately 80% of housing units in Pakistan have pucca (permanent) walls. This is in urban and rural areas combined. It is worth mentioning that housing quality differs greatly among various regions and between rural and urban areas. As compared to rural areas, urban areas have a higher percentage of pucca housing units. In the recent time period, the value of this indicator has also fallen.

Chart 7.3: Percentage of housing units owned and percentage of units with pucca construction



The fourth indicator of shelter is the extent of congestion in housing as measured by the percentage of housing units with only one room. PSLSMS 2020-21 states that the percentage of housing units with only one room in Pakistan is 25.17 percent. This includes both urban and rural areas. However, it must be noted that rural areas have a higher proportion of housing units with only one room in comparison with urban areas. The value of this indicator has improved in the last few years.

The fifth indicator is the percentage of units with electricity. Almost 91% of households have access to electricity. The sixth indicator is the percentage of units with tap water. This indicator has shown a declining trend from 2001-02 to 2018-19, with a slight increase in the year 2020-21. This is shown in the chart 7.4. The last indicator is the percentage of units with flush toilets. This indicator has also shown a rising trend over time.

Chart 7.4: Percentage of units with access to tap water

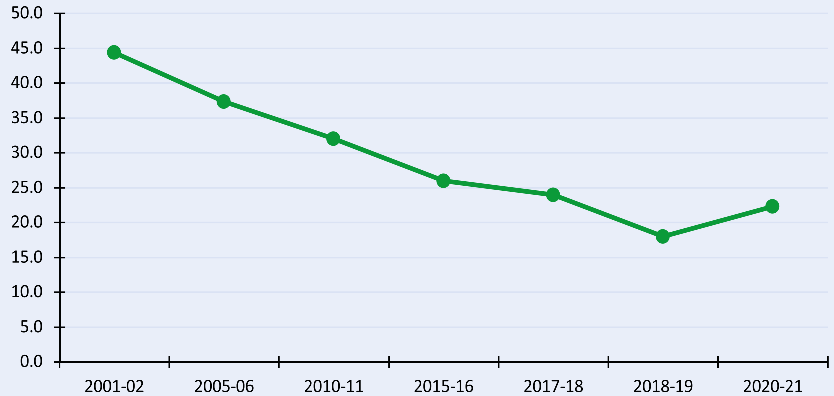


Table 7.4: Shelter

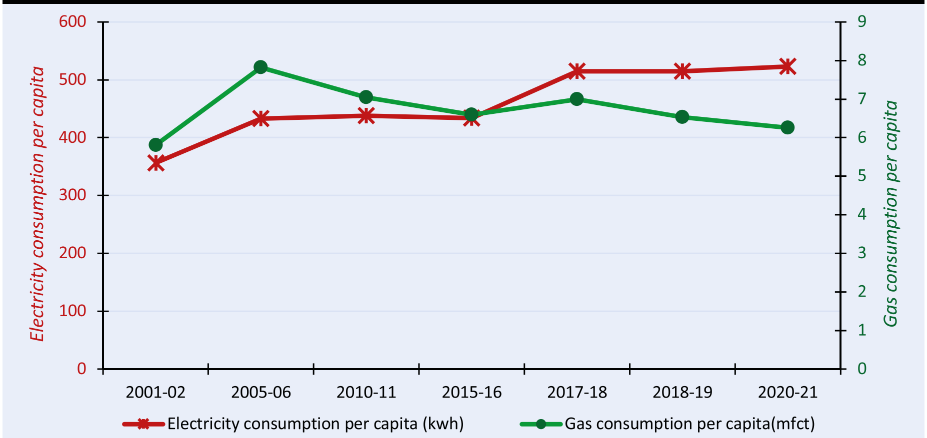
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Percentage of housing units owned							
Index	0.727	0.697	0.690	0.650	0.648	0.646	0.599
2. Percentage of units with pucca roof							
Index	0.355	0.479	0.347	0.465	0.535	0.573	0.559
3. Percentage of units with pucca walls							
Index	0.307	0.458	0.550	0.686	0.737	0.762	0.674
4. Percentage of housing units with only one room							
Index	0.686	0.674	0.651	0.509	0.442	0.406	0.637
5. Percentage of units with electricity							
Index	0.570	0.684	0.815	0.845	0.821	0.817	0.805
6. Percentage of units with access to tap water							
Index	0.687	0.537	0.424	0.296	0.254	0.127	0.219
7. Percentage of units with flush toilet							
Index	0.250	0.343	0.490	0.610	0.670	0.701	0.701
OVERALL INDEX	**0.475**	**0.540**	**0.548**	**0.556**	**0.554**	**0.506**	**0.564**

7.5 Energy Security

Energy security refers to the continuing accessibility to energy sources at reasonable prices. The first indicator of energy security is gas consumption per capita. The index value of this indicator is 0.363 in 2020-21, which is very low. The chart 7.5 shows a downward trend in gas consumption over time. The reduction in gas consumption in Pakistan can be attributed to inadequate exploration and production and the change towards other fuels and renewable energy.

The second indicator is electricity consumption per capita. Table 7.4 shows that the electricity consumption per capita increased to 523 kWh in 2020-21. This figure denotes electricity consumption, comprising both commercial and residential usage. It is significant to know that this value is comparatively low compared to other nations. Chart 7.5 shows that with the passage of time, gas consumption per capita has decreased while electricity consumption per capita has increased.

Chart 7.5: Electricity consumption per capita and gas consumption per capita



The third indicator of energy security is petroleum consumption per capita. Table 7.5 shows that the value of this indicator has fallen sharply over the years. It is important to note that Pakistan depends massively on oil imports to meet the demand for petrol, which makes the country vulnerable to price variations and supply interruptions in global petroleum markets. Also, POL prices have increased rapidly in recent times. Further, the use of furnace oil as an input in electricity generation has declined.

The fourth indicator of energy security is domestic gas production as a percentage of consumption. The value of this indicator has fallen from 100% in 2001-02 to 79 percent in 2018-19, with a slight increase to 88.3% in 2021-22. Imports of LNG have taken place to supplement domestic gas.

The fifth indicator is the percentage of electricity generation from renewable sources. The percentage of electricity generation from renewable sources in Pakistan is low. However, to reduce reliance on fossil fuels and combat climate change, the government has set the goal to escalate the contribution of renewable energy in the country's electricity mix by giving inducements for the installation of wind turbines and solar panels and announcing net metering regulations to permit consumers to sell excess electricity back to the grid. As a result of this, the value of this indicator has improved in the recent past. The index of the indicator is shown in table 7.5.

Table 7.5: Energy Security

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Gas consumption per capita *(mfct)*							
Index	0.296	0.603	0.485	0.415	0.478	0.452	0.363
2. Electricity consumption per capita *(kWh)*							
Index	0.258	0.424	0.436	0.426	0.603	0.602	0.620
3. Petroleum consumption per capita							
Index	0.589	0.322	0.465	0.570	0.582	0.335	0.324
4. Domestic gas production as % of consumption							
Index	1.000	1.000	1.000	0.863	0.579	0.556	0.752
5. Percentage of electricity generation from renewable sources							
Index	0.336	0.560	0.583	0.616	0.270	0.293	0.366
6. Relative price index of energy							
Index	0.740	0.655	0.573	0.793	0.538	0.482	0.353
OVERALL INDEX	**0.472**	**0.557**	**0.565**	**0.590**	**0.491**	**0.438**	**0.438**

The sixth indicator of energy security is the relative price index of energy with respect to the CPI. The index value has shown a slightly downward trend, but in 2022, it has escalated.

7.6 Health

The first indicator of health is the health expenditures as a percentage of GDP. In Pakistan, both preventive and curative health expenditures have risen significantly from 0.6% of the GDP in 2010-11 to 1.4% of the GDP by 2020-21. This has been facilitated by the additional transfer of revenues to the provincial governments after the 7th NFC Award in 2009-10. The overtime trend in this indicator is shown in chart 7.6.

Overall, most of the health indicators have shown a rising trend, although they are still low by international standards. The trends in the indices are given in the table 7.6.

Chart 7.6: Health expenditure as a percentage of GDP

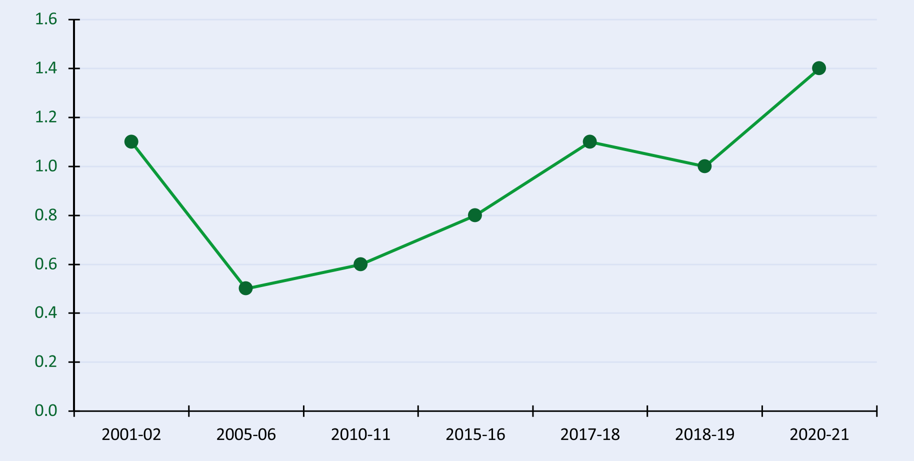


Table 7.6: Health

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Health Expenditures as % of GDP							
Index	0.500	0.109	0.174	0.305	0.501	0.435	0.696
2. Hospital beds per 1000 people							
Index	0.231	0.692	0.153	0.153	0.153	0.153	0.153
3. Physicians per 1000 people							
Index	0.232	0.333	0.333	0.535	0.535	0.636	0.636
4. Nurses and Midwives per 1000 people							
Index	0.361	0.361	0.574	0.361	0.574	0.361	0.361
OVERALL INDEX	**0.313**	**0.309**	**0.267**	**0.308**	**0.391**	**0.351**	**0.395**

7.7 Education

Access to education is a vital human right and is crucial for the development of any economy and individual security. Access to education in Pakistan has improved with the passage of time, but there are still many challenges in ensuring that all children, specifically those from underprivileged backgrounds, have access to quality education.

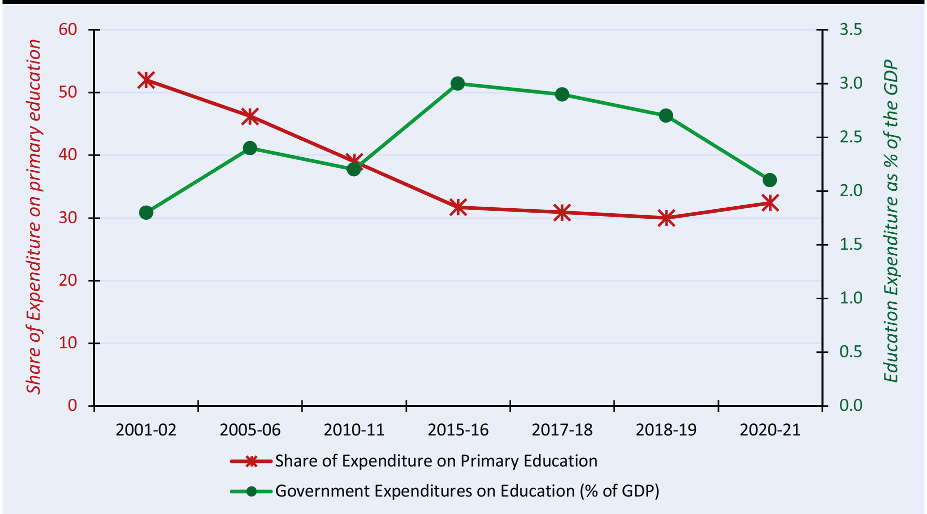
The first indicator of access to education is the literacy rate. According to WDI or PSLSMS 2020-21, the literacy rate in Pakistan is only 60%, which is much lower than the global literacy rate of 86.3%. The trend values of this indicator are shown in the table 7.7.

Table 7.7: Access to Education							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Literacy rate *(%)*							
Index	0.300	0.460	0.560	0.600	0.600	0.600	0.600
2. Government Expenditures on Education *(% of GDP)*							
Index	0.222	0.444	0.370	0.666	0.630	0.555	0.321
3. Share of Expenditure on Primary Education							
Index	0.649	0.531	0.385	0.237	0.221	0.203	0.252
Net Enrollment Rate							
4. Primary							
Index	0.225	0.403	0.467	0.645	0.645	0.629	0.591
5. Middle							
Index	0.132	0.183	0.233	0.659	0.659	0.684	0.685
6. High							
Index	0.100	0.167	0.200	0.700	0.700	0.700	0.700
7. Percentage of Government Enrollment							
Index	0.566	0.533	0.467	0.367	0.350	0.330	0.409
OVERALL INDEX	**0.257**	**0.357**	**0.364**	**0.522**	**0.509**	**0.491**	**0.479**

The second indicator is the government expenditure on education. In 2020-21, government expenditures on education as a percentage of GDP is 2.1%. There is considerable fluctuation in educational expenditures in Pakistan. Moreover, this indicator has shown a downward trend in recent years. Chart 7.7 shows government expenditures as a percentage of GDP from 2001-02 to 2020-21.

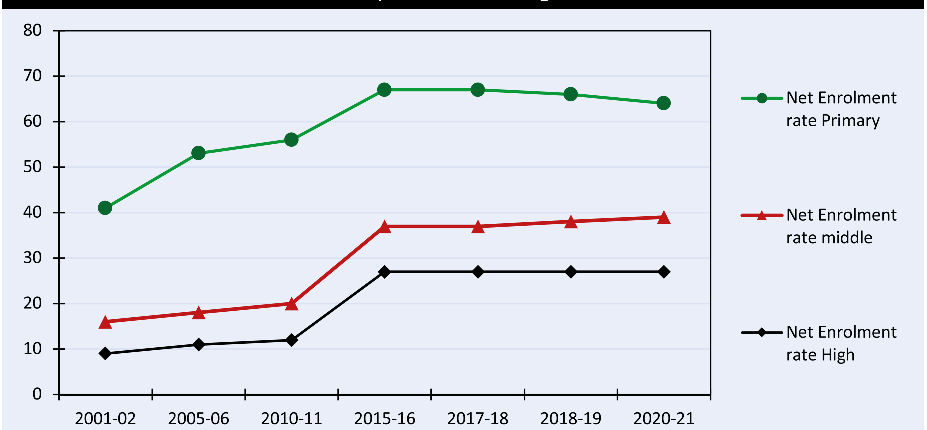
The third indicator of access to education is the share of government expenditure on primary education. The government of Pakistan has assigned 32.4% of its overall educational budget to primary education. This shows that the government is focusing less on primary education, which is important for the development of the country. There are numerous challenges in the primary educational sector which include insufficient infrastructure, paucity of qualified teachers, and lack of facilities. Consequently, the quality of education in many primary schools of Pakistan is low.

Chart 7.7: Government Expenditures on Education and share of expenditure on Primary Education



According to the World Bank, Pakistan has made some progress in expanding access to education, with the net enrollment rate in primary education rising from 41% in 2001- 02 to 64% in 2020-21. Similarly, net enrollment rate in middle education has increased to 39 % in 2020-21 as compared to only 16% in 2001-02. The net enrollment rate in higher education has also shown an upward trend. However, there are significant differences in enrollment rates between different levels of education in Pakistan, as shown in Chart 7.8. Apart from that, there are still significant disparities in access to education across different regions, gender, and socio-economic groups.

Chart 7.8: Net Enrolment Rate Primary, Middle, and High



The last indicator of access to education is the percentage of enrollment in government schools. According to the Academy of Educational Planning and Management (AEPAM), in 2020-21, the percentage of enrollment in government schools in Pakistan was 64 percent. This means that approximately two-thirds of students in Pakistan are enrolled in government schools, while the remaining one-third are enrolled in private schools. The trends in this indicator are shown in Table 7.7. It is worth mentioning that the quality of education in government schools is low. On the other hand, private schools often provide better facilities and have more qualified teachers, but they are expensive for many families to afford. Consequently, private schools are a major source of future inequality. Hence efforts should be made to further improve the quality of education in government schools. Overall, this indicator has shown improvement in the recent years.

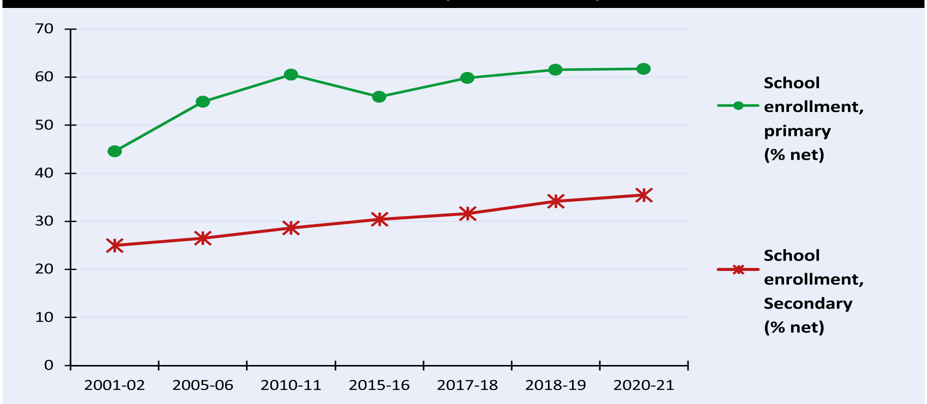
7.8 Women

The status of women in Pakistan has improved in the recent past, but they still face major challenges and inequity in many facets of their lives, including employment, education, and healthcare.

The first indicator of the status of women is their primary school enrollment. According to WDI, the primary school enrollment rate for females in Pakistan was 62% in 2018 while for males it was 73% in the same year. However, the index value of this indicator has increased over time, as shown in Chart 7.9. Similarly, secondary school enrollment of females in Pakistan remains lower than that of males. Nevertheless, this indicator has also shown some progress in recent years.

According to the World Bank, the literacy rate among females (age 15 and above) in Pakistan was 46% in 2019 as compared to 69% for males in the same year. The literacy rate among females has shown an upward trend over time, and index values are shown in Chart 7.10.

Chart 7.9: Female School Enrollment, Primary and Secondary



The fifth indicator is the prevalence of unemployment in women. According to Pakistan Labor Force Survey (LFS) 2020-21, the unemployment rate for women in Pakistan is 6.31%, somewhat higher than that for male workers.

The sixth indicator of the status of women is the female employment to population rate. World Bank reports female employment to population ratio in Pakistan as 22.1% in 2020-21. This shows that out of the entire female population of working age, which is normally defined as age between 15 to 64 years, only about one-fifth of women are employed in 2020-21. However, this indicator is also improving in Pakistan.

The last indicator of the status of women in Pakistan is the life expectancy. The life expectancy at birth for females in Pakistan as of 2020-21 is 69.1 years, which is lower than the worldwide average of 72.6 years.

Chart 7.10: Literacy Rate

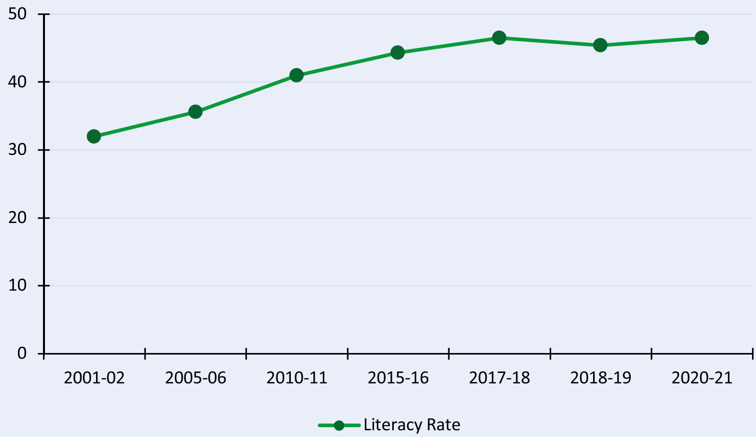


Table 7.8: Women

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. School enrollment, primary *(% net)*							
Index	0.282	0.479	0.587	0.499	0.573	0.606	0.609
2. School enrollment, secondary *(% net)*							
Index	0.271	0.321	0.390	0.449	0.488	0.571	0.614
3. Unemployment rate							
Index	0.256	0.424	0.988	0.719	0.796	0.711	0.709
4. Female Employment to population rate *(%)*							
Index	0.239	0.449	0.590	0.629	0.585	0.541	0.600

Table 7.8: Women

5. Literacy Rate							
Index	0.563	0.351	0.484	0.565	0.619	0.592	0.619
6. Life Expectancy							
Index	0.427	0.434	0.493	0.519	0.531	0.537	0.537
OVERALL INDEX	**0.321**	**0.405**	**0.562**	**0.555**	**0.590**	**0.590**	**0.612**

7.9 Children

The status of children in Pakistan is multifaceted and can vary depending on the indicator. The first factor is the percentage of children out of school. Academy of Educational Planning and Management (AEPAM) in 2020-21 reported that the percentage of children out of school in Pakistan is 39.8%, which is decreasing over time. Similarly, another indicator is the percentage of children in the labor force is 4.90%, and this represents a significant decrease from the value of 12.04% in 2001-02. There is a need for the complete elimination of child labor. Chart 7.11 presents the trend in these two indicators.

Chart 7.11: Percentage of children out of school and the Percentage of children in the labor force

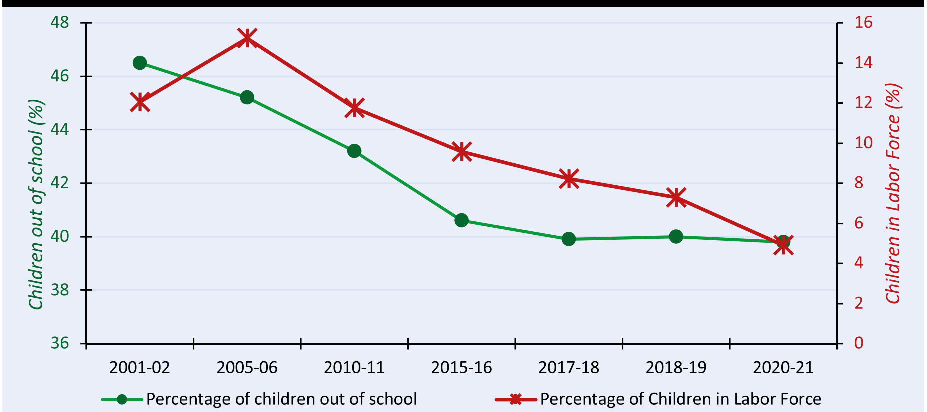


Table 7.9: Children

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Percentage of children out of school							
Index	0.437	0.473	0.530	0.602	0.622	0.620	0.625
2. Percentage of Children in the Labor Force							
Index	0.486	0.298	0.502	0.631	0.710	0.764	0.906
OVERALL INDEX	**0.460**	**0.375**	**0.516**	**0.616**	**0.664**	**0.688**	**0.752**

7.10 Overall Index of Freedom from 'Want'

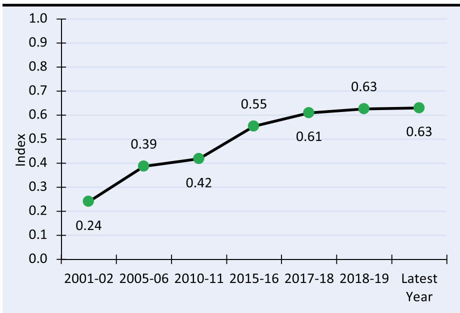
The summary of the group of indices is shown in Table 7.10. Overall, the Index of Freedom from 'Want' shows a rising trend after 2001-02 and reaches a peak in 2017-18. Thereafter, it has fallen somewhat. It currently has an index value of about 0.5.

Table 7.10: Index of Freedom from 'Want'

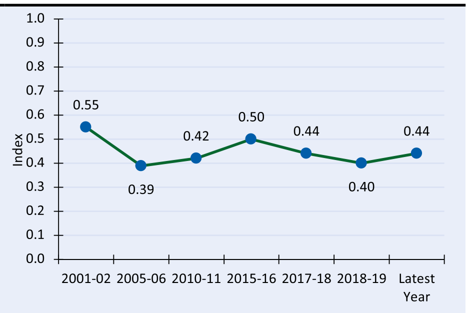
Group	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2021-22 (Latest year)
Income	0.240	0.387	0.418	0.554	0.609	0.626	0.630
Food Security	0.547	0.389	0.425	0.500	0.443	0.396	0.440
Employment & Wages	0.379	0.467	0.456	0.510	0.590	0.525	0.505
Shelter	0.475	0.540	0.548	0.556	0.554	0.506	0.564
Energy Security	0.471	0.557	0.565	0.590	0.491	0.438	0.438
Health	0.313	0.309	0.267	0.308	0.391	0.351	0.398
Education	0.257	0.357	0.364	0.522	0.509	0.491	0.479
Women	0.321	0.405	0.562	0.555	0.590	0.590	0.612
Children	0.460	0.375	0.516	0.616	0.664	0.688	0.752
OVERALL FREEDOM FROM 'WANT' INDEX	**0.371**	**0.413**	**0.446**	**0.515**	**0.532**	**0.502**	**0.525**

Chart 7.12: Trends of Indices

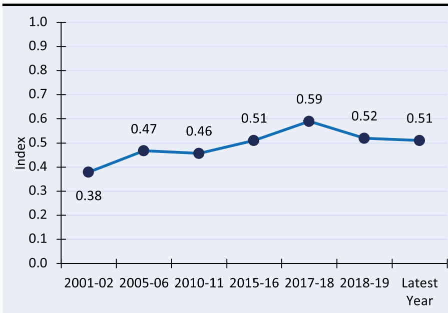
INDEX OF INCOME



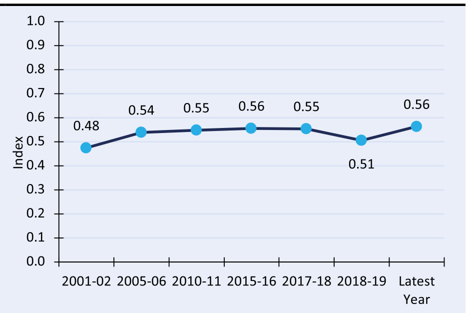
INDEX OF FOOD SECURITY



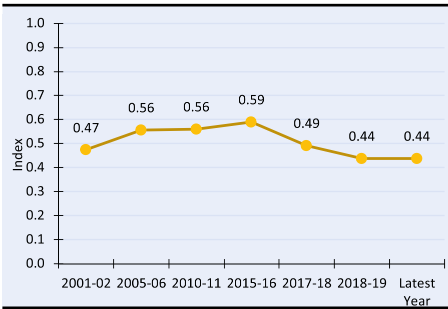
INDEX OF
EMPLOYMENT AND WAGES



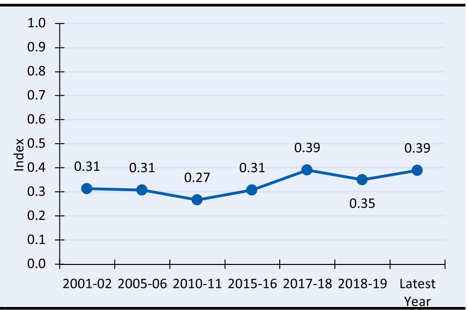
INDEX OF
SHELTER



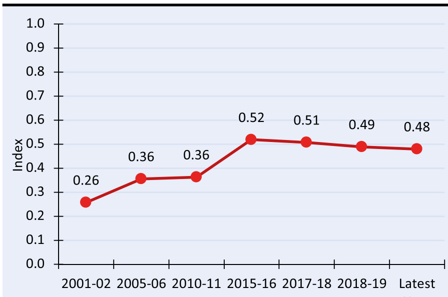
INDEX OF
ENERGY SECURITY



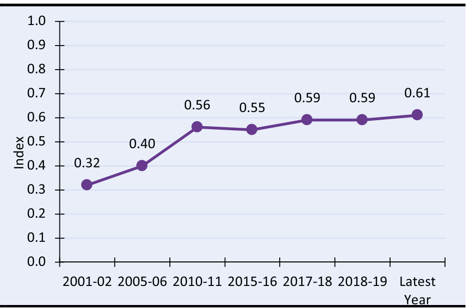
INDEX OF
HEALTH

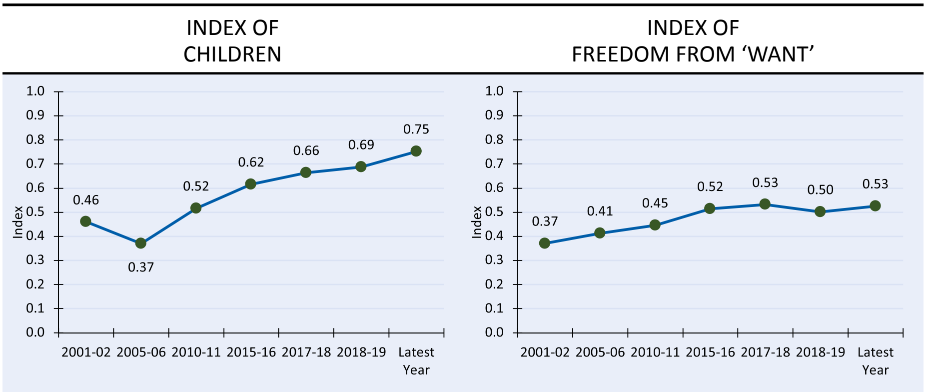


INDEX OF
EDUCATION



INDEX OF
WOMEN





The rank correlation of components with the overall Index of Freedom from 'Want' are given below in Table 7.11.

