



# Assessing Impact of Macroeconomic Shifts on Micro-Economy of Pakistan's Poor and Ultra-Poor Households

## Policy Brief

Diluting Impacts of Macroeconomic Shifts on Poverty Graduation Capacities of the Poor

Dr. Nasir Iqbal  
January 2021

National Poverty Graduation Programme  
Pakistan Poverty Alleviation Fund

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The Policy Brief examines the impact of macroeconomic shifts on socioeconomic wellbeing, measured by income, poverty, employment, and education, of the poor in Pakistan. It also categorially quantifies these impacts on women and youth among the poor. It closes with policy and programmatic recommendations for social protection programs to dilute these impacts.

### **COVID-19 and Macroeconomic Shifts**

As of January 2021, the COVID-19 pandemic had infected more than 0.54 million people in Pakistan, resulting in 11,683 deaths.<sup>1</sup> It has severely impacted Pakistan's economy in the last quarter of FY20.<sup>2</sup> Estimated annualized economic growth for FY20 is between -0.4% and -1.3%, driven primarily by contraction in the Industry and Services sectors. Adverse effects of the pandemic, exacerbated by the locust attacks and recent floods, could remain damaging in FY21. The locust attacks and floods led to widespread crop damage, food insecurity, and inflationary pressures.<sup>3</sup> The projected GDP growth rate for FY21 varies between 1.33% and -1.4%.<sup>4</sup> While Pakistan faced double-digit inflation in FY20 due to economic and climatic shocks,<sup>5</sup> the second wave of COVID-19 further increased economic uncertainty.<sup>6</sup>

Macroeconomic shifts<sup>7</sup> would push millions of people into poverty and cause a significant rise in unemployment. Poor workers, especially those dependent on a daily wage with no savings, would be faced with a particularly daunting challenge in coping with possible lockdowns in response to the pandemic. Vulnerable

### **The Government Response**

Besides an amnesty scheme for the construction sector, the Government of Pakistan announced a comprehensive relief package of Rs. 1.2 trillion aimed at mitigating the consequent disruptions in economic activities caused by COVID-19, locust attacks, and floods. Aimed at stimulating the economy, the government has proposed the following measures in the FY21 budget.

- i. Increase in allocation for the Ehsaas Program [financial assistance program for poor implemented by BISP] from Rs. 187 billion to Rs. 208 billion.
- ii. Allocating Rs. 179 billion to provide subsidies in energy, food, and other sectors for vulnerable segments.
- iii. Allocating Rs. 70 billion for coronavirus mitigation related schemes.
- iv. Reducing policy rate [short-term interest rate, for 2 months, announced by SBP, subsequently used by commercial banks for lending and borrowing] from 13% to 7% by SBP.

<sup>1</sup> [covid.gov.pk](http://covid.gov.pk). Figures taken on January 31, 2021.

<sup>2</sup> Fiscal Year (FY).

<sup>3</sup> <https://www.worldbank.org/en/country/pakistan/overview> and <http://www.fao.org/pakistan/resources/in-depth/desert-locust-situation-in-pakistan/en/>

<sup>4</sup> Projections based on Nasir, et al. (2020) Post-COVID-19 Recovery Scenarios for Pakistan's Economy: Projections for Fiscal Years 2020 and 2021. PIDE: <https://www.pide.org.pk/pdf/Covid-19-and-Pakistans-Economy.pdf>. Projected growth is slightly adjusted for policy analysis.

<sup>5</sup> GoP (2020) Pakistan Economic Survey 2019-20, [http://www.finance.gov.pk/survey\\_1920.html](http://www.finance.gov.pk/survey_1920.html), Ministry of Finance.

