PHILIPPINES ECONOMIC UPDATE

BRACING FOR HEADWINDS, ADVANCING FOOD SECURITY

DECEMBER 2022
The Philippines Economic Update (PEU) summarizes key economic and social developments, important policy changes, and the evolution of external conditions over the past six months. It also presents findings from recent World Bank analyses, situating them in the context of the country’s long-term development trends and assessing their implications for the country’s medium-term economic outlook. The update covers issues ranging from macroeconomic management and financial-market dynamics to the complex challenges of poverty reduction and social development. It is intended to serve the needs of a wide audience, including policymakers, business leaders, private firms and investors, and analysts and professionals engaged in the social and economic development of the Philippines.

The PEU is a biannual publication of the World Bank’s Macroeconomics, Trade, and Investment (MTI) Global Practice (GP), prepared in partnership with the Finance, Competitiveness and Innovation (FCI); Poverty and Equity; Social Protection and Jobs (SPJ); Agriculture Global Practice (Ag); and Governance Global Practices. Lars Christian Moller (Practice Manager for the MTI GP), Souleymane Coulibaly (Lead Economist and Program Leader), and Ralph van Doorn (Senior Economist) guided the preparation of this edition. The team consisted of Kevin Chua (Senior Economist), Kevin Cruz (Economist), Ruijie Cheng (Young Professional), Eduard Santos, Ludigil Garces and Patrizia Benedicto (Consultants) from the MTI GP; Radu Tatucu (Senior Financial Sector Specialist) and Uzma Khalil (Senior Financial Sector Specialist) from the FCI GP; Nadia Belghith (Senior Economist), Sharon Piza (Economist) and Karl Jandoc (Consultant) from the Poverty & Equity GP; Yoonyoung Cho (Senior Economist), Ruth Rodriguez (Social Protection Specialist) and Ma. Laarni Revilla (Consultant) from the SPJ GP; and Nkosinathi Mbuya (Senior Nutrition Specialist) from the Health GP. A World Bank team from the Agriculture and MTI GPs, consisting of Anuja Kar (Senior Agriculture Economist), Mio Takada (Senior Agriculture Economist), John Nash (Consultant), Roehl Briones (Consultant) and Kevin Chua, prepared the Special Focus Note on Ensuring Food Security for All: Repurposing Public Investments, under the guidance of Dina Umali-Deininger (Practice Manager) and Lars Moller. The report was edited by Oscar Parlback (Consultant), and the graphic designer was Pol Villanueva (Consultant). Peer reviewers were Dhruv Sharma (Senior Economist), Ergys Islamaj (Senior Economist), Irina Schuman (Senior Agriculture Economist), and Ruslan Piontkivksy (Senior Economist). Logistics and publication support were provided by Geraldine Asi (Team Assistant), Mildren Peñales (Team Assistant), and Hunter Tiro (Consultant). The External Communications Team, consisting of Clarissa David, David Llorito and Stephanie Margallo, and Justine Letargo (Consultant) prepared the media release, dissemination plan, and web-based multimedia presentation.

The team would like to thank Ndiame Diop (Country Director for Brunei, Malaysia, Philippines, and Thailand) for his advice and support. The report benefited from the recommendations and feedback of various stakeholders in the World Bank as well as from the government, the business community, labor associations, academic institutions, and civil society. The team is grateful for their contributions and perspectives. The findings, interpretations, and conclusions expressed in the PEU are those of the authors and do not necessarily reflect the views of the World Bank’s executive board or any national government.

If you wish to be included in the email distribution list for the PEU and related publications, please contact Geraldine Asi (gasi@worldbank.org). For questions and comments regarding the content of this publication, please contact Kevin Chua (kchua1@worldbank.org). Questions from the media should be addressed to David Llorito (dllorito@worldbank.org).

For more information about the World Bank and its activities in the Philippines, please visit www.worldbank.org/ph.
Preface
Table of Contents
List of figures
List of tables
List of boxes
Abbreviations and acronyms
Executive Summary
Part I. Recent Economic and Policy Developments
1.1 Economic Growth: Outperforming Expectations
1.2 External Sector: Widening Deficits and Weakening Currency
1.3 Inflation and Monetary Policy: Tighter Stance amid High Inflation
1.4 Fiscal Policy: Towards Consolidation
1.5 Employment and Poverty: Labor Market Vulnerabilities amid the Economic Recovery
Part II. Outlook and Risks
2.1 Growth Outlook
2.2 Poverty and Shared Prosperity
2.3 Risk and Policy Challenges
Part III. Ensuring Food Security for All: Repurposing Public Investments
3.1 Introduction
3.2 The Effectiveness of Public Spending
3.3 Implications for Financial and Functional Devolution resulting from the Mandanas Ruling
3.4 An Action Agenda for Agriculture
Annex 1
Bibliography

NOTE: CLICK THE SIDE BUTTONS TO GO TO THE SECTION YOU WANT TO READ OR GO TO THE TABLE OF CONTENTS (TOC). CLICK HOME BUTTON TO GO BACK TO TOC PAGE
List of figures

Figure 1. The economic recovery is underway in 2022. 7
Figure 2. The services sector significantly contributed to growth in Q1-Q3 2022, ... 8
Figure 3. ... buoyed by strong domestic demand. 8
Figure 4. Strong merchandise imports have widened the trade deficit. 10
Figure 5. The current account deficit drove the BOP shortfall. 10
Figure 6. Regional currencies have depreciated against the US dollar. 10
Figure 7. Global economic activity has slowed amid deteriorating investor sentiment. 12
Figure 8. Global tourism has started to recover as countries relax pandemic restrictions. 12
Figure 9. Inflation rose due to elevated food and energy prices. 14
Figure 10. The BSP tightened its monetary policy in response to elevated inflation. 14
Figure 11. The banking sector is showing signs of improvement, as the share of NPLs and restructured loans declined. 14
Figure 12. The fiscal deficit narrowed in H1 2022. 16
Figure 13. About two-third of the national debt is domestic debt. 16
Figure 14. Female labor force participation has increased in recent months ... 18
Figure 15. ... while the unemployment rate continues to fall. 18
Figure 16. Poverty incidence by Region, 2018–2021. 19
Figure 17. Food and energy account for a high share of total expenditure among poor households. 19
Figure 18. Growth is expected to be lower in 2023, dragged by the unfavorable external environment. 21
Figure 19. Global commodity price pressure is weakening 22
Figure 20. Consumer confidence dropped in the previous quarter with household concerns over rising prices. 25
Figure 21. Actual and projected US$3.65-a-day poverty rates. 27
Figure 22. National Government Expenditures (Obligation Basis), 2021–2023. 30
Figure 23. Stunting Rates in Selected Countries, 1990-2020. 33
Figure 24. Sectoral share (%) of employment, 2002-2019. 36
Figure 25. Incidence and magnitude of poverty among population groups, 2006 – 18 (%). 37
Figure 26. Prevalence of moderate or severe food insecurity in percent (3-year average). 37
Figure 27. DA share to total budget ratio (%). 38
Figure 28. DA Appropriation Levels in Php Billions, and as a Ratio to Agricultural GVA (%). 38
Figure 29. Allocation of National Government Expenditures for Agriculture and Agrarian Reform, 2020–2022 (in Php billions).
Figure 30. Allocation to the Commodity Banner Programs, 2015–2019, in Php Millions.
Figure 31. TFP Growth in Agriculture (%) 
Figure 32. Rice yields around the world, 2000-2020 (ton/ha).
Figure 33. Comparison of Regional Ranking Based on Different Agricultural Indicators, 2018.
Figure 34. Government Allocations for Agriculture to LGUs, by LGU Level.

List of tables
Table 1. Economic Growth, 2019-2030f 
Table 2. Economic Indicators for the Baseline Projections 
Table 3. Comparison of Regional Ranking Based on Different Agricultural Indicators, 2018

List of boxes
Box 1. Recent Global Developments
Box 2. Global Outlook and Risks
Box 3. Trends on Global Commodity Prices and Implications for the Philippines
Box 4. Proposed 2023 National Government Budget
Box 5. Investing in Nutrition in the Philippines: An Essential Foundation for Sustained Economic Growth
Box 6. Advantages of Decoupled Payment
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFMA</td>
<td>Agriculture and Fisheries Modernization Act</td>
</tr>
<tr>
<td>AgGDP</td>
<td>Agricultural GDP</td>
</tr>
<tr>
<td>APIS</td>
<td>Annual Poverty Indicator Survey</td>
</tr>
<tr>
<td>BARMMM</td>
<td>Bangsamoro Autonomous Region in Muslim Mindanao</td>
</tr>
<tr>
<td>BBL</td>
<td>One stock tank barrel</td>
</tr>
<tr>
<td>BCDA</td>
<td>Bases Conversion Development Authority</td>
</tr>
<tr>
<td>BIR</td>
<td>Bureau of Internal Revenue</td>
</tr>
<tr>
<td>BOC</td>
<td>Bureau of Customs</td>
</tr>
<tr>
<td>BOP</td>
<td>Balance of payments</td>
</tr>
<tr>
<td>BPS</td>
<td>Basis points</td>
</tr>
<tr>
<td>BSP</td>
<td>Bangko Sentral ng Pilipinas</td>
</tr>
<tr>
<td>BTr</td>
<td>Bureau of Treasury</td>
</tr>
<tr>
<td>CAR</td>
<td>Cordillera Administrative Region</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
</tr>
<tr>
<td>CSA</td>
<td>Climate Smart Agriculture</td>
</tr>
<tr>
<td>DA</td>
<td>Department of Agriculture</td>
</tr>
<tr>
<td>DAR</td>
<td>Department of Agrarian Reform</td>
</tr>
<tr>
<td>DBM</td>
<td>Department of Budget and Management</td>
</tr>
<tr>
<td>DILG</td>
<td>Department of the Interior and Local Government</td>
</tr>
<tr>
<td>DOF-BLGF</td>
<td>Department of Finance-Bureau of Local Government Finance</td>
</tr>
<tr>
<td>DTP</td>
<td>Devolution Transition Plan</td>
</tr>
<tr>
<td>EAP</td>
<td>East Asia Pacific</td>
</tr>
<tr>
<td>EF</td>
<td>Equalization Fund</td>
</tr>
<tr>
<td>EMDEs</td>
<td>Emerging Markets and Developing Economies</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>F2C2</td>
<td>Farm and Fisheries Clustering and Consolidation Program</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FMRs</td>
<td>Farm-to-Market roads</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GHGs</td>
<td>Greenhouse gases</td>
</tr>
<tr>
<td>GOCCs</td>
<td>Government-Owned and Controlled Corporations</td>
</tr>
<tr>
<td>GVA</td>
<td>Gross Value Added</td>
</tr>
<tr>
<td>HFS</td>
<td>High Frequency Household Survey</td>
</tr>
<tr>
<td>IRA</td>
<td>Internal Revenue Allotment</td>
</tr>
<tr>
<td>IT-BPO</td>
<td>Information technology - business process outsourcing</td>
</tr>
<tr>
<td>LFPR</td>
<td>Labor Force Participation Rate</td>
</tr>
<tr>
<td>LFS</td>
<td>Labor Force Survey</td>
</tr>
<tr>
<td>LGC</td>
<td>Local Government Code</td>
</tr>
<tr>
<td>LGU</td>
<td>Local government unit</td>
</tr>
<tr>
<td>MMBtu</td>
<td>Million British thermal unit</td>
</tr>
<tr>
<td>NCR</td>
<td>National Capital Region</td>
</tr>
<tr>
<td>NFA</td>
<td>National Food Authority</td>
</tr>
<tr>
<td>NIA</td>
<td>National Irrigation Authority</td>
</tr>
<tr>
<td>NNC</td>
<td>National Nutrition Council</td>
</tr>
<tr>
<td>NPL</td>
<td>Non-performing loan</td>
</tr>
<tr>
<td>NTA</td>
<td>National Tax Allotment</td>
</tr>
<tr>
<td>NTBs</td>
<td>Non-Tariff Barriers to Trade</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
</tr>
<tr>
<td>OFs</td>
<td>Overseas Filipinos</td>
</tr>
<tr>
<td>OPEC</td>
<td>Organization of Petroleum Exporting Countries</td>
</tr>
<tr>
<td>OSEC</td>
<td>Office of the Secretary</td>
</tr>
<tr>
<td>PFMAT</td>
<td>Public Financial Management Assessment Tool</td>
</tr>
<tr>
<td>PhilRice</td>
<td>Philippine Rice Research Institute</td>
</tr>
<tr>
<td>PHP</td>
<td>Philippine Peso</td>
</tr>
<tr>
<td>PMI</td>
<td>Purchasing Managers’ Index</td>
</tr>
<tr>
<td>PMNP</td>
<td>Philippines Multisectoral Nutrition Project</td>
</tr>
<tr>
<td>PPP</td>
<td>Purchasing power parity</td>
</tr>
<tr>
<td>ppts</td>
<td>Percentage points</td>
</tr>
<tr>
<td>PRDP</td>
<td>Philippines Rural Development Project</td>
</tr>
<tr>
<td>PSA</td>
<td>Philippine Statistics Authority</td>
</tr>
<tr>
<td>PSY</td>
<td>Philippine Statistical Yearbook</td>
</tr>
<tr>
<td>TFP</td>
<td>Total factor productivity</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organization</td>
</tr>
</tbody>
</table>