Table 7.11: Rank Correlation of Trends of the Components with the Overall Index of Freedom from 'Want'

Group	Rank Correlation Coefficient (0 to 1)
• Income	0.821
• Food Security	0.107
• Employment & Wages	0.507
• Shelter	0.786
• Energy Security	-0.142
• Health	0.536
• Education	0.821
• Women	0.536
• Children	0.786

Therefore, based on the relatively low or negative magnitude of the rank correlation coefficients of food security and energy security, it can be concluded that these have been the two significant constraints to increased freedom from 'Want' in Pakistan.

Chart 7.13: Trends in Indicators

Improving	Worsening
INCOME	
• Real Income per capita	
1	0
FOOD SECURITY	
• Per capita food consumption (Calories per day)	• Relative Price of food**
• Wheat stocks per capita	• Share of Domestic Production in food consumption*
	• Cereal consumption per capita*
2	3
EMPLOYMENT AND WAGES	
• Labor force participation rate (%)	• % employment in the informal sector**
	• Unemployment rate (%)*
	• Average Real Wage
	• Skill Premium
	• % marginal workers in labor force
1	5
SHELTER	
• % of units with flush toilet	• % of housing units owned**
	• % of housing units with only one room*
	• % of units with access to tap water*
	• % of units with pucca roof*
	• % of units with pucca walls*
	• % of units with electricity*
1	6
ENERGY SECURITY	
• Electricity consumption per capita (kWh)	• Gas consumption per capita (mfct)*
• % of electricity generation from renewable sources	• Petroleum consumption per capita**
	• Domestic gas production as % of consumption*
	• Relative price index of energy*
2	4
HEALTH	

Chart 7.13: Trends in Indicators	
Improving	Worsening
• Health Expenditures as % of GDP	• Hospital beds per 1000 people*
• Physicians per 1000 people	
• Nurses and Midwives	
3	1
ACCESS TO EDUCATION	
• Literacy rate (%)	• Government Expenditures on Education (% of GDP)*
• Net Enrolment rate middle	• Net Enrolment Rate Primary*
• Net Enrolment Rate High	• Share of Expenditure on Primary Education*
	• Net Enrolment rate % of Government Enrollment*
3	4
WOMEN	
• School enrollment, primary(%net)	• Unemployment rate*
• School enrollment, secondary(%net)	•
• Female Employment to population rate (%)	•
• Literacy Rate	•
• Life Expectancy	•
5	1
CHILDREN	
• % children out of school	•
• % of Children in Labor Force	•
2	0
TOTAL **20**	**24**
***Two stars indicate both worsening with respect to recent years and 2001-02*	
**One start shows worsening either with respect to recent years or 2001-02*	

Therefore, as shown in Chart 7.13, the trend has been improving in the case of 20 indicators and worsening in 24 indicators.

Chapter: 8

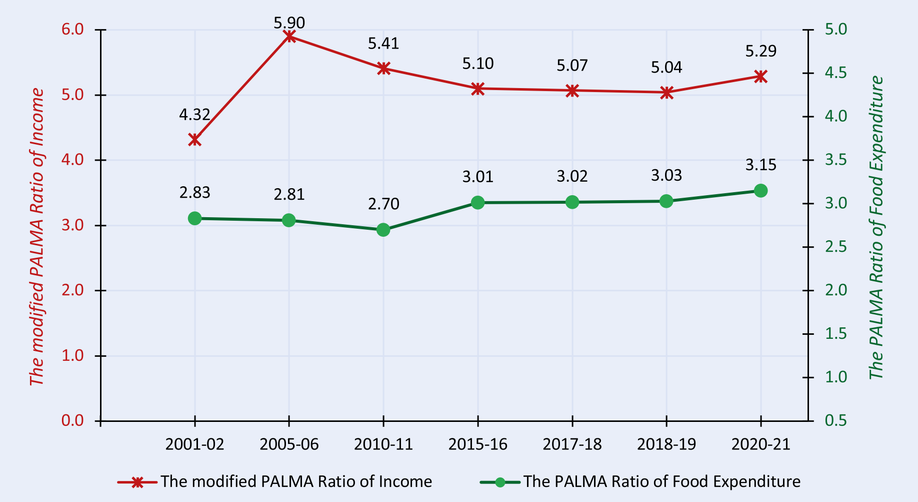
FREEDOM FROM ‘INEQUALITY’

The indices of freedom from ‘fear’ and from ‘want’ may not reflect the true state of human security in the country as they are based on averages. Therefore, there is a need to highlight the extent of inequality in income and other indicators to reflect the conditions of the lower quintiles of the population.

8.1 Income Inequality

The Household Integrated Economic Surveys carried out periodically by the PBS are the primary source of income inequality in Pakistan. The trend in the modified PALMA Ratio is shown in the Chart 8.1. This corresponds to the ratio of the household income shares of the top and bottom quintiles.

Chart 8.1: Inequality in Income and Food Expenditure



The chart also shows the modified Palma ratio of food expenditure.

Both indicators show a declining trend in inequality between 2005-06 and 2018-19. There has been some increase in inequality after the negative impact of COVID-19.

Table 8.1: Indicators of Income Inequality

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Income Inequality							
Index	0.711	0.394	0.492	0.554	0.560	0.566	0.516
2. Inequality in Food Expenditure							
Index	0.571	0.579	0.625	0.496	0.492	0.488	0.438
OVERALL INDEX	**0.637**	**0.478**	**0.554**	**0.524**	**0.525**	**0.526**	**0.475**

The HIES tends to grossly understate the extent of income inequality in Pakistan. An estimate of the 'true' level of inequality is given in Box 8.1.

Box 8.1: The 'True' Level of Inequality in Pakistan

	PALMA Ratio	Gini Coefficient
HIS	5.04	0.310
Pasha (2022)	8.30	0.406
% Increase	64.7	30.6

Pasha [2022] has presented evidence to establish that the level of inequality in income is significantly higher than revealed by the HIES undertaken by the PBS. The evidence includes a highly skewed distribution of agricultural income, unearned capital income, and home remittances.

This leads to the following estimate of income inequality in Pakistan in 2018-19.

8.2 Regional Disparities

The two measures of regional disparities are as follows:

i. The ratio of per capita income between urban and rural areas of Pakistan.

ii. The ratio of per capita income between the most and the least developed province of Pakistan.

Table 8.2: Indicators of Regional Disparities	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Ratio of Urban to Rural Income Per Capita							
Index	0.458	0.628	0.532	0.482	0.492	0.457	0.469
2. Ratio of Provincial* per capita Income							
Index	0.730	0.450	0.584	0.486	0.456	0.426	0.385
OVERALL INDEX	**0.578**	**0.532**	**0.557**	**0.484**	**0.474**	**0.441**	**0.425**

**Highest to Lowest Provincial per capita income*

The worrying long-term trend is the falling behind of Balochistan since 2001-02. This is demonstrated by the variation in Provincial growth rates shown in Box 8.2.

Box 8.2: Trend in Regional Disparities: Balochistan Falls Behind

Annual per capita real GRP growth rate (%)

	1999-2000 to 2007-08	2007-08 to 2015-16	2015-16 to 2018-19
Punjab	2.6	1.2	2.6
Sindh	3.7	0.4	1.8
Khyber-Pakhtunkhwa	2.6	1.7	1.9
Balochistan	-0.3	-0.3	-0.6
Pakistan	2.7	0.9	2.1

There has been a wide divergence in the growth rates of the regional economies of the four Provinces of Pakistan over the last two decades. The variation of growth rates in per capita and Gross Regional Product among the Province is shown below as estimated by Pasha (2021):

The very striking fact is the negative growth in Balochistan since 1999-2000. The Province has continued to fall behind due to the high cost of infrastructure and services because of low population density, increasing shortage of water, drying up of Sui Gas resources, and relatively low literacy.

This has represented a major weakening of the Federation and necessitated special arrangements for security in Balochistan, which today has a large number of missing persons.

8.3 Poverty

The last measure is the key indicator of the incidence of poverty in Pakistan. Estimates have been derived from SPDC and the World Bank. There has been a somewhat cyclical pattern of the level of poverty in Pakistan, as shown in Chart 8.2, in line with variations in the growth rate of per capita income. The cost of basic needs approach has been used to derive the poverty line in different years. It is estimated that the incidence of poverty increased significantly after COVID-19 and the floods. However, there are varying estimates of the level and trend in the incidence of poverty, as shown in Box 8.3.

Box 8.3: Conflicting Estimates of the Incidence of Poverty

There are different estimates of the level and trend in the incidence of poverty, as shown below:

% Incidence of Poverty				
	This Report*	Haroon Jamal, SPDC	Pasha (2021)**	Planning Commission
2001-02	30.61	31.05		
2005-06	29.80	28.18		50.4
2010-11	25.01	38.68		36.8
2015-16	34.20	37.90	34.20	24.3
2017-18	31.01		32.03	
2018-19	34.22		30.10	21.90
2019-20			30.96	
2020-21			36.24	
2022 (Dec)	40.00		40.00**	

**Based on smoothing of SPDC series.*

***Based on projections from the BNU Macro-econometric Model*

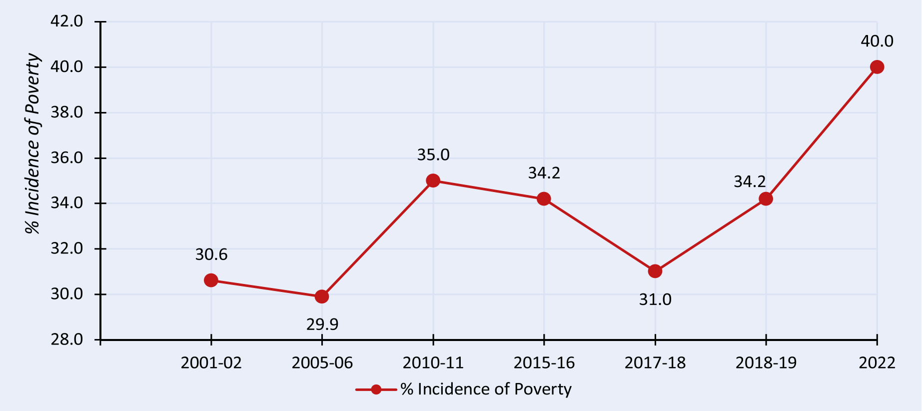
The Planning Commission shows a sharp downward trend, which is extremely unlikely, especially between 2005-06 and 2010-11 when the GDP growth rate was, and the inflation rate was high. Post-floods and with high food inflation, it is likely that the incidence of poverty has approached 40% by the end of 2022 as shown in Box 8.3.

Table 8.3: Indicator of Poverty

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
Index of Incidence of Poverty	0.679	0.703	0.547	0.572	0.666	0.571	0.398

We have chosen the estimates which better reflect the underlying trends in the growth rate of real per capita income and in income inequality.

Chart 8.2: Cyclical Pattern of the Level of Poverty in Pakistan



Box 8.3 highlights the likely jump in poverty in 2022 due to falling incomes, rising unemployment, and an unprecedented increase in food prices after the flood.

8.4 Gender Inequality

Six indicators have been used to measure the level of and the trend in gender inequality in Pakistan, as shown in Table 8.4. these indicators show a gradual reduction in the level of gender inequality over the years.

Table 8.4: Gender Inequality Ratio of Females to Males

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Primary Education							
Index	0.416	0.593	0.731	0.690	0.740	0.707	0.694
2. Secondary Education							
Index	0.508	0.544	0.581	0.581	0.621	0.690	0.701
3. Literacy Rate							
Index	0.310	0.382	0.460	0.543	0.565	0.569	0.596
4. Labor Force Participation Rate							
Index	0.231	0.427	0.603	0.634	0.539	0.610	0.597
5. Unemployment Rate							
Index	0.372	0.714	0.700	0.677	0.754	0.719	0.754
6. Relative Wage							
Index	0.573	0.534	0.499	0.460	0.380	0.369	0.356
OVERALL INDEX	**0.384**	**0.521**	**0.587**	**0.591**	**0.584**	**0.595**	**0.599**

8.5 Overall Index of Inequality

The overall Index of 'Inequality,' with the four components, is shown in Table 8.5. Inequality has generally shown a rising trend over the years, with the exception of gender inequality.

Table 8.5: Indicators of and the Index of 'Inequality'

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
Income Inequality	0.637	0.478	0.554	0.524	0.525	0.526	0.475
Regional Inequality	0.578	0.532	0.557	0.484	0.474	0.441	0.425
Poverty	0.679	0.703	0.547	0.572	0.666	0.571	0.398
Gender Inequality	0.384	0.521	0.587	0.591	0.584	0.595	0.599
Overall Index of Freedom from 'Inequality'	**0.556**	**0.552**	**0.561**	**0.541**	**0.558**	**0.530**	**0.468**

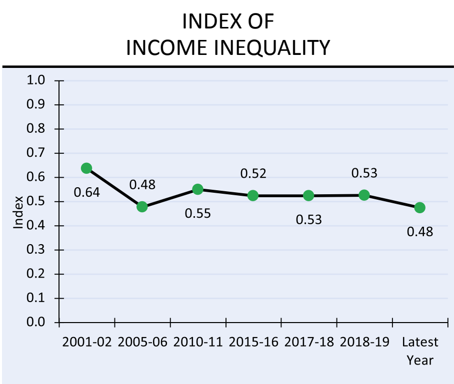
The rank correlations of the trends are given below in Table 8.6.

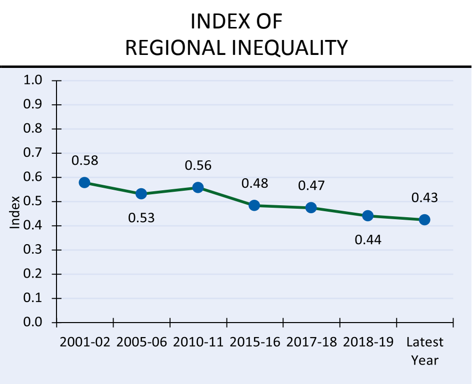
Table 8.6: Rank Correlation of Trends of the Components with the Overall Index of Inequality

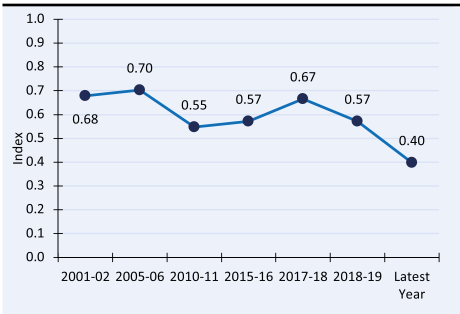
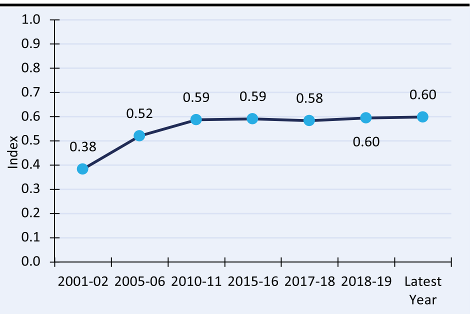
Group	Rank Correlation Coefficient (0 to 1)
• Income Inequality	0.607
• Regional Disparities	0.607
• Poverty	0.267
• Gender Inequality	-0.678

It is significant that declining gender inequality has limited the overall increase in inequality.

Chart 8.3: Index of Inequality





INDEX OF POVERTY	INDEX OF GENDER INEQUALITY
	

INDEX OF
FREEDOM FROM INEQUALITY

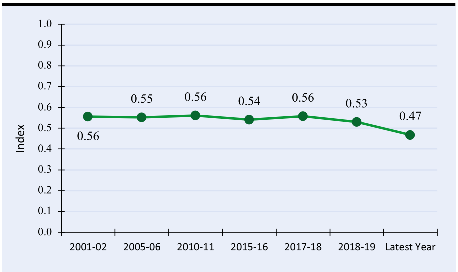


Chart 8.4: Trends in Indicators

Improving	Worsening
Income Inequality	**Income Inequality**
	• Income Inequality**
	• Inequality in Food Expenditure**
0	2
Regional Disparities	**Regional Disparities**
• The ratio of Urban to Rural Income per Capita	• Ratio of Provincial Per Capita Income**
1	1
Indicator of Poverty	**Indicator of Poverty**
	• Incidence of Poverty**
0	1
Gender Inequality	**Gender Inequality**
• Secondary Education	• Primary Education*
• Literacy Rate	• Labor Force Participation Rate*

Chart 8.4: Trends in Indicators

	Improving	Worsening
	• Unemployment Rate	• Relative Wage**
	3	**3**
TOTAL	**4**	**7**

***Falling trend with respect to both recent years and 2001-02*

**Declining trend as compared to either recent years or 2001-02*

Chapter: 9

INDEX OF GOVERNANCE

Good governance is a fundamental prerequisite for human security. This is amply demonstrated in the Pakistani context. The failure of economic management over the last many years has brought Pakistan perilously close to sovereign default in its external debt repayments. This has already resulted in the rate of inflation rising to historically unprecedented levels due primarily to the quantum depreciation of the value of the rupee and the cost-push impact on prices due to rising energy and other input costs. This has led to growing unemployment and a big increase in the number of poor in the country.

The focus of governance has to be on promoting inclusive growth, achieving greater equity through progressive fiscal policy, effective functioning of institutions related to the rule of law, social protection, market regulation and efficient and well-targeted provision of basic economic and social services, and so on. These achievements lead to more human security for the bulk of the population.

9.1 Index of Governance

We have placed reliance on international agencies' assessment of the relative governance in Pakistan as compared to other countries at different levels of development. In addition, there is a need for such assessment to be available from 2000 onwards so as to be able to judge the evolution of governance over time according to different assessments.

Five indices have been obtained which satisfy these requirements as follows:

1. World Bank, Country Policy and Institutional Assessment Rating
2. World Bank, Governance Matters
3. Heritage Foundation, Index of Economic Freedom
4. Transparency International, Corruption Perceptions Index
5. Economist Intelligence Unit (EIU) Democracy

The performance ratings in different areas of government in the Country Policy and Institutional Assessment (CPIA) by the World Bank are shown in Table 9.1.

Table 9.1: World Bank, CPIA							*(Score 1 to 6 best)*
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21 Latest Year
Economic Management		4.00	2.83	3.50	3.00	3.17	3.17
Equity of Public Resource Use		3.50	3.50	3.50	3.50	3.50	3.50
Fiscal Policy		3.50	2.50	3.00	2.50	2.50	2.50
Gender Equality		2.00	2.50	2.50	2.50	2.50	2.50
Policies for Social Inclusion/Equity		3.10	2.90	3.10	3.20	3.20	3.20
Policies and Institutions for Environmental Sustainability		3.50	2.50	3.00	3.00	3.00	3.00
Property Rights and Rule-Based Governance		3.00	3.00	2.50	3.00	3.00	3.00
Social Protection		3.00	3.50	3.50	3.50	3.50	3.50
Transparency, Accountability, and Corruption		2.50	2.50	3.00	3.00	3.00	3.00
AVERAGE		**3.12**	**2.86**	**3.06**	**3.02**	**3.02**	**3.04**
INDEX*		**0.424**	**0.372**	**0.412**	**0.404**	**0.404**	**0.408**
Max = 6, Min = 1							

The ratings range from 1 to 6, with higher ratings indicating better governance in a particular function. Table 9.2 clearly reveals that Pakistan is generally close to only 3. In fact, governments in Pakistan, according to the CPIA, have performed more poorly in the realm of fiscal policy and promotion of gender equality.

The Index of Economic Freedom gives the percentile of a country in different areas, as shown in Table 9.2. The higher the percentile, the better the performance. In this index, Pakistan performs poorly in protecting property, ensuring integrity in transactions and judicial effectiveness in terms of quick and fair judgments.

Table 9.2: Index of Economic Freedom							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2022-23 Latest Year
Property Rights	30.0	30.0	30.0	30.0	30.6	41.5	29.0
Government Integrity	22.0	21.0	24.0	29.0	27.3	30.6	27.4
Judicial Effectiveness	34.0	34.0	34.0	34.0	34.0	40.2	28.5
Labor Freedom	58.6	58.6	46.3	42.1	40.6	41.8	51.6
Trade Freedom	59.0	59.0	67.0	65.0	65.9	64.8	60.0
Investment Freedom	50.0	50.0	40.0	55.0	55.0	55.0	65.8
Average of Above	42.2	42.1	40.2	42.5	13.1	45.6	43.7
INDEX	**0.422**	**0.421**	**0.402**	**0.425**	**0.431**	**0.456**	**0.437**
Source: *Heritage Foundation*							

The *Governance Matters* assessment by the World Bank, in particular, gives Pakistan's performance in relation to other countries. These ratings have been converted into indices and are presented in Table 9.3.

Table 9.3: World Bank, Governance Matters – Indices							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
Voice and Accountability	0.064	0.410	0.639	0.718	0.668	0.621	0.608
Government Effectiveness	0.647	0.703	0.493	0.302	0.438	0.538	0.639
Regulatory Quality	0.175	0.320	0.663	0.587	0.540	0.512	0.484
INDEX	**0.194**	**0.452**	**0.594**	**0.503**	**0.541**	**0.555**	**0.573**
Source: *World Bank*							

The feature of these indices is that they show substantial variation over the years. For example, the index of voice and accountability had a value of only 0.064 in 2001-02, which was the peak time of a Military Government in Pakistan. Overall, the average index value is somewhat better than in the other two governance ratings.

The fourth index relates to the ranking of Pakistan in the level of corruption by the Transparency International. Pakistan performs poorly with the 140th position out of 180 countries in the latest ranking, and its index value for different years is shown in Table 9.4.

The EIU Democracy Index ranks countries on the basis of the following five criteria:

electoral process and pluralism
government functioning
political participation
democratic political culture
civil liberties

Pakistan is ranked 110th in the latest ranking.

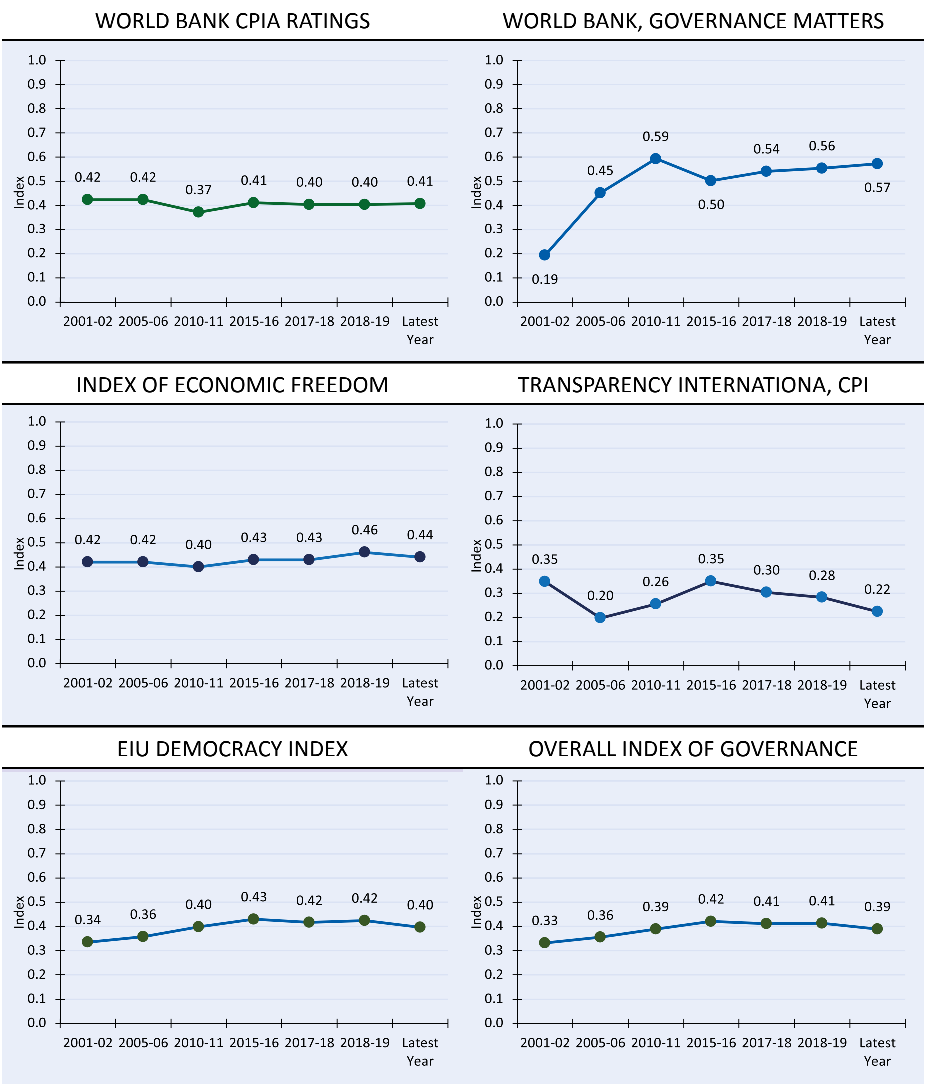
The five indices of governance are brought together in Table 9.4, and the overall index of governance is derived. Pakistan does not do well in the overall index, with a value ranging from 0.33 to 0.421. This is likely to bring down the magnitude of the overall Human Security Index. Further, the trend is again inverted U-shaped. It rises up to 2015-16 and falls thereafter.