<sup>6</sup> World Bank (2021) Global Economics Prospects, <https://www.worldbank.org/en/publication/global-economic-prospects>

<sup>7</sup> Macroeconomic shifts present a significant decline in GDP with high inflation due to COVID-19, floods, and locust attacks in Pakistan.

employment is around 56% in Pakistan (71% among females; 52% among males).<sup>8</sup> Approximate sectoral allocation of vulnerable employment is over 80% in Agriculture; 75% in Wholesale and Retail; over 60% in Real Estate; 50% in Hospitality; and 40% in Transport and Communication. The macroeconomic shifts pose enormous implications for vulnerable employment and, therefore, for the poor.

### Scenarios of Macroeconomic Shifts

Various scenarios are used to quantify the impacts of macroeconomic policy shifts on the poor's socioeconomic wellbeing (Details in Appendix A). Inflation rates are estimated at 10.7% for FY20 and 9.0% for FY21.<sup>9</sup> Considering the estimated GDP growth rate for FY20, which is -1.0%, the projected GDP growth rates under different scenarios for FY21 are:

- A. Scenario A: FY21A: Pessimistic Scenario, No Economic Recovery.** GDP will grow at -1.3%
- B. Scenario B: FY21B: Moderate Scenario, Partial Economic Recovery.** GDP will grow at 0.1%
- C. Scenario C: FY21C: Optimistic Scenario, Full Economic Recovery.** GDP will grow at 1.3%

The following impacts are gathered from our nationwide survey covering NPGP and BISP beneficiaries. The survey collects information on income and other socioeconomic wellbeing indicators for three time slots:

- Before Covid-19 (January to March 2020)
- During Covid-19: The 1<sup>st</sup> Wave and Lockdown (April to July 2020)
- Relaxation in Lockdown (August to November 2020)<sup>10</sup>

### Impact on Household Income

The COVID-19 lockdown resulted in a 59% decline in monthly income among the poor.<sup>11</sup> Reasons attributable to this decline range from joblessness, poverty, layoffs, economic shocks, and reduced economic activity. During the lockdown, the income of daily wage workers has fallen by 64%;<sup>12</sup> household expenses declined by 10%; huge shock to livelihood reported by 62% of households; adverse impacts on income reported by nearly 62% women versus nearly 61% men.

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<sup>8</sup> Vulnerable employment is measured as the proportion of own-account workers (also including the daily wage earners) and unpaid family workers in total employment. Iqbal, N. (2020) COVID-19 in Pakistan: Caring for the Poor and Vulnerable, PIDE COVID-19 Bulletin (1): <https://www.pide.org.pk/pdf/PIDE-COVID-Bulletin.pdf>

<sup>9</sup> Based on State Bank of Pakistan (SBP) estimates.

<sup>10</sup> The 2<sup>nd</sup> COVID-19 wave started in Pakistan, in late November 2020 with an increase in positivity rate of cases.

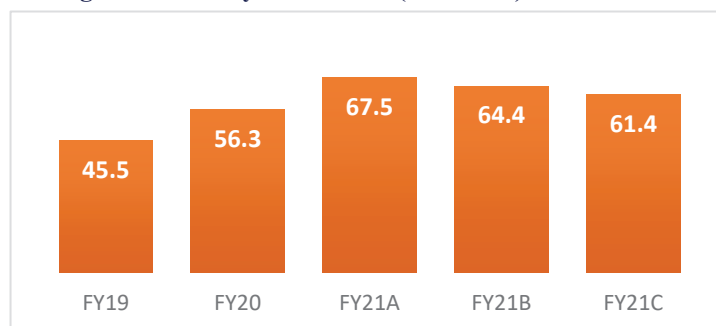
<sup>11</sup> Almost similar income decline (53% due to lockdown) at the national level, has been reported by the Pakistan Bureau of Statistics (PBS). [http://www.pbs.gov.pk/sites/default/files/other/covid/key\\_findings\\_presentation\\_covid\\_survey.pdf](http://www.pbs.gov.pk/sites/default/files/other/covid/key_findings_presentation_covid_survey.pdf)

<sup>12</sup> Especially for daily wage workers who do not own any livestock.