**ABBREVIATIONS AND ACRONYMS**

AFMA: Agriculture and Fisheries Modernization Act

AgGDP: Agricultural GDP

APIS: Annual Poverty Indicator Survey

BARMMM: Bangsamoro Autonomous Region in Muslim Mindanao

BBL: One stock tank barrel

BCDA: Bases Conversion Development Authority

BIR: Bureau of Internal Revenue

BOC: Bureau of Customs

BOP: Balance of payments

BPS: Basis points

BSP: Bangko Sentral ng Pilipinas

BTr: Bureau of Treasury

CAR: Cordillera Administrative Region

CPI: Consumer Price Index

CSA: Climate Smart Agriculture

DA: Department of Agriculture

DAR: Department of Agrarian Reform

DBM: Department of Budget and Management

DILG: Department of the Interior and Local Government

DOF-BLGF: Department of Finance-Bureau of Local Government Finance

DTP: Devolution Transition Plan

EAP: East Asia Pacific

EF: Equalization Fund

EMDEs: Emerging Markets and Developing Economies

EO: Executive Order

F2C2: Farm and Fisheries Clustering and Consolidation Program

FDI: Foreign Direct Investment

FMRs: Farm-to-Market roads

GDP: Gross Domestic Product

GHGs: Greenhouse gases

GOCCs: Government-Owned and Controlled Corporations

GVA: Gross Value Added

HFS: High Frequency Household Survey

IRA: Internal Revenue Allotment

IT-BPO: Information technology - business process outsourcing

LFPR: Labor Force Participation Rate

LFS: Labor Force Survey

LGC: Local Government Code

LGU: Local government unit

MMBtu: Million British thermal unit

NCR: National Capital Region

NFA: National Food Authority

NIA: National Irrigation Authority

NNC: National Nutrition Council

NPL: Non-performing loan

NTA: National Tax Allotment

NTBs: Non-Tariff Barriers to Trade

O&M: Operations and Maintenance

OFs: Overseas Filipinos

OPEC: Organization of Petroleum Exporting Countries

OSEC: Office of the Secretary

PFMAT: Public Financial Management Assessment Tool

PhilRice: Philippine Rice Research Institute

PHP: Philippine Peso

PMI: Purchasing Managers’ Index

PMNP: Philippines Multisectoral Nutrition Project

PPP: Purchasing power parity

ppts: Percentage points

PRDP: Philippines Rural Development Project

PSA: Philippine Statistics Authority

PSY: Philippine Statistical Yearbook

TFP: Total factor productivity

UNICEF: United Nations Children’s Fund

WHO: World Health Organization

WTO: World Trade Organization
EXECUTIVE SUMMARY

Recent Developments

The Philippine economy has remained resilient despite a challenging external environment. The economy expanded by 7.7 percent, year-on-year, in the first three quarters of 2022, fueled by strong domestic demand. Domestic activity was buoyed by the economic reopening, release of pent-up demand, and improved labor market conditions. The reopening benefitted the contact-intensive services sector, while the public infrastructure investment program fueled construction and industry growth. However, growth in manufacturing moderated due to lower export demand and base effects from the previous year, while agriculture performed modestly amid the impact of typhoons, rising input costs, and low sectoral productivity. On the demand side, private consumption accelerated on the back of recovering household incomes, and sustained remittance growth. Capital investment growth anchored on renewed private sector optimism and sustained public investment. However, government consumption slowed as the government continued to unwind fiscal support for the pandemic, while net exports weakened amid low external demand.

Inflation accelerated due to price pressure from elevated global commodity prices and a tight domestic food supply. Headline inflation averaged 5.4 percent in the first ten months of 2022, higher than 4.0 percent in the same period in 2021. High global commodity prices and currency depreciations fueled domestic inflation, as the country is a net importer of most staple foods, fertilizer, and fuel. In addition, weather disturbances and lower domestic production of certain commodities such as sugar and salt have also pushed food prices higher. Higher energy prices spilled over utilities and transportation costs. Excluding volatile food and energy items, core inflation rose to 3.4 percent in January–October 2022, up from 3.1 percent in the same period last year. The increase indicated underlying price pressures and heightened inflation expectations in recent months. In response to rising inflation and peso depreciation, the BSP has tightened its monetary policy. Between May and November 2022, it raised the key policy rate by 300 basis points (bps) to 5.0 percent, and it has signaled further increases in step with the hawkish monetary stance of the US Federal Reserve.

The Balance of Payments (BOP) deficit, along with the rising interest rate differential and general strengthening of the US dollar, led to a significant depreciation of the peso. In the first half of 2022, robust domestic demand and high commodity prices underpinned the surge in merchandise imports, which outpaced the growth in net services exports and foreign remittances. This led to the widening of the current account deficit, which was financed by increased borrowings and net financial inflows. Nevertheless, the balance of payments deficit widened to 1.6 percent of GDP in the first half of 2022 from 1.0 percent of GDP in the first half of 2021. Against the backdrop of continued monetary tightening abroad, the BSP-registered investments reported net outflows in the third quarter of 2022. The BOP shortfall, along with the rising interest rate differential and the general strengthening of the US dollar, led to a significant depreciation of the peso in the first ten months of 2022.

Higher revenue collections and lower-than-programmed expenditures led to a narrower fiscal deficit in the first three quarters of 2022. Public revenues increased to 17.1 percent of GDP in the first three quarters of 2022 from 16.3 percent of GDP in same period last year. Customs collection exceeded its target amid strong imports demand and higher excise tax collections. Internal revenue collection rose on more robust domestic activity and efforts to strengthen digitalization and tax administration. Meanwhile, public spending declined from 24.6 percent of GDP to 23.6 percent of GDP during the same period. Current spending retreated in line with efforts to unwind pandemic support while capital spending fell short of the government program. The increase in public revenues and the decline in public spending led to a narrower fiscal deficit from 8.3 percent of GDP in 2022, which was financed by increased borrowings and net financial inflows. Nevertheless, the balance of payments deficit widened to 1.6 percent of GDP in the first half of 2022 from 1.0 percent of GDP in the first half of 2021. Against the backdrop of continued monetary tightening abroad, the BSP-registered investments reported net outflows in the third quarter of 2022. The BOP shortfall, along with the rising interest rate differential and the general strengthening of the US dollar, led to a significant depreciation of the peso in the first ten months of 2022.
The labor market continued to recover but the recovery is underscored by a higher share of low quality jobs than before the pandemic. The economic reopening allowed more individuals to participate and find jobs in the labor market. The labor force participation rate (LFPR) rose to 65.2 percent in September 2022, above the pre-pandemic level of 61.7 percent in January 2020. Even with increasing labor force participation, the unemployment rate declined from 8.9 percent in September 2021 to 5.0 percent in September 2022. This indicated that the labor market accommodated jobseekers, including new labor market entrants and young adults. Underemployment, which was high and volatile during the pandemic, appeared to be stabilizing on a downward trend in 2022, although it rose between June and September. Nevertheless, the employment recovery was accompanied by a higher share of elementary occupations associated with low pay, and part-time workers than pre-pandemic levels in January 2020. There has also been an increase in the share of self-employed and non-paid workers, indicating growing informality in the labor market.

**Outlook and Risks**

The external environment has further deteriorated with the realization of key downside risks, identified in the Philippines Economic Update, June 2022 edition. Global growth is expected to decelerate in 2022 and 2023, reflecting synchronous monetary tightening, worsening financial conditions, and continued disruptions due to the war in Ukraine. The ensuing weaker global demand is weighing on global industrial production and trade, which has decelerated since the start of the second half of 2022. Rapid monetary tightening specially in advanced economies has led to capital outflows and currency depreciations in emerging markets and developing economies (EMDEs). These external challenges have channeled through the Philippines in the form of high inflation, peso depreciation, and capital market volatility.

**Robust domestic activity is driving growth in 2022, but the deteriorating global environment is spilling into the economy and tempering its growth prospect.** The economy is projected to grow at an upward-revised 7.2 percent in 2022 before declining to 5.7 percent on average in 2023-25. The economic reopening this year is unleashing pent-up demand, contributing to jobs and incomes recovery, and benefitting the contact-intensive services sector. However, the unfavorable external environment and its spillover to the domestic economy will likely slow the growth momentum in the fourth quarter and into 2023. The growth slowdown in 2023 is premised on the fading of pent-up demand, alongside elevated inflation and higher interest rate environment that will temper domestic demand. The higher rates will lead to lower private credit and subdued investments at a critical time when public investment growth is expected to slow in line with fiscal consolidation and a programmed decline of public infrastructure spending. As global growth is expected to decelerate next year, external demand from advanced economies, which are key buyers of Philippines merchandise exports, will be subdued. Medium-term growth will gradually approach its potential rate at 5.7 percent as the output gap closes in line with the cyclical recovery.

The growth outlook is subject to downside risks at a time when the authorities face the challenging task of supporting recovery while taming inflation amid a narrowing policy space. With central banks across the world raising interest rates to combat inflation and governments withdrawing pandemic-related fiscal support, the synchronous policy actions could produce larger impacts than intended, both in tightening financial conditions and deepening the growth slowdown. The fear is that moderate shocks can tilt the global economy into recession, which will have dire consequences to the growth recovery in many EMDEs including the Philippines. The fear is aggravated by the risk of an escalation of geopolitical tensions and supply chain bottlenecks could further disrupt commodity markets and international trade. Escalating tension has already led to the curtailment of energy supplies to Europe. While most global commodity prices have eased since June, they remain higher than the averages in the past five years. If the current period of elevated inflation persists and de-anchors inflation expectations, central banks may accelerate the pace of monetary policy tightening with consequences on credit and capital flows. Finally, as the pandemic has yet to be declared over, the risk of another COVID-19 wave hangs over the outlook.

The immediate domestic challenge that faces the authorities is rising and high domestic inflation. High inflation will dampen household consumption,
while the ensuing policy rate tightening will temper borrowings and investments. Inflationary pressure comes from multiple fronts including: (i) elevated global commodity and energy prices; (ii) international supply chain and logistics disruptions; (iii) currency depreciation; (iv) recovering demand; and (v) domestic supply constraints caused by weak agricultural outputs and impact of natural disasters. Addressing the inflationary pressure means employing both monetary and non-monetary measures including freer importation, lower tariffs and non-tariff barriers to help augment domestic supplies as needed, support to agriculture production through extension services, seeds, and fertilizers, and key policy rate hikes.

Continued near-term monetary tightening is appropriate to prevent a de-anchoring of inflation expectations. High inflation tends to inflict the greatest harm on low-income households where inflation often outpaces wage growth, which these households rely on. Poorer households suffer disproportionately given the higher share of food and energy on their expenditures. Monetary tightening is appropriate to prevent self-fulfilling expectation of rising inflation. Moreover, communicating monetary policy decisions clearly, and leveraging credible monetary frameworks will help limit the economic impact of the tightening cycle.

Staying the course on fiscal consolidation signals commitment to fiscal sustainability. Fiscal consolidation has become more challenging in the current high inflation environment, which may compel the government to expand social support programs or extend subsidies at a time of narrower fiscal space. Targeted, instead of blanket, social assistance measures will help manage expenditure growth while maximizing returns of programs. Eliminating spending inefficiency and increasing value for money in public procurements will be instrumental to a consolidation strategy. The authorities also need to employ new tax policy and administration measures to mobilize revenues. Over the medium term, building fiscal buffers, diminished during the height of the pandemic, will help mitigate against downside risks. The proposed 2023 national government budget lays out the medium-term fiscal consolidation agenda, with target to reduce the fiscal deficits by 3.5 percentage points (ppts) of GDP between 2022 and 2025.

Despite the public spending slowdown, it remains important to sustain investments in health and education to reduce vulnerabilities from the scarring impact of the pandemic. The threat of a new variant-driven surge hangs over the outlook. Nevertheless, the country is better equipped to respond to re-emerging threats with high population vaccination coverage, and effective public health protocols. Shocks from the COVID-19 pandemic, however, have manifested themselves in child malnutrition and stunting, and reduced student learning especially among the poor. If unmitigated, these shocks may have persistent impacts on people’s wellbeing and damage future productivity, earnings, and innovation. For this reason, sustained investments in nutrition and education are imperative despite pressure for fiscal consolidation.

The new administration will need to take swift and decisive action to confirm its commitment to its stated priorities. The new administration has laid out its eight-point socio-economic agenda, which aims to guide the economy back to its high-growth trajectory. It has taken steps to reassure businesses and investors the continuity of public infrastructure program, business-friendly reforms, and growth-supporting macroeconomic policies. Structural reform initiatives are planned on the areas of public-private partnership, foreign participation in strategic industries, and tax policy and administration, among others. The release of the Philippines Development Plan 2023-2028 will be a welcome development as the plan provides a clear roadmap to achieving the country’s medium-term priorities.

Over the medium term, effective public spending in the agriculture sector will help address low agricultural productivity and alleviate the challenge of food security in the country. Comprising less than 10 percent of GDP, agriculture has marginally contributed to economic growth in the past decades. Low productivity has hampered domestic food production, which, in turn, influences the volatility of consumer price inflation. Nonetheless, the sector employs a disproportionate share of the labor force, significantly contributes to the household consumption basket among the poor, and therefore, crucial to the delivery of inclusive growth. The growth prospect remains poor due to a combination of chronic underinvestment and intense vulnerability to weather-related shocks. To this end, the efficient use of public funds for public investments will help address the structural constraints of the sector, and deliver better extension services, stronger
value chain system, and improved business climate for agri-food system.

**Special Focus – Ensuring Food Security for All: Repurposing Public Investments**

The growth momentum has been driven by key structural reforms, leading to a significant reduction in poverty in recent years. Agricultural policy has spurred some growth in the sector but falls short of sparking a structural transformation and dynamic development. Recently, the COVID-19 pandemic, the war in Ukraine, and adverse climatic and other events (typhoons, floods, and African Swine Fever outbreak), have contributed to rising domestic food prices and heightened concerns about food security in the country, especially for the poor and vulnerable. The country remains vulnerable to climate shocks and mounting challenges on account of the rising prevalence of food insecurity.

Ensuring food security and sustained agricultural growth has been hampered by underinvestment in public goods in agriculture. The continued focus on supporting rice production has come at the expense of other agricultural products. As a result, Filipino consumers pay a very high price for food approximately 40% higher than the regional comparators. Sustaining agriculture growth is further complicated by the ongoing devolution resulting from the Mandanas Ruling of the Supreme Court, which transfers greater responsibilities for and financing of agriculture programs to local government units (LGUs).