Table 9.4: Index of Governance

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. WORLD BANK CPIA RATINGS							
Index	0.424*	0.424	0.372	0.412	0.404	0.404	0.408
2. WORLD BANK, GOVERNANCE MATTERS							
Index	0.194	0.452	0.594	0.503	0.541	0.555	0.573
3. INDEX OF ECONOMIC FREEDOM							
Index	0.422	0.421	0.402	0.425	0.431	0.456	0.437
4. TRANSPARENCY INTERNATIONAL, CPI							
Index	0.348	0.197	0.256	0.349	0.303	0.282	0.223
5. EIU DEMOCRACY INDEX	**0.335**	**0.357**	**0.399**	**0.430**	**0.416**	**0.424**	**0.396**
OVERALL INDEX OF GOVERNANCE	**0.332**	**0.355**	**0.390**	**0.421**	**0.412**	**0.414**	**0.390**

**Assumed value*

Chart 9.1: Index of Governance



The rank correlations of each of the five indices with the overall Index of Governance are as follows:

• World Bank CPIA Ratings	-0.464
• World Bank, Governance Matters	0.232
• Index of Economic Freedom	0.607
• Transparency International	0.302
• EIU Democracy Index	0.946

World Bank CPIA Ratings have a negative correlation with respect to the overall Governance Index. As opposed to this, the EIU Democracy Index is very highly correlated with the overall Index.

The trends of each Index are as follows:

Improving	Worsening
• World Bank CPIA Ratings*	• World Bank, Governance Matters
• Index of Economic Freedom*	
• Transparency International Index**	
• EIU Democracy Index*	
TOTAL 4	1

***Declining trend both with respect to recent years and 2001-02*

**Declining trend either in relation to recent years or with 2001-02*

Chapter: 10

ESTIMATES OF THE NATIONAL HUMAN SECURITY INDEX

The previous chapters have focused on the quantification of indices at the second and third levels. The objective of this chapter is to aggregate these indices to obtain the estimate of the Human Security Index (HSI) at the national level since 2001-02.

10.1 Number of Indicators

Construction of the national HSI has involved estimation of 87 indicators at the third level, as shown earlier in Table 4.1. Multiple sources of data have been accessed, both national and international. The outcome is a very comprehensive HSI.

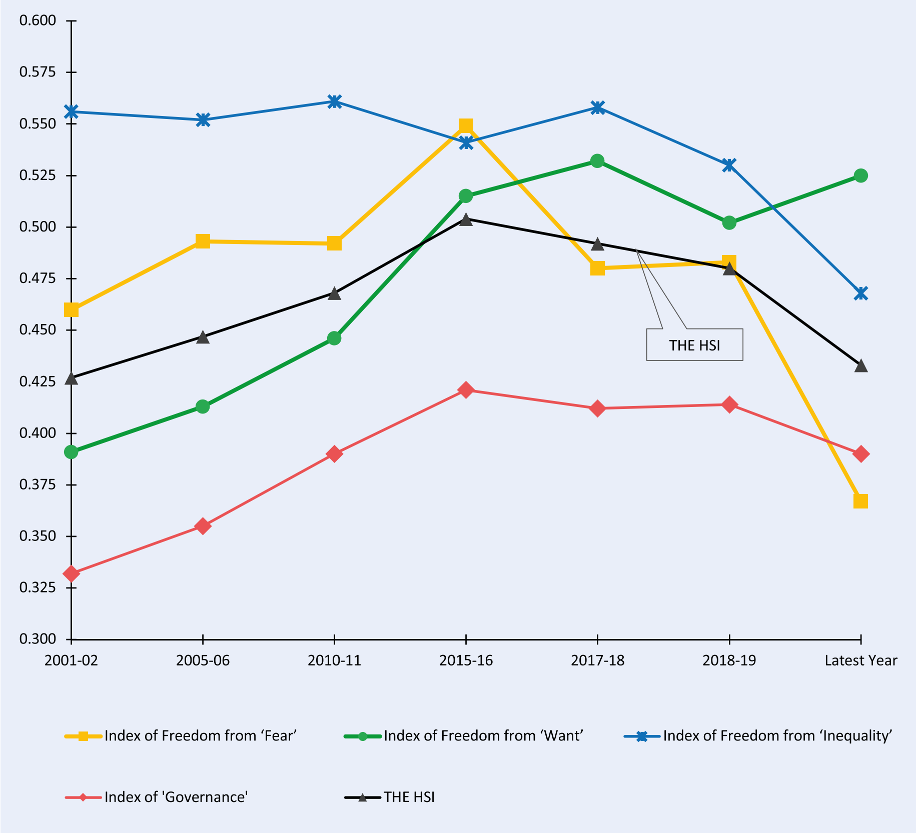
10.2 Estimates of National HSI

The four dimensions of HSI in the form of freedom from 'fear,' freedom from 'want,' freedom from 'inequality', and governance are aggregated in Table 10.1 to yield the national HSI.

Table 10.1: Estimates of National Human Security Index

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
Index of Freedom from 'Fear'	0.460	0.493	0.492	0.549	0.480	0.483	0.367
Index of Freedom from 'Want'	0.391	0.413	0.446	0.515	0.532	0.502	0.525
Index of Freedom from 'Inequality'	0.556	0.552	0.561	0.541	0.558	0.530	0.468
Index of 'Governance'	0.332	0.355	0.390	0.421	0.412	0.414	0.390
OVERALL INDEX OF HUMAN SECURITY	**0.427**	**0.447**	**0.468**	**0.504**	**0.492**	**0.480**	**0.433**

Chart 10.1: The Trend in the HSI and in the Components Indices



10.3 The Findings

One of the striking findings is the low value of the national HSI. It has remained below 0.5 throughout the two decades except in 2015-16. This clearly demonstrates the need for comprehensive measures to enhance the HSI of Pakistan.

The trend is a well-defined inverted U-shaped curve. The HSI rises from 2001-02 onwards and attains a peak in 2015-16. Thereafter, it falls up to the latest year, 2020 to 2022.

The rank correlation coefficients among the various indices are presented below in Table 10.2.

Table 10.2: Rank Correlation Coefficients

	Index of Freedom from 'Fear'	Index of Freedom from 'Want'	Index of Freedom from 'Inequality'	Index of Governance	Overall Human Security Index
Index of Freedom from 'Fear'		-0.179	0.178	0.482	0.607
Index of Freedom from 'Want'			-0.250	0.607	0.571
Index of Freedom from 'Inequality'				-0.179	0.071
Index of 'Governance'					0.929

The strongest correlation with the overall HSI is of the index of Governance followed by the indices of freedom from 'fear and 'want.' The near-zero correlation of HSI of the index of 'inequality' indicates that inequality has played a different role in influencing the HSI than the other three indices. It is not surprising that there is a moderately strong correlation between the index of governance with the indices of 'fear' and 'want.'

Chart 10.2: Contribution of the Change in Component Indices to the Change in the Overall Human Security Index

As shown in Chart 10.2, the decline in the Human Security Index after 2015-16 is due to over two-thirds of the fall in the index of freedom from 'fear.' The indices of freedom from 'inequality' and governance have also made significant contributions of over 23% and 12%, respectively. It is only the Index of freedom from 'want' which has made a small contribution to restricting the decline in the overall HSI.

10.4 Correlation of the HSI with HDI

An interesting piece of analysis would be to see the correlation between the national HSI and the Human Development Index (HDI) of Pakistan, as estimated by the UNDP in the Global Human Development Report.

A comparison is presented in Table 10.3.

Table 10.3: The Human Development Index and Human Security Index of Pakistan

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2021-22
HDI*	0.441	0.530	0.505	0.534	0.545	0.560	0.544
HSI	0.427	0.447	0.468	0.504	0.492	0.480	0.433

**for the nearest year to the year of HSI*

The HDI shows a stronger upward rising trend than the HSI. Over the two decades, the latter has gone up cumulatively by over 23% while the former has increased by only 4%. However, both the HDI and the HSI fell in value from 2018-19 to 2021-22.

10.5 Rising and Falling Indices since 16-2015

The rising and falling indices since 2015-16, the peak year of the HSI, are shown in Table 10.4.

Table 10.4: Extent of Change in Components and Sub-Components of HSI from 2015-16 to the latest year

INCREASE	(%)	INCREASE	(%)
		Index of Freedom from ‘Fear’	-33.2
• Personal Safety	14.0	• External Financial Vulnerability	-73.8
• Health Hazards and Diseases	1.0	• Territorial Security	-41.8
		• Environmental Protection and Natural Disasters	-24.5
Index of Freedom from Want	**1.9**		
• Health	29.2	• Energy Security	-25.8
• Children	22.0	• Food Security	-12.0
• Women	20.2	• Education	-10.0
• Income	13.7	• Employment and Wages	-1.0
		Index of Freedom from ‘Inequality’	**-13.5**
• Gender Inequality	1.3	• Poverty	-30.4

Table 10.4: Extent of Change in Components and Sub-Components of HSI from 2015-16 to the latest year

		• Regional Disparities	-12.2
		• Income Inequality	-9.4
		Index of Governance	**-7.4**
• World Bank Governance Matters	13.9	• Transparency International/ Corruption	-36.1
• Index of Economic Freedom	2.8	• EIU Democracy	-7.9
		• World Bank CPIA Ratings	-1.0

SUMMARY

	INCREASE	INCREASE
Components	**1**	**3**
Sub-Components	**9**	**13**

The sub-component indices which show bigger declines and contribute more to the fall in the HSI after 2015-16 are listed below in Table 10.5.

Table 10.5: Major Sub-Components contributing to the Decline in the HSI after 2015-16

Extent of Decline in the HSI	**-14.1%**
Major Contributors to the Decline	**Magnitude of Contribution to the Decline in the HSI (%)**
1. External Financial Vulnerability	36.9
2. Territorial Security	20.9
3. Poverty	18.9
4. Corruption	17.9
5. Environmental Protection and Natural Disasters	12.2
6. Regional Disparities	7.5
7. Energy Security	7.1
8. Food Security	4.2*
TOTAL OF ABOVE	**125.6**

**25.6% contribution has come from other sub-components towards raising the level of the HSI after 2015-16*

The above eight sub-components will need to be focused on for raising the HSI in the coming year.

Chapter: 11

THE HUMAN SECURITY INDEX OF SELECTED COUNTRIES

The objective of this chapter is to develop an international HSI similar to the HDI, which has been prepared annually by the UNDP in the Global Human Development Report. The primary purpose is to see how Pakistan stands in relation to other countries in the HSI as compared to its ranking in the HDI.

Pakistan's ranking in the HDI has actually worsened significantly over the years, as shown in Table 11.1.

Table 11.1: Pakistan's HDI and Ranking, 1999 to 2021-22

	1999	2005	2010	2015	2020	2021-22
HDI value	0.498	0.527	0.490	0.538	0.560	0.544
Ranking	127	135	125	147	152	161
Level of HDI	Low	Medium	Medium	Low	Medium	Low

Source: *UNDP Global HDR*

The absolute value of HDI has also fallen in 2021-22, and Pakistan is down once again to the low level of human development. This is extremely worrying. Unfortunately, neither the government nor the academia or media have taken notice of this alarming development.

This chapter will construct a human security index at the country level for selected countries, including Pakistan. This will enable the determination of whether Pakistan stands as low in the HSI as it does in the HDI.

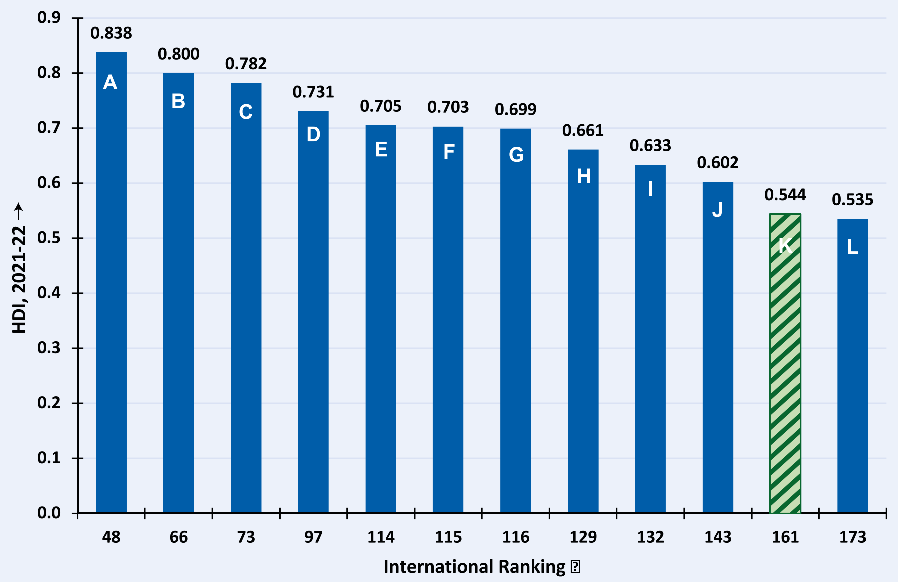
11.1 Selection of Countries

With the objective of limiting the comparison, three types of countries have been selected. The first group consists of five countries of South Asia, namely Bangladesh, Nepal, India, Pakistan, and Sri Lanka. All these countries have a higher HDI than Pakistan.

The next group is of large South East Asian countries, which are at the next stage of development as compared to Pakistan. This includes four countries, namely, Thailand, Indonesia, the Philippines, and Vietnam.

The last group is of three large Islamic countries from other regions. These are Egypt, Nigeria and Türkiye. Nigeria has a lower HDI than Pakistan. Overall, there are twelve countries. The value of the HDI of all these countries is shown in Chart 11.1 as of 2021-22.

Chart 11.1: Selected Countries and their HDI in 2021-22



A = Türkiye; B = Thailand; C = Sri Lanka; D = Egypt; E = Indonesia; F = Vietnam;
G = Philippines; H = Bangladesh; I = India; J = Nepal; K = Pakistan; L = Nigeria

Source: *UNDP, GHDR, 2021-22*

The Chart 11.1 clearly reveals the relatively low position of Pakistan. It has a HDI, which is 35% below that of the top country, Türkiye, in the group. Following the construction of the HSI, will Pakistan still remain in the same extremely low position?

11.2 Selection of the HSI Indicators

The classification system of the HSI Index is the same as in the previous chapters. There are 27 HSI indicators, as shown in Chart 11.2.

Chart 11.2: Grouping and Number of HSI Indicators		
	Group	Number of Indicators
A.	**FREEDOM FROM 'FEAR'**	**7**
	• Territorial Security	2
	• External Financial Vulnerability	3
	• Environmental Protection	2
B.	**FREEDOM FROM 'WANT'**	**13**
	• Income	1
	• Employment	4
	• Energy Security	3
	• Food Security	2
	• Education	2
	• Health	1
C.	**FREEDOM FROM 'INEQUALITY'**	**3**
D.	**GOVERNANCE**	**4**
	TOTAL	**27**

The listing of individual indicators at the third level is given in Chart 11.3. The numbers mostly relate to 2020-21, and the majority are from the *World Development Indicators* database of the World Bank.

Chart 11.3: List of Human Security Indices	
A.	**FREEDOM FROM 'FEAR'**
	Territorial Security
	1. Military Expenditure as % of GDP
	2. Military Expenditure per Capita (US$)
	External Financial Vulnerability
	1. External Debt as % of GNI
	2. Current Account Deficit / Surplus as % of GDP
	3. Foreign Exchange Reserves in Months of Imports
	Environmental Protection
	1. Environmental Performance (Yale University) (Score)*
	2. 10-Year Change in Environmental Performance (%)
B.	**FREEDOM FROM 'WANT'**

Chart 11.3: List of Human Security Indices	
	Income per Capita ***Employment***
	1. Employment as % of Population
	2. Unemployment Rate (%)
	3. % Self-Employed
	4. % of 'Idle' Youth
	Energy Security
	1. Domestic Sources of Energy (% of Energy Use)
	2. Share of Renewable Energy (%)
	3. Level of Energy Use
	Food Security
	1. % of Food Insecure Population
	2. Increase in Food Production (from 2014-16 to 2020-21)
	Education
	1. Mean Years of Schooling
	2. Expected Years of Schooling
	Health
	1. Life Expectancy
C.	**FREEDOM FROM 'INEQUALITY'**
	1. Gini Coefficient
	2. Poverty Head Count
	3. Gender Inequality Index (UNDP)**
D.	**GOVERNANCE**
	1. World Bank, Governance Matters
	2. Rule of Law Index, World Justice Project
	3. Index of Economic Freedom, Heritage Foundation
	4. Corruption Perceptions Index, Transparency International

**The Yale University Environmental Performance Score is based on 40 indicators in 10 areas, from air quality to water resources.*

***Based on 5 indicators including relative position of females vs males in areas like secondary education, seats in parliament, labor force participation rate, etc.*

The values of these indicators are given in the Statistical Annexure-II, along with the country rankings in each indicator.

11.3 Country Rankings

The country rankings in the four dimensions of the Human Security Index are presented in Table 11.2.

The first indications are that Pakistan is likely to do better in the HSI. In summary, the ranking of Pakistan among the 12 countries is as follows:

Index	Pakistan's Ranking*
Freedom from 'Fear'	4
Freedom from 'Want'	10
Freedom from 'Inequality'	8
Governance	11
Overall HSI	**9**
HDI	**11**
**Among the 12 selected countries*	

Pakistan performs exceptionally well in the index of Freedom from 'Fear' with a high ranking of 4th. Overall, Pakistan is ranked 9th in the HSI among the twelve countries. This represents an improvement of two places in relation to the HDI. The two countries which fall behind Pakistan in the HSI are Bangladesh and Nepal.

The change in country rankings in the HSI vs the HDI are shown below:

Countries with Improved Ranking
India, Pakistan, Thailand, Vietnam, Indonesia, Philippines, Nigeria.
Countries with a Worse Ranking
Bangladesh, Nepal, Sri Lanka, Egypt, Türkiye

Table 11.2: Indices of Human Security Sub-Indices

	Index of									
	Freedom from 'Fear'	Rank	Freedom from 'Want'	Rank	Freedom from 'Inequality'	Rank	Governance	Rank	HSI	Rank
SOUTH ASIA										
Bangladesh	0.304	9	0.321	9	0.503	11	0.416	10	0.378	10
India	0.417	3	0.343	8	0.527	9	0.386	3	0.413	8
Nepal	0.139	12	0.264	12	0.522	10	0.358	8	0.288	12
Pakistan	**0.386**	**4**	**0.300**	**10**	**0.575**	**8**	**0.319**	**11**	**0.382**	**9**
Sri Lanka	0.346	6	0.543	1	0.646	4	0.373	5	0.461	5

Table 11.2: Indices of Human Security Sub-Indices

EAST ASIA										
Thailand	0.506	1	0.532	2	0.760	1	0.536	4	0.575	1
Vietnam	0.339	7	0.490	5	0.645	5	0.559	2	0.495	3
Indonesia	0.256	10	0.500	4	0.610	6	0.592	1	0.464	4
Philippines	0.310	8	0.391	6	0.579	7	0.511	6	0.435	6
OTHERS										
Egypt	0.379	5	0.371	7	0.676	3	0.323	9	0.419	7
Nigeria	0.253	11	0.284	11	0.351	12	0.406	12	0.318	11
Türkiye	0.453	2	0.516	3	0.704	2	0.464	7	0.526	2

The ranking of countries in the per capita income, HDI, and HSI are presented below in Table 11.3.

Table 11.3: Relative Position of Countries in Different Indices

	Per Capita Income US PPP$) 2021		Human Development Index (HDI) 2021-22		Human Security Index		Change in Ranking from HDI to HSI
	Index	Ranking	Index*	Ranking	Index	Ranking	
SOUTH ASIA							
Bangladesh	0.108	9	0.478	8	0.378	10	+2
India	0.116	8	0.436	9	0.413	8	-1
Nepal	0.038	11	0.388	10	0.288	12	+2
Pakistan	0.077	10	0.298	11	0.382	9	-2
Sri Lanka	0.310	3	0.664	3	0.461	5	+2
EAST ASIA							
Thailand	0.412	2	0.692	2	0.575	1	-1
Vietnam	0.222	6	0.543	6	0.495	3	-3
Indonesia	0.265	1	0.546	5	0.464	4	-1
Philippines	0.172	7	0.537	7	0.435	6	-1
OTHERS							
Egypt	0.256	5	0.586	4	0.419	7	3
Nigeria	0.064	12	0.269	12	0.318	11	-1
Türkiye	0.731	1	0.750	1	0.526	1	1

**Recomputed with the maxima and minima within the sample countries*

The rank correlations are presented below:

HDI vs HSI	0.861
PER CAPITA INCOME vs HSI	0.916
PCY vs HDI	0.979

The overall correlation coefficients are high, although, as pointed out above, some individual countries see changes in rankings. The individual indicators in which Pakistan has a relatively low ranking are presented in Table 11.4.

There is substantial variation in the HSI among the twelve countries. It ranges from a maximum of 0.575 for Thailand to a minimum of 0.288 for Nepal. Pakistan is in the middle, with a HSI of 0.382.

The rank correlation of the components of the HSI with the overall HSI is given below.

with	Rank Correlation with HSI
Index of Freedom from 'Fear'	0.611
Index of Freedom from 'Want'	0.916
Index of Freedom from 'Inequality'	0.881
Index of Governance	0.671

It appears that the HSI is linked more to the indices of freedom from 'want' and 'inequality' in the case of the 12 countries. Pakistan does poorly in the former index and better in inequality.

The distribution of the index values at the second level are given below in Table 11.4.

Table 11.4: Pakistan's Index Values at the Sub-Component Level

I < 0.4		0.4 ≤ I < 0.6		I > 0.6	
Territorial Security	0.348	Environmental Protection	0.430	-	
External Financial Vulnerability	0.384				
Income per capita	0.077	Employment	0.510		
Energy Security	0.377	Food Security	0.569		
Education and Health	0.287				
		Incidence of Poverty	0.532	Income Inequality	0.730
		Gender Inequality	0.491		
Corruption	0.321				
Rule of Law	0.332				
Governance Index	0.226				
Index of Economic Freedom	0.319				
Governance	**0.296**				

Therefore, on the basis of comparison with the selected countries, Pakistan will need to focus on the following sub-components of the HSI to raise the overall HSI:

Freedom from 'Fear':	Territorial Security
	External Financial Vulnerability
Freedom from 'Want':	Income Per Capita
	Energy Security
	Education and Health
Freedom from 'Inequality':	Governance

Therefore, as shown above, there are six areas where Pakistan will have to improve its performance in order to achieve a higher level of human security. In the short run, primary emphasis will have to be placed on drastically reducing the extreme external financial vulnerability and avoiding default. Otherwise, other areas of human security will also weaken, and there will be a big decline in the overall level of human security of the country. Beyond this immediate priority, the key focus areas for raising the HSI in relation to other countries will be income per capita, education and health, gender inequality and governance.

There is also value to the UNDP undertaking a global ranking of countries in the HSI, like the HDI, in one of its subsequent Global Human Development Reports. Similar HSI indicators could be used in this report.

PART III

POLICIES, REFORMS AND LAWS FOR ACHIEVING HIGHER HSI

Chapter: 12

THE MAJOR FINDINGS

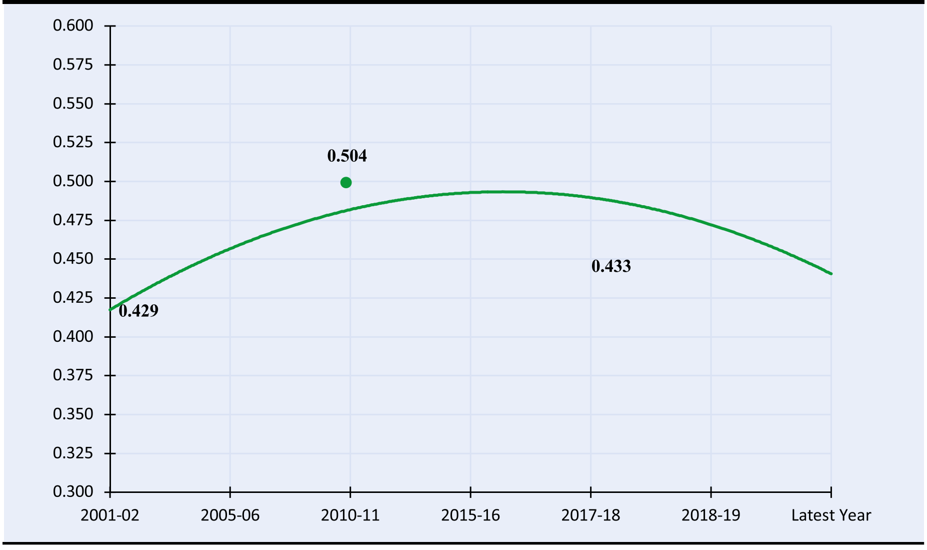
The previous chapters have highlighted some major findings about the Human Security Index of Pakistan both over the years since 2001-02 and in comparison to countries at a similar stage or at the next stage of development.

12.1 The Major Findings

The findings are as follows:

i. Over the years, the HSI trend has been an inverted U-shaped curve. It rose steadily from 2001-02 onwards to reach a peak in 2015-16, with a cumulative increase of 18.7%, as shown in Chart 12.1. Thereafter, it has been falling up to the latest years, 2020 to 2022. Consequently, over the two decades the HSI has increased only marginally by 1%.

Chart 12.1: The HSI Trend



ii. Eleven countries were included in the analysis of the magnitude of the HSI of Pakistan in relation to these countries. A positive finding is that Pakistan does better in the HSI ranking with respect to these countries than in the Human Development Index, HDI.

The ranking of Pakistan in the HSI is 9th out of the 12 countries, as compared to the 11th position in the HDI.

12.2 The Key Focus Areas for Improving the HSI

The critical elements of the findings are as follows:

i. In which components and sub-components of the HSI has there been a decline in the value of the index compared to the value in 2015-16?

ii. In which components and sub-components of the HSI does Pakistan fare poorly in comparison to the other eleven countries?