## Impact on Poverty

Macroeconomic shifts have caused an increase in overall poverty from 21.5% in FY19 to 26% in FY20. Poverty in urban areas increased from 10.7% to 15.2%, and from 27.6% to 32.2% in rural areas during the same period. The projected poverty rate in FY21 will range between 27.8% and 30.5%, depending on economic recovery. Poverty is projected to have increased from 45 million people in FY19 to 56.3 million people in FY20.<sup>13</sup> The projected poverty for FY21 under the 3 Scenarios (mentioned above) is:

**Figure 1: Poverty in Pakistan (in million)**



Poverty is projected to have increased from 45 million people in FY19 to 56.3 million people in FY20.<sup>13</sup> The projected poverty for FY21 under the 3 Scenarios (mentioned above) is:

**Scenario A: FY21A: Pessimistic Scenario, No Recovery.** Projected poverty is 67.5 million people

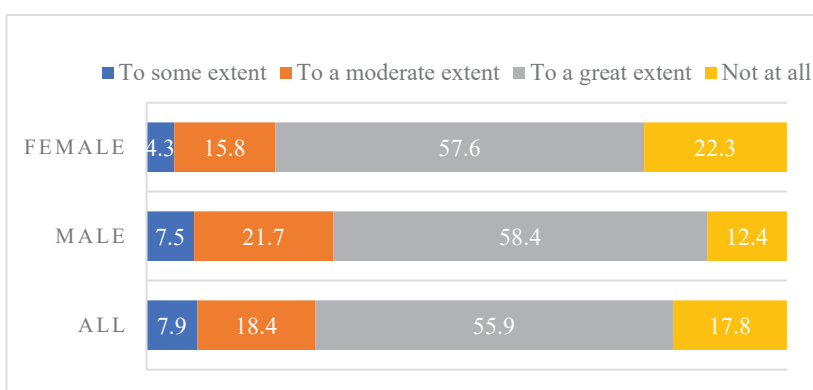
**Scenario B: FY21B: Moderate Scenario, Partial Recovery.** Projected poverty is 64.4 million people

**Scenario C: FY21C: Optimistic Scenario, Full Recovery.** Projected poverty is 61.4 million people

## Impact on Employment

Employment of both women and men is impacted by a great extent at 56% due to the lockdown during COVID-19.<sup>14</sup> Percentages of this impact are comparable for women and men (57.6% for women; 58.4% for men) (Figure 2).

**Figure 2: Impact of Shocks on Employment**



Our projections indicate that the unemployment rate will increase from 7.1% in FY19 to 8.0% in FY20 due to the macroeconomic shifts resulting from low economic growth and inflationary pressures. A significant increase in unemployment has been noted among the female and youth population in FY20 (Appendix B). We project that in absolute terms, unemployment will increase from 4.8 million people in FY19 to 5.5 million people in FY20. The overall unemployment rate will range from 9.1% to 8.5% in FY21, depending on economic recovery.

<sup>13</sup> The pandemic-induced global new poor are estimated to be 124 million in 2020 and estimated COVID-19-induced poor are set to rise to between 143 and 163 million in 2021 under different growth scenarios (World Bank, 2021). <https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>

<sup>14</sup> The intensity of impacts on employment due to shocks is measured using Likert Scale. Where 'to some extent' represents marginal impact on employment, while 'to a great extent' represents severe impact. Figure 2 shows that around 82% households documented that shocks adversely impacted their employment ranging from minor impact (8%) to moderate impact (18%) and severe impact (56%).