To take full advantage of the opportunities arising from the new strategic directions of the Department of Agriculture (DA) and the devolution of more responsibilities to LGUs, agricultural public expenditure policies must address three critical challenges: (i) changing strategic focus from an objective of self-sufficiency in specific commodities to align better with the administration’s ambition of improving sectoral competitiveness and resilience to ensure food security for all, (ii) improving the effectiveness of the current spending, and (iii) dealing effectively with the public expenditure issues related to devolution. To address the challenges, this note proposes some policy recommendations and interventions.

<table>
<thead>
<tr>
<th>Policy Recommendations</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focusing on diversification to ensure greater balance in sectoral priority-setting and resource allocation, and repurposing public agricultural expenditures in line with the strategic vision of the new administration</td>
<td>Food security is a function of income and the general availability of nutritious foods. In aspirational terms, it means moving toward an agri-food system that is: (i) resilient in the face of risks, (ii) inclusive in the opportunities it provides and the consumers it services, (iii) competitive in domestic and international markets, and (iv) environmentally sustainable from farm to fork. Pursuing this agenda requires shifting from protecting a specific product (e.g., rice) and type of farmer to improving the overall resilience, competitiveness, and sustainability of the sector. One element is the transition in budgeting from a commodity-based planning mechanism to more area-based, focusing on holistic objectives rather than production targets. A second element is to focus on programs that fund public goods that are currently underfunded (e.g., agricultural research).</td>
</tr>
<tr>
<td>Investments in extension services ensuring greater thrust on capacity development for LGUs</td>
<td>New modes of communication between agents and farmers allow more efficient dissemination of information than the old face-to-face contact model. As extension services are increasingly decentralized, investments in technologies that help local extension staff reach a larger number of farmers should have high payoffs. Continued thrust on capacity-building initiatives for the LGUs remains the key through guidelines, manuals, and guidebooks to improve delivery of extension services.</td>
</tr>
</tbody>
</table>
## Scale up Climate Smart Agriculture (CSA) policies and programs to foster increased resilience of the agri-food system to weather shocks and reduce Greenhouse gases (GHG) emissions from the sector

<table>
<thead>
<tr>
<th>Key interventions are the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reform agricultural support policies to encourage more diversified production systems.</td>
</tr>
<tr>
<td>• Improve water management and pricing policies to increase incentives for efficient use.</td>
</tr>
<tr>
<td>• Use legal and regulatory reform to provide greater tenure security for farmers to encourage investments in more resilient, integrated, and diversified agriculture systems.</td>
</tr>
<tr>
<td>• Support technology generation and dissemination to promote CSA technology adoption.</td>
</tr>
<tr>
<td>• Take advantage of the Mandanas process to build local capacity for mainstreaming CSA into policies and planning.</td>
</tr>
</tbody>
</table>

## Improve budget priority to support programs that overcome barriers to farm consolidation and achievement of economies of scale

| There is a need for increased focus on improving value chain coordination and integration under the Farm and Fisheries Clustering and Consolidation Program (F2C2) initiative, with government support for buyers and producer organizations in preparing and implementing profitable business plans. Measures to support collective action will also promote CSA investment options with high investment costs, e.g., solar-powered pumps, biodigesters, and small farm reservoirs, and therefore require joint action by groups of farmers. |

## Procedural improvements on government budgeting institutions

| Getting the greatest value from public funds requires an efficient and effective process to plan and execute the budget and see how and where the government spends money. In particular, attention is needed in two areas: (i) to identify the causes of low disbursement rates and resolve them; and (ii) to improve processes for evidence- and results-based monitoring and evaluation. |
The economic recovery continued through the third quarter of 2022 despite a challenging external environment that weighed on global trade, inflation, and global financing conditions. The economy expanded in the first three quarters of 2022, fueled by strong domestic demand. This was buoyed by the economic reopening, and improved labor market conditions. The unemployment rate has declined to its pre-pandemic level amid higher labor force participation. The fiscal deficit narrowed with growth in public revenues and winding down of pandemic support. However, inflationary pressure has strengthened, driven by high global commodity prices, supply disruption, currency depreciation, and recovering demand. In response, the Bangko Sentral ng Pilipinas (BSP) raised the key policy rate by a total of 300 bps, so far this year.
1.1 Economic Growth: Outperforming Expectations

The post-pandemic recovery is underway driven by domestic demand. Although firming global headwinds have weighed on merchandise trade, the recovery has continued amid increasing household incomes, sustained remittances, and improved employment conditions.

The economy grew by 7.7 percent, year-on-year, in the first three quarters of 2022 (4.9 percent in the same period in 2021), as improving domestic conditions offset a challenging external environment. The reduction in COVID-19 cases paved the way for an economic reopening that, along with election-related activities, spurred domestic demand. Campaign activities boosted travel, accommodation, information and publishing, and communication industries. The removal of stringent containment measures led to improved employment outcomes to pre-pandemic levels and allowed for the release of pent-up demand. Moreover, the strong domestic recovery tempered the impact of global headwinds from the war in Ukraine, high global commodity prices, and tightening global financing conditions. On a seasonally-adjusted basis, output in the Philippines has surpassed its pre-pandemic level, although the pace of recovery has been slower than in some regional peers (Figure 1). The authorities have accelerated the pace of economic reopening, including the full return to face-to-face classes in November 2022, given low COVID-19 cases and vaccination progress.

The economic reopening buoyed the recovery of the services sector, which accounted for 70 percent of Q1-Q3 2022 GDP growth (Figure 2). The economic reopening benefitted the contact-intensive services sector, which grew by 8.9 percent from Q1-Q3 2022 (4.4 percent a year ago). The removal of mobility restrictions and release of pent-up demand led to a growth acceleration in wholesale and retail trade, transportation, and accommodation and food services. In addition, construction rebounded due to the public infrastructure investment program, fueling growth in the industry sector. However, growth in manufacturing fell to 5.3 percent in Q1-Q3 2022 (down from 9.5 percent in the same period in 2021), as decelerating global demand for goods weighed on exports and manufacturing. In particular, the slowdown in manufacturing was driven by the sharp deceleration in the growth of electronics manufactures, the country’s main export products. Moreover, the agriculture sector’s tepid performance continued throughout the year, as output was impacted by typhoons, rising input costs, and low productivity.

Figure 1. The economic recovery is underway in 2022.

![Seasonally Adjusted Real GDP (2019-Q4 = 100)](chart)

Source: Haver Analytics.

1 All figures are on a year-on-year basis unless otherwise stated.
On the demand side, growth was fueled by private consumption, supported by the relaxation of containment measures and a recovery of household incomes (Figure 3). Private consumption grew by 8.9 percent in Q1-Q3 2022 (up from 2.9 percent in Q1-Q3 2021). Rising household incomes, growth in remittances, and the reopening of the border to international tourism buoyed domestic demand. Domestic demand remained resilient as private consumption gained steam despite a sustained rise in inflation in the third quarter. Meanwhile, gross fixed investment growth accelerated to 12.0 percent in Q1-Q3 2022 (up from 9.6 percent in 2021), fueled by renewed private sector optimism, private construction activities, and growth in public investment. However, government consumption slowed to 5.5 percent in Q1-Q3 2022 (from 6.9 percent in 2021), as the government continued to unwind fiscal support for the pandemic.

Global headwinds weighed on merchandise exports while improved domestic conditions led to a strong import demand. Although export growth accelerated to 9.3 percent in Q1-Q3 2022 (8.1 percent in Q1-Q3 2021), global headwinds has started to weigh on trade. In particular, merchandise exports growth fell to 2.8 percent in Q1-Q3 2022 (13.9 percent in Q1-Q3 2021), fueled by the slowdown in global demand, particularly from China. Services exports, meanwhile, expanded by 19.6 percent in Q1-Q3 2022 (a reversal from a contraction of 0.1 percent a year ago), fueled by the growth rebound in travel (221.3 percent) and transport (68.9 percent). In addition, growth was supported by the continued strong performance of the information technology-business process outsourcing (IT-BPO) sector, which accounted for around three-fourths of the country’s services exports. Imports increased by 15.5 percent in the same period (up from 12.5 percent in Q1-Q3 2021), supported by strong domestic demand, and reflected in a broad-based recovery of consumption goods, raw materials, and capital goods imports.

Note: Other industries are mining and quarrying, construction, electricity, gas, and water. Source: Philippine Statistics Authority (PSA).

---

2 Results from the most recent round of the World Bank High Frequency Household Survey (HFS) in May 2022 show that 51 percent of respondents report that they had the same level of income in May 2022 as they did prior to the pandemic, while 20 percent report that they had greater income than before the pandemic. Please refer to the Employment and Poverty section for a more detailed discussion.

3 In particular, construction by financial and non-financial corporations grew by 20.3 percent in Q1-Q3 2022 — a sharp reversal from the contraction of 28.7 percent in Q1-Q3 2021.

4 Over 1.6 million international travelers have arrived in the Philippines since the reopening in February 2022.

5 The export of telecommunication, computer, and information services (12.5 percent) and business services (10.7 percent) continued to post strong growth in Q1-Q3 2022.
1.2 External Section: Widening Deficits and Weakening Currency

The large current account deficit overshadowed net capital inflows, which widened the balance-of-payments deficit in H1 2022. In Q3 2022, the increase in investments outflow contributed to the peso depreciation, which registered a historic low against the US Dollar.

Robust domestic demand and high commodity prices underpinned the surge in merchandise imports, widening the current account (CA) deficit in H1 2022. The CA deficit widened from 0.7 percent of GDP in H1 2021 to 6.1 percent of GDP in H1 2022. Merchandise imports surged 27.5 percent because of the domestic recovery and high commodity prices, while merchandise exports grew at a lower 7.9 percent amid saturating demand for consumer electronics in the US and anemic demand for export goods in China due to pandemic-related restrictions. The surge in imports was broad-based, although more than 70 percent of the increase can be attributed to mineral fuels, raw materials and intermediate goods. The goods trade deficit widened from 12.3 percent of GDP in H1 2021 to 17.6 percent of GDP in H1 2022 (Figure 4). Growth in net service exports was anchored on the robust IT-BPO sector and the recovery of tourism in the first half of the year. Remittances, meanwhile, grew at a relatively soft 2.8 percent in H1 2022, although the amount that overseas Filipinos (OFs) sent home remained substantial at 8.2 percent of H1 GDP.

Net financial inflows financed the CA deficit in H1 2022. The financial account reversed from a net outflow of 0.7 percent of GDP in H1 2021 to a net inflow of 3.6 percent of GDP in H1 2022. Net inflows from foreign direct investment (FDI) (1.4 percent of GDP) and other investment accounts (2.2 percent of GDP) exceeded the outflows in portfolio investments (0.2 percent of GDP). FDI inflows mainly consisted of foreign investments to sectors such as manufacturing, real estate, finance, and information and communications technologies, while other investments consisted of inflows related to loan repayments of non-residents to Philippine-based banks. The portfolio investments registered marginal net outflows, due to the BSP withdrawal of investments in foreign debt securities, and lower residents’ placements in foreign debt securities. Against the backdrop of aggressive monetary tightening abroad, the BSP-registered investments reported net outflows of US$ 556.7 million (0.6 percent of Q3 GDP) in Q3 2022, a 57.8 percent increase from the same period last year. The BOP deficit widened to 1.6 percent of GDP in H1 2022 from 1.0 percent of GDP in the same period in 2021 (Figure 5).

The Philippine peso, along with other currencies in the region, depreciated substantially in the first ten months of 2022. The shortfall in the BOP, along with the rising interest rate differential and the general strengthening of the US dollar, led to a 11.9 percent depreciation of the Philippine peso against the US dollar in the first ten months of 2022. Compared to regional peers, the Philippine peso was among the currencies that depreciated the most against the US dollar since the start of the year, although it has rebounded lately (Figure 6). In real effective terms, the peso depreciated by 1.5 percent in the first nine months of 2022 compared to the same period in 2021. The BSP has indicated that it does not intend to step in to defend the peso, and will only step in to tame excessive volatility. Gross international reserves dropped by 12.8 percent to US$94.0 billion in October 2022, enough to cover 7.5 months of imports, down from 10.1 months in the same period last year.

6 World Bank, East Asia and Pacific Economic Update,
7 Fourteen currencies are included in the Philippine real effective exchange rate basket: US dollar, euro, Japanese yen, Australian dollar, renminbi, Hong Kong dollar, Indonesian rupiah, Malaysian ringgit, Saudi Arabian riyal, South Korean won, Taiwanese dollar, Thailand baht, and UAE dirham.
Figure 4. Strong merchandise imports have widened the trade deficit.

Figure 5. The current account deficit drove the BOP shortfall.

Figure 6. Regional currencies have depreciated against the US dollar.

Source: PSA.

Source: BSP.

Source: Haver Analytics.
Note: The base is January 2022=100.
Box 1. Recent Global Developments

Global demand has slowed amid the collapse in global investor confidence and tighter financing conditions (Figure 7). Global growth declined from 2.4 percent (seasonally-adjusted annual rate) in Q1 2022 to 0.1 percent in Q2 2022. Global investor sentiment soured, as investors anticipated weaker demand, continued high inflation, and further monetary tightening by central banks. In the United States, interest rate hikes by the Federal Reserve dampened industrial production growth, while manufacturing activity in Europe contracted due to higher gas prices. Demand in China remained subdued due to the government’s zero COVID-19 policy, record droughts, and continued decline in real estate prices. Other EMDEs, including the Philippines, suffered from softer exports demand brought by weakening global demand. The slowdown in global demand likely continued into Q3, as evidenced by the dip in the global Purchasing Managers’ Index (PMI) composite index below 50 since August.