There is a need to identify reasons which explain the possible differences in the answers to the above two questions.

For example, Pakistan may show growth in a part of the HSI after 2015-16 but receive a low index value in comparison with other countries. This is explained by the fact that there has been some improvement, but it has not been adequate to catch up with other countries.

Alternatively, Pakistan may show a decline in part of the HSI over the years, but it may do comparatively well with respect to the other countries. This is attributable to an initially high absolute level in comparison with these countries.

Answers to the above two questions leading to the identification of HSI components and sub-components which require greater focus are presented in Chart 12.2.

Chart 12.2: List of Sub-Components Which Need Greater Focus

Sub-Components of the HSI, which shows bigger falls after 2015-16	Sub-Components of the HSI of Pakistan with respect to other Countries with a low Index Value of below 0.4
Common to Both Approaches	
• External Financial Vulnerability	• External Financial Vulnerability
• Territorial Security	• Territorial Security
• Governance	• Governance
• Energy Security	• Energy Security
In One Approach	
• Poverty	• Income per Capita

Chart 12.2: List of Sub-Components Which Need Greater Focus	
• Environmental Protection and Natural Disasters	• Education and Health
• Regional Disparities	
• Food Security	
TOTAL **8**	**6**

The next step is a comparison of the above list of components/sub-components with those identified as key focus areas in the National Security Policy of Pakistan for 2022-23, which has been described in Chapter 3. These priority areas are listed in Chart 12.2.

There are significant differences in the priority list for improving HSI in Chart 12.2 with those given in Chart 12.3.

Chart 12.3: Focus Areas for Improving Human Security in the National Security Policy, 2022-23 *Launched: January 14, 2022*	
Components	
FREEDOM FROM 'FEAR'	
• Health Hazards and Diseases	• Improving Preventive Healthcare and Instituting Pandemic Surveillance and Response Mechanism
• Environmental Protection and Natural Disasters	• Mainstreaming Climate Adaptation and strengthening Disaster Preparedness
	• Response to Water Scarcity by Improved Storage Capacity, Sustainable Water Management and Transboundary Water Rights
FREEDOM FROM 'WANT'	
• Food Security	• Ensuring Food Security by increasing Cultivable Land, adopting Climate Resilient Agriculture
• Shelter and Employment	• Promoting Rural Development and Decrease Urban Migration
• Employment	• Promoting Youth-Focused Policies to Promote Skills Development and Entrepreneurship
FREEDOM FROM 'INEQUALITY'	
• Gender Inequality	• Enabling participation of Women and Transgender persons in all Avenues of Public Life and Maximizing their Inclusion in Pubic Institutions and Decision-Making Forums

The biggest omission in the National Security Policy is External Financial Vulnerability, which currently poses the biggest threat to human security in Pakistan. Even when this policy was launched by the Prime Minister on the 14th of January 2022, the external financial position had visibly deteriorated. The current account deficit had greatly worsened in the period from July to December 2021, when the policy was being prepared. It had risen to over $9 billion, compared to a surplus during the period in July to December 2020. The next few months after December 2021 actually witnessed a massive fall in the foreign exchange reserves.

The other important missing area in the National Security Policy is the lack of recognition of the high level of poverty, which had increased significantly after the spread of the COVID-19 epidemic in Pakistan and, more recently, after the floods. However, there is full recognition in the policy of the need for territorial security, environmental protection and natural disasters, food security, gender inequality, shelter, and employment.

Based on the above key areas of focus for the improvement of HSI, the subsequent chapters are organized as follows:

Chapter 13: Strategy for Avoiding Default

Chapter 14: Charter of the Economy: The Financing Plan

Chapter 15: Policies, Reforms, and Laws for Higher HSI

The Chapter on the Charter of the Economy focuses on a comprehensive National Financing Plan for mobilizing in a progressive manner additional resources and achieving a prioritized cutback in different areas of public expenditure. The resources generated thereby can then be used to aggressively tackle poverty, raise health and education spending, and expand the development program in key areas like water resources by earlier completion of the major dams, forestation, etc. The implementation of the Charter of the Economy will also provide the necessary revenue cover to defense spending and thereby ensure higher territorial security.

Chapter: 13

STRATEGY FOR AVOIDING DEFAULT:

The Biggest Threat to Human Security

Pakistan today faces the worst economic crisis in its 75-year history. The overall HSI has plummeted down to 0.440. This is even lower than the magnitude as far back as 2010-11 of 0.459. The worsening of conditions is most acutely manifest in the drop in the index of freedom from 'fear,' which is down to 0.372, even below the level in 2001- 02. This is largely due to the cataclysmic drop in the index at the third level of external financial vulnerability, which now stands at 0.140. Therefore, the biggest short-run threat to human security is the risk of a default by Pakistan in its external debt repayments.

The numbers in Chapter 6 have highlighted the extent of vulnerability to default in the following ways:

i. The level of foreign exchange reserves as of end-February 2023 was $3.9 billion, not even enough to provide import cover for only one month. The 'safe' level of cover is at least three months.

ii. The reserves are equivalent to only 3.1% of the external debt of $126 billion. As such, they can only finance a minor part of the external financing requirements.

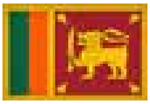
On top of this, Pakistan's relationship with the IMF remains effectively suspended. The completion of the 9th Review of the IMF has been pending for almost two months now. Meanwhile, Pakistan's credit rating with the major credit-rating agencies is down to near default level.

13.1 Implications of Default

The implications of default on the level of human security in Pakistan are horrendous. This will come, if it happens, a few months after the colossal damage caused by the floods, especially to agricultural output.

The countries that have defaulted in recent years are shown in Chart 13.1. They have witnessed a quantum depreciation of the exchange rate, which has led to runaway rates of inflation and a fall in the real size of the economy. The chain of reaction to default is shown in Chart 13.2.

Chart 13.1: Economy of Countries After Default

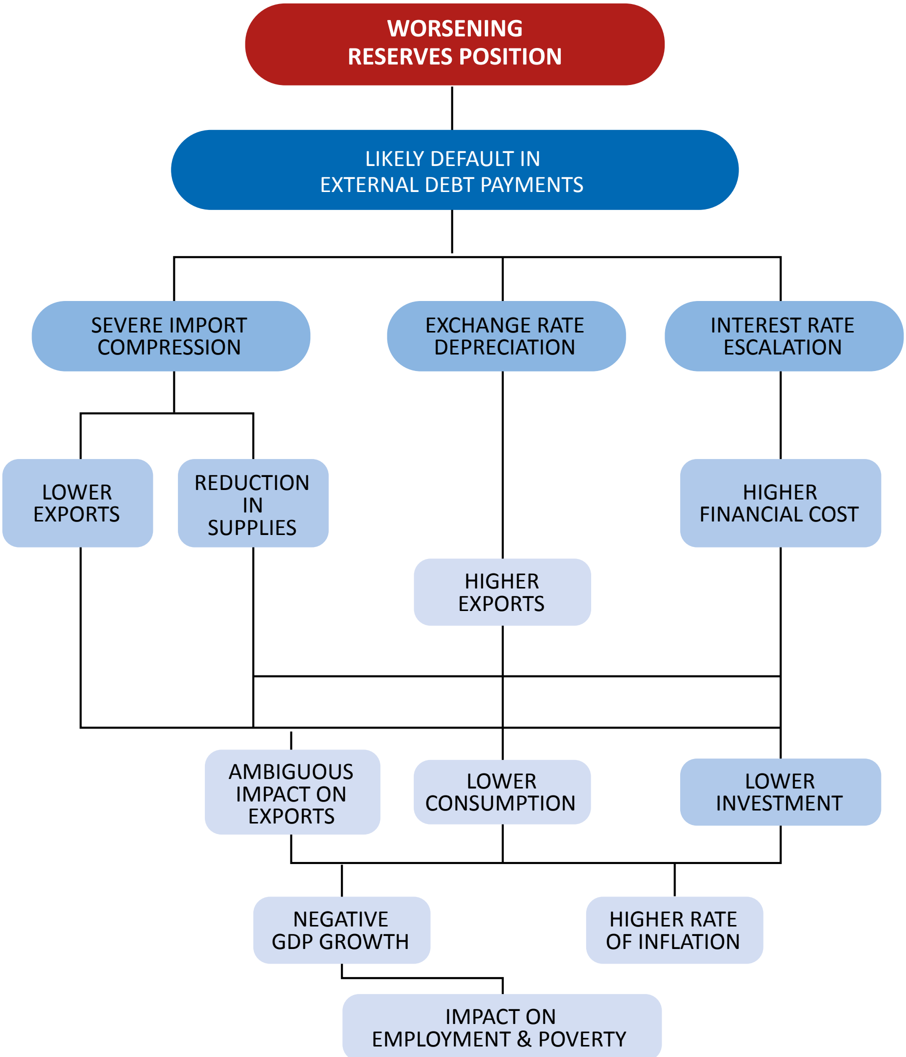
Countries		Year	GDP Growth Rate	Rate of Inflation
DEFAULTING COUNTRIES				
	Argentina	2020	-0.0	Very large
	Lebanon	2020	-14.2	119.8
	Ecuador	2020	-7.8	188.3
	Sri Lanka	2022	-11.0	64.1

The impact in the event of a default is across the board on the HSI. The index of freedom from ‘want’ is badly affected, first, by greater food insecurity. Energy security is threatened by the exponential increase in the tariffs of electricity and gas, along with substantially higher prices of petroleum products. The contraction in the size of the economy will inevitably lead to substantially greater unemployment and lower real wages.

The level of freedom from ‘inequality’ will also be adversely affected. Income inequality is likely to rise substantially, with unemployment impacting more the unskilled and self-employed workers and high food prices hitting more the income households.

The worst manifestation of the impact of the financial crisis will be on the level of poverty in the country, as shown in Chart 13.2. Almost 20 million more people have already fallen below the poverty line, and the overall incidence of poverty has risen to over 40% during 2022-23.

Chart 13.2: Consequences of Move towards Default



Based on the above dire consequences of a possible default by Pakistan, the utmost priority from the viewpoint of preserving human security is to avoid such a cataclysmic event.

There is the necessity of having the umbrella of an IMF program during this period of acute financial stress as this international financial institution is the ultimate *lender of last resort*. This will also require adherence to the monetary and fiscal policies agreed with the IMF.

13.2 Policy Instruments to Avoid Default

13.2.1 Promoting Import Substitution

The SBP has adopted various measures for restricting imports, like physical controls over import LCs, increasing import margin requirements, and a physical ban on some luxury imports.

However, the approach should be to promote import substitution by providing the necessary level of import tariff protection. It may perhaps come as a surprise that Pakistan has over-liberalized its imports. Over two decades ago, the maximum import tariff was 120%. After several downward moves, there are now four import tariff slabs of 4%, 11%, 16%, and 20%. Consequently, the average level of effective protection against imports has come down on average from 134% to 32%.

Further evidence of over-liberalization is provided by the fact that the average level of MFN import Tariffs in Pakistan is even lower than those prevailing in India and Bangladesh, as shown in Table 13.1.

Table 13.1: Level of MFN Import Tariffs in Pakistan, India and Bangladesh (as of 2021) *(%)*

	Agriculture	Industry	All
Pakistan	13.4	10.9	11.2
India	39.2	14.9	18.3
Bangladesh	17.6	13.4	14.0

Source: *World Tariff Profiles, WTO.*

The Table clearly indicates that for all types of items, Pakistan has significantly lower MFN tariffs than India and Bangladesh, even though the trade deficit of these two countries is much smaller than that of Pakistan.

Therefore, the appropriate policy for Pakistan is to move quickly towards a regime of higher import tariffs as follows:

		(%)
Import Tariff	Current	Proposed
Slab 1	3	5
Slab 2	11	15
Slab 3	16	22
Slab 4	20	30

This will not only provide more effective protection to domestic industry but will also correspondingly lead to higher import-based revenues and reduce the pressure on the budgetary position.

13.2.2 Intensive Use of Monetary Policy

The single most important instrument for achieving a degree of stability in the external balance of payments is the resort to a market-determined exchange rate policy. Pakistan has adopted such a policy from the end of January 2023 onwards. The rupee has depreciated by 26% since then. It has helped in reducing the current account deficit to only $74 million in February 2023, as compared to $519 million in the corresponding month of 2022.

The other instrument which will also need to be used aggressively is the policy rate of the SBP. This acts as the mechanism for signaling a general escalation in interest rates in the economy, which will help in reducing the level of aggregate demand in the economy and thereby restricting the demand for imports.

The combination of these two instruments will be necessary for stabilizing the economy and avoiding default. The likelihood of large inflows of foreign investment, commercial bank loans, and flotation of bonds is very low because of the increasingly negative international perceptions of the state of Pakistan's economy.

The BNU Macro-econometric Model has been used to project the external balance of payments and level of foreign exchange reserves in the second half of 2022-23 and 2023-24. The balance of payments module of the Model is shown in the Technical Annexure-I.

The model is simulated in a way whereby there is enough depreciation of the rupee and increase in the policy rate to ensure that the current account deficit is driven to zero in each of the two periods of the scenario, that is, the second half of 2022-23 and 2023-24 respectively.

The results of the model simulations are presented in Table 13.2.

Table 13.2: Balance of Payments Scenarios for the Second half of 2022-23 and 2023-24		
	2022-23 Second half Scenario	2023-24 Scenario
• GDP Growth Rate *(%)*	-2	-1
• Rate of Inflation (Average) *(%)*	32	30
• Current Account Deficit *($ billion)*	0	0
• Required Exchange Rate Depreciation	62	53
• Increase in Policy Rate *(% points)*	8.25	Nil
• Surplus in Financial Account	0	3.0
• Foreign Exchange Reserves *($ billion)*, End June 2023	5.6	8.6

The escalation of the policy rate is very high. By end-June 2023, the rupee will need to depreciate by 62% in relation to the level prevailing at the end of June 2022. The policy rate will be required to increase by 825 basis points during this period.

During 2023-24 Pakistan will need to negotiate a restructuring of its external repayment obligations, especially with bilateral and commercial lenders. Ideally, this should happen under the cover of a three-year new IMF program after June 2023.

The outcome in terms of the shape of the economy is inevitably negative, but it must be appreciated that it will be much worse in the event of default. The GDP growth rate is likely to be negative in the second half of 2022-23 and 2023-24 by one to two percentage points. Further, the inflation rate could rise to the historical peak of 30% to 32% on average.

The consequences of this grim scenario, though still not the worst-case scenario, will be a further fall in the national HSI. It stands at 0.440 as of end-December 2022. It could be down to significantly below 0.400 by June 2024, the lowest level since 2001-02.

Chapter: 14

CHARTER OF THE ECONOMY:
The Financing Plan

The current period of great adversity also provides an opportunity. Based first on efforts to avert default, the political leadership must move expeditiously to present a '**Charter of the Economy**' to the people of Pakistan. This will not only reduce the risk of large- scale unrest but also lead to the implementation of major structural reforms and to a more equal distribution of income, with a focus on poverty reduction. The rise in poverty has been shown to be one of the largest contributors to the decline in the HSI in recent years after external financial vulnerability.

The Prime Minister has once again appealed in his statement recently to the Senate, on the occasion of the Golden Jubilee celebration, for a broad political consensus on the contours of a strong *National Economic Action Plan* of the type that was launched against terrorism in December 2014. This plan was implemented successfully by the military through *Zarb-e-Azb,* and the incidents of acts of terrorism substantially reduced.

The objective of this Chapter is to highlight the financing plan of the *Charter of the Economy*.

14.1 Tax Reforms

The level of fiscal effort by the Federal and Provincial Governments of Pakistan has consistently been declining, as shown in Table 14.1.

Table 14.1: Trend in the Tax-to-GDP Ratio

Year	Federal	% of GDP	Provincial	% of GDP	Total % of GDP
2015-16	3377	10.4	284	0.9	11.3
2016-17	3647	10.3	322	0.9	11.2
2017-18	4065	10.4	401	1.0	11.4
2018-19	4071	9.3	402	0.9	10.2
2019-20	4334	9.1	414	0.9	10.0
2020-21	4764	8.5	508	0.9	9.4
2021-22	6142	9.2	612	0.9	10.1
2022-23	7200	8.5	684	0.8	9.3

Further, the incidence of taxes in Pakistan is regressive, as shown in Box 14.1. Therefore, it is imperative that a Tax Reform Program is implemented, which not only raises significantly the tax-to-GDP ratio but simultaneously also makes the tax system more progressive.

Box 14.1: The Incidence of Taxes in Pakistan

The incidence of federal taxes in Pakistan in 2020-21 has been quantified by Pasha [2022]. The tax burden by quintile is given below:

Quintile	Share of Income Tax	Share of Indirect Taxes	Share of Total Taxes	Share of Income	Ratio
1 (Highest)	64.0	42.6	49.9	51.5	0.969
2	15.5	21.3	19.1	19.8	0.964
3	7.5	15.7	12.9	12.8	1.008
4	7.4	11.9	10.2	9.6	1.063
5 (Lowest)	5.6	8.5	7.9	6.3	1.254

This leads to the incidence being higher on the lower two income quintiles relative to income by 6% and 25%.

The proposed targets are as follows:

Table 14.2: Target Tax-to-GDP Ratio

	Federal	Provincial	Total
Direct Taxes			
Current*	3.75	-	3.75
Increase	1.50	0.75	2.25
Target	**5.25**	**0.75**	**6.00**
Indirect Taxes			
Current	4.75	0.75	5.50
Increase	0.50	0.25	0.75
Target	**6.00**	**1.00**	**7.00**
Total Taxes			
Current	8.50	0.75	9.25
Increase	2.00	1.00	3.00
Target	**10.50**	**1.75**	**12.25**

Therefore, the target is to increase the national tax-to-GDP ratio by 3% of the GDP from the projected level of 9.25% of the GDP in 2022-23 to 12.25% of the GDP.

The bulk of the increase of 2.25% of the GDP is proposed indirect taxes. This will raise the share of direct taxes from 40% currently to almost 50% and make the tax system markedly more progressive.

Similarly, the incremental effort will be larger by the Provincial Governments. The Provincial tax-to-GDP ratio currently is only 0.75% which will need to be raised by 133% to 1.75% of the GDP. The Federal tax-to-GDP ratio will be targeted to increase to 10.25% of the GDP from 8.25% of the GDP.

The direct tax reforms proposed in the Financing Plan of the Charter are presented in Chart 14.1.

Chart 14.1: Tax Reforms by the Federal and Provincial Governments as part of the Financing Plan

		Potential Revenue (% of GDP)
DIRECT TAXES		
	Federal Governments	
1.	Conversion of Fixed and Final Taxes into Advance Tax and Merger of Income into Total Taxable Income	0.500
2.	More Progressive Corporate and Personal Income Tax	0.250
3.	Tax on Capital Gains on Land and Property Sales Irrespective of the Holding Period	0.250
4.	Advance Tax on Share Transactions	0.125
5.	Withholding Tax on Electricity Bills of Traders and large domestic consumers	0.250
6.	Reduction in Tax Credits and Exemptions	0.125
	TOTAL	**1.50**
	Provincial Governments	
1.	Higher rates of Agricultural Income Tax	0.375
2.	Higher assessed GARVs for Property Tax	0.375
	TOTAL	**0.75**
	OVERALL TOTAL	**2.25**

The indirect tax reforms are presented in Chart 14.2.

Chart 14.2: Indirect Tax Reforms by the Federal and Provincial Governments as part of the Financing Plan

	Potential Revenue (% of GDP)
Federal Governments	
1. More Cascading of the Import Tariff Structure	
2. Use of ITPs and 0.5% Handling Charge on Imports	0.25
3. Levy of Sales Tax on Import of Services on the 'Reverse Change' Principle	
4. Levy of Sales Tax on Retail Price of Consumer Durables and Non-essential Goods	
5. Broadening the Base of Excise Duty by Levy on Polluting Industries	0.25
6. Harmonization of the Sales Tax on Goods with Provinces of the Sales Tax on Services	
TOTAL	**0.50**
Provincial Governments	
1. Harmonization of the Sales Tax on Services with the Federal Sales Tax on Goods and its Broad-basing	0.25
TOTAL	**0.25**
OVERALL TOTAL	**0.75**

14.2 Enhancing Non-Tax Revenues

The yield nationally from non-tax revenues currently is 2.40% of the GDP. There is some scope for increasing revenues from these sources by 0.75% of the GDP. The proposed steps are listed in Chart 14.3.

Chart 14.3: Steps for Additional Revenues from Non-Tax Revenue Sources of the Federal and Provincial Governments

	Additional Revenue (% of GDP)
FEDERAL	
1. Inflation Indexation of the Petroleum Levy on Petroleum Products	0.125
2. Higher Levies on Domestic Natural Gas and Crude Oil	
3. Higher Profit Repatriation by the SBP	0.250
4. Higher Dividends by Increased Profitability of SOEs	0.125
TOTAL	**0.500**

PROVINCIAL	
1. Escalation in Water Charges (Abiana)	0.125
2. Escalation in Various Tolls and Service Charges	0.125
TOTAL	**0.250**
OVERALL TOTAL	**0.750**

In particular, there is a strong need for raising the irrigation water charges (Abiana) by the Provincial Governments, which are currently very low and cover only 8% of the O&M cost of the irrigation system, especially in Punjab and Sindh. A big increase is essential to prevent wasteful use of scarce water supplies.

Further, efforts should be made to increase the profitability and dividends of SOEs through privatization, efficiency improvements, and appropriate pricing policies. The extremely high-interest rates should also lead to a big increase in the flow of profits from the SBP to the Government. This has already happened in the first half of 2022-23.

14.3 Rationalization of an Economy in Expenditure

The level of public expenditure as % of the GDP has been consistently on the rise since 2015-16 up to 2021-22, as shown in Table 14.3. However, it is anticipated that it will decline by 1.5% of the GDP in 2022-23, which will help in containment of the size of the budget trends.

Table 14.3: Level and Composition of Public Expenditure by the Federal and Provincial Governments *(Rs in Billion)*

	2015-16	% of GDP	2018-19	% of GDP	2021-22	% of GDP	2022-23 (P)	% of GDP
A. COMBINED								
Current Expenditure	4694	14.3	7104	16.2	11521	17.2	13900	16.4
Debt Servicing	1263	3.9	2091	4.8	3182	4.8	5200	6.1
Defence*	758	2.3	1147	2.6	1411	2.1	1600	1.9
Others**	2673	8.1	3866	8.8	6928	10.3	7180	8.4
Development Expenditure	**1314**	**4.0**	**1241**	**2.8**	**1657**	**2.5**	**1600**	**1.9**
Total Expenditure	**6008**	**18.3**	**8345**	**19.0**	**13178**	**19.7**	**15500**	**18.2**
B. SEPERATELY								
Total Expenditure	6008	18.3	8345	19.0	13178	19.7	15500	18.2
Federal	3826	11.7	5489	12.5	8762	13.1	10800	12.7
Provincial	2182	6.6	2856	6.5	4416	6.6	4700	5.5

**does not include military pensions and expenditure on civil armed forces*
***includes subsidies, grants, pensions, costs of administration, etc.*

There are contrasting trends in the components of current expenditure. First, the cost of debt servicing has risen rapidly from 3.9% of the GDP to the likely level of 6.1% of the GDP in 2022-23.

Second, the level of defense expenditure, excluding pensions and the cost of civil armed forces, has fallen from 2.3% of the GDP to 1.9% of the GDP. Third, other current expenditures, consisting of expenditures on subsidies, grants, services, pensions, overhead costs, etc., have been the major component of current expenditure. The level has risen modestly from 8.1% of the GDP to 8.4% of the GDP.

The area of greatest concern is the sharp drop in the level of development expenditure. It has fallen in a big way from 4% of the GDP to only 1.9% of the GDP likely in 2022- 23. This has greatly restricted the rate of expansion in infrastructure and services and thereby limited the GDP growth rate of the economy.

Based on the above findings, the economy and rationalization of expenditure will have to focus on the cost of debt servicing and rationalization of subsidies and grants, along with a reduction in the cost of running both the Federal and the Provincial Governments.

Consequently, the proposals for expenditure rationalization are presented in Chart 14.4.

Chart 14.4: Proposals for Expenditure Containment

	Reduction (% of GDP)
FEDERAL GOVERNMENT	
1. Privatization of Loss-Making SOEs and reduction in contingent liabilities and subsidies of other SOEs, especially in the power Sector	0.500
2. 'Haircut' of Government Debt with Banks	0.250
3. Reduction in Non-Combat Defence Expenditure	0.125
4. Reduction in Non-Salary Expenditure of Government	
5. Rationalization of the Number of Ministries and Divisions	0.250
6. 'Zero Base' Budgeting of Attached Departments and Autonomous Bodies	
7. Extension of the Age of Retirement to 63 years	1.250
TOTAL	**1.25**
PROVINCIAL GOVERNMENTS	
1. Reduction in Non-Salary Expenditure	
2. Rationalization of the Number of Ministries/Departments	
3. Extension of Age of Retirement to 63 years	0.250
4. 'Zero Base Budgeting' of Provincial Agencies	0.250
TOTAL	**0.250**
OVERALL TOTAL	**1.500**

The above proposals have led to the identification and quantification of the additional resource mobilization and cuts in expenditure. These combined provide the 'fiscal space' for implementation of the strategy for enhancing the Human Security Index of Pakistan in line with the priorities identified in Chapter 12.

14.4 Summary of Targets

The salient features of the Financial Plan are described below in Chart 14.5.

Chart 14.5: Salient Features of the Financing Plan for the Charter of the Economy *(% of GDP)*

	Impact of Implementation of Financing Plan	
A. ADDITIONAL 'FISCAL SPACE'		
Higher Tax Revenues	**3.00**	
Federal	2.00	
Provincial	1.00	
Higher Non-Tax Revenues	**0.75**	
Federal	0.50	
Provincial	0.25	
Expenditure Cut	**-1.50**	
Federal	-1.25	
Provincial	-0.25	
Total 'Fiscal Space	**5.25**	
Federal	3.75	
Provincial	1.50	
	Impact of Implementation of Financing Plan	% Increase from Present Level
B. UTILIZATION OF THE 'FISCAL SPACE		**(% of GDP)**
Expenditure Increase in Pro-Poor Spending	**1.50**	**150***
Development Spending *(excluding social services)*	**1.00**	**85**
Spending on Social Sectors	**0.75**	**34**
Reduction in Budget Deficit	**2.00**	**-30**

**The present level of Pro-Poor Spending is given in Box 14.2.*

Box 14.2: Level of Pro-Poor Spending

Major Pro-Poor Expenditures by the Federal and Provincial Governments

(Rs in Billion)

	2020-21	2021-22	2022-23 (B.E)
• Cash Transfers (BISP)	246	362	400
• Social Security and Welfare (Provincial Governments	56	62	70
• Differential Subsidy on Electricity to Small Domestic Consumers	242	194	355
• Others *(PASSCO, USC, PBM)	32	40	37
TOTAL	**576**	**658**	**862**
(% of GDP)	**1.2**	**1.2**	**1.0**

Implementation of the Financing Plan will have major positive consequences, as follows:

i. It will enable a big increase in the level of poor spending by 150%. This will be tantamount to additional support of Rs 1275 billion[1] for the support of the poor at a time when it is most needed.

ii. Development spending has sharply contracted with respect to the GDP. It will become possible to raise it back to the level of almost 3% of the GDP, close to the level four years ago.

iii. One of the major findings of factors limiting the HSI in Pakistan, as identified in Chapter 12, is the low total public expenditure on education and health. It will become possible to raise it from 2.2% of the GDP to 3% of the GDP.

iv. Finally, the increased fiscal space will be used to bring down the budget deficit from over 6.5% of the GDP to 4.5% of the GDP. Very importantly, this will reduce the inflationary pressures and exert a restraining influence on the size of the external current account deficit and therefore help in sustaining foreign exchange reserves. It will lead to the generation of a primary surplus in the consolidated budget of over 1% of the GDP.