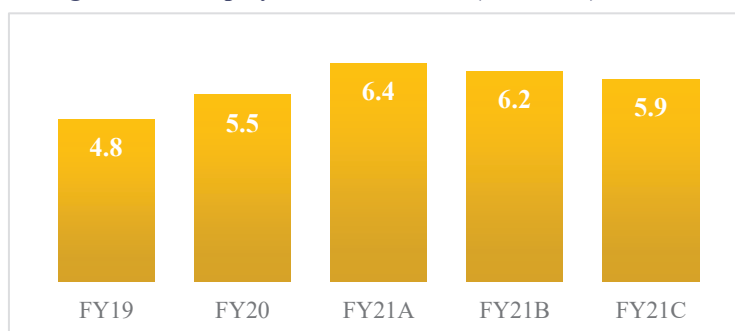
The projected unemployment in FY21 under different policy scenarios is:

**Scenario A: FY21A: Pessimistic Scenario, No Recovery.** 6.4 million unemployed people

**Scenario B: FY21B: Moderate Scenario, Partial Recovery.** 6.2 million unemployed people

**Scenario C: FY21C: Optimistic Scenario, Full Recovery.** 5.9 million unemployed people

**Figure 3: Unemployment in Pakistan (in million)**



### Impact on Education

Around 71% reduction in per capita education expenditures is reported during the COVID-19 lockdown.<sup>15</sup> This massive decline in education spending by households coupled with school closures due to lockdown, resulted in a significant increase in school dropouts and a considerable decrease in learning capacity of students. By considering school closures, income loss, inflationary pressures, and

poverty, FY20 will have around 1.97 million additional school dropouts. In FY21, additional dropouts under different policy scenarios are:

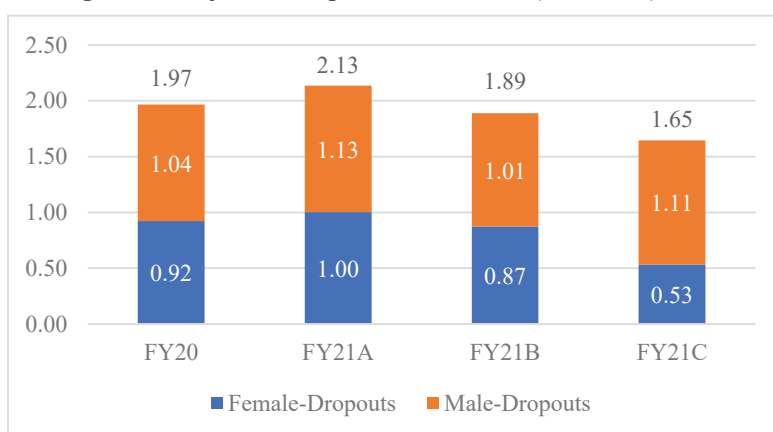
**Scenario A: FY21A: Pessimistic Scenario, No Recovery.** 2.13 million additional dropouts

**Scenario B: FY21B: Moderate Scenario, Partial Recovery.** 1.89 million additional dropouts

**Scenario C: FY21C: Optimistic Scenario, Full Recovery.** 1.65 million additional dropouts

The dropout is much higher for primary level classes and among girls in FY20 and FY21 (Appendix C). School closures erode the learning capacity of students, affecting income outcomes in the long run adversely. Estimates show that Learning Adjusted Years of Schooling in Pakistan will decrease by 14.6%, from 4.78 to 4.08 years, due to the COVID-19 pandemic.<sup>16</sup>

**Figure 4: Projected Dropouts in Pakistan (in million)**



### Diluting Impacts of Macroeconomic Shifts: A Policy Framework

Evidence presented above establishes that Pakistan's recent macroeconomic shifts have increased poverty, unemployment, and education deprivation. These impacts are more profound on women and youth than on men. A policy framework containing both macro- and micro-level interventions is proposed to dilute these adverse impacts.

<sup>15</sup> Per capita expenditures are defined as: Expenditures per Household Size.

<sup>16</sup> Khan and Ahmed (2020) Protecting our Future: Covid-19 and Child Education, PIDE Working Paper, Pakistan.