Despite a rebound in tourism, global trade contracted due to weaker global economic activity. Global goods exports declined in Q3, as global PMI indices for new export orders for goods and services have remained negative since June. While supply chain disruptions due to the war in Ukraine and lockdowns in China have eased, as evidenced by shorter delivery times and lower shipping costs, the slowdown in global economic activity led to weaker demand for exports. The contraction in merchandise exports led to a surge in inventory levels and a plummeting backlog of orders. Nevertheless, many governments relaxed their COVID-19 restrictions, benefitting global tourism. International tourist arrivals increased threefold during the first seven months of 2022, but the rebound in tourism remained highly uneven and arrivals remained well below 2019 levels due to a slowing global recovery (Figure 8).

Global financing conditions tightened as central banks battled high inflation. Global financing conditions continued to deteriorate, reflecting tighter monetary policies across the world and rising risk aversion. Monetary authorities hiked their interest rates to combat elevated inflation, led by the US Federal Reserve, which increased the key policy rate from near-zero in Q1 2022 to 3.75-4.0 percent as of October 2022. Globally, the hawkish stance of the US Federal Reserve has fueled the strengthening US dollar, resulting in the depreciation of many countries’ currencies and pressuring policymakers around the world. In advanced economies, the tighter stance of central banks resulted in higher government bond yields and lower equity prices. In EMDEs, policymakers followed suit and raised their interest rates to address currency depreciation, heightened inflation, and portfolio outflows. In a sign of higher risk aversion, cumulative January–October debt and equity portfolio flows in EMDEs turned negative for only the second time since 2008. Moreover, financial stress worsened in the majority of EMDEs, with the cost of insurance against sovereign credit default rising by 30 bps in Q3.
Figure 7. Global economic activity has slowed amid deteriorating investor sentiment.

Figure 8. Global tourism has started to recover as countries relax pandemic restrictions.

Source: Haver Analytics.
1.3 Inflation and Monetary Policy: Tighter Stance amid High Inflation

Inflation continued to rise due to a tighter domestic food supply and price pressure from elevated global commodity prices. The BSP has raised the policy rate by 300 bps since May to re-anchor inflation expectations, manage the peso depreciation, and prevent further second-round effects.

Headline inflation accelerated in the first ten months of 2022 due to a tighter domestic food supply and elevated commodity prices. Headline inflation averaged 5.4 percent in the first ten months of 2022, higher than 4.0 percent in the same period in 2021 (Figure 9). Food prices climbed since the start of the year due to a tighter domestic meat supply, weather disturbances, and shortages in select commodities. In addition, the war in Ukraine pushed global commodity prices to record highs earlier this year, exacerbating price pressures on domestic food and fuel items. Food inflation remained elevated in the first ten months of 2022 (5.0 percent), while inflation related to housing, water, and electricity (6.3 percent) and transportation (13.1 percent) rose due to higher energy prices. In response, the government adopted targeted fuel grants, cash transfers and free bus fare in select routes to cushion the impact of elevated fuel prices. Excluding volatile food and energy items, core inflation rose at 3.4 percent in January–October 2022, up from 3.1 percent in the same period last year. Core inflation has accelerated since March 2022, indicating an increase in underlying price pressures and heightened inflation expectations in recent months. Compared to regional peers, domestic headline inflation rose faster than petroleum exporters like Indonesia (4.0 percent) and Malaysia (3.2 percent), and Vietnam (2.9 percent) which instituted fuel tax cuts and price freeze for some services.

The BSP has tightened its monetary policy amid high inflation (Figure 10). Between May and November 2022, it raised the key policy rate by 300 bps to 5.0 percent, and it has signaled further increases in response to the tighter monetary stance of the US Federal Reserve. The BSP has reversed its earlier accommodative stance to combat the buildup of inflation expectations, peso depreciation, and the emergence of second-round effects in wage hikes, transport fare hikes, and higher suggested retail prices of several commodities. The continued rebound in economic activity brought by the reopening of the economy and improving labor market conditions in the first three quarters has also fueled demand-side price pressures. Consistent with the end of its accommodative stance, the BSP also reconfigured its government securities purchasing window from a crisis intervention measure into a regular liquidity facility earlier this year. Regionally, the BSP’s interest rate hikes are more aggressive than Indonesia (175 bps), Malaysia (100 bps), and Vietnam (200 bps).

The asset quality and profitability of banks improved as the economic reopening boosted business conditions. The economic reopening and the recovery of domestic demand likely boosted the cash flow of borrowers, improving their ability to service debt. As a result, the restructured loans to total loans ratio declined from 3.1 percent in September 2021 to 2.8 percent in September 2022. Moreover, the gross non-performing loan (NPL) ratio declined to 3.4 percent in September 2022, its lowest level since September 2021. Despite the recovery of domestic demand likely boosted the cash flow of borrowers, improving their ability to service debt. As a result, the restructured loans to total loans ratio declined from 3.1 percent in September 2021 to 2.8 percent in September 2022. Moreover, the gross non-performing loan (NPL) ratio declined to 3.4 percent in September 2022, its lowest level since September 2021. Despite the recovery of domestic demand likely boosted the cash flow of borrowers, improving their ability to service debt. As a result, the restructured loans to total loans ratio declined from 3.1 percent in September 2021 to 2.8 percent in September 2022. Moreover, the gross non-performing loan (NPL) ratio declined to 3.4 percent in September 2022, its lowest level since September 2021. Despite the recovery of domestic demand likely boosted the cash flow of borrowers, improving their ability to service debt. As a result, the restructured loans to total loans ratio declined from 3.1 percent in September 2021 to 2.8 percent in September 2022. Moreover, the gross non-performing loan (NPL) ratio declined to 3.4 percent in September 2022, its lowest level since September 2021.

8 The African Swine Fever continued to affect domestic pork production, while higher grain prices led to higher prices for feeds. Meanwhile, the Department of Agriculture cited lower domestic production as the reason for the shortage of salt and sugar.
9 The country is a net importer of most staple foods, fertilizer, and fuel. The exchange rate pass-through to domestic prices has been significantly lower than petroleum exporters like Indonesia (4.0 percent) and Malaysia (3.2 percent), and Vietnam (2.9 percent) which instituted fuel tax cuts and price freeze for some services.
10 The government approved fuel subsidies worth Php2.5 billion for transport sector and Php0.5 billion for the agriculture sector. Meanwhile, to cope with higher cost of living, a Php500 monthly cash transfer program worth Php2.6 billion has also been approved for the poorest 50 percent of the population. In addition, the free bus fare in EDSA busway was extended until December 31, costing the government an additional Php1.4 billion.
of the banking sector, as the NPL coverage ratio reached 100 percent in August 2022. Banking sector profitability indicators have also largely rebounded. In September 2022, the return on asset and return on equity ratios reached 1.4 and 11.5 percent, respectively, their highest levels since March 2020.

**Bank lending to the private sector expanded amid stronger domestic demand.** Private credit grew by 10.1 percent in September 2022, up from 3.2 percent in the same period last year but still lower than the increase in borrowing reported in March 2020. The credit growth was driven by improving domestic activity amid the economic reopening, and it represented a turnaround from the anemic private credit growth brought by pandemic restrictions and depressed business confidence recorded last year. The expansion of private credit also coincided with the BSP’s tightening monetary stance, indicating robust credit demand despite higher interest rates. The money supply (M2) grew by 6.1 percent in September 2022, lower than the double-digit growth recorded during the BSP’s policy support in the early days of the pandemic.

**Figure 9. Inflation rose due to elevated food and energy prices.**

![Inflation graph](image-url)

*Source: BSP.*

**Figure 10. The BSP tightened its monetary policy in response to elevated inflation.**

![Inflation graph](image-url)

*Source: BSP.*

**Figure 11. The banking sector is showing signs of improvement, as the share of NPLs and restructured loans declined.**

![Banking sector graph](image-url)

*Source: BSP.*
1.4 Fiscal Policy: Towards Consolidation

The fiscal deficit narrowed in Q1-Q3 2022, although it remains higher than pre-pandemic levels. Revenue generation improved due to robust domestic demand and a windfall from customs collections. The public spending-to-GDP ratio fell due to lower-than-target public spending and unwinding of pandemic support.

National government debt continued to increase as the fiscal deficit remained elevated in Q1-Q3 2022. The increase in public revenues and the decline in public spending led to a narrower fiscal deficit from 8.3 percent of GDP in Q1-Q3 2021 to 6.5 percent of GDP in Q1-Q3 2022 (Figure 12). However, the fiscal deficit remained well above the pre-pandemic average of 2.7 percent of GDP, resulting in an increase in the national government debt ratio to 63.7 percent of GDP as of end-September 2022 (Figure 13). While a portion of the debt mix relies on external funding, 68.5 percent of outstanding debt is peso-denominated, and medium- and long-term debt accounts for 96.2 percent of the total debt portfolio, as of September 2022. Debt levels remain sustainable, but increasing financing costs, peso depreciation, and elevated fiscal deficits over the short-term, present challenges to the fiscal consolidation agenda.

The national government exceeded its revenue targets in the first three quarters of 2022 buoyed by the ongoing economic recovery. Public revenues increased by 0.8 ppt of GDP to 17.1 percent of GDP in Q1-Q3 2022 fueled by the increase in tax revenues, reflecting the acceleration of the economic recovery during the year. A strong demand for imports contributed to record high revenues for the Bureau of Customs (BOC), which exceeded its collection target by 17.8 percent through the first three quarters of 2022. In addition, customs revenues benefited from higher excise tax collections (due to the peso depreciation and rising global commodity prices) and more stringent anti-smuggling measures. Meanwhile, tax revenues from the Bureau of Internal Revenue (BIR) grew by 12.3 percent in 2022, fueled by increased domestic activity and efforts to strengthen digitalization and tax administration.

Public spending growth has moderated, as the government has been unable to reach its programmed spending target while pandemic support has been reduced. National government spending declined from 24.6 percent of GDP in the first three quarters of 2021 to 23.6 percent of GDP over the same period in 2022, as the government fell short of its expenditure program by nearly 2 percent. Spending on capital outlays declined by 0.3 ppts of GDP to 5.2 percent of GDP, falling short of the government program. Meanwhile, current expenditures declined by 0.7 percentage points of GDP to 15.3 percent of GDP, as the government reduced maintenance spending and subsidies by 0.4 percent of GDP each. The reduction in current spending is in line with the government’s efforts to unwind pandemic support amid the expected recovery and in taking steps towards fiscal consolidation.

12 Tax revenues increased by 0.5 ppt of GDP to reach 15.3 percent of GDP as of the third quarter of 2022, exceeding the target by 2.4 percent.
Figure 12. The fiscal deficit narrowed in H1 2022.

Figure 13. About two-third of the national debt is domestic debt.

Source: Department of Budget and Management (DBM); PSA.
Source: DBM, PSA.
1.5 Employment and Poverty: Labor Market Vulnerabilities amid the Economic Recovery

Lower unemployment and increased labor force participation signal the return of workers in the labor market. However, the high share of informal and elementary occupations underscores the vulnerabilities of the labor market recovery. The poverty rate in 2021 increased due to the impact of the pandemic. Even though a strong growth rebound may partially decrease poverty in 2022, continuing labor market weakness and rising food and fuel prices will make a sharper poverty reduction more challenging.

The economic reopening has allowed more individuals to participate and find jobs. The LFPR rose to 65.2 percent in September 2022, above the pre-pandemic level of 61.7 percent in January 2020. The increase was evident despite uncertainties associated with the spread of COVID-19 variants and rising fuel and commodity prices. Entry into the labor market was driven by women, whose LFPR continued to rise despite wide fluctuations throughout the pandemic (Figure 14). Even with increasing labor force participation, the national unemployment rate has been on a steady decline, falling from 8.9 percent in September 2021 to 5.0 percent in September 2022 (Figure 15). Youth unemployment of 11.5 percent in September was the second lowest reported this year. The data indicate that the labor market’s reopening has accommodated jobseekers, including new labor market entrants and young adults, in various sectors. Underemployment, which was high and volatile during the pandemic, appears to be stabilizing on a largely downward trend in 2022.

Net job creation accelerated in the last six months, led by the services and manufacturing sectors. Nearly 2.0 million jobs were added between April and September 2022, a significant increase from a net creation of 0.2 million jobs between November 2021 and April 2022. Most of the jobs created came from the services sector, with wholesale and retail trade, and transportation and storage adding about 1.2 million jobs. These are the same subsectors whose outputs significantly expanded in the first three quarters of 2022, buoyed by higher household consumption. Similarly, the manufacturing sector added 0.8 million jobs given its sustained growth in the past six months. These increases came amid a slowdown in job generation in fishing and aquaculture. This may be attributed to the impact of rising fuel prices which compel fisherfolks to reduce fishing activities or find alternative livelihoods as nearly 80 percent of their earnings go to fuel alone.13

The employment recovery is underlined by a labor market with a higher share of low-quality jobs than before the pandemic. The share of elementary occupations associated with low pay remained high at around 28.9 percent of total employment in September 2022, almost 2 percentage points higher than the pre-pandemic level in January 2020. This is in line with the large number of jobs added in wholesale and retail trade, many of which are elementary occupations. The share of part-time workers—those working less than 40 hours a week—was 34.2 percent in September 2022, higher than 31.6 percent in January 2020. Furthermore, the share of wage and salary workers and employers among the employed slipped to 62.2 percent in September 2022, nearly 5 percentage points lower than before the pandemic (68 percent in January 2020). As a result, there has been an increase in the share of self-employed and non-paid workers, indicating growing informality in the labor market.

The growth contraction in 2020 and the associated income loss among poor and vulnerable households led to an increase in poverty in 2021. The latest national poverty estimates show that the poverty incidence rose from 16.7 percent in 2018 to 18.1 percent in 2021 (Figure 16). This translates to 19.9 million individuals living in poverty, an increase by 2.3 million people. Over the same period, the poverty incidence in the economically important regions of the National Capital Region (NCR), Calabarzon, Central Visayas, and Central Luzon increased by 1.2, 3.1, 9.9, and 4.4 percentage points, respectively. Nevertheless, the poverty rate in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)—the poorest region in the country—decreased from 61.2 percent to 37.2 percent. Because of the increase in the household income of poor households in BARMM, the country-wide income-based Gini index dropped from 42.3 to 40.7 in 2018–21.