The subsequent chapter will specify in detail how the above potential developments can be used to maximize the positive impact on the HSI for the people of Pakistan.

1 At current GDP.

Chapter: 15

POLICIES, REFORMS AND LAWS FOR HIGHER HSI

The objective of this Chapter is to identify policies, reforms, and laws to improve sub-components of the HSI which have contributed more to the fall in the HSI after 2015-16 or are relatively low in comparison to other countries.

The presentation of the financing plan under the charter of the economy in the previous Chapter has quantified the additional resources that can potentially become available to achieve the improvements in these sub-components.

15.1 Alleviating Poverty

Following COVID-19 and the disastrous floods, there has been a quantum jump in the incidence of poverty to above 40% of the population. There is the risk that it could rise further in the coming months in the presence of severe inflation, especially of food items, and lead to widespread protests. Already, the estimated 'poverty gap' is Rs 1700 billion, equivalent to 2% of the GDP, as shown in Box 15.1. Cash transfers from the BISP are able to cover only 24% of this gap.

Box 15.1: Size of the Poverty Gap

The incidence of poverty in Pakistan is likely to have approached 40% of the population after the negative impact of the floods and earlier due to COVID-19.

Therefore, almost 12 million households are below the poverty line today, based on the cost of meeting minimum basic needs, especially nutrition.

The poverty gap is the difference between the poverty line and the actual income of a typical household. This gap is estimated at Rs 11,820 per household, with the poverty line at Rs 40,500 per month.

Therefore, the total estimated poverty gap for the 12 million households is Rs 1702 billion in 2022-23. The cash transfers to poor households during the year are projected at Rs 400 billion. This is equivalent to only 24% of the national poverty gap.

Implementation of the Financing Plan can lead to an increase in public pro-poor spending from 1% of the GDP to 2.5% of the GDP. This is a sizeable increase and will enable the launching of various initiatives for generally tackling poverty and for improving the welfare of special underprivileged groups in the population. These initiatives are described in Chart 15.1.

The proposed size of BISP transfers is 1% of the GDP, equivalent to Rs 850 billion, with the 2022-23 GDP. This will represent an increase of over 112% in relation to the budget size of the BISP for 2022-23. Currently, the cash transfer is Rs 7500 per quarter for an eligible household, and seven million households are covered. With the increase in the size of the BISP, it will be possible to double the cash transfer to Rs 15,000 per quarter and cover the 13 million poor households. There will be some significant amount left for other-directed transfers.

Chart 15.1: The Under-Privileged in Pakistan and Policies/Program/New Laws for Support

Typed	Number (million)	Policies/Programs of Federal and Provincial Governments	Annual Outlay (% of GDP)
THE POOR	**92.0**	• Enhanced cash transfers with wider coverage through BISP; Special Incentives for sending child to school and nutrition	**1.000**
SMALL FARMERS	**7.4.**	• Subsidized Credit, Lower Prices of Inputs through sales by USC stronger agricultural extension services	**0.375**
LESS SKILLED WORKERS	**10.0**	• Minimum wage raised to Rs 35,000 per month with tax credit to employers; Changes in Collective Bargaining Law to Facilitate Trade Unionization; Participation in Pension Scheme of EOBI with Provincial Subsidy	**0.250**
'IDLE' YOUTH	**18.0**	• Special Program of Technical and Vocational Training, including IT; Start-up funding for small projects; Rural Employment Guarantee Scheme	**0.250**
SME'S		• Subsidized Access to Credit; Technical Support by SMEDA; lower electricity tariffs and taxes	**0.250**
DISABLED, MINORITIES, TRANSGENDER	**7.5**	• Specially Designed and Targeted Programs	**0.125**
FEMALE WORKERS		• Laws for Equal Access to jobs and Equal Pay; Tax Credit to Employers for hiring females; Setting up putting out systems for rural females; Quotas in Public Services	**0.125**
CHILD WORKERS	**3.0**	• Law Banning Child Work; Support to Households through BISP	**0.125**
TOTAL ANNUAL OUTLAY			**2.50**

The strategy for poverty also focuses on raising employment and achieving higher income and more inclusive growth. As such, there are measures proposed for supporting small farmers and SMEs. Also, laws are proposed against discrimination of female workers in the labor market and for banning child work.

The National Security Policy has identified the need for productive engagement of youth by enabling skill development and entrepreneurship. This has been reflected in the allocations in Chart 15.1. It is a formidable problem because, as shown in Box 15.2, there are almost 19 million 'idle' youth in Pakistan, with 7.9 million males and 10.9 million females.

Box 15.2: The Youth Bulge: Blessing or Curse?

The youth population of Pakistan has increased by 63% between the last two Population Census as compared to the 57% increase in the total population. There are youth, male and female, aged 15 to 29 years, in the population of 64 million. The positive side is the low dependency ratio in Pakistan and the relatively better education, and the greater energy that these youth bring.

However, this could emerge as a serious problem if the large population of youth is not engaged in productive activities. This requires an estimation of the number of 'idle' youth in the country, which is done below:

Number of 'Idle' youth

	2008-09	2020-21	Growth Rate (%)
Male	5.6	7.9	2.9
Female	8.4	10.9	2.2
Total	14.0	18.8	2.5

Source: *LFS, PBS*

Given the adverse conditions, the number of 'idle' youth is likely to have reached 20 million in 2023, over 30% of the total population. The threat to security lies in the inclination of some youth to crime, totalitarianism and violation of civil laws.

15.2 Territorial Security

The fall in the index of territorial security is the third largest contributor to the decline in the HSI in Pakistan in recent years. This is attributable to the fall in the level of defense expenditure as a percentage of the GDP. In addition, there is the sustainability issue of even the somewhat reduced level of defense spending because in the ongoing financial year of 2022-23, it is likely to be entirely financed by government borrowing. Therefore, if Pakistan is to convert the primary deficit into a primary surplus, there will have to be substantial containment of federal expenditure, excluding debt servicing. Inevitabley, since defense expenditure is the largest item in this type of expenditure, efforts will have to be made to limit this expenditure.

The financing plan under the new social contract, which is described in Table 13.1, proposed enough additional revenue mobilization and expenditure to generate a significant primary surplus from 2023-24 onwards. This will ensure that 80% or more of defense expenditure will be financed by net revenue receipts after covering debt servicing. Further, the financing plan proposes a big expansion in expenditure on health and education, especially by the Provincial governments. This will significantly improve the balance between the social sector and defense spending.

15.3 Environmental Protection

Environmental protection has been accorded high priority in the National Security Policy, as follows:

> 'Mainstreaming climate adaptation and strengthening robust disaster preparedness, management, and response mechanisms.'
>
> 'Developing a cohesive response to looming water scarcity through improved storage capacity, sustainable water management and protecting transboundary water rights.''

The Environmental Sub-Component of the HSI has revealed a significant fall in forest area, higher incidence, and cost of natural disasters.

The Financial Plan implementation under the Charter of the Economy creates enough fiscal space to enable an increase in the combined level of development spending, excluding social services, by the Federal and Provincial Governments from 1.2% of the GDP to 2.2% of the GDP, an increase in absolute terms of Rs 850 billion, based on the GDP of 2022-23.

Both Federal and Provincial Governments will need to accord the highest priority to the above type of projects in incremental PSDP allocations. In particular, development and better management of water resources will need to be accorded the highest priority by the Federal Government by faster completion of the Dam projects. The pace of construction is slow if the present low allocations of funds continue on these projects, as shown in Box 15.3.

Box 15.3: Cost and Federal PSDP Allocations to Major Dam Projects *(Rs in Billion)*

Project	Cost	Throw-forward	Allocation in 2022-23 PSDP	Annual Rate of Completion* (%)
1. Diamer-Bhasha Dam Project	655	757	27	5.7
2. Mohmand Multi-Purpose Dam Project	310	256	12	4.7

The allocation in 2022-23 is too small, and at this rate, the projects will take up to 20 more years to be completed.

15.4 Education and Health

The process of achieving higher human development is an integral part of promoting the human security of the people of Pakistan for achieving higher living standards and reducing the vulnerability to negative shocks.

The Statistical Annexure on HSI Indicators of Selected Countries shows that Pakistan has the lowest ranking among the twelve countries in expenditure on education and health. Within this low level of expenditure, the changing priorities are shown in Box 15.4.

Box 15.4: Changing Priorities in Education and Health Expenditure

EDUCATION	**2015-16**	**2020-21**
BY LEVEL	***Expenditure in Education (% Share)***	
Primary	35.0	32.3
Secondary	31.5	35.0
General Universities / Colleges	19.0	15.5
Professional & Technical Universities / Colleges	5.4	5.7
Technical and Vocational Education	1.5	1.2
Others	7.6	10.1
BY TYPE		
Current	84.6	88.2
Development	15.4	11.8
HEALTH	**2015-16**	**2020-21**
BY TYPE	***Expenditure in Health (% Share)***	
Curative Health	67.7	43.0
Mother and Child	0.3	1.5
Preventive Health	9.7	31.8
Others	**22.3**	**23.2**
Current	69.6	81.3
Development	30.4	18.7

The development expenditure share has declined in both services. This has limited the rate of expansion in the coverage of these services.

Box 15.4 shows that the share of education expenditure at the primary level has declined. This is despite the high percentage of out-of-school children. Similarly, not only is the share of vocational education very low, but it has also declined.

The pattern of expenditure on health has evolved in the right direction, with a rising share of preventive health. In both services, the rate of expansion in coverage has visibly slowed down.

Implementation of the Financing Plan will enable an increase of almost 0.75% of the GDP in expenditure on health and education. As emphasized in the National Security Policy, there is a need to allocate more resources for strengthening disease surveillance and instituting epidemic response mechanisms. Also, there is a need for improvement in the network and quality of schools. Further, a moratorium needs to be imposed on the establishment of new general universities, as graduates and undergraduate entrants into the labor force have a very high unemployment rate of over 25%. Instead, the focus should be on the establishment of a network of IT Institutes to promote exports.

15.5 Gender Inequality

The sub-component in the HSI relating to gender inequality has shown some improvement since 2015-16 by 1.2%. However, Pakistan has the worst ranking among the twelve countries in gender inequality.

The evidence points primarily to differences in the labor market between female and male workers, as follows:

i. The labor force participation rate is relatively low at 31% of males. For example, this rate was 21% for females and 68% for males in 2020-21.

ii. The unemployment rate is substantially higher for females at over 63% more than that of males. For example, in 2020-21, the unemployment rate for females was 8.9%, while it was 5.5% for male workers.

iii. There are big differences in wages in the same occupation between female and male workers, with the latter receiving significantly higher wages. For example, female professionals, on average, receive only 70% of the remuneration of male professionals.

The time has come to take strong affirmative action in the labor market for females. This will include the following:

i. Similar to job quotas among the provinces for entry positions into different public services, there should also be a national quota for women in these jobs.

ii. A law should be enacted by each Provincial Government where equal access and equal pay be ensured for women, especially in the private sector.

iii. As an incentive, an employer may be given a tax credit of 10% on the annual increase in wage and salary payments to female employees in the establishment.

15.6 Food Security

Food prices have escalated by 50% from March 2022 to March 2023. This reflects supply shortages due to the damage inflicted on standing crops and loss of livestock by the floods. Further, with a large depreciation of the rupee, the prices of basic imported food items have also gone up sharply.

A critical problem that has emerged is the depletion of wheat stocks. According to the 2021-22 Pakistan Economic Survey, the wheat stocks were only 1.8 million tons as of the end of May 2022 as compared to over 8 million tons in June 2021. This ought to have led to a high level of imports during 2022-23. The actual quantity imported is 2.2 million tons from July 2022 to February 2023, as compared to over 3.3 million tons during the same period in 2020-21.

The supply shortage and, consequently the escalation in the price of the staple food item, wheat flour, has led to a very big increase in its price of almost 70% from March 2022 to March 23. The government has offered a free wheat bag to BISP members during the month of Ramadan, but this has led to deaths due to trampling of the queues. This modality of distributing wheat needs to be abandoned.

There is a need for a number of major steps to increase food security, as follows:

i. As recommended above, following the implementation of a big increase in the size of the BISP, there should be an increase in the cash transfers to enable the purchase of wheat flour by poor households at higher prices.

ii. Despite the foreign exchange shortage, top priority must be given to importing urgently at least another 3 million tons of wheat.

15.7 Energy Security

Pakistan today faces the problem of very high energy prices. Recently, the tariffs for domestic, commercial and industrial consumers have been raised by 60% to 100% in the case of natural gas and by 40% to 60% in the case of electricity.

The other growing problem is the increasing inability to import energy to the extent required due to the severe shortage of foreign exchange. Consequently, power load-shedding is likely to peak once again in the coming months while gas supplies remain restricted.

The level of petroleum prices has gone up substantially during the last year due to the ongoing large rupee devaluation and the imposition of a large petroleum levy of Rs 50 per liter. As the international oil prices rise following the OPEC quotas, there will be a continuing increase in domestic POL prices.

The options are limited in the short-run, but for greater energy security in the medium run the following steps will need to be completed:

i. Switch to power generation by renewable energy from wind, water and solar sources. In particular, as highlighted already, the process of construction of various dams will have to be given top priority by big increases in PSDP allocations to increase the share significantly of renewable hydel power.

ii. Concerted efforts will have to be taken to conserve energy by appropriate changes in timings in markets, offices, and other public places. The local administrations will have to effectively discharge the responsibility of ensuring adherence to these timings.

iii. Efforts will have to be made by NTDC and the DISCOs to minimize transmission, distribution and billing losses. The option of provincializing the management of DISCOs may be explored. This is the case with the States in India.

iv. Big incentives may be offered for oil and gas exploration in the country.

15.8 Regional Disparities

The earlier chapters have clearly highlighted the falling behind of Balochistan in terms of the growth rate of per capita income. Today, the province has a real per capita income which is 30% less than the national average. Fifteen years, it was only 11% less than the average for the country.

The process of growth in the Province has been restrained by the emerging shortage of water for agriculture, a process of deindustrialization over the last two decades, depressed construction activity, depletion of gas reserves, an underdeveloped financial sector, and limited coverage of infrastructure and services in the presence of very land density of population, which is one-seventh of the national average. Also, the security situation is relatively fragile.

The 7th NFC did recognize the low population density of the Province, and in the horizontal share among the four Provinces, weight was given to the inverse of the population density. But the weight was very small, as shown in Box 15.5, of only 2.7%.

Box 15.5: The NFC Awards

The Seventh NFC Award, which was announced in 2009-10, is still operational. According to this Award the horizontal share of the four Provinces from the Federal Divisible Pool of Taxes is based on the following weights:

	Percentage
Population	82.0
Backwardness	10.3
Revenue Collection	5.0
Inverse Population Density	2.7

The resulting shares of the Provinces are as follows:

	Percentage
Punjab	51.74
Sindh	24.55
Khyber-Pakhtunkhwa	14.62
Balochistan	9.09

Balochistan gets a higher share than its population share because of more backwardness and much lower population density.

Therefore, there is a well-defined need to ensure the strength of the Federation of Pakistan by ensuring that there is more rapid growth in Balochistan and it emerges from a period of negative growth in real per capita income and extremely high incidence of poverty of over 70%.

The following steps need to be undertaken:

i. During the deliberations of the 10th NFC, efforts must be made to arrive at a consensus whereby the share in the horizontal sharing formula of inverse land density is increased from 2.7% to 5%.

ii. There was a time when big fiscal incentives in income tax and import duties were given for the location of new investments in the province of Balochistan. These should be fully restored.

iii. Balochistan is surplus in the generation of electricity, yet it experiences a relatively high level of load shedding. There is a need for improvement in the power distribution system.

iv. Federal support should be forthcoming to Balochistan in the form of joint investment in highways, water resources and oil/gas exploration. Federal funds should be diverted from projects in other Provinces to Balochistan.

There is a need once again to emphasize that from the viewpoint of national security and strengthening of the Federation, faster development of Balochistan must be accorded the highest priority.

15.9 Governance and Democracy

The list of comprehensive reforms in governance and functioning of democracy is given below:

'Good' Economic Governance

- Enhanced and more effective role of the Constitutional Forum, the National Economic Council (NEC), with the Planning Commission as the Secretariat.
- More active role of the Constitutional forum, the Council of Common Interests (CCI), on matters related to Federal Legislative List-II.
- 'Top-down' planning should be replaced with 'bottom-up' planning, which is more in line with the Federal structure of Pakistan.
- Improvements in the Economic Information System with regular preparation and dissemination of estimates of quarterly GDP series and Provincial Income Accounts.

Voice, Transparency and Accountability

- Establishment of an Information Commission as per the provisions of the Right of Information Act of 2010 so as to facilitate greater public access, especially to Government financial transactions.
- The National Accountability Bureau must be required to submit an Annual Report to the Parliament.
- The MOF website must place the latest financial report of each SOE. The FBR must release an annual report on the latest position of tax expenditures, that is, the revenue losses due to tax exemptions, concessions and reliefs.

Strengthening Regulatory Agencies

- The Competition Commission may be endowed with the legal powers of a Consumer Court of the type in India.
- The SBP may revert to the practice of preparation of an Annual Credit Plan with sectoral targets.
- NEPRA must play a stronger role in regulating the power sector by ensuring the merit order of plants, timely adjustment of power tariffs, and focus on system losses to limit the growth in circular debt.

- Local Price Control committees under the Deputy Commissioner must be revived.

Ease of Doing Business

- Transition to a *digital economy.* Government agencies must take the load in the digitalization of a wide range of transactions.
- Rationalization of small withholding taxes.

Strengthening the Federation

There is a need for full implementation of the 18th Amendment as follows:

- Small Divisions can be merged with larger Divisions in the Federal Government. This will bring down the number of divisions by over a dozen.
- Vertical Federal programs related to functions in Federal Legislative List-II should be financed jointly by the Federal and Provincial Governments. This includes Federal spending on health, higher education, and population planning.
- Management of Regulatory Functions is in FLL-II. Therefore, all boards of Regulatory Agencies must have representation of each Province. The Annual Report of each Agency should be reported to the CCI.
- Labor-related functions have been transferred to Provincial Governments in the 18th Amendment. Therefore, the EOBI and revenues of the Workers' Welfare Fund (WWF) may be transferred to these Governments with an appropriate sharing formula, like collection.

Rightsizing the Federal Government

Devolution of functions to Provincial Governments after the 18th Amendment has not led to a significant contraction in the Federal Government. The employment in the Secretariat, autonomous bodies, and attached departments is almost 1 million. There are 40 Divisions and 33 Ministries. The State-Owned Enterprises (SOEs) imposed a big net burden of Rs 1525 billion on the Federal Budget in 2021-22.

The recommendations include the following:

- Undertaking exercise on 'zero-base' budgeting of attached departments and autonomous bodies.
- Privatization of SOEs as per the recent Triage Report of MOF, highlighted in Chapter 14.

Consensus on the 10th NFC Award

The 7th NFC Award had a tenure up to 2014-15. However, it continues to the operative because of the failure of the 8th and 9th NFCs to achieve consensus on an Award. The 10th NFC has recently been constituted. Progress may be facilitated by the following:

The methodology of the National Resource Picture and initial allocation of funds to priority functions used by the 5th NFC should be adopted by the 10th NFC.

The weight attached to population density should be increased from 2.7% to 5% to specifically benefit the Province of Balochistan.

Items (d) to (h) in the TOR of the 10th NFC should be included in the Award. There is significant scope, as per the Constitution, for sharing common functions, and the 10th NFC may specify the cost-sharing formula among the Federating Units in different functions.

Devolving to Local Governments

The Article 104A in the 18th Amendment has recognized local government as the third tier of Government to be adequately endowed with political, administrative, and financial authority and responsibility. Recommendations for successful devolution to these governments are as follows:

i. The ‘subsidiarity’ principle should be adopted in the allocation of functions to local governments.

ii. From the viewpoint of an effective role, the ideal form may be a ‘two-tiered’ local government with the top tier having the capacity to deliver services and collect revenues while the lower tier is small enough to ensure peoples’ participation in the choice of services and accountability in the delivery of services.

The allocation of taxes to local governments should be motivated by the need to link taxation to benefits, thereby increasing the willingness to pay taxes. As such, the property tax and the local rate should be allocated to local governments. Collection responsibility should rest with the top tier of local government.

PART IV

REGIONAL HSI
IN PAKISTAN

Chapter: 16

THE PROVINCIAL HUMAN SECURITY INDEX

There is a dire need for construction of a Human Security Index at the Provincial Level in Pakistan. Following the fundamental changes to the Constitution through the 18th Amendment, many more functions have been transferred to Provincial Governments. Simultaneously, the 7th NFC Award transferred a substantially larger share of federal revenues to these Governments.

The Provincial Governments now play a key role in ensuring human security to the population within their respective jurisdictions. This includes the provision of basic services like law and order, justice, education, health, water supply and sanitation and roads. They are also responsible for policy and project interventions, especially in the area of agricultural development and natural resources.

This chapter is organized as follows. There is first a summary of the number of indicators in each component of the Provincial HSI. This is followed by a listing of these indicators, the sources of data, and the latest year for which relevant data is available. Efforts are made to highlight the inter-provincial disparities in some key indicators. The next section presents the provincial index values in the four components of the HSI, namely, freedom from 'fear,' freedom from 'want,' freedom from 'inequality', and governance. The last section then highlights the magnitudes in major groups in the HSI in each province.

16.1 The Number of Indicators

The number of indicators in different parts of the HSI are presented in Table 16.1, along with the sources of data and the latest year for which information is available.

Table 16.1: Indicators in the Provincial HSI		
	Group	Number of Indicators
1.	**Freedom from 'Fear'**	**12**
	Extent of Self-Reliance	3
	Personal Safety	6
	Environmental Protection	3
2.	**Freedom from 'Want'**	**48**
	Income	3
	Food Security	6
	Employment and Wages	7
	Energy Security	5
	Shelter	10
	Education	5
	Health	3
	Women	6
	Children	3
3.	**Freedom from 'Inequality'**	**14**
	Inequality	2
	Intra-Provincial Disparity	2
	Poverty and Social Protection	3
	Gender Inequality	7
4.	**Governance**	**4**
	TOTAL	**78**

As shown in Table 16.2, as many as 78 indicators have been identified for construction of the HSI. This is a diverse group and highlights different dimensions of human security in the provincial context.

Table 16.2: List of Indicators				
	Group/Indicator		Latest Year	Source of Data*
1.	**FREEDOM FROM 'FEAR'**			
	EXTENT OF SELF-RELIANCE			
	1.	Provincial Own-Revenues as % of GRP	2021-22	MOF, FO
	2.	The extent of Self-Financing of Provincial Expenditure	2021-22	MOF, FO
	3.	Trade Deficit as % of GDP	2019-20	Pasha (2022)
	PERSONAL SAFETY			
	1.	Law and Order Expenditure as % of GRP	2020-21	MOF, PRSP
	2.	Per Capita Expenditure on Law and Order	2020-21	MOF, PRSP
	3.	Number of Terrorist Attacks	2020-21	PIPS
	4.	Number Killed in Terrorist Attacks	2020-21	PIPS
	5.	Incidents of Crimes per 1000 Population	2019-20	SYB, PBS
	6.	Number of Accidents per million Population	2019-20	SYB, PBS
	ENVIRONMENTAL PROTECTION			
	1.	Extent of Forest Area	2020	PSY
	2.	Growth Rate of Forest Area	2020	PSY
	3.	Irrigated Area as % of Cultivated Area	2020	PSY
2.	**FREEDOM FROM 'WANT'**			
	INCOME			
	1.	Per Capita Gross Regional Product at Constant Prices	2020-21	Pasha (2021)
	2.	Per Capital Gross Regional Income at Constant Prices*	2020-21	Pasha (2021)
	3.	Per Capita Household Income	2018-19	HIES
	FOOD SECURITY			
	1.	Per Capita Food Crop Production	2015-16	Pasha (2018)
	2.	Per Capita Livestock Production	2015-16	Pasha (2018)
	3.	Food Expenditure per Adult Equivalent	2018-19	HIES
	4.	Relative Prices of Basic Food Items	2022	PBS
	5.	Production as % of Consumption of Basic Food Items	2018-19	PBS/HIES
	6.	% of Very Food Insecure Population	2019-20	PSLSMS
	EMPLOYMENT AND WAGES			

Table 16.2: List of Indicators

	Group/Indicator	Latest Year	Source of Data*
1.	Labor Force Participation Rate (%)	2020-21	LFS
2.	Unemployment Rate	2020-21	LFS
3.	% Employment in the Informal Sector	2020-21	LFS
4.	% Employees	2020-21	LFS
5.	Skill Premium	2020-21	LFS
6.	% of Marginal Workers in the Augmented Labor Force	2018-19	LFS
7.	Relative Wage in Public vs Private Sector	2020-21	LFS
ENERGY SECURITY			
1.	Per Capita Electricity Consumption	2021	NEPRA
2.	Incidence of Power Outages	2021	NEPRA
3.	Per Capita Gas Consumption	2019-20	PSY
4.	Electricity Generation as Ratio of Consumption	2021	NEPRA
5.	% of Electricity from Renewable Sources	2021	NEPRA/PBS
SHELTER			
1.	% of Housing with Pucca Roofs	2019-20	PSLSMS
2.	% of Housing Units with Pucca Walls	2019-20	PSLSMS
3.	% of Housing Units with only One Room	2019-20	PSLSMS
4.	% of Housing Units with Tap Water	2019-20	PSLSMS
5.	% of Housing Units with Electricity	2019-20	PSLSMS
6.	% of Housing Units with Gas	2019-20	PSLSMS
7.	% of Housing Units with Clean Fuel	2019-20	PSLSMS
8.	% of Housing Units with Flush toilet	2019-20	PSLSMS
9.	% of Housing Units with Solid Waste Disposal	2019-20	PSLSMS
10.	% of Owner-Occupied Housing Units	2019-20	PSLSMS
SOCIAL DEVELOPMENT – EDUCATION			
1.	Literacy Ratio	2019-20	PSLSMS
2.	Gross Enrollment Ratio – Primary	2019-20	PSLSMS
3.	Gross Enrollment Ratio – Middle	2019-20	PSLSMS
4.	Gross Enrollment Ratio – High	2019-20	PSLSMS

Table 16.2: List of Indicators

		Group/Indicator	Latest Year	Source of Data*
	5.	Public Expenditure on Education as % of GRP	2020-21	PRSP
	SOCIAL DEVELOPMENT – HEALTH			
	1.	Hospital Beds per Million Population	2020	PSY
	2.	Doctors per Million Population	2020	PSY
	3.	Public Health Expenditure as % of GRP	2020-21	PRSP
	STATUS OF WOMEN			
	1.	Female Labor Participation Rate	2020	LFS
	2.	Female Unemployment Rate	2020	LFS
	3.	% of Females with Pre-Natal Consultation	2020	PSLSMS
	4.	% of Females with Skilled Birth Attendants	2020	PSLSMS
	5.	% of Females with Post-Natal Consultation	2020	PSLSMS
	6.	Female Literacy Rate	2020	PSLSMS
	STATUS OF CHILDREN			
	1.	% of Out-of-School Children	2020	PSLSMS
	2.	% of Child Labor	2020	LFS
	3.	% of Children (1 to 2 years) Fully Immunized	2020	LFS
3.	**FREEDOM FROM 'INEQUALITY'**			
	INEQUALITY			
	1.	Modified PALMA Ratio of Household Income	2018-19	HIES
	2.	PASHUM Ratio of Income	2018-19	HIES
	INTRA-PROVINCIAL DISPARITY			
	1.	Inter-Division Inequality in HDI	2019-20	Pasha (2022)
	2.	Income Inequality between Urban and Rural Areas	2018-19	HIES
	POVERTY AND SOCIAL PROTECTION			
	1.	Level of Poverty	2015	UNDP
	2.	Public Expenditure on Social Protection and Anti-Poverty	2021	PRSP
	3.	% of Social Insurance and Gifts in Household Income	2019	HIES
3.	**FREEDOM FROM 'INEQUALITY'**			

Table 16.2: List of Indicators			
	Group/Indicator	Latest Year	Source of Data*
	GENDER INEQUALITY		
	1. Relative Labor Force Participation Rate	2020	LFS
	2. Relative Unemployment Rate	2020	LFS
	3. Relative Literacy Rate	2020	PSLSMS
	4. Relative Primary Enrollment Rate	2020	PSLSMS
	5. Relative Middle Level Enrollment Rate	2020	PSLSMS
	6. Relative Matric Enrollment Rate	2020	PSLSMS
	7. Relative Wage	2020	LFS
4.	**GOVERNANCE**		
	GOVERNANCE		
	1. Public Admin & Defence Sector as % of GDP	2016	Pasha (2018)
	2. Appeals Pending in High Court per 1 million population	2020	PSY
	3. Coverage of Police Stations	2020	PSY

**Inclusive of remittances inflows*

The values of the indicators and their conversion into indices are presented in the Statistical Appendix. Highlighted next are some areas of regional disparity.