## **A. Macro-Level Interventions**

A prudent macroeconomy policy environment is required to regain growth and generate employment in the short run. The following interventions can achieve this.<sup>17</sup>

**1<sup>st</sup>:** The government should increase the level of public investment to stimulate economic growth. This public investment should include the Employment Guarantee Scheme (EGS) provisions to provide guaranteed wage employment for a specified time to every household whose adult members volunteer to do the work which lost a job due to the pandemic.<sup>18</sup>

**2<sup>nd</sup>:** Government investment in agriculture should be increased to generate economic activities targeted at vulnerable populations. In the short-run, immediate season's crops need to be identified, and farmers should be facilitated categorically to grow those crops. This facilitation can come through easy credit availability on a priority basis through ZTBL<sup>19</sup> and other commercial banks.

**3<sup>rd</sup>:** The government should facilitate Small and Medium Enterprises (SMEs) through directed credit schemes and reduction in input costs, mainly by tariff reductions and adjustment facility in utility bills. The government should make it mandatory for commercial banks to lend loans to SMEs.<sup>20</sup>

**4<sup>th</sup>:** The government should take necessary measures to control inflation below 6% to boost economic activities as inflation below 6% is growth-enhancing in Pakistan.<sup>21</sup>

**5<sup>th</sup>:** Markets are heavily regulated in Pakistan. This increases the cost of doing business. Being competitive requires lowering the cost of doing business. To facilitate business, measures like reducing documentation, introducing window operations, allowing online processes, exempting attestation requirements, must be reduced. On a priority basis, the government should introduce mega reforms, apart from the amnesty scheme, and reduce regulation in the construction industry to generate economic opportunities.

**6<sup>th</sup>:** Increase the tax base to finance social protection programs with domestic resources to achieve long term financial stability. Social protection financing should be based on equitable financing relying on fair, sustainable, and diversified taxation systems.

## **B. Micro-Level Interventions - Program Level Recommendations for NPGP**

Right targeting, transparent enrollment, efficient and low-cost service delivery, and long-term financial sustainability are prerequisites to achieving poverty alleviation and social development. Two programmatic interventions can enable social protection programs to achieve these prerequisites.

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<sup>17</sup> This section is heavily drawn from Nasir et al. (2020).

<sup>18</sup> EGS follows the public works approach to enhance livelihood security by providing employment at minimum wage rate for four months. EGS can be made part of the Ehsaas Amdan Programme wherein educated youth can be engaged in teaching children to increase literacy rates in the long run. Formally uneducated youth can be involved in labor-based infrastructure development projects. Since 1970, India runs a similar scheme under its National Rural Employment Guarantee Act (NREGA) as a right of the poor to get up to 100 days of work per year.

<sup>19</sup> Zarai Taraqati Bank Limited (ZTBL) – a premier financial institution in Pakistan, focused on provision of financial services and technical expertise to the agriculture sector.

<sup>20</sup> SBP is already facilitating commercial banks to provide loans to SMEs. The need now is to make allocation of fixed funds for SMEs, compulsory.

<sup>21</sup> <http://thepdr.pk/pdr/index.php/pdr/article/view/2367>



## 1. Shock-adjusted dynamic targeting

Social protection programs in Pakistan mainly use static welfare scores to target their beneficiaries. Evidence presented above shows that economic and climatic shocks adversely impact socioeconomic and welfare indicators of households, which then face various shocks, including individual-level (idiosyncratic) and community-level (covariate) shocks. These shocks have more profound adverse impacts on the welfare of the bottom quintile of the population, due to their vulnerable income sources and lack of productive assets. Furthermore, during natural shocks (floods, earthquakes, viral attacks, pandemic), a quick assessment is required to launch shock-responsive social protection for the poor. Targeting methods should therefore be shock-adjusted to expand social protection, especially during these natural shocks. BISP can use a shock-adjusted proxy means test (PMT), which integrates household exposure to shocks for better targeting.<sup>22</sup> A detailed study is needed to determine welfare loss due to various idiosyncratic and covariate shocks to construct a shock-adjusted targeting method accurately.