Labor market vulnerabilities and rising food and fuel prices make it more challenging to drastically reduce poverty. Results from the World Bank High Frequency Household Survey (HFS) in May 2022 show that 51 percent of respondents have the same level of income as they did prior to the pandemic, while 20 percent reported greater incomes—a significant improvement from the previous round in May 2021. However, this recovery in household income faces multiple challenges. First, some segments of the labor market have not fully recovered, with wages and earnings still lagging behind the expansion of employment. Second, rising inflation can imperil the recovery of living standards among the poor, as food and energy/utilities account for about 70 percent of their household expenditures (Figure 17).

The government has rolled out a few programs to cushion the impact of rising prices on household incomes, the largest of which involved targeted cash transfers (announced in March 2022) to support around 12.4 million vulnerable households belonging to the bottom 50 percent of Filipino households. Other programs include fuel subsidies for public transport drivers, farmers, and fisherfolk.
Figure 16. Poverty incidence by Region, 2018–2021

Source: PSA.

Figure 17. Food and energy account for a high share of total expenditure among poor households.

Source: FIES.
PART 2

OUTLOOK AND RISKS

Robust domestic activity is driving growth in 2022, but the deteriorating global environment is spilling into the economy and tempering its growth prospect. Slowing global growth is expected to soften goods exports with repercussion on manufacturing, while elevated domestic inflation and higher interest rates are expected to slow private consumption and investment growth in 2023. The economy is projected to grow at an upward-revised 7.2 percent in 2022 before declining to 5.7 percent on average in 2023-25. The growth outlook is subject to external and domestic risks, where the authorities face the challenging task of supporting recovery while taming inflation amid a narrowing policy space. Sustained investments in health and education, and targeted social assistance will help protect the poor and vulnerable from the pandemic scarring and the adverse effects of high inflation.
2.1 Growth Outlook

Unfavorable developments in the global environment are spilling into the domestic economy and tempering the growth prospect in 2023. The external challenges come at a time of narrowing policy space with rising domestic interest rates and ongoing fiscal consolidation needs.

The growth projection for 2022 is revised upward in light of stronger-than-expected Q3 performance. The economy is estimated to grow at 7.2 percent year-on-year in 2022, higher than the 6.5 percent growth projection published in the East Asia and Pacific Economic Update, October 2022. Third quarter growth of 7.6 percent exceeded consensus projection of 6.3 percent. \(^{18}\) Strong domestic demand is driving growth, which is more than compensating for the unfavorable global environment. The economic reopening this year is unleashing pent-up demand, contributing to jobs and incomes recovery, and benefitting the contact-intensive services sector. However, the weak external demand is tempering manufacturing growth, while low productivity and natural disaster are hampering agriculture. While growth in the first three quarters of 2022 reached an average of 7.7 percent, the unfavorable external environment and its spillover to the domestic economy will likely slow the growth momentum in the fourth quarter and into 2023.

The external environment has further deteriorated with the realization of key downside risks, identified in the Philippines Economic Update, June 2022 edition. Global growth is expected to decelerate in 2022 and 2023, reflecting synchronous monetary tightening, worsening financial conditions, and continued disruptions due to the war in Ukraine (Box 2). The ensuing weaker global demand is weighing on global industrial production and trade, which has decelerated since the start of the second half of 2022. Rapid monetary tightening specially in advanced economies has led to capital outflows and currency depreciations in EMDEs. These external challenges have channeled through the Philippines in the form of high inflation, peso depreciation, and capital market volatility.

The economy is projected to grow slower at an average of 5.7 percent in 2023-25 (Figure 18). The growth slowdown to 5.4 percent in 2023 is

Figure 18. Growth is expected to be lower in 2023, dragged by the unfavorable external environment.

Source: PSA, World Bank staff estimates.

\(^{18}\) Based on poll by Reuters. See https://www.reuters.com/news/picture/philippine-q3-gdp-growth-much-better-tha-idUSKBN2S001K.
premised on the fading of pent-up demand, alongside elevated inflation and higher interest rate environment that will temper domestic demand. The higher rates will lead to lower private credit and subdued investments at a critical time when public investment growth is expected to slow in line with fiscal consolidation and a programmed decline of public infrastructure spending from 5.5 percent of GDP in 2022 to 5.0 percent in 2023-25. As global growth is expected to decelerate next year, external demand from advanced economies, which are key buyers of Philippines merchandise exports, will be subdued. Medium-term growth will gradually approach its potential rate at 5.7 percent as the output gap closes in line with the cyclical recovery.

Global commodity prices have eased, but inflation is expected to remain above target range in 2022-2023 due to currency depreciations (Box 3). The global growth slowdown is weighing on commodity prices, with agriculture, energy, and metal prices easing from their earlier peaks this year (Figure 19). Nonetheless, prices in domestic-currency terms in many economies remain elevated because of currency depreciations including the Philippines which is a net food and energy importer. Together with price adjustments in public transport fares, regional minimum wages, and retail prices of grocery items, the economic rebound will add to demand-side price pressure, and likely sustain the rise in core inflation this year. Headline inflation is thus projected to reach 5.5 percent in 2022 and 4.3 percent in 2023, above the target range of 2.0-4.0 percent. Monetary policy in the Philippines will follow its mandate of price stability, and is expected to tighten to anchor inflation expectation and manage inflation within the target range.

The fiscal deficit is expected to decline in the medium term in line with the government’s medium term fiscal program. The deficit is expected to decline from 7.1 percent in 2022 to 4.5 percent in 2025. The declining trajectory hinges on the economic recovery and fiscal consolidation measures as reflected in the national government medium term fiscal program. The recovery is expected to lead to higher public revenue collection from taxes on consumption and trade, on top of government efforts to expand revenue collection through tax policy and administration measures. The authorities are considering new taxes on single-use plastics and digital services, a new mining fiscal regime, reform on real property valuation, among others. Moreover, a byproduct from the peso depreciation is that customs collection will increase commensurate to the higher import valuation. Meanwhile, the pace of public spending is expected to decelerate over the medium term, driven by an anticipated decline in recurrent operating expenditure from 17.0 percent of GDP in 2022 to 15.0 percent in 2025, and capital outlays from 5.8 percent to 5.1 percent, respectively.

Figure 19. Global commodity price pressure is weakening.


Energy prices are projected to rise by 59.1 percent year-on-year in 2022 before contracting by 11.2 percent in 2023, while food prices are projected to rise by 17.9 percent in 2022 before contracting by 6.2 percent in 2023. See World Bank Commodity Markets Outlook, October 2022.
Global growth forecasts have been downgraded markedly from the beginning of the year. Global GDP is expected to grow by 2.9 percent in 2022, down by 1.2 ppts from the WB Global Economic Prospects January forecast. Higher borrowing costs amid a synchronized and rapid global response to rein in inflationary pressure has raised the specter of a global recession. The War in Ukraine and curtailment of energy supplies have created a challenging situation for Europe, with soaring energy prices. Moreover, COVID-19-related mobility restrictions in China will continue to put considerable strain on global supply chains in the near term. Oil importing countries are yet again facing rising prices following the decision of the Organization of Petroleum Exporting Countries (OPEC) to reduce oil production in October. Growth is projected to remain subdued if commodity prices remain persistently high for the rest of 2022, causing central banks to trigger another round of monetary tightening.

Significant downside risks threaten growth in 2023 (Table 1). Global growth is expected to be subdued in 2023 as consumers exhaust pent-up demand, inflation persists, and monetary tightening continues. Global inflation, however, is projected to gradually ease in 2023 as global growth slows down and supply chain bottlenecks gradually abate. It is, however, more persistent than previously expected, and will remain above Central Bank targets for much of 2023. Tighter-than-expected monetary stances, should inflation prove to remain stubbornly high in 2023, will have a significant toll on consumer spending and business investment. Vulnerable EMDEs face the prospect of further increasing sovereign spreads, especially against the US dollar. With already limited fiscal space and stretched national budgets, less accommodative borrowing conditions could leave them unable to pay larger import bills. Future energy and food shocks brought about by protracted geopolitical conflicts and extreme weather events remain key downside risks in the foreseeable future.

Global trade is expected to slow down due to anemic consumer demand, and is on course to recover at a substantially weaker pace compared to previous post-recession recoveries. Leading indicators, such as the S&P Global PMI Index, show contracting new exports orders since February 2022, primarily due to the slowdown of the global economy. Softening goods demand has eased supply chain bottlenecks, as measured in the Federal Reserve Bank of New York’s Supply Chain Index, although it remains above the pre-pandemic level. However, the prospect of further restrictions on mobility amid China’s zero COVID-19 policies risks further strains in global supply chains should they materialize. A new wave of COVID-19 infections, however, could interrupt the recovery of tourism, prolonging the damage to small island economies that are tourism-reliant. In the near term, as the US Federal Reserve raise policy rates to stem domestic inflation, the US dollar is projected to gain further strength against other currencies, resulting in more expensive imports that will widen current account deficits around the globe. Furthermore, higher import bills are likely to contribute substantially to domestic inflationary pressures across the globe and further soften demand for imported goods.

Table 1. Economic Growth, 2019–2023f.

<table>
<thead>
<tr>
<th>Region</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022f</th>
<th>2023f</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>2.6</td>
<td>-3.4</td>
<td>5.7</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Advanced economies</td>
<td>1.7</td>
<td>-4.6</td>
<td>5.2</td>
<td>2.6</td>
<td>2.2</td>
</tr>
<tr>
<td>EMDEs</td>
<td>3.8</td>
<td>-1.7</td>
<td>6.6</td>
<td>3.4</td>
<td>4.2</td>
</tr>
<tr>
<td>East Asia and Pacific (EAP)</td>
<td>5.8</td>
<td>1.2</td>
<td>7.2</td>
<td>3.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>6.1</td>
<td>-9.5</td>
<td>5.7</td>
<td>7.2</td>
<td>5.4</td>
</tr>
</tbody>
</table>


The S&P Global Purchasing Manager’s Index (PMI) integrates survey responses by manufacturing executives. The survey includes questions on a company’s business output, new orders, and supplier performance, among others.
Weak external demand and tighter financial conditions may drag activities in the services and industry sectors. The high-inflation, high-interest rate environment may moderate domestic demand, manifesting as weaker household consumption and capital investment growth. In turn, the lower demand may hamper activities on services sector including wholesale and retail trade, food and accommodation, transportation and storage. Nonetheless, sub-sectors such as the IT-BPO and tourism may continue to see strong growth with sustained demand for BPO services exports and travel industry recovery in the Asia-Pacific in 2023. High interest rates may temper private borrowings and demand for new construction projects, although the authorities remain committed to its public infrastructure investment agenda. Meanwhile, weak external demand will temper manufacturing growth especially as electronics carves a lion’s share of the country’s merchandise exports. Growth in the agriculture sector remains tepid due to chronic underinvestment and vulnerability to weather-related shocks (Table 2).

The subdued external environment is expected to weaken the net exports. After rebounding to 5.7 percent in 2021, global growth is expected to soften to 2.9 percent in 2022 and 3.0 percent in 2023. Growth in advanced economies is projected to decelerate by 1.2 percentage points this year, and impact the country’s goods exports since nearly 70 percent are destined for high-income economies. Still, the prospect for services exports remains strong with IT-BPO sector and international tourism. Meanwhile, import growth will likely remain elevated as the government implements infrastructure projects, leading to sustained demand for capital goods. The current account deficit is projected to widen to 4.9 percent of GDP this year, and remain in deficits of about 3.9 percent in 2023-24.

Private consumption growth is expected to decelerate as pent-up demand fades and high inflation and interest rates discourage borrowings. Pent-up demand is likely to fade as discretionary spending dwindles into 2023, following the big household consumption rebound this year. These will result in lower consumption growth in 2023, exacerbated by higher inflation and interest rates which may discourage private borrowings and lead to postponed household investments. Still, consumption will be supported by sustained remittance inflows and improving labor market conditions, which will contribute to jobs and income generation. While the consumer confidence level remains negative, its trajectory has been improving since the pandemic, signifying fewer households holding pessimistic views on the economy. The prompt decrease in consumer confidence in response to rising prices in Q3 2022 suggests, however, that prolonged elevated inflation will further dampen consumer confidence (Figure 20).

Capital formation will be a key growth driver in the medium term as the government attracts private investments and pursues its public infrastructure agenda. The government has conveyed its commitment to the infrastructure investment agenda amid its pursuit of fiscal consolidation. Public infrastructure disbursements are programmed to decline from 5.5 percent of GDP in 2022 to 5.0 percent of GDP in 2023-2025. To cover for this decline, the administration targets to better attract foreign and private investments to the Philippines. It has amended the Public Service Act and the Foreign Investment Act, and passed the Retail Trade Liberalization law, allowing full foreign ownership for more industries, lowering minimum paid-up capital requirement for foreign retail enterprises, and liberalizing for more industries the practice of professions not governed by existing special laws. Likewise, the amendment of the implementing rules and regulations for the Build-Operate-Transfer law signals government intent to make Public Private Partnerships more attractive to the private sector.

---

Figure 20. Consumer confidence dropped in the previous quarter with household concerns over rising prices.

Table 2. Economic Indicators for the Baseline Projections.