16.2 Extent of Regional Disparity

The UNDP, in its National Human Development Report of 2020 for Pakistan, has quantified the Human Development Index of each Province. The estimates are given in Table 16.3 below.

Table 16.3: Human Development Index of the Provinces of Pakistan

	2006-07	% Deviation from National HDI	2018-19	% Deviation from National HDI	Cumulative Growth Rate (%)
Punjab	0.527	1.3	0.572	0.4	8.5
Sindh	0.529	1.7	0.574	0.7	8.5
Khyber-Pakhtunkhwa	0.491	-5.6	0.546	-4.2	11.2
Balochistan	0.470	-9.6	0.473	-17.0	0.6
Pakistan	**0.520**		**0.570**		**9.6**

Source: *UNDP [2020]*

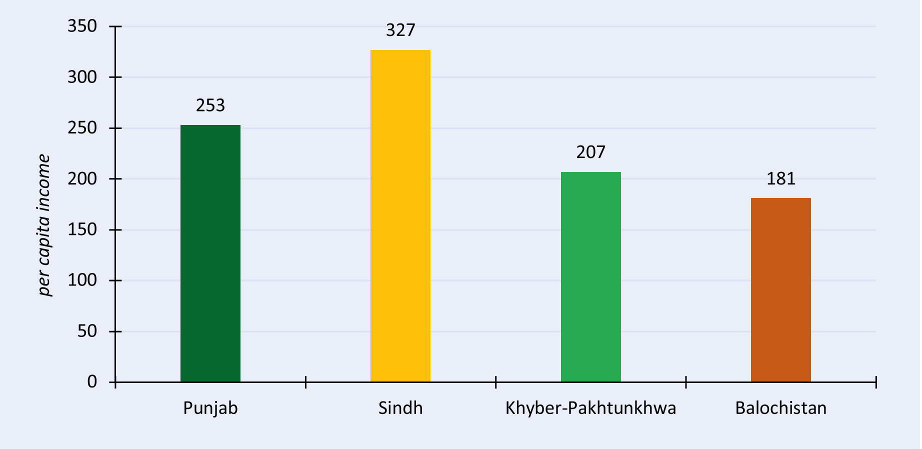
Table 16.3 highlights the following:

i. There are significant differences in the HDI of the four Provinces. While the two more developed provinces, Sindh and Punjab, are close to each other, the two smaller provinces are relatively underdeveloped, especially Balochistan.

ii. Khyber-Pakhtunkhwa has shown a faster rate of improvement and is beginning to catch up. However, Balochistan is falling further behind. There is a need to find the indicators in which it is more backward.

Turning to the HSI, the first key indicator is the level of per capita income of each Province, shown in Chart 16.1. This is the first-time regional disparities have been estimated in the context of Pakistan after the late 90s.

Chart 16.1: Per Capita Gross Regional Income by Province, 2020-21 *(Rs in '000)*



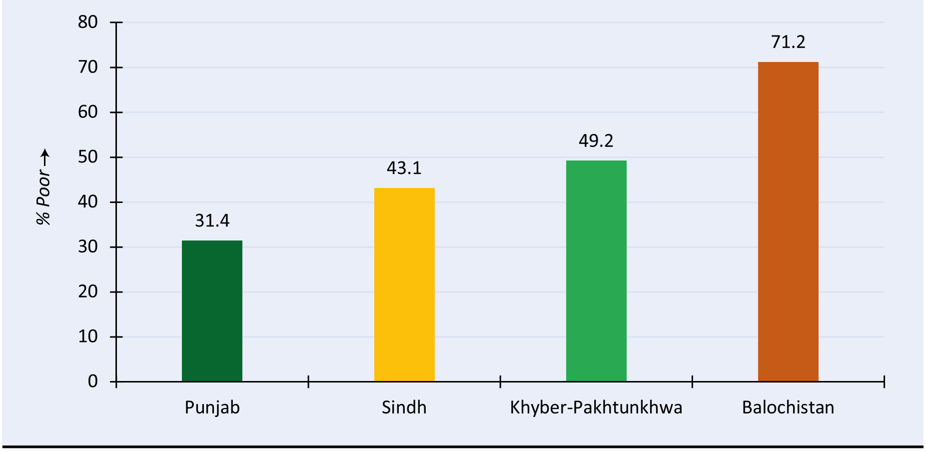
The estimated national average per capita income is Rs 264,000. Therefore, three provinces are below the national average, as shown below, while Sindh has a significantly higher per capita income.

Province	% Deviation from National Average
Punjab	-4.2
Sindh	23.9
Khyber-Pakhtunkhwa	-21.6
Balochistan	-31.4

This confirms the existence of major regional disparities in Pakistan.

From the viewpoint of the regional disparities, another key indicator is the variation in the incidence of poverty among the provinces. The last reliable estimate is for 2014-15, also by UNDP. The poverty measure used is multi-dimensional poverty. The province-wise estimates are given below in Chart 16.2.

Chart 16.2: Incidence of Poverty in Each Province, 2014-15 *(% of the population)*



Here, the findings are somewhat different than the disparities in per capita income. Sindh has a higher per capita income but has a higher incidence of poverty. This is consistent with the dualistic nature of its regional economy, where at one extreme is the highly developed primate city of Karachi and at the other extreme some very underdeveloped rural areas.

Balochistan, consistent with its relatively low per capita income, had a very high incidence of poverty of over 71%. Clearly, this province faces the biggest challenge of providing the basic rudiments of human security to its people.

16.3 The Provincial HSI

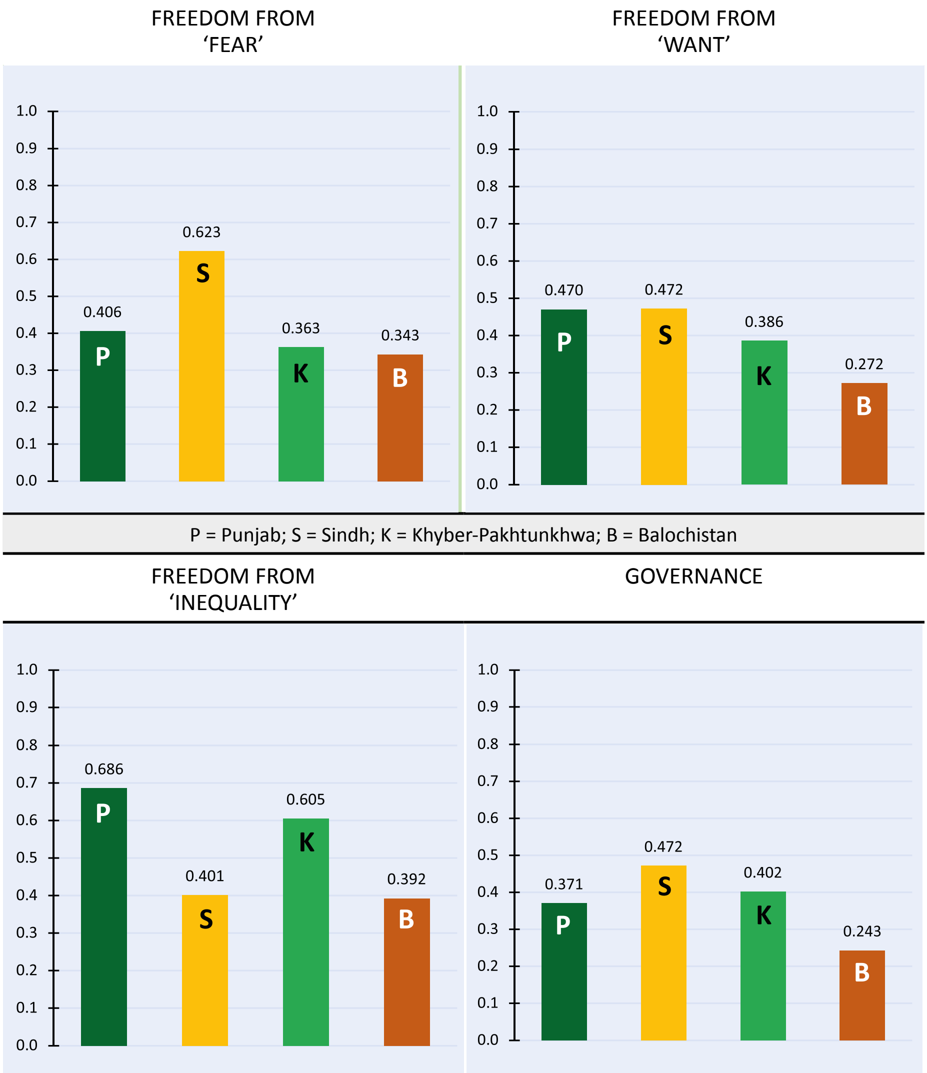
The derived provincial HSI is presented overall and by component in Table 16.4.

Table 16.4: The Provincial Human Security Index*	Punjab	Sindh	Khyber-Pakhtunkhwa	Balochistan
1. FREEDOM FROM 'FEAR'	0.406	0.623	0.363	0.343
• Extent of Self-Reliance	0.314	0.777	0.284	0.227
• Personal Safety	0.523	0.673	0.425	0.255
• Environmental Protection	0.405	0.461	0.397	0.390
2. FREEDOM FROM 'WANT'	0.470	0.472	0.386	0.272
• Income	0.508	0.589	0.339	0.200
• Food Security	0.612	0.439	0.296	0.414
• Employment and Wages	0.494	0.555	0.332	0.306
• Energy Security	0.304	0.362	0.254	0.211
• Shelter	0.373	0.613	0.404	0.299
• Education	0.492	0.319	0.578	0.313
• Health	0.281	0.449	0.443	0.211
• Women	0.662	0.519	0.345	0.290
• Children	0.700	0.485	0.621	0.266
3. FREEDOM FROM 'INEQUALITY'	0.686	0.401	0.608	0.392
• Income Inequality	0.618	0.393	0.708	0.576
• Intra-Provincial Disparity	0.704	0.316	0.757	0.784
• Poverty and Social Protection	0.707	0.458	0.654	0.151
• Gender Inequality	0.721	0.456	0.392	0.347
4. GOVERNANCE	0.371	0.472	0.402	0.243
OVERALL HSI	0.469	0.485	0.430	0.307

**Due to the non-linear technique adopted for aggregation of indicators, they cannot be aggregated by using population weights.*

We are also now in a position to highlight the regional disparity in each dimension of human security among the four Provinces of Pakistan. The indices for different dimensions are presented in Chart 16.3.

Chart 16.3: Provincial Indices in the Four Dimensions the HSI



Some important conclusions emerge from the above charts as follows:

i. The Province of Punjab has to focus especially on freedom from 'fear' and 'want'. It performs well in the index of inequality.

ii. Sindh performs well in freedom from 'want' because of its greater self-reliance and better balance of trade. However, inequality is at a peak in this province, and fiscal policies, in particular, will have to be very progressive.

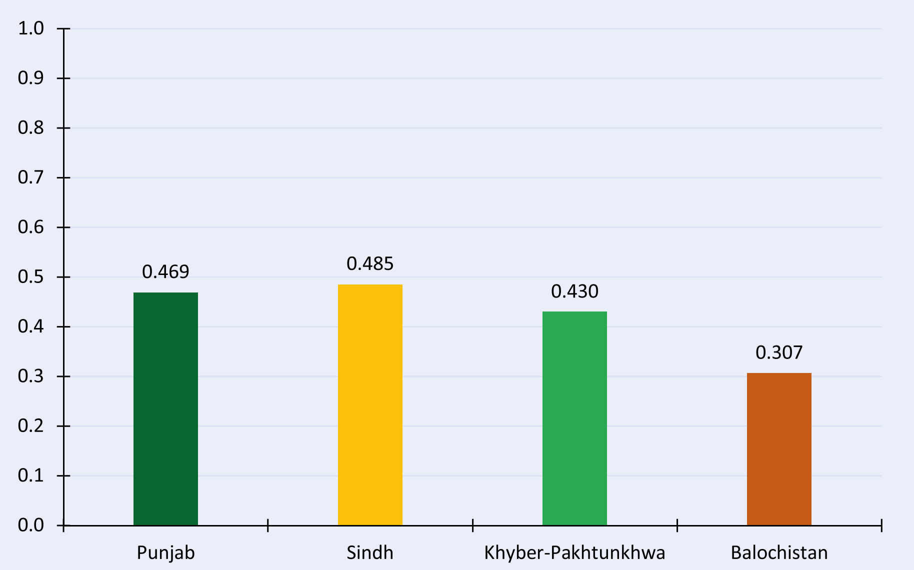
iii. Khyber-Pakhtunkhwa is also characterized by a relatively low level of inequality, but it has to work strongly towards achieving greater freedom from 'fear' and 'want'.

iv. Balochistan does poorly in all dimensions. As highlighted earlier, this province faces the biggest challenge to raise the HSI for its people.

v. The performance of all Provincial governments is generally poor in the area of governance.

The final HSI value, inclusive of all the dimensions, is shown in, the chart 16.4 below.

Chart 16.4: The Overall HSI of each Province



All four HSI are low at below 0.5. Sindh, as expected, has the highest HSI, followed closely by Punjab and Khyber-Pakhtunkhwa. Balochistan remains with a low HSI and will need the greatest support to improve its HSI.

16.4 Strategy for Increasing the Provincial HSI

The six most backward components in the HSI of each Province are shown in Table 16.5. It provides insights into the appropriate strategy of each Provincial Government to raise the HSI of its Province.

Table 16.5: Six Relatively Low* Components of the HSI by Province			
PUNJAB		SINDH	
Components	Index Value	Components	Index Value
• Health	0.281	• Intra-Provincial Disparity	0.316
• Energy Security	0.304	• Education	0.319
• Extent of Self-Reliance	0.314	• Income Inequality	0.393
• Governance	0.371	• Energy Security	0.362
• Shelter	0.373	• Food Security	0.439
• Environmental Protection	0.405	• Health	0.449
PROVINCIAL HSI	**0.469**	**PROVINCIAL HSI**	**0.485**
KHYBER-PAKHTUNKHWA		**BALOCHISTAN**	
• Energy Security	0.254	• Poverty	0.151
• Extent of Self-Reliance	0.284	• Income	0.200
• Food Security	0.296	• Energy Security	0.211
• Employment and Wages	0.332	• Health	0.211
• Income	0.339	• Extent of Self-Reliance	0.227
• Women	0.345	• Governance	0.243
PROVINCIAL HSI	**0.430**	**PROVINCIAL HSI**	**0.307**
**Below the Provincial HSI*			

The six relatively low components of the HSI of each Province are shown in a ranked order by size of the gap with respect to the overall HSI of the Province in Table 16.5.

Some key conclusions emerge from the table, as follows:

The most backward component varies among the four Provinces. It is health in Punjab, inter-provincial disparity in Sindh, energy security in Khyber-Pakhtunkhwa and poverty in Balochistan. Therefore, the strategy for raising the HSI will vary among the provinces.

i. Punjab Government will need to find more resources and allocate them for expanding the curative health network in the province, especially in light of its large population.

ii. Sindh is a truly ‘dual’ economy. At one extreme is the national primate city of Karachi, and at the other extreme are very underdeveloped rural areas. There will have to be a transfer of resources to the more backward districts through equalizing Provincial Finance Commission Awards.

iii. Khyber-Pakhtunkhwa is energy insecure, despite large hydel power generation. It experiences, by far, the highest incidence of power outages. There is a dire need for improvement in its power distribution network. Also, there are no gas resources in the province. Consequently, it has relatively low gas consumption.

iv. As expected, Balochistan has the lowest value in the index of poverty. It has by far the highest incidence of poverty at 71% of the population. Not only will the sources of poverty have to be tackled, but a greatly expanded poverty alleviation program is required, supported by both the Federal and Provincial Governments.

Chapter: 17

THE HUMAN SECURITY INDEX AT THE DIVISIONAL LEVEL OF THE PROVINCES

The provinces of Pakistan are large regional entities. For example, the population of Punjab at the time of the latest population census in 2017 was over 110 million. Therefore, from the viewpoint of targeting initiatives for raising the level of the human sector, there is a need for disaggregating regionally the geographical area and population within provinces.

The proposed disaggregation is to take the construction of the HSI down to the division level. This is the highest administrative unit after the Provincial government, headed usually by a Commissioner.

There are 30 divisions in Pakistan, with 9 divisions in Punjab and 7 divisions each in the other three provinces. On average, the current size of the population is about 7.5 million. The analysis was not carried down one step further to the district level because there are over 170 districts in Pakistan, with only 1.3 million on average in each district. This would have made it difficult to identify the regional patterns and clustering in terms of the magnitude of the HSI.

17.1 Construction of the HSI

The first step has been to estimate the HDI of each Division. Data is generally available at the district level and is aggregated to the division level.

The basic problem is the estimation of the per capita income at the division or district level in Pakistan. The proxy used for deriving the per capita income is housing consumption[2]. In Pakistan, the income elasticity of actual or imputed spending on housing is close to unity. Therefore, this is the appropriate indicator.

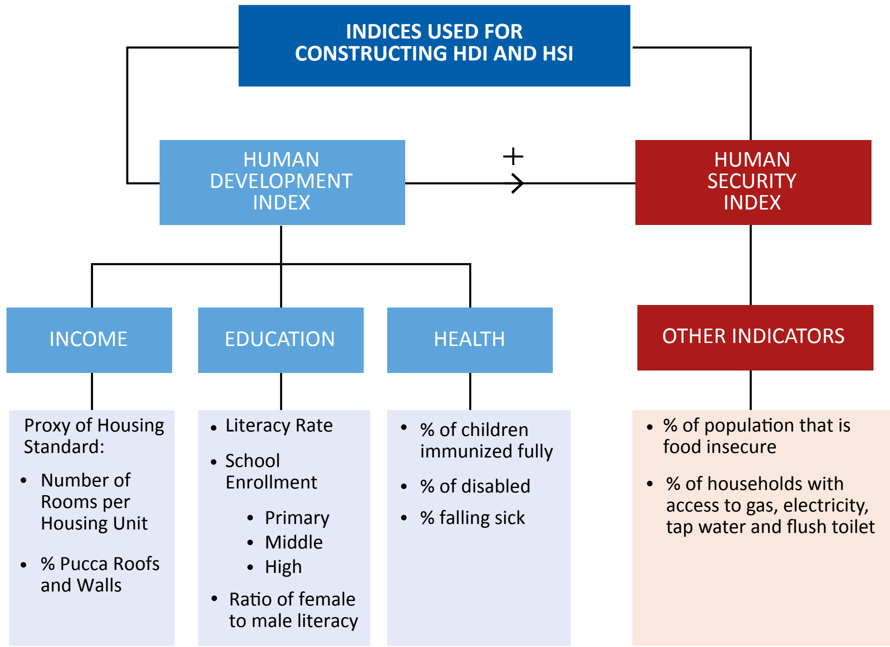
2 This is constructed as follows:

$$\text{pcy} \propto \text{R}\left[1 + \frac{1}{200}(\%\,\text{PR} + \%\,\text{PW})\right]$$

Where R = Average number of rooms per housing unit, PR = % of housing units with pucca roof, PW = % of housing units with pucca walls.

The variables used for deriving the HSI at the district level are presented in Chart 17.1. The database is given in Statistical Annexure-IV.

Chart 17.1: Indices used for Construction of the HDI and the HSI at the Division Level



The Source of Data for all the Variables/Indices is the

Pakistan Living Standards and Social Measurement Survey, PBS

17.2 The HSI at the Division Level

The estimates are very revealing. First, there are very large differences in the HSI of divisions within a Province. An extreme example is Sindh. Karachi division, with the primate city, Karachi, Pakistan, has a HSI value of 0.689. the most insecure division in the province is Bhanbhore, with an HSI value of 0.256, lower by 63% than the Karachi division.

The distribution of divisions by level of HSI is given in Chart 17.2.

Chart 17.2: Distribution within Provinces of HSI of the Divisions

HSI <0.4		0.4 ≤ HSI < 0.5		0. 5 ≤ HSI	
		PUNJAB			
Red		Yellow		Green	
• Bahawalpur	0.366	• Sargodha	0.484	• Gujranwala	0.580
• D.G. Khan	0.334	• Multan	0.423	• Rawalpindi	0.570
				• Faisalabad	0.515
				• Lahore	0.517
				• Sahiwal	0.515
		SINDH			
• Hyderabad	0.389	• Shaheed Benazirabad	0.410	• Karachi	0.689
• Sukkur	0.361				
• Larkana	0.356				
• Mirpurkhas	0.303				
• Bhanbhore	0.256				
		KHYBER-PAKHTUNKHWA			
• Kohat	0.388	• Peshawar	0.511		
• Bannu	0.380	• Hazara	0.454		
• D.I. Khan	0.326	• Mardan	0.416		
		• Malakand	0.401		
		BALOCHISTAN			
• Sibi	0.327	• Makran	0.470		
• Kalat	0.315	• Quetta	0.402		
• Rakshan	0.312				
• Zhob	0.192				
• Naseerabad	0.192				
TOTAL					
15		**9**		**6**	

Therefore, 15 of the divisions have a HSI of below 0.4. Karachi is the only division with an HSI above 0.6. 8 divisions have an HSI between 0.4 and 0.5, and 6 above 0.5 and below 0.6.

The distribution of population by level of HSI is given in Table 17.1.

Table 17.1: Share of Population on the Provinces in Different Levels of HSI *(%)*

HSI	Punjab	Sindh	Khyber-Pakhtunkhwa	Balochistan	Pakistan
> 0.6	0.0	32.6	0.0	0.0	7.9
> 0.5 - ≤ 0.6	61.0	0.0	24.3	0.0	36.9
> 0.4 - ≤ 0.5	18.6	10.8	55.3	42.7	23.6
≤ 0.4	20.4	56.6	20.4	57.3	31.5
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

There are big differences in the distribution of population by level of HSI among the Provinces. Punjab has 61% of the population with HSI in the range of 0.5 to 0.6. The distribution is very skewed in Sindh. Almost 33% of the population of the Province, which is in Karachi, has a HSI above 0.6, and the majority with a low HSI below 0.4.

Khyber-Pakhtunkhwa has the majority of the population with a moderate level of HSI between 0.4 to 0.5. Balochistan has the lowest HSI, and over 57% of its population has a very low HSI below 0.4.

The relationship between the HDI and the HSI at the Divisional level in Pakistan is shown in Chart 17.3. Despite the presence of some outliers, the overall rank correlation coefficient between HDI and HSI of the 30 divisions is high at 0.815.

The magnitude of intra-provincial inequality in the HSI is presented in Table 17.2. two measures have been used. The first is the modified PALMA ratio, which is the ratio of the HSI of the top and the bottom division in the province. The second is the PASHUM ratio. This is a new measure of inequality, first developed by UNDP [2020].