## 2. Revamping Safety Nets

- i. **Moving from direct cash transfers to graduation-based approach:** Unconditional Cash Transfers (UCTs) are not enough to reduce income-related poverty. As a standalone, UCT does not generate livelihoods to sustain improved conditions beyond the program duration. For example, the UCT program by BISP has shown to have no significant impact on reducing poverty.<sup>23</sup> Global experience suggests that cash transfer programs have been more successful and sustainable when combined with complementary, well-sequenced interventions on the uptake of education, health, nutrition, and additional livelihood support for the poor.<sup>24</sup> These holistic interventions enable beneficiaries to move beyond financial dependency and embrace more sustainable livelihoods. Hence, to make poor people economically better off, in addition to an inclusive macroeconomic policy, specifically targeted poverty graduation programs which create sustainable income streams are needed.
- ii. **A package-based model for better coverage and optimal utilization of resources:** Ongoing social security programs such as UCT by BISP generally provide the same financial support across all beneficiaries by assuming similar problems and similar needs of the target group. However, demographic structures and socioeconomic needs differ across households, showing heterogeneity in the needs of the poor. Therefore, a package-based model is more advisable where beneficiaries decide on the social safety package they are given, based on a self-assessment of their needs. Based on the target group's current needs, 4 packages can be considered.
  - a. **Employment-Intensive Package:** The package focuses on technical training, financial support to start micro-business, compulsory savings, and insurance coverage. The primary beneficiary is the head of household with a focus on adults. At least 50% support will be for women and especially for youth. As part of the package, unconditional financial support for consumption smoothing is provided to households for a fixed time.
  - b. **Education-Intensive Package:** This package includes free education for all children in the family up until their graduation. The educational expense, along-

<sup>22</sup> Iqbal et al. (2020) Targeting Performance: Proposal for shock adjusted targeting method, PIDE Working Paper, Pakistan.

<sup>23</sup> See e.g. BISP Impact Assessment Report 2020 by Oxford Policy Management (OPM) [https://bisp.gov.pk/SiteImage/Misc/files/BISP\\_EvaluationReport\\_Ver%20without\\_FINAL.pdf](https://bisp.gov.pk/SiteImage/Misc/files/BISP_EvaluationReport_Ver%20without_FINAL.pdf); and Nayab, D and Farooq, S. (2020) Unconditional Cash Transfer and Poverty Alleviation in Pakistan: BISP's Impact on Households' Socioeconomic Wellbeing, PIDE Policy Viewpoint (18), <https://www.pide.org.pk/pdf/Policy-Viewpoint-18.pdf>

<sup>24</sup> <https://www.povertyactionlab.org/policy-insight/building-stable-livelihoods-ultra-poor>. Various countries, including Brazil, Bangladesh, Mexico, Colombia, and India, have introduced comprehensive graduation programs to sustainably break poverty traps.

with a stipend amount for each student, would be paid directly to educational institutions. Key beneficiaries of the program will be children and youth. Overall, priority will be given to female students. For technical skills training, youth and women will be prioritized.

- c. **Health-Intensive Package**: This package includes free health services, both indoor and outdoor, with a focus on women, older people, and people with disabilities. To overcome wasting and stunting, the package also covers children younger than 5. The package includes general health insurance for all, and unconditional financial support for consumption smoothing for a fixed time.
- d. **Food-Intensive Package**: This package includes electronic ration cards to be issued to a primary female beneficiary from the household, for the purchase of groceries at different intervals during the month with a fixed amount limit.

In the first round of validation, assessment of the BISP NSER<sup>25</sup> – which contains detailed profiles on each household – can indicate the kind of customized package which needs to be provided to each household based on its demographics, skill-set, and asset ownership (including housing condition), among other factors. The second round of validation and improvement to the menu of the packages should be undertaken at BISP Registration Centers present in multiple districts, where households seeking support will be invited and further details about their specific needs will be gathered. They will then be linked to programs most suited to their dynamics and needs, offered by the public and private sectors.