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022e</th>
<th>2023f</th>
<th>2024f</th>
<th>2025f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP growth, at constant market prices</td>
<td>-9.5</td>
<td>5.7</td>
<td>7.2</td>
<td>5.4</td>
<td>5.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Private Consumption</td>
<td>-5.8</td>
<td>3.1</td>
<td>6.0</td>
<td>4.1</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Government Consumption</td>
<td>1.3</td>
<td>1.1</td>
<td>1.3</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Capital Formation</td>
<td>-9.1</td>
<td>3.9</td>
<td>3.6</td>
<td>1.6</td>
<td>2.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Exports, Goods and Services</td>
<td>-4.7</td>
<td>2.2</td>
<td>1.9</td>
<td>1.2</td>
<td>2.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Imports, Goods and Services</td>
<td>-8.7</td>
<td>4.5</td>
<td>5.7</td>
<td>2.9</td>
<td>4.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Real GDP growth, at constant factor prices</td>
<td>-9.5</td>
<td>5.7</td>
<td>7.2</td>
<td>5.4</td>
<td>5.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Industry</td>
<td>-4.0</td>
<td>2.4</td>
<td>1.7</td>
<td>1.3</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Services</td>
<td>-5.5</td>
<td>3.3</td>
<td>5.5</td>
<td>4.0</td>
<td>4.2</td>
<td>3.9</td>
</tr>
<tr>
<td>Inflation (period average)</td>
<td>2.4</td>
<td>3.9</td>
<td>5.5</td>
<td>4.2</td>
<td>3.9</td>
<td>3.5</td>
</tr>
<tr>
<td>National government balance (% of GDP)</td>
<td>-7.6</td>
<td>-8.6</td>
<td>-7.1</td>
<td>-5.8</td>
<td>-5.0</td>
<td>-4.5</td>
</tr>
<tr>
<td>Current account balance</td>
<td>3.2</td>
<td>-1.8</td>
<td>-4.9</td>
<td>-4.3</td>
<td>-3.5</td>
<td>-3.0</td>
</tr>
</tbody>
</table>

Source: PSA; Bureau of Treasury (BTr), World Bank staff estimates.
Note: Growth subcomponents show contributions to growth.
Box 3. Trends on Global Commodity Prices and Implications for the Philippines

A sharp global growth slowdown and concerns about an impending global recession are weighing on commodity prices. Indeed, the price indexes for most energy products, non-energy commodities and precious metals are expected to decline by up to 15.2 percent over the next year or so. However, in many economies, prices – including commodity prices – in domestic-currency terms remain elevated because of currency depreciations. This could deepen the food and energy crises already underway in a number of countries. As the global growth slowdown intensifies, commodity prices are expected to ease in the next two years, but they will remain considerably above their average over the past five years.

Energy prices are expected to fall by over 10 percent in 2023 and 2024. Brent prices are forecast to average US$92/bbl in 2023, down from a projected US$100/bbl in 2022, before easing to US$80/bbl in 2024. Oil prices have declined as growth has slowed down and Russia’s oil production was more resilient than expected. However, there are significant risks from the supply side, particularly related to the availability of energy supplies in Europe during the upcoming winter. Natural gas prices in Europe rose sharply amid restocking, from US$29.2/mmbtu in May 2022 to US$70/mmbtu in August 2022, although they have declined to US$39 in October 2022. Coal prices have soared from US$157/mt in November 2021 to US$431/mt in September 2022, followed by a modest decline to US$390 in October 2022, putting climate objectives at risk.

Agriculture and metal prices are projected to decline 5 and 15 percent, respectively, in 2023 before stabilizing in 2024. Metal prices have fallen sharply, largely due to the significant slowdown in China’s property market. Agricultural prices have also eased, with food commodity prices declining as Ukraine’s exports restarted over the summer (Figure 7). Nevertheless, at 21.2 percent, food price inflation remains high globally, but it is significantly lower in East Asia and Pacific at 6.1 percent.22

While Philippines has been hard hit in recent months by the elevated global commodity prices and the peso depreciation, the country stands to benefit from the expected decline in commodity prices. Indeed, elevated global commodity prices and the peso depreciation contributed to the rising food and energy price pressure, as well as imported inflation due to higher cost of imports in the Philippines. As average global crude oil prices peaked at US$112 per barrel, the elevated costs directly passed through to consumer fuel prices, which immediately affected transport and utilities components in the CPI basket. The peso depreciated significantly from an average of Php/US$51.2 in January 2022 to an average of Php/US$57.4 in September 2022, effectively raising the cost of imported goods. On the other hand, given that much of the recent increase in inflation in the Philippines is caused partly by imported inflation – driven by the recent spike in global commodity prices – the next two years should see an easing in the inflationary pressures due to the expected considerable decline in global commodity prices. Moreover, BSP’s stance on inflation targeting has been reaffirmed in recent months and the central bank rose its benchmark interest rate multiple times in 2022 as a way to bring demand-driven inflation under control. Last, but not least, the depreciation of the peso is likely to be mitigated by the expected increase in remittances towards the end of the year.

22 Based on World Bank Food Price Index.
2.2 Poverty and Shared Prosperity

The economic reopening will likely have a positive effect on household incomes as conditions for workers and businesses improve, but new challenges mainly on high inflation and effects of natural disasters threatens poverty reduction.

The further easing of mobility restrictions and full reopening of the economy will help sustain the recovery of businesses and labor market to boost household incomes. The resumption of economic activities particularly in sectors severely affected by the pandemic will see more Filipinos employed and household incomes continuing to recover. As the economy is projected to maintain its growth momentum and some labor market indicators recover, poverty reduction is likely to follow suit. Using the World Bank’s poverty line for lower-middle income countries of US$3.65-a-day (2017 Purchasing Power Parity (PPP)), poverty incidence is projected to decrease from 19.5 percent in 2021 to 16.8 percent in 2022 and will continue to decline through 2024 (Figure 21).

High inflation brought by heightened external risks and effects of extreme weather disturbances threaten the gains in poverty reduction. The spike in commodity prices continue to affect households and more adversely low-income households whose bulk of budget is on food. The worsening underemployment signals that households are seeking to earn additional income likely to cope with the pressures of inflation. The programs that the government continues to provide such as targeted cash transfers, fuel and crop subsidies are crucial in protecting the purchasing power of lower income households. As for those affected by calamities, efficient and swift delivery of assistance is imperative. But more importantly, disaster resilience and climate adaptation measures should be implemented.

Figure 21. Actual and projected US$3.65-a-day poverty rates.\textsuperscript{23}

![Figure 21. Actual and projected US$3.65-a-day poverty rates.\textsuperscript{23}](Photo by: MDV Edwards)

2.3 Risks and Policy Challenges

A steeper global growth slowdown, more abrupt policy tightening, and prolonged geopolitical tensions risk further deterioration in the external environment. The authorities face the difficult balance of taming domestic inflation and supporting economic recovery amid narrowing policy space. As the pandemic has yet to be declared over, the risk of another wave hangs over the outlook. The release of the Philippines Development Plan 2023-2028 is a welcome development to provide a clear roadmap to achieving the country’s medium-term priorities.

The synchronous policy tightening risks a steeper global slowdown, which can further dampen external demand. With central banks across the world raising interest rates to combat inflation and governments withdrawing pandemic-related fiscal support, the synchronous policy actions could produce larger impacts than intended, both in tightening financial conditions and deepening the growth slowdown. The global economy is experiencing its steepest growth slowdown since the 1970s, led by the deceleration in the world’s three largest economies – the United States, China, and the Euro Area. The fear is that moderate shocks can tilt the global economy into recession, which will have dire consequences to the growth recovery in many EMDEs. The impact would be wide-reaching, coursing to the Philippines through the growth channel (growth deceleration and softer activity), trade channel (lower trade and exports demand), and financial channel (muted capital flows).

Persistently elevated inflation may induce abrupt and higher-than-expected tightening of global financial conditions. The global economy is seeing the sharpest policy tightening in four decades. This is in response to rising headline inflation, which has breached the upper-bound of target ranges in advanced economies and more than 90 percent of EMDEs as of August 2022. While most global commodity prices have eased since June, they remain higher than the averages in the past five years. Central banks may accelerate the pace of monetary policy tightening if the current period of elevated inflation persists and de-anchors inflation expectations. Recently, the U.S. Federal Reserve has announced its continuing efforts to tamp down inflation, and signaled policy rate hikes higher-than-initially projected in September. A faster-than-expected tightening could lead to further capital outflows from EMDEs, intensified currency depreciation, and raise financial market volatility. It would raise borrowing costs and may dampen investments from the private and public sectors.

An escalation of geopolitical tensions and supply chain bottlenecks could further disrupt commodity markets and international trade. Geopolitical tensions arising from a prolonged war in Ukraine, and the economic sanctions on Russia can further disrupt trade and commodity markets, and reignite supply-driven inflationary pressure. Escalating tension has already led to the curtailment of energy supplies to Europe risking a regional energy crisis. Meanwhile, citywide lockdowns in China due to its zero-COVID policy and continued inland rail congestion in the United States contribute to supply chain bottlenecks that are impacting trade activities in some regions and industry sectors. These disruptions will put immense supply and price pressure on the Philippines given the country’s demand for imported crude oil, fertilizer, and food such as wheat and rice.

The immediate domestic challenge that faces the authorities is rising and high domestic inflation. High inflation will dampen household consumption, while the ensuing policy rate tightening will temper borrowings and investments. Inflationary pressure comes from multiple fronts including: (i) elevated global commodity and energy prices; (ii) international supply chain and logistics disruptions; (iii) currency depreciation; (iv) recovering demand; and (v) domestic supply constraints caused by weak agricultural outputs and impact of natural disasters. Addressing the inflationary pressure means employing both monetary and non-monetary measures including freer importation and lower tariffs and non-tariff barriers to help

---

augment domestic supplies as needed, support to agriculture production through extension services, seeds, and fertilizers, and key policy rate hikes.

**Continued near-term monetary tightening is appropriate to prevent a de-anchoring of inflation expectations.** High inflation tends to inflict the greatest harm on low-income households where inflation often outpaces wage growth, which these households rely on. Poorer households suffer disproportionately given the higher share of food and energy on their expenditures. Monetary tightening is appropriate to maintain price stability and prevent self-fulfilling expectation of rising inflation. Moreover, communicating monetary policy decisions clearly, and leveraging credible monetary frameworks will help limit the economic impact of the tightening cycle.

**Maintaining a flexible exchange rate regime and preserving the investment-grade credit rating status will help contain external risks.** Maintaining a market-determined exchange rate regime remains the first line of defense against external shocks. Market interventions, as conveyed by the central bank, are conducted to smoothen excessive short-term volatility of the peso against the U.S. dollar. The country has accumulated sizable foreign exchange reserves which is its second line of defense. But as reserves have declined in the past months, rebuilding this buffer will be beneficial during opportune times such as the Christmas holiday season, which is historically marked with the influx of foreign remittances. The Philippines is an investment-grade sovereign credit, and maintaining the ratings will help ensure comfortable access to the international capital markets, which the country has tapped this year though at higher borrowing costs. Nonetheless, the Philippines’ EMBIG spreads stand at 144bps (as of October 31), below the average for investment-grade (185bps) and BBB-rated sovereigns (233bps).

**Staying the course on fiscal consolidation signals commitment to fiscal sustainability.** Fiscal consolidation has become more challenging in the current high inflation environment, which may compel the government to expand social support programs or extend subsidies at a time of narrower fiscal space. Targeted, instead of blanket, social assistance measures will help manage expenditure growth while maximizing returns of programs. Eliminating spending inefficiency and increasing value for money in public procurements will be instrumental to a consolidation strategy. The authorities also need to employ new tax policy and administration measures to mobilize revenues. Over the medium term, building fiscal buffers, diminished during the height of the pandemic, will help mitigate against downside risks. The proposed 2023 national government budget lays out the medium-term fiscal consolidation agenda, with target to reduce the fiscal deficits by 3.5 ppts of GDP between 2022 and 2025 (Box 4).
Box 4. Proposed 2023 National Government Budget

To support the government’s medium-term fiscal consolidation agenda, the proposed 2023 national government budget is projected to decline by 1 ppt of GDP to 22.2 percent of GDP. The Marcos administration’s proposed budget highlights the government’s spending priorities and fiscal consolidation strategy. To reduce the fiscal deficit by 3.5 ppts of GDP between 2022 and 2025, public spending is expected to decline considerably, while tax policy and administration reforms are likely to gradually progress. While infrastructure development remains a key priority, infrastructure spending is expected to decline by 0.5 ppts of GDP to 5.0 percent of GDP between 2023 and 2025. The national government’s infrastructure budget is expected to contract by nearly 2 percent in 2023, a sharp reversal from the nearly 25 percent expansion recorded in the 2022 budget.

Social and economic services remain the sectors with the highest budget allocations in 2023, while spending on general public services is projected to contract to support the fiscal consolidation effort. The government’s objective of inclusivity is backed by a strong emphasis on spending on social services, constituting nearly 40 percent of the budget, or Php 2.1 trillion (8.7 percent of GDP) (Figure 22). In addition, the objective of economic transformation and sustainability is supported by the nearly 30 percent budget share of economic services. However, the proposed budget for social and economic services is expected to decline compared to 2022 as the government embarks on its fiscal consolidation agenda. Within social services, the government will prioritize service delivery in education, social security, welfare and employment, and health. Within economic services, communications, roads, and other transport will receive the bulk of budget allocations, followed by agriculture and agrarian reform. Meanwhile, the proposed budget for general public services is set to decline by 0.5 ppts of GDP in 2023 due to a contraction in general administration spending.

Line ministries’ budget priorities reflect the government’s 8-point socioeconomic agenda. While the 2023 public infrastructure budget is expected to decline considerably, infrastructure remains a key government priority under the Build, Better, More program. The Department of Public Works and Highways is set to receive the largest share of the budget (13.6 percent), despite a 9 percent decrease in its proposed budget. To support the implementation of major railway, airport, and road programs, the Department of Transportation’s proposed budget is expected to more than double in 2023, accounting for 3.2 percent of the proposed budget. The focus on an inclusive budget is reflected in the large budget share of the Department of Education (13.5 percent), Department of Social Welfare and Development (3.7 percent), and Department of Health (3.7 percent). Despite accounting for around 2 percent of the proposed budget, the president’s focus on the modernization of the country’s agriculture sector is reflected in the 43.9 percent expansion of the DA’s budget.