Chart 17.3: Relationship between HDI and HSI at the Division Level

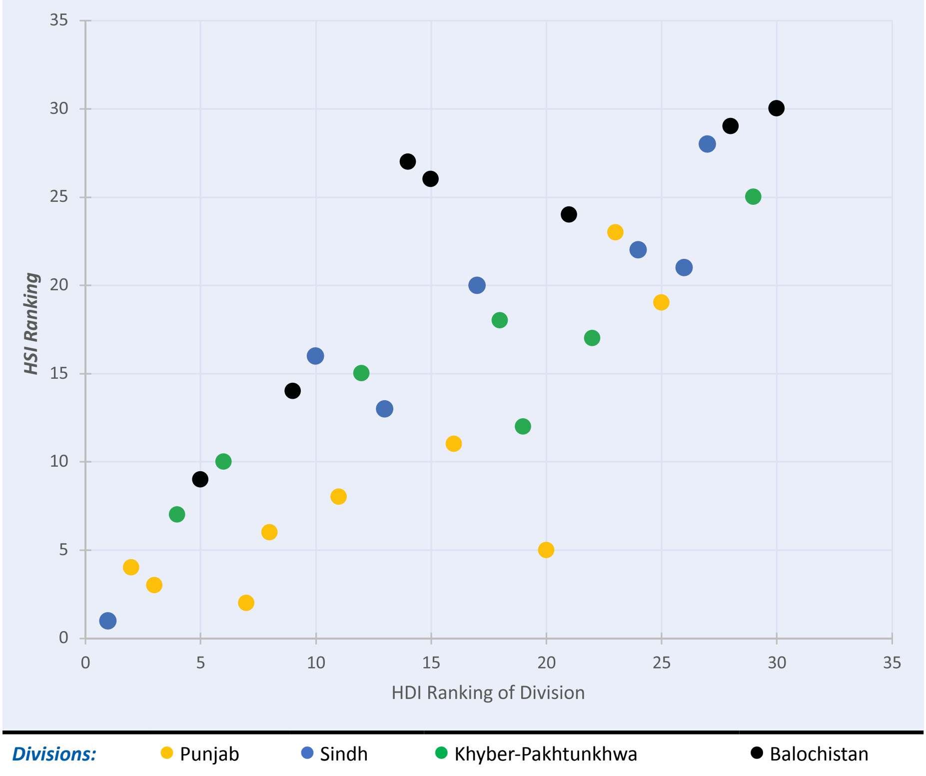


Table 17.2: Level of Inequality in each Province

	PALMA RATIO	Ranking	PASHUM RATIO	Ranking
Punjab	1.7365	3	0.0654	4
Sindh	2.6914	1	0.3097	1
Khyber-Pakhtunkhwa	1.5674	4	0.0734	3
Balochistan	2.4481	2	0.1618	2

Sindh has the highest regional inequality, followed by Balochistan. According to the PASHUM ratio, Khyber-Pakhtunkhwa has the third highest level of inequality, and Punjab has the lowest inequality. This is in contrast to the result obtained with the PALMA ratio.

This chapter closes with five charts. The first chart presents the regional distribution of the HSI in Pakistan. The next four charts show the location of divisions along with the magnitude of the HSI in each Province.

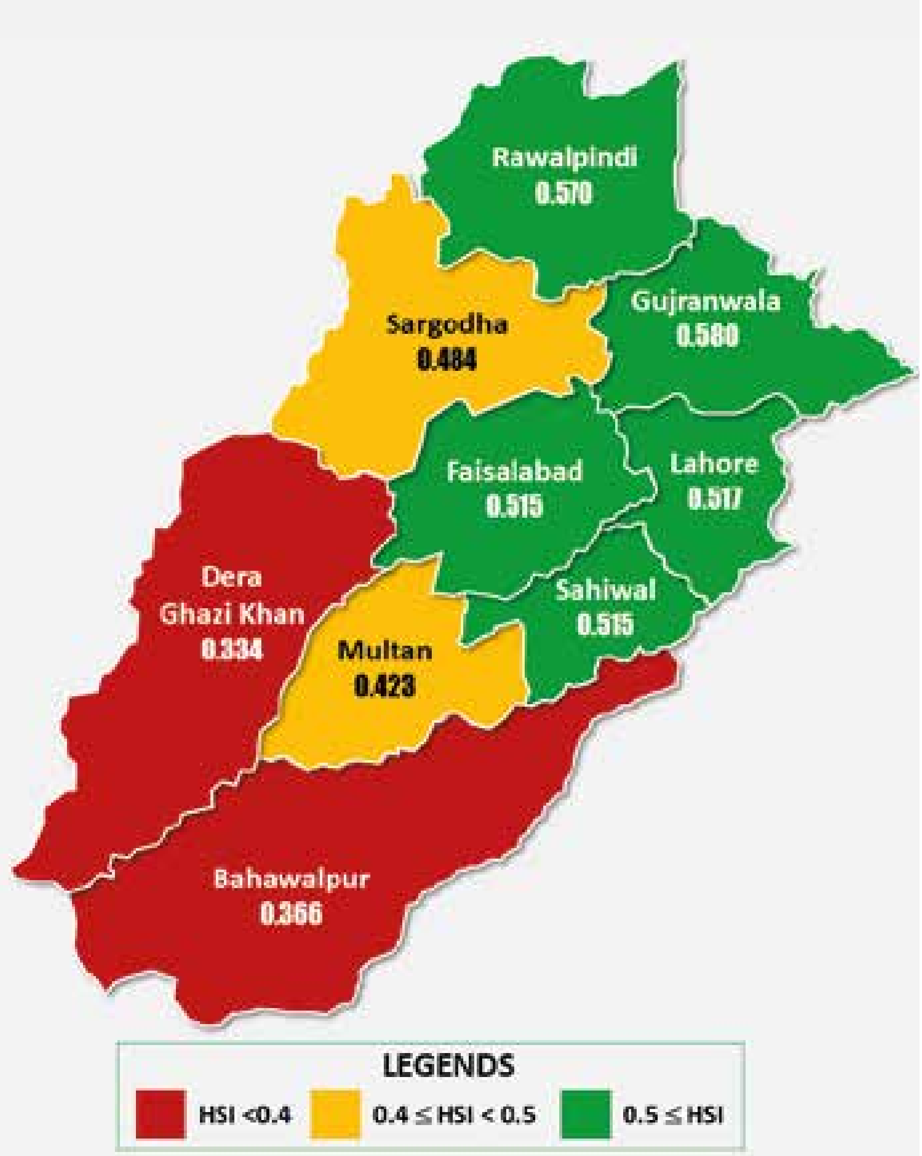
In particular, the backwardness criteria in terms of the HSI magnitude can be used for distribution within a province of resources under the Provincial Finance Commission Awards. The allocation will initially be at the division level, followed by equal per capita distribution to districts within a division.

OVERALL NATIONAL RANKING
OF HSI BY DIVISION IN PAKISTAN

> 0.6		0.5 – 0.6		0.4 – 0.5		0.3 – 0.4		< 0.2	
Karachi	0.689	Peshawar	0.511	Hazara	0.454	Kohat	0.388	Bhanbhore	0.256
		Gujranwala	0.580	Mardan	0.416	Bannu	0.380	Nasirabad	0.192
		Rawalpindi	0.570	Malakand	0.401	D.I. Khan	0.326	Zhob	0.192
		Lahore	0.517	Makran	0.470	Sibi	0.327		
		Sahiwal	0.515	Quetta	0.402	Kalat	0.315		
		Faisalabad	0.515	Sargodha	0.484	Rakshan	0.312		
				Multan	0.423	Bahawalpur	0.366		
				S. Benazirabad	0.410	D.G. Khan	0.334		
						Hyderabad	0.389		
						Sukkur	0.361		
						Larkana	0.354		
						Mirpurkhas	0.303		

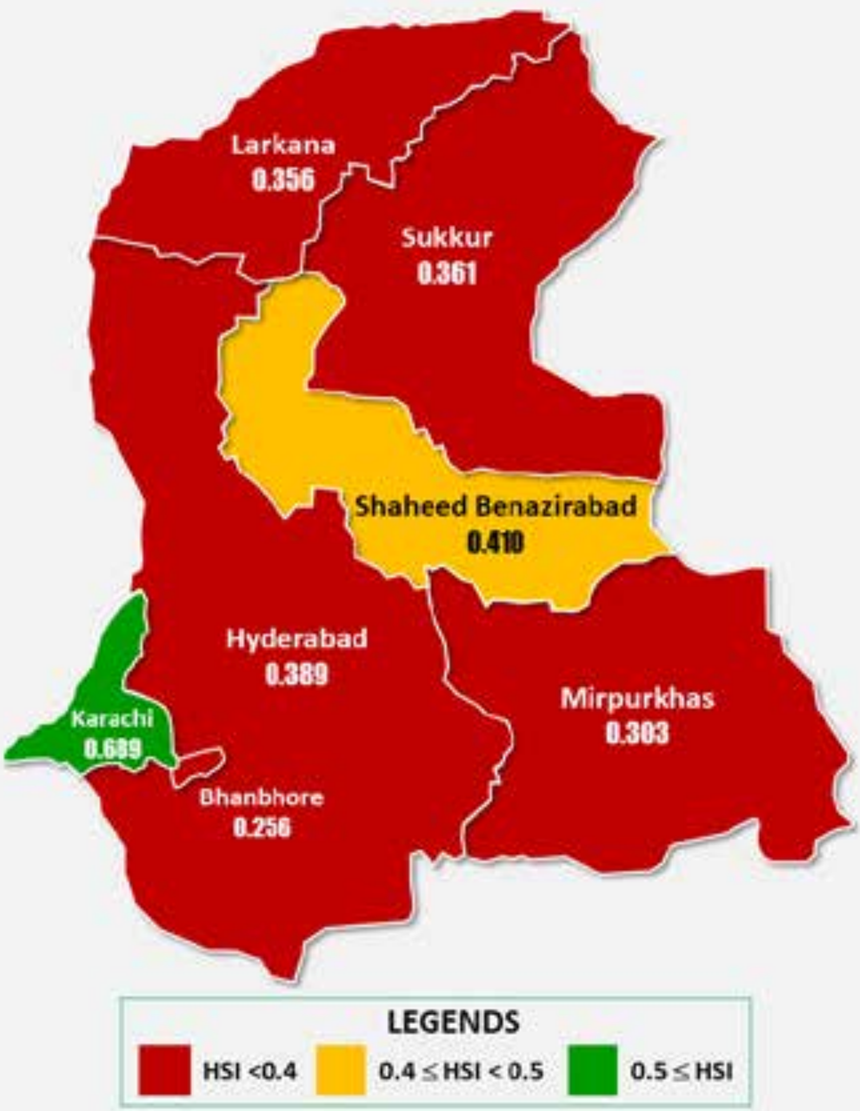
DISTRIBUTION WITHIN PROVINCES OF HSI OF THE DIVISIONS

PUNJAB



DISTRIBUTION WITHIN PROVINCES OF HSI OF THE DIVISIONS

SINDH

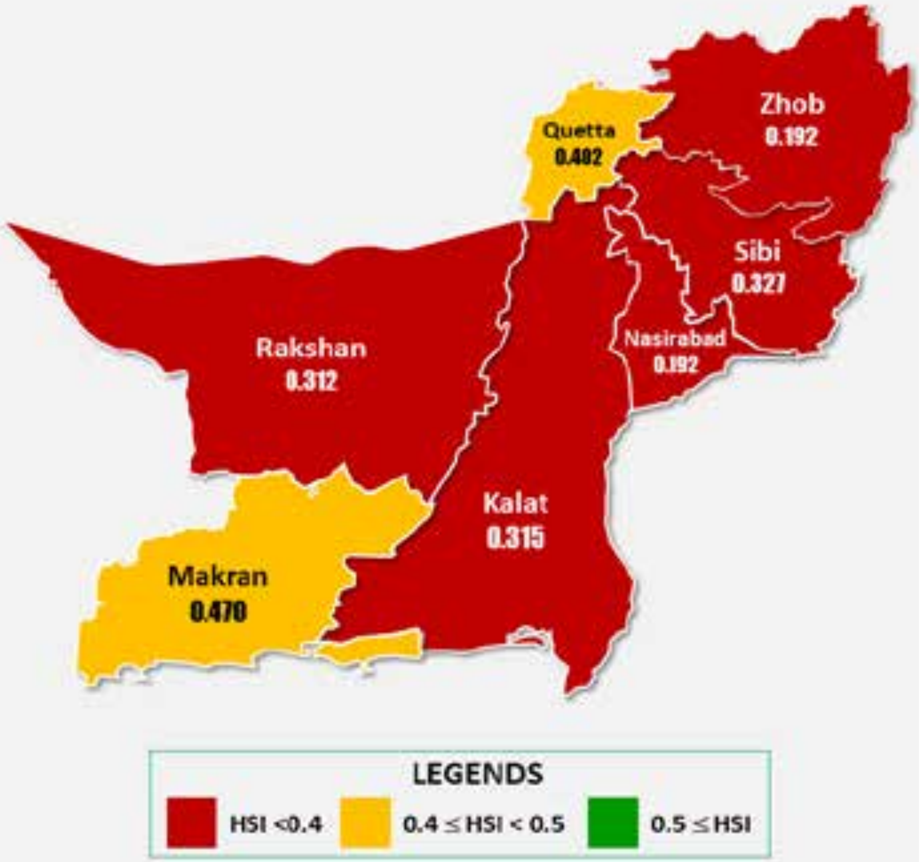


DISTRIBUTION WITHIN PROVINCES OF HSI OF THE DIVISIONS

KHYBER-PAKHTUNKHWA

DISTRIBUTION WITHIN PROVINCES OF HSI OF THE DIVISIONS

BALOCHISTAN



The above findings should be useful to Provincial Governments in targeting their human security interventions regionally.

TECHNICAL ANNEXURE

Technical Annexure-I

The Balance of Payments Module of the Macro Econometric Model

EQUATIONS

1. Import Volume Demand of Goods and Services

$$\mathbf{g_M = 0.935\, g_Y - 1.08\, (\Delta R) - 0.203\, [g_{UVIM\$} + g_{\in}]} \qquad .....[1]$$

where; $\mathbf{g_M}$ = growth rate in volume of imports, $\mathbf{g_Y}$ = growth rate of the real GDP, $\mathbf{\Delta R}$ = change in the interest rate, $\mathbf{g_{UVIM\$}}$ = growth rate of international prices (in \$) of imports, $\mathbf{g_{\in}}$ = extent of nominal depreciation of the rupee.

2. Import Volume

$$\mathbf{g_{MV} = g_M + g_{UVIM\$}} \qquad .....[2]$$

where; $\mathbf{g_{MV}}$ = growth rate of the dollar value of imports

3. Level of Volume of Exports of Goods and Services

$$\mathbf{g_X = 0.100\, g_{\overline{WT}} + 0.434\, [g_{UVIX\$} + g_{\in} - g_P] + 0.819\, g_{X_{-1}}} \qquad .....[3]$$

where; $\mathbf{g_X}$ = growth rate of the volume of exports, $\mathbf{g_{\overline{WT}}}$ = growth rate in the volume of world trade, $\mathbf{g_{UVIX\$}}$ = growth rate of international prices (in \$) of exports, $\mathbf{g_{\in}}$ = extent of nominal depreciation of the rupee, $\mathbf{g_P}$ = growth rate in the domestic price level, $\mathbf{g_{X_{-1}}}$ = growth rate of the volume of exports lagged by one period.

4. Export Value

$$g_{XV} = g_X + g_{UVIX\$} \qquad \ldots\ldots [4]$$

5. The Domestic Price Level

$$\mathbf{g_{PD} = 0.171\, g_{MM_{-1}} - 0.305 g_Y + 0.172\, [g_{UVIM\$} + g_{\in}] + 0.11 g_{ADPR} + 0.569\, g_{PD_{-1}}}$$

where; $\mathbf{g_{PD}}$ = growth rate of the domestic price level, $\mathbf{g_Y}$ = growth rate of the real GDP, $\mathbf{g_{UVIM\$}}$ = growth rate of international prices (in $) of imports,
$\mathbf{g_{\in}}$ = extent of nominal depreciation of the rupee, $\mathbf{g_{ADPR}}$ = growth rate of administered prices of petroleum products, electricity and gas.
$\mathbf{g_{PD_{-1}}}$ = growth rate of the domestic price level lagged by one period.

6. Current Account Deficit

$$\Delta\,(\mathbf{CAD_t}) = \mathbf{X\$_{t-1}} \cdot \mathbf{g_{XY}} - \mathbf{M\$_{t-1}} \cdot \mathbf{g_{MV}} + \Delta(\overline{\mathbf{PB_t}}) + \Delta(\overline{\mathbf{SB_t}}) \qquad \ldots\ldots [5]$$

where; $\mathbf{CAD_t}$ = Current Account Balance, $\mathbf{X\$_{t-1}}$ = Level of Exports in US$ lagged by one period, $\mathbf{M\$_{t-1}}$ = Level of Imports in US$ lagged by one period, $\Delta\overline{\mathbf{PB_t}}$ = Change in Primary Balance, $\overline{\mathbf{SB_t}}$ = Change in Secondary Balance

Balance of Payments Scenarios for Second half of 2022-23 and 2023-24

	2022-23 Second half Scenario	2023-24 Scenario
GDP Growth Rate *(%)*	-2	-1
Rate of Inflation (Average) *(%)*	32	35
Current Account Deficit *($ billion)*	0	0
Required Exchange Rate Depreciation (June 23 vs June 22)	62	53
Increase in Policy Rate (June 23 vs June 22) *(% points)*	8.25	Nil
Surplus in Financial Account	0	3.0
Foreign Exchange Reserves *($ billion)*, End June 2023	5.6	8.6

STATISTICAL ANNEXURE

Statistical Annexure-I

The Actual Values of Indicators of HSI

Table A-1.1: Territorial Security

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Total Defence Expenditure as % of GDP							
Actual	3.6	3.6	3.2	3.5	4.0	4.2	3.3
2. Real Defence Expenditure per Capita (Rs, at 2005-06 prices)							
Actual	1583	1869	1887	2070	2499	2614	2179
3. % of Defence Expenditure financed by Federal Net Revenues after Debt Servicing							
Actual	100.0	100.0	85.1	100.0	77.4	34.5	29.2
4. The ratio of Defence Expenditure to health and education expenditure							
Actual	2.105	1.613	1.376	1.084	1.110	1.234	1.068

Table A-1.2: External Financial Vulnerability

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Real Effective Exchange Rate							
Actual	101.6	103.8	102.4	119.3	107.1	97.2	96.2
2. External Debt (as % of GDP)							
Actual	43.8	27.8	30.7	26.7	30.3	37.0	38.9
3. Foreign Exchange Reserves *(in months of imports)*							
Actual	7.0	4.0	4.2	4.6	1.9	3.1	1.2
4. Reserves as % of External Debt							
Actual	25.9	34.4	27.3	30.2	12.7	16.4	4.4
5. Current Account Deficit *(as % of GDP)*							
Actual	4.8	-4.9	-1.0	-2.6	-6.0	-3.1	-2.1*
6. Foreign Exchange Reserves as % of External Financing Requirements							
Actual	25.5	147.0	344.5	154.5	66.9	45.3	37.2

**as of end-December 2022*

Table A-1.3: Personal Safety

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
INCIDENCE OF CRIME							
1. Expenditure on Law and Order as % of GDP							
Value	0.651	0.84	0.597	0.419	0.548	0.651	0.662
2. Weighted Crimes per 10,000 population *(Index 2001-02 = 100)*							
Value	100.0	114.7	118.8	121.9	122.4	122.9	145.8
INCIDENCE OF INJURIES/FATALITIES							
3. % of Workers Injured or Getting Diseases in the Workplace							
Value	3.59	2.93	3.49	4.00	3.78	3.30	2.69
4. Number of Traffic Accidents							
Value	10,033	9,492	9,723	9,100	11,121	10,799	9,709
5. Number of Fatalities							
Value	5,532	4,868	5,271	4,448	5,948	5,932	5,436
INCIDENCE OF TERRORISM							
6. Number of Terrorist Attacks							
Value	0	675	2,985	749	497	433	207
7. Number Killed							
Value	0	907	7,107	1,956	1,516	1,030	335

Table A-1.4: Health Hazards and Diseases

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Life Expectancy (Years)							
Value	63.35	64.20	65.60	66.80	67.10	67.40	67.70
2. % of Deaths from Communicable Diseases*							
Value	44.4	42.2	39.2	35.9	34.5	35.2	73.2*
3. % of births with Female Attendant							
Value	23.0	31.0	43.0	56.1	69.3	72.0	74.7
4. Infant Mortality (per 1000 births)							
Value	80.90	76.60	70.10	32.10	58.90	57.30	54.20
5. Incidence of Child Wasting or Stunting							
Value	50.9	50.5	52.4	48.3	44.7	40.0	39.2

**Including the deaths from COVID-19*

Table A-1.5: Environmental Protection and Natural Disasters							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Incidence and Cost of Natural Disasters							
Value	0.00	0.25	0.50	0.00	0.00	0.00	1.00
2. CO_2 Emission *(Kg per 201 US$ of GDP)*							
Value	0.66	0.65	0.62	0.63	0.67	0.59	0.58
3. Forest Area *(% of land area)*							
Value	5.7	5.5	5.3	5.0	4.9	4.8	4.7
4. Level of Water Stress *(Fresh Water Withdrawal as % of Available Resources)*							
Value	107.4	110.9	113.7	122.6	122.7	118.2	108.6
5. Renewable Internal Water Resource per Capita *(Cu Meters)*							
Value	345.4	308.9	276.9	257.6	250.3	246.3	243.3

Table A-1.6: Real Per Capita Income							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2022 (Latest Year)
Value*	44,796	53,846	55,769	64,223	67,646	68,700	69,387
(at 2005-06 prices)							

Table A-1.7: Food Security							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Per capita food Consumption (Calories per day)							
Actual	2361	2386	2420	2473	2480	2410	2430
2. Share of Domestic Production in food consumption							
Actual	92.5	88.1	88	89.5	89	88.1	88.7
3. Relative Price of food							
Actual	99	102.1	117.2	116.3	115.9	116.8	135.3
4. Cereal consumption per capita							
Actual	10.11	9.18	8.98	8.24	8.15	8.06	8.97
5. Wheat stocks per capita							
Actual	25.9	13.5	18.1	31.7	21.8	17.7	36.3

Table A-1.8: Employment and Wages

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21 Latest Year
1. Unemployment Rate (%)							
Actual	10.1	5.9	7.6	7.5	6.8	8.1	9.5
2. Labor Force Participation Rate (%)							
Actual	43.3	46	45.7	45.2	44.2	44.8	44.8
3. % Marginal Workers in Labor Force							
Actual	20.8	19.4	14.6	10.4	14.1	13.5	14.0
4. % employment in the Informal Sector							
Actual	38.0	41.3	40.5	42.0	44.3	44.0	45.3
5. Average Real Wage							
Actual	11875	12731	11046	13060	14017	13562	12657
6. Skill Premium							
Actual	3.42	3.48	3.51	3.56	5.44	4.46	4.21

Table A-1.9: Shelter

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Percentage of housing units owned							
Actual	87.61	86.22	85.92	84.07	84.02	84.00	81.78
2. Percentage of units with pucca roof							
Actual	28.01	31.25	27.80	30.89	32.73	33.72	33.31
3. Percentage of units with pucca walls							
Actual	57.20	66.50	72.21	80.65	83.74	85.33	79.84
4. Percentage of housing units with only one room							
Actual	23.85	24.26	24.83	28.47	30.17	31.07	25.17
5. Percentage of units with electricity							
Actual	79.95	85.23	91.37	92.79	91.63	91.00	90.91
6. Percentage of units with access to tap water							
Actual	44.37	37.34	32.00	26.00	24.00	18.00	22.34
7. Percentage of units with flush toilet							
Actual	50.00	56.18	66.00	74.00	78.00	80.00	80.00

Table A-1.10: Energy Security

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Gas consumption per capita *(mfct)*							
Actual	5.81	7.82	7.05	6.59	7.00	6.53	6.26
2. Electricity consumption per capita *(kWh)*							
Actual	356.5	432.8	438.3	433.4	514.8	514.6	523.0
3. Petroleum consumption per capita							
Actual	11.94	9.36	10.74	11.76	11.88	9.48	9.38
4. Domestic gas production as % of consumption							
Actual	100	100	100	93.5	80	79	88.3
5. Percentage of electricity generation from renewable sources							
Actual	26.2	32.9	33.6	34.6	24.2	24.9	27.1
6. Relative price index of energy							
Actual	97.2	92.6	88.2	100	86.3	83.3	95.7

Table A-1.11: Health

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Health Expenditures as % of GDP							
Actual	1.1	0.5	0.6	0.8	1.1	1.0	1.4
2. Hospital beds per 1000 people							
Actual	0.7	1.3	0.6	0.6	0.6	0.6	0.6
3. Physicians per 1000 people							
Actual	0.7	0.8	0.8	1	1	1.1	1.1
4. Nurses and Midwives per 1000 people							
Actual	0.5	0.5	0.6	0.5	0.6	0.5	0.5

Table A-1.12: Access to Education							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Literacy rate *(%)*							
Actual	45	53	58	60	60	60	60
2. Government Expenditures on Education *(% of GDP)*							
Actual	1.8	2.4	2.2	3.0	2.9	2.7	2.1
3. Share of Expenditure on Primary Education							
Actual	52.0	46.2	39.0	31.7	30.9	30.0	32.4
Net Enrollment Rate							
4. Primary							
Actual	41	53	56	67	67	66	64
5. Middle							
Actual	16	18	20	37	37	38	39
6. High							
Actual	9	11	12	27	27	27	27
7. Percentage of Government Enrollment							
Actual	74	72	68	62.0	61	60	64

Table A-1.13: Women							
	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. School enrollment, primary *(% net)*							
Actual	44.57	54.87	60.56	55.95	59.85	61.57	61.75
2. School enrollment, secondary *(% net)*							
Actual	25.0	26.53	28.64	30.44	31.63	34.18	35.5
3. Unemployment rate							
Actual	15.5	12.1	0.64	6.11	4.55	6.26	6.31
4. Female Employment to population rate *(%)*							
Actual	14.7	19	21.9	22.7	21.8	20.9	22.1
5. Literacy Rate							
Actual	32	35.6	41	44.3	46.5	45.4	46.5
6. Life Expectancy							
Actual	63.6	64	66.9	68.2	68.8	69	69.1

Table A-1.14: Children	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	2020-21
1. Percentage of children out of school							
Actual	46.5	45.2	43.2	40.6	39.9	40.6	39.8
2. Percentage of Children in the Labor Force							
Actual	12.04	15.23	11.75	9.58	8.23	7.30	4.90

Table A-1.15: Income Inequality	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Income Inequality							
Value	4.32	5.90	5.41	5.10	5.07	5.04	5.29
2. Inequality in Food Expenditure							
Value	2.83	2.81	2.70	3.01	3.02	3.03	3.15

Table A-1.16: Regional Disparities	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Ratio of Urban to Rural Income Per Capita							
Value	1.672	1.427	1.550	1.613	1.630	1.646	1.640
2. Ratio of Provincial* per capita Income							
Value	1.202	1.618	0.420	0.565	0.609	0.654	0.715
**Highest to Lowest Provincial per capita income*							

Table A-1.17: Poverty	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
Incidence of Poverty							
Value	30.61	29.80	35.01	34.20	31.01	34.22	40.00

Table A-1.18: Gender Inequality Ratio of Females to Males

	2001-02	2005-06	2010-11	2015-16	2017-18	2018-19	Latest Year
1. Primary Education							
Value	0.681	0.778	0.853	0.831	0.858	0.840	0.833
2. Secondary Education							
Value	0.756	0.774	0.792	0.792	0.812	0.846	0.852
3. Literacy Rate							
Value	0.512	0.552	0.595	0.641	0.653	0.655	0.670
4. Labor Force Participation Rate							
Value	0.205	0.263	0.315	0.324	0.296	0.317	0.313
5. Unemployment Rate							
Value	2.47	1.72	1.75	1.80	1.63	1.71	1.63
6. Relative Wage							
Value	0.592	0.574	0.558	0.540	0.503	0.498	0.492