The proposed packages have the edge over existing poverty reduction programs, in terms of their i) Coverage and targeting efficiency ii) Cost efficiency iii) Consumer sovereignty.<sup>26</sup> Each package requires a different set of targeting criteria; hence, separate targeting criteria may be devised.

### 3. Women and Youth Specific Interventions

- a. Women-specific livelihood opportunities should be promoted but by moving away from traditional approaches, which include giving them sewing machines and kitchen gardening tools. Women should be trained in newer and more value-added fields through women trainers. These fields include home-based business, tourism, hoteling, packaging (mainly vegetables and dairy products), travel service, and selling and servicing of IT products.
- b. Access of women to potential markets is a huge challenge and needs to be addressed by organizations working on poverty reduction. Finding spaces to offer products to customers physically (since they cannot do online business easily)<sup>27</sup> is very costly for women and youth. Special zones should be developed for them in the number of localities at no cost. Special sale zones can be established at the village level by engaging educated youth. These zones create a link between micro-home-based business and urban markets.
- c. Improvement in social skills like communication, marketing, conflict management, and business strategizing, among others, is a significant challenge for poor youth and needs to be addressed on increased priority. Youth should be trained in ICTs

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<sup>25</sup> National Socio-Economic Registry (NSER).

<sup>26</sup> Iqbal (2020) A Review of Social Protection Model, PIDE Working Paper, Pakistan.

<sup>27</sup> Only 24% households have access to internet in rural areas of Pakistan. Only 6% rural females have access to computer/tablet. [https://www.pbs.gov.pk/sites/default/files/pslm/publications/pslm2018-19/pslm\\_report\\_2018-19\\_national\\_provincial.pdf](https://www.pbs.gov.pk/sites/default/files/pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf). This low penetration of ICT services makes it exceedingly difficult to do online business.



and market access skills for long term sustainability of livelihoods [in line with point b].

- d. The cost of starting and running a business is still very high in Pakistan, especially for the poor. Owing to high input costs and difficulty in locating business space, it becomes cumbersome, especially for women, to start a business. This has to be addressed by subsidizing inputs and providing financial support to establish a new business.

#### **4. Revitalizing Street Economy**

Pakistan has a large Street Economy (SE) operated by individuals and micro-enterprises across the country, mostly in urban areas.<sup>28</sup> These individuals and micro-enterprises working in SE are parts of the informal economy, which provides employment and livelihood to the poor with low formal literacy. The informal sector's role is loosely tied and involves businesses which are either not registered with the government or are not measurable.<sup>29</sup> Thus, the government does not facilitate this sector, and often discourages the informal economy. Lack of legal protection and organizational incoherence has made the street vendor community susceptible to local authorities' frequent eviction campaigns.<sup>30</sup> More vulnerable segments such as women, children, and refugee laborers usually bear a greater burnt of this exploitation. NPGP should develop a mechanism to support street entrepreneurs to promote the street economy in its target districts. A study may be conducted to explore the characteristics of the micro-entrepreneurs operating in the SE and identify their categoric, district-wise operational challenges.

#### **Potential Impact of Proposed Interventions on Poverty and Unemployment**

The proposed pro-poor interventions both at the macro and micro level will potentially dilute the identified impacts of recent macroeconomic policy shifts. The proposed interventions would cause approximately a 4-percentage point increase in GDP growth rate.

The Econometric Model (Appendix A) shows that a 4-percentage point increase in GDP Growth Rate will

- Create around 1.5 million new jobs
- Reduce Unemployment by 1.2 percentage points
- Reduce Poverty by 2.5 percentage points

In the medium to long run, these interventions will help break the vicious circle of poverty through the generation of decent employment and diversified income-generating activities.