Figure 22. National Government Expenditures (Obligation Basis), 2021–2023.

Source: DBM.
Note: Data were derived from national government estimates on nominal GDP.
Despite the public spending slowdown, it remains important to sustain investments in health and education to reduce vulnerabilities from the scarring impact of the pandemic. The threat of a new variant-driven surge hangs over the outlook. Nevertheless, the country is better equipped to respond to re-emerging threats with high population vaccination coverage, and effective public health protocols. Shocks from the COVID-19 pandemic, however, have manifested themselves in child malnutrition and stunting, and reduced student learning especially among the poor. If unmitigated, these shocks may have persistent impacts on people’s wellbeing and damage future productivity, earnings, and innovation. For this reason, sustained investments in nutrition (Box 5) and education are imperative despite pressure for fiscal consolidation.
Box 5. Investing in Nutrition in the Philippines: An Essential Foundation for Sustained Economic Growth

Nutrition is a key component of human capital accumulation, which in turn is central to economic development. Workers in rich countries accumulate, on average, more human capital than their counterparts in poorer countries, due to a combination of better health and nutrition, higher quantity and quality of schooling, and greater opportunities to accumulate skills. In the Philippines, undernutrition robs children of their chance for a bright future and presents a significant challenge to continued economic growth. The persistence of high levels of undernutrition, despite decades of economic growth and poverty reduction, represents a staggering, yet avoidable, loss of human and economic potential. The economic burden associated with undernutrition in the Philippines was an estimated US$4.4 billion in 2015, which translates to 1.5 percent of the country’s GDP.26

There has been modest improvement in the prevalence of undernutrition in the Philippines. In 2019, 29 percent of children younger than five years old were reported to be suffering from stunting,27 down from 32 percent reported in 2008. The Philippines is ranked fifth among countries in the East Asia and Pacific region28 with the highest prevalence of stunting, and it is among the 10 countries globally with the highest number of stunted children (Figure 23). The country’s inordinately high levels of stunting have been further exacerbated by the COVID-19 pandemic, which disrupted the supply of nutritious foods, access to essential health and nutrition services, and the livelihoods of wage earning and subsistence farming households alike. Moreover, the ongoing war in Ukraine is likely to exacerbate the food and nutrition security of vulnerable Filipino households. Globally, food prices, already on the rise since the second half of 2020, reached an all-time high in February 2022 and are leading to food security crises around the world. These unfortunate events indicate that unless immediate and targeted action is taken, millions of Filipino children are at increased risk of undernutrition, which in turn would increase the likelihood of them performing worse at school and achieve lower productivity as adults.

Nevertheless, the Philippines can rapidly reduce childhood undernutrition. The country can adopt policies and implement programs that are in line with the experience of countries that have successfully tackled childhood undernutrition. Specifically, the authorities could pursue three sequential policy actions:

1. Ensure adequate financing for nutrition. This involves mobilizing sufficient domestic and development partner financing for nutrition and nutrition-related activities, with priority given to those local government units (LGUs) with the highest burden of childhood stunting, including BARMM, Southwestern Tagalog Region, Bicol Region, Western Visayas, Soccsksargen, Zamboanga Peninsula, and Central Visayas.

2. Implement large-scale, evidence-based nutrition-specific interventions. These should include an evidence-based package of nutrition-specific interventions29 made available to each household in all high-priority LGUs. The package could include high-impact essential health and nutrition services delivered at the primary level of care; a comprehensive social and behavior change communications strategy delivered at the national and local level; and more innovative and competency-based training of relevant primary health facility staff, Barangay health workers, Barangay nutrition scholars, and their supervisors. Although it is important to implement direct nutrition interventions

27 Stunting results from chronic undernutrition and indicates a failure to attain the height expected for a healthy child. Height growth and brain development not achieved during the first 1,000 days of life (from conception to two years of age) is largely irreversible and has been associated with measurable negative consequences for health, impaired cognitive development, reduced earnings in adulthood, and increased risk of developing chronic diseases.
29 Recommended direct nutrition interventions with global evidence of effectiveness: Before conception: folic acid supplementation and fortification of key food commodities; During Pregnancy: multiple micronutrient supplementation, balanced energy, and protein and calcium supplementation; Early infancy and young childhood: promotion of breastfeeding, social behavior change communication for improved complementary feeding and hygiene practices, vitamin A supplementation, management and treatment of moderate and severe acute malnutrition, and multiple micronutrient supplementation.
at scale, multisectoral approaches that simultaneously address the underlying determinants of nutrition are also needed to ensure a long-term policy impact. To address the multisectoral determinants of undernutrition in the Philippines, it is essential to achieve geographic convergence—down to the household level—of critical sectors and programs in LGUs with high rates of stunting. This could be done through the recently approved Philippines Multisectoral Nutrition Project (PMNP), which has adopted a bold, multisectoral nutrition approach to deliver a coordinated package of nutrition-specific and sensitive interventions across LGUs, along with a harmonized social behavior change and communications strategy.

3. **Create strong and closely coordinated partnerships for nutrition.** A comprehensive multisectoral response requires high-level government ownership and leadership by entities able to monitor and enforce policies across ministries and concerned stakeholders. This will require greater cohesion and interaction between the NNC, DOH, and LGUs at the national level, while at the local level it will require efforts to support provincial leadership in conducting performance and progress reviews of multisectoral nutrition policies and associated results. The authorities will need to create incentives that range from recognizing strong performers to financial and non-financial rewards linked to improved coverage of nutrition interventions.

**The economic returns from investing in nutrition are substantial.** The Philippines could have one of the highest rates of returns from delivering a ‘full’ package of nutrition interventions. For every U.S. dollar that the Philippines invests in a package of high-impact, nutrition-specific interventions, the increase in adult income is estimated at US$66.5, much higher than US$2 for Malawi, US$13 for Ethiopia, and US$48 for Vietnam.

**Figure 23. Stunting Rates in Selected Countries, 1990-2020.**

Prevalence of stunting in selected countries

![Graph showing stunting rates in selected countries from 1990 to 2020.](image)


30 The package of nutrition-specific interventions found to promote a healthier society and a more robust economy if delivered in full and at 90 percent coverage comprises: pre-conceptual folic acid supplementation or fortification; maternal calcium supplementation; maternal protein energy supplementation; breastfeeding promotion; vitamin A supplementation for children 6–59 months; complementary feeding education and food provision for food insecure households; preventive zinc supplementation; management of moderate acute malnutrition and treatment of severe acute malnutrition; and therapeutic zinc supplementation during treatment of diarrhea.
Investing in climate adaptation and mitigation measures will reduce the economic losses in agriculture and industry brought by climate-related disasters. As one of the countries most affected by extreme climate events, the Philippines has experienced highly destructive typhoons almost annually for the past 10 years. Annual typhoon losses have been estimated to reach 1.2 percent of GDP, and as much as 4.6 percent of GDP in extreme cases like Super Typhoon Haiyan in 2013. The agriculture sector is often especially hit hard with losses to crop production, farm livelihoods and agricultural infrastructure which aggravate domestic food supply. The increasing intensity and frequency of natural disasters will add pressure to the country’s growth prospect and fiscal position. In response, the government needs to (i) invest in adaptation measures in agriculture and climate-proofing infrastructure to reduce the economic losses; (ii) invest in mitigation measures such as carbon pricing to reduce emission, increase growth, and generate jobs; and (iii) finance climate actions.  

The new administration will need to take swift and decisive action to confirm its commitment to its stated priorities. The new administration has laid out its eight-point socio-economic agenda, which aims to guide the economy back to its high-growth trajectory. It has taken steps to reassure businesses and investors the continuity of public infrastructure program, business-friendly reforms, and growth-supporting macroeconomic policies. Structural reform initiatives are planned on the areas of public-private partnership, foreign participation in strategic industries, and tax policy and administration, among others. The release of the Philippines Development Plan 2023-2028 will be a welcome development as the plan provides a clear roadmap to achieving the country’s medium-term priorities.

Over the medium term, effective public spending on the agriculture sector will help address the sector’s low productivity and alleviate the challenge of food security in the country. Growth prospects for the agriculture sector remain poor due to a combination of chronic underinvestment and intense vulnerability to weather-related shocks. Agriculture comprised less than 10 percent of GDP, and the sector’s contribution to growth is minimal during the past five years. However, it employs a disproportionate share of the labor force, and domestic food production has a significant influence on consumer price inflation. Nevertheless, foreign investment and credit to the sector have been low, contributing to the sector’s low productivity. Increasing agricultural productivity will be crucial to uphold food security and boost more inclusive growth. To this end, the efficient use of public funds for public investments will help address the structural constraints including value chain weaknesses and poor business climate for agri-food system (see Chapter 3).

---

The Philippines has been among the most dynamic economies in the East Asia Pacific region over the past decade. The growth momentum has been driven by key structural reforms, leading to a significant reduction in poverty in recent years. Agricultural policy has spurred some growth in the sector but falls short of sparking a structural transformation and dynamic development. Recently, the COVID-19 pandemic, the war in Ukraine, and adverse climatic and other events (typhoons, floods, and African Swine Fever outbreak), have contributed to rising domestic food prices and heightened concerns about food security in the country, especially for the poor and vulnerable.

Ensuring food security and sustained agriculture growth have been hampered by underinvestment in public goods in agriculture. The continued focus on supporting rice production has come at the expense of other agricultural products. As a result, Filipino consumers pay a very high price for food at approximately 40% higher than the regional comparators. Sustaining agriculture growth is further complicated by the ongoing devolution resulting from the Mandanas Ruling of the Supreme Court, which transfers greater responsibilities for and financing of agriculture programs to local government units (LGUs).

To take full advantage of the opportunities arising from the new strategic directions of the Department of Agriculture (DA) and the devolution of more responsibilities to LGUs, agricultural public expenditure policies must address three critical challenges: (i) changing strategic focus from an objective of self-sufficiency in specific commodities to align better with the administration’s ambition of improving sectoral competitiveness and resilience to ensure food security for all, (ii) improving effectiveness of the current spending, and (iii) dealing effectively with the public expenditure issues related to devolution. This chapter reviews the status and effectiveness of public spending in agriculture and the impacts of financial and functional devolution resulting from the Mandanas Ruling, and outlines key priority actions to achieve the medium to long-term agenda of enhancing agriculture productivity and strengthening domestic food security.

32 This chapter is prepared by Anuja Kar with the core team comprising Animesh Shrivastava, John Nash, and Roehl Briones (Philippine Institute for Development Studies). It draws significantly from the report “Philippines Agriculture Public Expenditures Review (AgPER): With a special focus on the implications of the Mandanas Ruling” (World Bank 2022).
3.1 INTRODUCTION

Agriculture remains critically important in the Philippines because of its connection to poverty reduction and its profound influence on national food security. The agriculture sector employs about 24 percent of the total workforce in 2021 (Figure 24). During the pandemic, it absorbed retrenched workers from other sectors (World Bank 2022). The poverty rate among farmers and fisherfolk has fallen over time, but it remains higher than the national average, and nearly three times greater than the poverty rate among urban households (Figure 25). Recently, the adverse impact of the COVID-19 pandemic and the war in Ukraine have caused supply chain disruptions and rising global prices of commodities, fuel, and fertilizer, which have spilled over to the Philippines. These impacts have been compounded by adverse climatic and other events (typhoons, floods, African Swine Fever outbreak, etc). Headline inflation has risen to an average of 5.4 percent in the first ten months of 2022, from 4.0 percent in the same period last year, driven by food and energy price pressure. Soaring prices, increased food demand, and insufficient local production to meet the demand, caused food to be far less accessible to lower-income groups in the country.

Food and nutritional security-related concerns remain widespread. The 2020 Annual Poverty Indicator Survey found that 66 percent and 75 percent of the total and poorest households, respectively, reported running out of food, going hungry, eating less than they should, or going without eating for a whole day. In 2019, the rate of stunting in children under five was 28.8 percent in the Philippines, equal to about 4 million children. According to the Food Prices for Nutrition analysis, while 92.5 percent of the population was able to afford a calorically adequate diet in 2017, over half (54 percent) could not afford one that met the basic nutrient requirements, and 71 percent (about 75 million people) could not afford a healthy diet. The situation has improved by 2020, but over two-thirds (68 percent) still could not afford a healthy diet.33 The prevalence of moderate to severe food insecurity continued to increase reaching 43.8 percent of the total population (Figure 26).

Figure 24: Sectoral share of employment, 2002-2019 (%).

![Figure 24: Sectoral share of employment, 2002-2019 (%).](image)


---

33 In 2015, most Filipino households could afford a calorically adequate diet, but one-third could not afford a nutritionally adequate diet (WFP 2015). Good nutrition is more expensive in urban areas—on average, urban consumers pay a premium of 10% for a nutritionally adequate diet compared to their rural counterparts. At the extreme, Metro Manila residents pay a 69% premium. Compared to other countries in the region, a nutritious diet also costs more in the Philippines.
The current government is putting in place policies based on the “One DA Reform Agenda”. The strategy for transformation is comprised of four pillars for sectoral development and modernization: agricultural consolidation, modernization, industrialization, and professionalization. This policy reorientation holds promise for transformational change that will produce a more resilient, inclusive, competitive, and environmentally sensitive sector. The Rice Liberalization Act (RA 11203), which abolished the import quota system (a long-standing instrument of protecting rice production), is indicative of this strategic shift. The act opened up the importation of rice to private traders and limited the mandate of the National Food Authority (NFA) to domestic procurement of palay (unhusked rice) from farmers and maintenance of national rice stocks as an emergency safeguard. This reform was an important step toward leveling the playing field for non-rice agriculture.