Statistical Annexure-II

The HSI Indicators of Selected Countries

Table A-2.1: Indices of Human Security Freedom from 'Fear'

	Territorial Security	Rank	External Financial Vulnerability	Rank	Environment Protection	Rank	Overall Index	Rank
SOUTH ASIA								
Bangladesh	0.125	8	0.628	6	0.356	7	0.304	9
India	0.299	3	0.835	1	0.290	11	0.417	3
Nepal	0.063	12	0.174	12	0.244	12	0.139	12
Pakistan	0.348	2	0.384	10	0.430	4	0.386	4
Sri Lanka	0.282	5	0.294	11	0.499	3	0.346	6
EAST ASIA								
Thailand	0.254	6	0.691	3	0.737	1	0.506	1
Vietnam	0.284	4	0.436	8	0.316	10	0.339	7
Indonesia	0.065	11	0.661	4	0.391	6	0.256	10
Philippines	0.117	9	0.796	2	0.321	9	0.310	8
OTHERS								
Egypt	0.169	7	0.649	7	0.687	2	0.379	5
Nigeria	0.071	10	0.650	5	0.349	8	0.253	11
Türkiye	0.504	1	0.435	9	0.430	4	0.453	2

Table A-2.2: Indices of Human Security Freedom from 'Want'

	Income per Capita	Rank	Employment	Rank	Energy Security	Rank	Food Security	Rank	Education and Health	Rank	Overall Index	Rank
SOUTH ASIA												
Bangladesh	0.108	9	0.552	6	0.199	11	0.541	7	0.537	8	0.321	9
India	0.116	8	0.410	10	0.380	7	0.575	5	0.457	9	0.343	8
Nepal	0.038	11	0.392	12	0.474	3	0.517	8	0.351	11	0.264	12
Pakistan	0.077	10	0.510	7	0.377	8	0.569	6	0.287	12	0.300	10
Sri Lanka	0.310	3	0.710	5	0.383	6	0.744	1	0.753	1	0.543	1
EAST ASIA												
Thailand	0.412	2	0.740	2	0.499	2	0.423	10	0.661	2	0.532	2
Vietnam	0.222	6	0.753	1	0.447	5	0.625	4	0.605	5	0.490	5
Indonesia	0.265	4	0.670	4	0.451	4	0.690	2	0.566	7	0.500	4
Philippines	0.172	7	0.709	3	0.306	9	0.408	11	0.601	6	0.391	6
OTHERS												
Egypt	0.256	5	0.486	8	0.181	12	0.489	9	0.638	3	0.371	7
Nigeria	0.064	12	0..92	11	0.618	1	0.330	12	0.361	10	0.284	11
Türkiye	0.731	1	0.441	9	0.272	10	0.659	3	0.634	4	0.516	3

Table A-2.3:Indices of Human Security Freedom from 'Inequality'

	Income Inequality (Gini)	Rank	Incidence of Poverty	Rank	Gender Inequality	Rank	Overall Index	Rank
SOUTH ASIA								
Bangladesh	0.654	4	0.391	10	0.496	10	0.503	11
India	0.654	7	0.472	9	0.549	9	0.527	9
Nepal	0.698	2	0.341	11	0.599	8	0.522	10
Pakistan	0.730	1	0.532	8	0.491	11	0.575	8
Sri Lanka	0.465	10	0.841	4	0.690	4	0.646	4
EAST ASIA								
Thailand	0.583	5	0.997	1	0.756	3	0.760	1
Vietnam	0.564	7	0.942	3	0.805	2	0.645	5
Indonesia	0.504	9	0.739	7	0.609	7	0.610	6
Philippines	0.384	12	0.787	5	0.642	5	0.579	7
OTHERS								
Egypt	0.678	3	0.744	6	0.611	6	0.676	3
Nigeria	0.580	6	0.249	12	0.298	12	0.351	12
Türkiye	0.395	11	0.979	2	0.902	1	0.704	2

Table A-2.4: Indices of Human SecurityGovernance

	Score	Transparency International Index	WJP Rule of Law Index	Index	Governance Matters Index	Index of Economic Freedom	Index	Overall Index	Rank
SOUTH ASIA									
Bangladesh	26	0.268	0.39	0.332	0.302	54.4	0.416	0.325	18
India	40	0.643	0.50	0.564	0.929	52.9	0.386	0.600	3
Nepal	33	0.456	0.52	0.507	0.602	51.4	0.358	0.472	8
Pakistan	**28**	**0.321**	**0.39**	**0.332**	**0.226**	**49.4**	**0.319**	**0.296**	**11**
Sri Lanka	37	0.563	0.50	0.564	0.859	52.2	0.373	0.563	5
EAST ASIA									
Thailand	35	0.509	0.50	0.564	0.826	60.6	0.536	0.597	4
Vietnam	39	0.617	0.49	0.543	0.782	61.8	0.559	0.619	2
Indonesia	38	0.590	0.53	0.628	0.983	63.5	0.592	0.681	1
Philippines	33	0.456	0.47	0.501	0.715	59.3	0.511	0.538	6
OTHERS									
Egypt	33	0.456	0.35	0.248	0.363	49.6	0.323	0.339	9
Nigeria	24	0.24	0.41	0.374	0.075	53.9	0.406	0.222	12
Türkiye	38	0.590	0.42	0395	0.583	56.9	0.464	0.501	7

Statistical Annexure-III

The HSI Indicators of the Provinces

Table A-3.1: The Provincial HSI Indicators: Extent of Self-Reliance

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
1	**EXTENT OF SELF-RELIANCE**							
1.	**Provincial Own-Revenues as % of GRP**							
	Value	% of GDP	2021-22	1.0	2.0	1.5	1.2	MOF, FO
	Index			0.165	0.665	0.415	0.265	
2.	**Extent of Self-Financing of Provincial Expenditure**							
	Value	%	2021-22	20.0	35.7	15.0	9.2	MOF, FO
	Index			0.335	0.713	0.214	0.074	
3.	**Trade Deficit* as % of GRP**							
	Value	%	2019-20	13.8	1.0	22.7	12.8	Pasha (2022)
	Index			0.557	0.990	0.257	0.591	
	OVERALL INDEX			0.314	0.777	0.284	0.227	
	Ranking			2	1	3	4	

Table A-3.2: The Provincial HSI Indicators: Personal Safety

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
2.	**PERSONAL SAFETY**							
1.	**Law and Order Expenditure as % of GDP**							
	Value	% of GDP	2020-21	0.45	0.54	0.94	0.77	MOF, PRSP
	Index			0.158	0.253	0.674	0.495	
2.	**Per Capita Expenditure on Law & Order**							
	Value	Rs	2020-21	1132	1751	1940	718	MOF, PRSP
	Index			0.310	0.604	0.693	0.113	

3.	**Number of Terrorist Attacks**							
	Value	Number	2020-21	5	2	111	81	PIPS
	Index			0.975	0.995	0.252	0.456	
4.	**Number of Killed in Terrorist Attacks**							
	Value	Number	2020-21	14	12	169	136	PIPS
	Index			0.792	0.982	0.259	0.410	
5.	**Incidence of Crimes per 1000 population**							
	Value	Number	2019-20	3.51	1.62	5.42	0.65	SYB, PBS
	Index			0.546	0.656	0.196	0.967	
6.	**Number of Accidents per million Population**							
	Value			41.2	18.9	131.0	30.3	
	Index			0.823	0.961	0.269	0.890	
	OVERALL INDEX			0.523	0.673	0.425	0.455	
	Ranking			2	1	3	4	

Table A-3.3: The Provincial HSI Indicators: Environmental Protection

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
3.	**ENVIRONMENT PROTECTION**							
1.	**Extent of Forest Area**							
	Value	%	2020	0.48	1.04	1.24	0.16	PSY
	Index			0.120	0.541	0.691	0.631	
2.	**Growth Rate of Forest Area**							
	Value	%	2020	-0.45	0.10	-0.69	-2.16	PSY
	Index			0.805	0.989	0.725	0.236	
3.	**Irrigated Area as % of Cultivated Area**							
	Value	%	2020	50.3	23.3	20.2	34.8	SYB
	Index			0.688	0.183	0.125	0.398	
	OVERALL INDEX			**0.405**	**0.461**	**0.397**	**0.390**	
	Ranking			2	1	3	4	

Table A-3.4: The Provincial HSI Indicators: Income

Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
4. INCOME							
1. Per Capita Gross Regional Product (GRP)							
Value	Rs '000'	2020-21	253	327	207	181	Pasha (2021)
Index			0.421	0.654	0.274	0.192	
2. Per Capita Gross Regional Income							
Value	Rs '000'	2020-21	276	329	243	183	Pasha (2021),
Index			0.485	0.654	0.380	0.191	HIES
3. Per Capita Household Income							
Value	Rs '000'	2018-19	89	75	67	54	HIES
Index			0.642	0.476	0.373	0.216	
OVERALL INDEX			**0.508**	**0.589**	**0.339**	**0.200**	
Ranking			2	1	3	4	

Table A-3.5: The Provincial HSI Indicators: Food Security

Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
5. FOOD SECURITY							
1. Per Capita Food Crop Production							
Value	Rs '000'	2015-16	15.05	8.50	6.37	14.74	Pasha (2018)
Index			0.683	0.275	0.134	0.663	
2. Per Capita Livestock Production							
Value	Rs '000'	2015-16	7.31	6.73	5.62	4.60	Pasha (2018)
Index			0.633	0.544	0.378	0.227	
3. Food Expenditure per Adult Equivalent							
Value	Rs/Month	2019	2910	2818	2641	2587	HIES
Index			0.550	0.507	0.425	0.400	
4. Relative Prices of Basic Food Items							
Value	Index	2022	93.7	111.4	103.4	103.3	PBS
Index			0.637	0.432	0.525	0.524	

5.	**Production / Consumption of Basic Food Items**						
Value		2020	92.1	83.2	52.1	85.2	PBS / HIES
Index			0.486	0.348	0.078	0.448	
6.	**% of Very Food Insecure Population**						
Value	%	2020	15.66	17.52	14.44	23.36	PSLSMS
Index			0.720	0.633	0.776	0.361	
OVERALL INDEX			**0.612**	**0.439**	**0.296**	**0.414**	
Ranking			1	2	4	3	

Table A-3.6: The Provincial HSI Indicators: Employment and Wages

Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
6. EMPLOYMENT AND WAGES							
1. Labor Force Participation Rate							
Value	%	2020	47.38	43.83	39.51	40.39	LFS
Index			0.571	0.475	0.358	0.382	
2. Unemployment Rate							
Value	%	2020	6.76	3.86	3.83	4.33	LFS
Index			0.545	0.860	0.320	0.808	
3. % Employment in the Informal Sector							
Value	%	2020	44.29	44.46	51.70	43.86	LFS
Index			0.621	0.646	0.434	0.631	
4. % Employees							
Value	%	2020	40.02	47.03	41.96	41.42	LFS
Index			0.370	0.565	0.424	0.409	
5. Skill Premium							
Value	Ratio	2020	2.489	3.222	2.085	2.467	
Index			0.318	0.595	0.166	0.310	
6. % of Marginal Workers in the Augmented Labor Force							
Value	%	2020	8.17	15.59	28.24	18.89	LFS
Index			0.915	0.685	0.292	0.582	
7. Relative Wage							
Value	Index	2020	0.969	1.009	1.040	1.202	LFS
Index			0.338	0.379	0.412	0.581	
OVERALL INDEX			**0.494**	**0.585**	**0.332**	**0.506**	
Ranking			3	1	4	2	

Table A-3.7: The Provincial HSI Indicators: Energy Security								
	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
7.	**ENERGY SECURITY**							
1.	**Per Capita Electricity**							
	Value	Kwh	2021	635	445	301	351	NEPRA
	Index			0.672	0.378	0.155	0.233	
2.	**Incidence of Power Outages**							
	Value	Per Gwh	2021	6.69	48.20	268.41	14.86	NEPRA
	Index			0.993	0.876	0.252	0.970	
3.	**Per Capita Gas Consumption**							
	Value	Ratio	2020	0.79	1.70	0.40	0.35	PSY
	Index			0.365	0.722	0.083	0.053	
4.	**Electricity Generation / Consumption**							
	Value	Ratio	2021	0.681	1.545	1.500	2.667	NEPRA
	Index			0.073	0.322	0.337	0.713	
5.	**% of Electricity from Renewable Sources**							
	Value	%		14.7	8.1	96.9	5.0	NEPRA/ PBS
	Index			0.147	0.081	0.969	0.050	
	OVERALL INDEX			**0.304**	**0.362**	**0.254**	**0.211**	
	Ranking			2	1	3	4	

Table A-3.8: The Provincial HSI Indicators: Shelter								
	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
8.	**SHELTER**							
1.	**% of Household with Pucca Roofs**							
	Value	%	2020	35.6	32.9	35.1	8.5	PSLSMS
	Index			0.717	0.652	0.705	0.067	
2.	**Pucca Walls**							
	Value	%	2020	91.7	74.2	62.8	38.6	PSLSMS
	Index			0.888	0.653	0.499	0.174	
3.	**One Room Only**							
	Value	%	2020	22.6	35.6	16.3	23.3	PSLSMS
	Index			0.679	0.323	0.852	0.660	
4.	**Tap Water**							
	Value	%	2020	12	35	30	32	PSLSMS
	Index			0.119	0.698	0.568	0.620	
5.	**Electricity**							
	Value	%	2020	96	87	90	77	PSLSMS
	Index			0.918	0.732	0.794	0.526	
6.	**Gas**							
	Value	%	2020	50	57	34	35	PSLSMS
	Index			0.512	0.637	0.212	0.231	
7.	**Clean Fuel**							
	Value	%	2020	39	49	18	26	PSLSMS
	Index			0.508	0.695	0.113	0.263	
8.	**Flush Toilet**							
	Value	%	2020	89	76	84	44	PSLSMS
	Index			0.844	0.660	0.774	0.208	
9.	**Solid Waste Management**							
	Value	%	2020	17.5	22.0	5.3	10.5	PSLSMS
	Index			0.543	0.717	0.070	0.271	
10.	**% Owner-Occupied**							
	Value	%	2020	84	76	84	83	PSLSMS
	Index			0.675	0.513	0.675	0.655	
	OVERALL INDEX			**0.573**	**0.613**	**0.404**	**0.299**	
	Ranking			2	1	3	4	

Table A-3.9: The Provincial HSI Indicators: Education

Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
9. SOCIAL DEVELOPMENT – EDUCATION							
1. Literacy Rate							
Value	%	2020	64	58	55	46	PSLSMS
Index			0.610	0.500	0.445	0.280	
2. Gross Enrollment Ratio - Primary							
Value	%	2020	90	67	85	65	PSLSMS
Index			0.823	0.417	0.734	0.382	
3. Gross Enrollment Ratio – Middle							
Value	%	2020	67	53	67	47	PSLSMS
Index			0.615	0.374	0.615	0.271	
4. Gross Enrollment Ratio – Matric							
Value	%	2020	65	47	53	36	PSLSMS
Index			0.654	0.367	0.463	0.192	
5. Public Expenditure on Education as % of GRP							
Value	% of GRP	2020	1.3	1.2	3.2	2.7	PRSP
Index			0.144	0.115	0.692	0.547	
OVERALL INDEX			**0.492**	**0.319**	**0.578**	**0.313**	
Ranking			2	1	3	4	

Table A-3.10: The Provincial HSI Indicators: Health

Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
10. SOCIAL DEVELOPMENT – HEALTH							
1. Hospitals per Million Population							
Value	Number	2020	616	770	750	590	PSY
Index			0.352	0.595	0.562	0.310	
2. Doctors per Million Population							
Value	Number	2020	477	1090	500	292	PSY
Index			0.225	0.711	0.242	0.077	
3. Public Health Expenditure as % of GRP							
Value	% of GDP	2021	1.03	0.94	1.56	1.20	PRSP
Index			0.280	0.214	0.641	0.393	
OVERALL INDEX			**0.281**	**00449**	**0.443**	**0.211**	
Ranking			3	1	2	4	

Table A-3.11: The Provincial HSI Indicators: Women							
Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
11. WOMEN							
1. Female Labor Participation Rate							
Value	%	2020	26.26	15.23	15.75	11.93	LFS
Index			0.677	0.269	0.288	0.147	
2. Female Unemployment Rate							
Value	%	2020	8.44	6.59	15.65	4.96	LFS
Index			0.708	0.813	0.297	0.906	
3. % of Females with Pre-Natal Consultation							
Value	%	2020	83	73	69	63	PSLSMS
Index			0.707	0.534	0.446	0.362	
4. % of Females with Skilled Birth Attendants							
Value	%	2020	70	70	66	52	PSLSMS
Index			0.602	0.602	0.534	0.295	
5. % of Females with Post-Nata Consultation							
Value	%	2020	42	40	30	28	PSLSMS
Index			0.624	0.571	0.302	0.249	
6. Female Literacy Rate							
Value	%	2020	57	47	85	29	PSLSMS
Index			0.665	0.489	0.277	0.171	
OVERALL INDEX			**0.662**	**0.519**	**0.345**	**0.290**	
Ranking			1	2	3	4	

Table A-3.12: The Provincial HSI Indicators: Children							
Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
12. CHILDREN							
1. % of Out-of-Scholl Children							
Value	%	2020	24	44	30	47	PSLSMS
Index			0.677	0.269	0.288	0.147	
2. % of Child Labor							
Value	%	2020	5.12	3.97	5.00	6.13	LFS
Index			0.552	0.761	0.574	0.370	
3. % of Children (1 to 2 years) Fully Immunized							
Value	%	2020	81	52	69	35	PSLSMS
Index			0.752	0.374	0.595	0.152	
OVERALL INDEX			**0.700**	**0.485**	**0.621**	**0.266**	
Ranking			1	3	2	4	

Table A-3.13: The Provincial HSI Indicators: Income Inequality

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
13.	**INCOME INEQUALITY**							
1.	**Modified* PALMA Ratio of Income**							
	Index		2018-19	0.588	0.386	0.721	0.576	HIES
2.	**PASHUM Ratio of Income**							
	Index		2018-19	0.649	0.400	0.696	0.577	HIES
	OVERALL INDEX			**0.618**	**0.393**	**0.708**	**0.576**	
	Ranking			2	4	1	3	

Table A-3.14: The Provincial HSI Indicators: Intra-Provincial Disparity

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
14.	**INTRA-PROVINCIAL DISPARITY**							
1.	**Inter-Division Inequality in HDI**							
	Index			0.922	0.308	0.922	0.724	Pasha (2020)
2.	**Income Inequality between Urban and Rural Areas**							
	Index		2018-19	0.537	0.325	0.662	0.850	HIES
	OVERALL INDEX		**0.704**	**0.3016**	**0.757**	**0.784**		
	Ranking		3	4	2	1		

Table A-3.15: The Provincial HSI Indicators: Poverty and Social Protection

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
15.	**POVERTY AND SOCIAL PROTECTION**							
1.	**Level of Poverty**							
	Value	%	2015	31.4	43.1	49.2	71.2	UNDP
	Index			0.858	0.700	0.617	0.320	
2.	**Public Expenditure on Social Protection and Anti-Poverty**							
	Value	% of GDP	2021	0.99	0.74	1.11	0.46	PRSP
	Index			0.581	0.368	0.684	0.128	
3.	**% of Social Insurance and Gifts in Household Income**							
	Value	Rs/Month	2019	397	245	376	116	HIES
	Index			0.707	0.371	0.661	0.085	
	OVERALL INDEX			**0.707**	**0.458**	**0.654**	**0.151**	
	Ranking			1	3	2	4	

Table A-3.16: The Provincial HSI Indicators: Gender Inequality

	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
16.	**GENDER INEQUALITY**							
1.	**Relative Labor Force Participation Rate**							
	Value	Ratio	2020	38.26	21.69	24.92	18.54	LFS
	Index			0.670	0.241	0.325	0.160	
2.	**Relative Unemployment Rate**							
	Value	Ratio	2020	1.38	1.99	2.19	0.96	LFS
	Index			0.676	0.409	0.320	0.860	
3.	**Relative Literacy Rate**							
	Value	Ratio	2020	0.791	0.691	0.513	0.475	PSLSMS
	Index			0.693	0.547	0.287	0.231	
4.	**Relative Primary Enrollment Rate**							
	Value	Ratio	2020	0.967	0.795	0.806	0.600	PSLSMS
	Index			0.945	0.658	0.676	0.300	
5.	**Relative Middle-Level Enrollment Rate**							
	Value	Ratio	2020	0.971	0.716	0.631	0.607	PSLSMS
	Index			0.951	0.523	0.380	0.339	
6.	**Relative Matric Enrollment Rate**							
	Value	Ratio		0.912	0.720	0.549	0.447	PSLSMS
	Index			0.875	0.601	0.358	0.212	
7.	**Relative Wage**							
	Value	Ratio	2020	0.652	0.622	0.708	0.919	LFS
	Index			0.405	0.354	0.501	0.862	
	OVERALL INDEX			**0.721**	**0.456**	**0.392**	**0.347**	
	Ranking			1	2	3	4	

Table A-3.17: The Provincial HSI Indicators: Governance								
	Indicator	Unit	Year	Punjab	Sindh	K-PK	Balochistan	Source
17.	**GOVERNANCE**							
1.	**Public Admin & Defence Sector as % of GDP**							
	Value	%	2016	7.71	6.95	6.83	11.74	Pasha (2018)
	Index			0.284	0.215	0.205	0.604	
2.	**Share of Public Admin Sector in Total Employment**							
	Value	%	2020	2.92	4.81	4.43	6.67	LFS
	Index			0.140	0.412	0.357	0.680	
3.	**Appeals Pending in High Court per 1 million population**							
	Value	Number	2020	1554	823	1263	295	PSY
	Index			0.276	0.666	0.431	0.948	
4.	**Number of Police Stations per 1 million Population**							
	Value	Number	2020	6.15	10.80	8.97	9.62	PSY
	Index			0.199	0.650	0.473	0.535	
	OVERALL INDEX			**0.216**	**0.442**	**0.349**	**0.675**	
	Ranking			4	2	3	1	

Statistical Annexure-IV

Indicators of the Components of the HSI of the Divisions in the Provinces

Table A-4.1: Index of the Components of the HSI of the Division

	Human Development Index	Poverty Index	Access to Services Index	Human Security Index
PUNJAB				
Gujranwala	0.530	0.744	0.496	0.580
Rawalpindi	0.574	0.680	0.474	0.570
Lahore	0.617	0.425	0.524	0.517
Sahiwal	0.399	0.786	0.435	0.515
Faisalabad	0.500	0.590	0.464	0.515
Sargodha	0.467	0.570	0.426	0.484
Multan	0.419	0.449	0.400	0.423
Bahawalpur	0.346	0.362	0.391	0.366
D.G. Khan	0.357	0.337	0.308	0.334
SINDH				
Karachi	0.738	0.720	0.617	0.689
S. Benazirabad	0.427	0.452	0.360	0.410
Hyderabad	0.467	0.306	0.411	0.389
Sukkur	0.421	0.343	0.326	0.361
Larkana	0.326	0.385	0.359	0.356
Mirpurkhas	0.352	0.465	0.171	0.303
Bhanbore	0.308	0.250	0.216	0.256

Table A-4.2: Index of the Components of the HSI of the Divisions				
	Human Development Index	Poverty Index	Access to Services Index	Human Security Index
KHYBER-PAKHTUNKHWA				
Peshawar	0.556	0.605	0.397	0.511
Hazara	0.542	0.493	0.350	0.454
Mardan	0.400	0.476	0.377	0.416
Malakand	0.452	0.574	0.249	0.401
Kohat	0.364	0.590	0.271	0.388
Bannu	0.401	0.541	0.252	0.380
D.I. Khan	0.278	0.569	0.218	0.326
BALOCHISTAN				
Makran	0.543	0.708	0.270	0.470
Quetta	0.490	0.339	0.391	0.402
Sibi	0.398	0.345	0.255	0.327
Kalat	0.420	0.391	0.190	0.315
Rakshan	0.426	0.609	0.117	0.312
Nasirabad	0.299	0.351	0.068	0.192
Zhob	0.256	0.288	0.096	0.192

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List of Acronyms

AEPAM	Academy of Educational Planning and Management
AHSI	African Human Security Index
BD	Budget Documents
BISP	Benazir Income Support Programme
BNU	Beaconhouse National University
BTI	Bertelsmann Stiftung's Transformation Index
CCI	Council of Common Interests
CIRI	Cingranelli-Richards *(Human Rights Data Project)*
CPI	Consumer Price Index
CPI	Corruption Perceptions Index
CPIA	Country Policy and Institutional Assessment
CROP	Critical Research on Poverty
DISCOs	Power Distribution Companies
EIU	Economist Intelligence Unit
EOBI	Employees' Old-Age Benefits Institution
FLL	Federal Legislative List
FO	Financial Order
GARVs	Gross Annual Rental Values
GNH	Gross National Happiness Index
HDI	Human Development Index
HIES	Household Integrated Economic Survey
HISI	Human Insecurity Index
HSI	Human Security Index
IMF	International Monetary Fund
IT	Information Technology
LFS	Labor Force Survey
LNG	Liquefied natural gas

MFN	Most Favoured Nation
MOE	Ministry of Education
MOF	Ministry of Finance
NEC	National Economic Council
NEPRA	National Electric Power Regulatory Authority
NFC	National Finance Commission
NSP	National Security Policy
NTDC	National Transmission & Dispatch Company
OPEC	Organization of the Petroleum Exporting Countries
PBM	Pakistan Bait-ul-Mal
PBS	Pakistan Bureau of Statistics
PC	Planning Commission
PES	Pakistan Economic Survey
PIPS	Research Institute for Peace and Security
POL	Pakistan Oilfields Limited
PPP	Purchasing power parity
PRSP	Poverty Reduction Data Base
PRSP	Poverty Reduction Strategy Paper
PSDP	Public Sector Development Programme
PSLSMS	Pakistan Social and Living Standards Measurement Survey
PSY	Pakistan Statistical Yearbook
SBP	State Bank of Pakistan
SMEDA	Small and Medium Enterprises Development Authority
SMEs	Small and medium-sized enterprises
SOEs	State-Owned Enterprises
SOI	State of Industry Report
SPDC	Social Policy and Development Centre
SYB	Statistical Year Book
TB	Tuberculosis
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic & Social Commission for Asia & the Pacific

UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNSC	United Nations Security Council
USC	Utility Stores Corporation
WB	World Bank
WDI	World Development Indicators
WHO	World Health Organization
WTO	World Trade Organization
WWF	Workers' Welfare Fund

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Dr. Hafiz A. Pasha is Professor Emeritus at Beaconhouse National University, Lahore. He has served as Assistant Secretary General of the United Nations. He has been the Federal Minister for Commerce, Planning and Finance in three Governments of Pakistan. Earlier, he served as Vice Chancellor of the University of Karachi, Dean of IBA and Director of the Applied Economics Research Centre. He has received a number of international and national awards.

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