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<sup>28</sup> Pakistan has a large informal economy (around 56% of GDP). Arif, et al. (2020) The role of globalization in financial development, trade openness, and sustainable environmental-economic growth: Evidence from selected South Asian economies. *Journal of Sustainable Finance and Investment*. Informal sector accounts for 72% of Pakistan's employment, more in rural areas (76%) than in urban areas (68%). LFS-2018-19: <https://www.pbs.gov.pk/content/labour-force-survey-2017-18-annual-report>. Government of Pakistan's Poverty Alleviation and Social Safety Division in collaboration with Pakistan Institute of Development Economics (PIDE) and Capital Development Authority (CDA, Islamabad) is working to develop an inclusive strategy to formalize the Street Economy. PIDE has conducted field surveys in various sectors of Islamabad to develop the profile of street vendors for policy intervention.

<sup>29</sup> Though some studies have reported the size of the informal sector (as mentioned in footnote above), the calculation of its true size is a big challenge.

<sup>30</sup> Hasan (2021) Karachi's Street Economy. <https://www.dawn.com/news/1599420>

## **Appendix A: Micro-Macro Econometric Model – Methodological Note**

A micro-macro econometric model is used to measure the impacts of macroeconomic shifts on poverty, unemployment, and social wellbeing. A three-step methodology is used to calculate projected poverty, unemployment, and enrollment.

- Step 1:** Calculate the growth elasticity of poverty, unemployment, and student enrollment using time series data over FY01-FY19.<sup>31</sup> The Fully Modified OLS (FM-OLS) approach is used to estimate the causal relationship between poverty, unemployment, enrollment, and macroeconomic shifts.
- Step 2:** Distribute the aggregate household expenditure shock across each expenditure while using the household consumption expenditure pattern by utilizing the Household Integrated Economic Survey (HIES) 2015-16 and 2018-19.<sup>32</sup>
- Step 3:** Use readjusted per capita household consumption expenditure distribution to measure the projected poverty for FY20 and FY21. To measure unemployment and student enrollment, use the growth elasticity of unemployment and student enrollment. Further, adjust the elasticity estimates to capture the effect of unprecedented closure of economic activities due to lockdown.

## **Appendix B: Projected Unemployment Rates (FY 2020)<sup>33</sup>**

Regional	All	Urban	Rural	Female	Male	Youth	Adult
Pakistan	8.0%	10.0%	6.9%	11.4%	7.0%	13.2%	4.3%
Punjab	8.2%	9.9%	7.4%	10.3%	7.4%	12.9%	4.3%
Sindh	6.8%	10.0%	3.7%	15.7%	5.4%	13.6%	3.1%
KPK	9.9%	11.4%	9.5%	12.3%	9.4%	13.8%	7.6%
Balochistan	5.7%	8.1%	4.9%	23.4%	3.9%	12.6%	1.5%

## **Appendix C: Projected School Dropouts in Pakistan (in 000)**

Levels	FY2020		FY2021		
		<u>Scenario A</u> No Recovery	<u>Scenario B</u> Partial Recovery	<u>Scenario C</u> Full Recovery	
<b>Primary School (I-V)</b>					
Total	1229	1327	1203	1081	
Male	655	710	652	809	
Female	573	617	551	273	
<b>Middle School (VI-VIII)</b>					
Total	453	488	422	357	
Male	236	252	221	191	
Female	217	236	201	165	
<b>High School (IX-X)</b>					
Total	284	320	264	209	
Male	153	169	141	114	
Female	131	150	122	95	

<sup>31</sup> Data on economic variables is taken from Pakistan Economic Survey. Data on poverty estimates is taken from Iqbal (2020).

<sup>32</sup> Aggregate household expenditures shocks are calculated for each quintile (across 20 quintiles) by taking change in mean expenditures from 2015-16 and 2018-19 using HIES datasets. These changes are subsequently adjusted with GDP growth rates during the same period. The variation in expenditures is higher among bottom quintiles than it is in upper quintiles.

<sup>33</sup> Appendix B and C are taken from PPAF (2021) Assessing Impacts of Macroeconomic Policies on the Micro Economy, Report.