Amid this backdrop, the effectiveness of the Mandanas Ruling could be transformational for local service delivery if managed properly. The Supreme Court ruling on the Mandanas appeal requires the central government to increase the Internal Revenue Allotment (IRA)—the share of government tax revenue going to the LGUs—starting in 2022. The IRA, now called National Tax Allotment (NTA), increases by nearly 37.9 percent from Php695.5 billion in 2021 to Php959 billion in 2022. With more revenue share among the LGUs, the central government intends to devolve more responsibilities for administering and funding projects and programs. Though such devolution presents an opportunity to make agriculture service delivery more client-driven and accountable, there remain significant risks if it is not managed well.
3.2 The Effectiveness of Public Spending

Level and Trends of Public Spending vis-à-vis Agriculture Growth in the Philippines

Government expenditure on agriculture has declined over time. The DA budget declined from 2.6 percent of total government budget in 2015 to 1.3 percent in 2019 (Figure 27). Current spending levels are close to the 2012–2013 level in nominal terms, but well below the ratio of spending to-GDP benchmark. In 2021, spending as a share in agricultural GVA was only 3.4 percent, lower than 3.8 percent in 2009, and 4.3 percent after 2012 (Figure 28). Agriculture’s share of the overall public budget, relative to its share of the national GDP, has been declining since 2016. Of the total expenditures, agricultural spending is approximately seven percent of agricultural GVA in 2021. The specific policy instruments employed and procedural issues in the budget process have reduced the effectiveness of agricultural public expenditure in achieving its objectives.

Among the agencies involved in agriculture, the DA accounts for the largest share of government expenditures in the sector (Figure 29). The Department of Budget and Management (DBM) classifies the item Agriculture and Agrarian Reform under agricultural spending. The agencies responsible for this spending line are the DA, the Department of Agrarian Reform (DAR), and various government-owned and controlled corporations (GOCCs). The DA’s share is over 50 percent, followed by spending allocations to other government corporations, led by the National Irrigation Authority (NIA) and NFA (Figure 3.1). The DAR receives only a small allocation, reaching at most 9 percent of agricultural spending, although the relative share has increased over time, up from just 4 percent in 2020. Among the GOCCs, the biggest allocations are for the NIA and NFA. The latter receives Php 7 billion annually to fund the government’s rice buffer stocking program. Several GOCCs receiving large budgetary support are attached to the DA, such as the NIA, the NFA, and Philippine Rice Research Institute (PhilRice). Lastly, the large allocation for GOCCs in 2020 represents a temporary budget infusion mainly going to the NFA, the Bases Conversion Development Authority, and PhilRice.

Figure 27. DA share to total budget ratio (%).

![Figure 27. DA share to total budget ratio (%).](image)

Figure 28. DA Appropriation Levels in Php Billions, and as a Ratio to Agricultural GVA (%).

![Figure 28. DA Appropriation Levels in Php Billions, and as a Ratio to Agricultural GVA (%).](image)

Sources: DBM (2022); PSA (2022).

---

34 Data for DA budget (allocation, appropriation, disbursement) are represented in nominal terms.
35 NIA is now reattached to the Department of Agriculture as of 2022.
The DA budget reflects interventions under the Agriculture and Fisheries Modernization Act (AFMA) modernization and commodity-based programs. The banner commodity-based programs are the major components of the budget, under which AFMA interventions are managed and delivered to the farmers and fisherfolk through subsidies. The commodity programs account for 31–51 percent of the total DA budget for 2015–2019. The National Rice Program dominates the banner commodity programs, receiving a 47 percent share, of which 3–12 percent constitutes input subsidies while investments in high-level crops remain comparatively lower (Figure 30). The composition of the budget for agriculture, including the DA’s banner programs, suggests a focus on primary food crops to meet basic food security. The continued emphasis on self-sufficiency has limited the choices available to producers.

Capital investments represent only 16 percent of the Office of the Secretary (OSEC) budget. These investments consist of projects funded from domestic sources and foreign borrowings or grants. Locally-funded projects are a mix of short and long-term projects crafted or repackaged primarily to serve selected LGUs. Some of these projects have an implementation period of under a year, while others have become permanent features in the DA budget. Foreign-funded projects are investments requiring large capital and longer implementation periods. Unlike locally funded projects, foreign-funded projects like the Philippines Rural Development Project (PRDP) undergo rigorous evaluation and scrutiny from oversight agencies, primarily concerning their financial implications on the expenditure and debt program of the Philippine government. Overall, a greater focus on programs that fund public goods that are currently underfunded, such as research, agriculture extension and innovation systems, market information systems, rural infrastructure, biosecurity systems, and programs supporting CSA is needed. Improving implementation strategies, and utilizing available resources more efficiently can support the DA’s position to increase its share of the budget.
Impact of DA spending on agriculture

Agricultural policy has spurred some growth in the sector, but it falls short of sparking much-needed structural transformation and in providing solutions for sustainable agriculture and food systems resilience. While the overall economy has grown robustly, services and industry mainly drove economic growth (World Bank 2021). Agricultural growth was just 1.3 percent over that period. Total factor productivity (TFP) in agriculture has increased, as it rose by about 23 percent over two decades, however, it has been below that of regional neighbors such as Indonesia (72 percent), China (52 percent), and Vietnam (63 percent) (Figure 8). The growth in TFP was accompanied by some structural transformation within agriculture: from 2000 to 2021, agricultural gross value-added shares increased dramatically for bananas, animal production, and agricultural support services, while that of rice and other crops and products saw decreasing shares. Overall, the sector has experienced a much slower pace of structural transformation compared to many regional peers, as measured by changes in average farm size, the pace of agricultural mechanization, absorption of surplus agricultural labor in the rest of the economy, changes in agricultural land use, developing institutions for collective action, and others.

Rice has long commanded more attention from policy than any other crop, benefitting from enormous budgetary support and protection through import restrictions—with limited results. Massive infusions of support have delivered limited growth in rice productivity over the past four decades. Around 1980, rice yields in the Philippines were close to the average in other Southeast Asian countries. Since then, slower growth in rice yields has caused the Philippines to fall behind, which is a major reason why domestic rice production cannot compete with imports without significant support and protection (Figure 32).

There is a strong basis for using distributional equity in assessing agricultural expenditure programs of the government across space (i.e., regional distribution), or across subsectors (i.e., commodity distribution). A regional expenditure analysis shows that the regional allocation of the DA budget is highest in Luzon region, but this seems somewhat justified looking at regional allocations as a ratio to agricultural GVA (Figure 33). The analysis finds that the DA allocation is disproportionate to the size of the regional agricultural economy in most regions. Notably, allocations for Regions III and IVA are less than the ratio of the total regional allocation to total agricultural GVA. This implies that, relative to regional agricultural output, Regions III and IVA are receiving even smaller allocations than the average.
region. On the other hand, the most lopsided allocations over regional share in agricultural GVA are found for Cordillera Administrative Region (CAR) and Caraga. Comparing regional rankings, the DA allocations for Visayas and Mindanao underprioritize regions with higher poverty and agricultural GVA.

**One of the key underlying causes of low effectiveness is the notable gaps between planned expenditure and actual disbursements.** The disbursement rate for the DA’s budget is low and does not seem to be increasing. Obligation rates across 2019–2021 have ranged between 85–92 percent, while disbursement rates have been only 75–77 percent, even disregarding the much lower rate in 2020, which may have been mainly due to the COVID-19 pandemic. This amount is lower than the disbursement rate for the whole national budget, which was around 80 percent. For some important programs, the disbursement rate appears considerably lower, as revealed in the expenditure review of the Farm-to-Market Roads (FMRs) Program (World Bank 2021). The current review and a 2014 report by the DBM suggest that funds were unused due to multiple problems. These included poor project selection, lack of prioritization, poor choice of project location, and failure of the LGUs to provide counterpart funding. Shortcomings of the agencies’ internal processes such as unrealistic cash programs, poor coordination between planning and budget and operations groups, procurement problems, processing of claims for payment, and other administrative issues also contributed to unused funds. The DA’s inability to spend the allocated funds hampers requests for an increase in the budget during the budgeting process.
3.3 Implications for Financial and Functional Devolution resulting from the Mandanas Ruling

Budget allocation for LGUs

LGUs are assigned the task of delivering agricultural services to their constituents, but their spending allocation for agriculture is small relative to the DA and their overall allocation from the government. Figure 34 presents Department of Finance-Bureau of Local Government Finance (DOF-BLGF) data on agricultural expenditure by subnational governments (provincial/city/municipal). By 2018 LGU spending on agriculture was only Php 8.5 billion, which is relatively small compared to the annual allocation to the DA for agricultural development. Despite this absolute increase, the relative allocation for agriculture declined from 2.1 percent of the total LGU transfers in 2012 to just 1.5 percent in 2018.

Still, there remain some inconsistencies in the budgetary allocation to the LGUs. Financial incentives for qualified LGUs that meet the criteria for good governance are made available in the national budget and managed by the Department of the Interior and Local Government (DILG). The incentives allow LGUs to finance big-ticket projects they cannot accommodate under their respective budgets. Some LGUs were awarded incentives several times, while others, particularly the lower-income LGUs, could not meet the criteria. Some limitations on the budget distribution are claimed to be restrictive and inconsistent with local autonomy but are adopted as a matter of policy. Limitations of 80 percent for personal services and maintenance and other operating expenses and 20 percent for local development funds are imposed on the local budget. By law, 20 percent of IRA transfers should go to local development projects.

Figure 34. Government Allocations for Agriculture to LGUs, by LGU Level.

Sources: DOF-BLGF for agriculture allocation; Philippine Statistical Yearbook (PSY) (2019) for LGU allocations.

---

40 Across LGUs, most spending is done by municipalities, followed by provinces. Cities tend to be urbanized jurisdictions with a small agricultural base relative to municipalities, whereas provinces have fewer devolved key functions; however, the Agriculture and Fisheries Modernization Act (RA 8435) assigns provinces to serve as coordinators of the various municipal programs within an area.
Imminent challenges

The agricultural allocation for LGUs increased over time in nominal terms but not as a share of LGU allocation. The Devolution Transition Plan (DTP) developed by the DA to comply with Executive Order (EO) 138 did not specify the services for devolution but reiterated those devolved under the 1991 Local Government Code (LGC). Given that past patterns of allocation of LGUs for agriculture fall far short of what the national government spends on agriculture through DA, the lack of detail in the DTP raises concerns about the prospects for public agricultural spending post-Mandanas. For example, financing the devolved extension services will be a persistent challenge to LGUs, which mostly depend on the development fund for financial support for the broadening array of extension activities, set at 20 percent at that time. The burden of securing funds for the agricultural sector lies in the local leadership, which is expected to constantly seek funds from external sources to augment the meager resources of the LGUs.

As the DA moves forward with fine-tuning and operationalizing its DTP, it will need to cope with many issues. Major issues that appear to be potentially problematic for the process in the Philippines include:

- Weak coordination between the DA and LGUs in planning and delivering basic services.
- A lack of financial and skilled workforce capacity for effective expenditure planning and management in many LGUs, especially in the lower-income LGU categories. The ability to follow budget rules, manage finances, or even assess their capability for financial management using the Public Financial Management Assessment Tool (PFMAT) is often missing.
- The focus of LGUs is often on high-visibility expenditures with an immediate political payoff. Consequently, there has been less priority given to less visible rural and agricultural projects and services. For example, spending on agriculture extension services which was devolved after 1991 has declined considerably. This limitation poses great risks for other services still to be devolved. Part of the problem is that some investments, such as FMRs and reducing agricultural greenhouse gases (GHGs), have significant positive externalities. (that is, benefits accrue to the nation or the world, e.g., by integrating local markets into the national road network or mitigating global warming). Local decision-making on how to allocate funds may not consider these benefits.

- Possibility of insufficient funding for LGUs even with the extra financing from the Mandanas Ruling. There is no well-functioning institutionalized mechanism to establish a direct correlation between the extra IRA allocation and the cost of providing the services that will be devolved. At least one study has concluded that the funding—around 16 percent—is likely insufficient for many LGUs to continue to provide devolved services at the same level as currently provided by the national government. LGUs’ heavy dependence on the IRA and their limited authority to raise revenue independently exacerbate funding problems.

- A lack of a results-based monitoring, evaluation, and reporting system at the LGU level. No good system exists for monitoring and enforcing compliance with the LGUs’ commitment, which they must make before construction begins, to maintain long-lived capital investments such as FMRs after construction. The absence of such a system is especially unfortunate since such maintenance neglect leads to much higher costs further down the road.
3.4 An Action Agenda for Agriculture

There is a need to shift from a rice-centered agri-food policy to one that anticipates greater balance in sectoral priority-setting and resource allocation. An important objective underpinning past agricultural spending policy was a desire to achieve high levels of self-sufficiency in food products, especially rice. This strategic objective has driven spending decisions, and its impacts reverberate throughout the agricultural economy due to the magnitude of money spent and the inefficiencies generated by spending programs. At the same time, a modern conception of food security recognizes that security does not depend on self-sufficiency, but rather is much more a function of income and the general availability of nutritious foods. In aspirational terms, it means moving toward an agri-food system that is: (i) resilient in the face of risks, (ii) inclusive in the opportunities it provides and the consumers it services, (iii) competitive in domestic and international markets, and (iv) environmentally sustainable from farm to fork. Pursuing this agenda requires shifting from protecting a specific product (e.g. rice) and type of farmer to improving the overall resilience, competitiveness, and sustainability of the sector as a whole.

The pathway to achieving a sustainable agri-food system will need to be supported by the alignment of public agricultural expenditures with this new agenda. Results will depend on how well this reorientation is operationalized in policy and spending decisions. Unfortunately, recent budgets do not reflect this new strategy. This review found that in contrast to the intentions, concrete spending decisions that would reflect new policy directions, such as reorienting production away from commodity-based programs, have not yet begun in earnest, especially for rice and other single commodity programs.

One element in the shift in expenditure strategy should be a transition in budgeting from a commodity-based planning mechanism to one more area-based, focusing on more holistic objectives rather than production targets. This adjustment would involve adopting bottom-up, area-based planning based on strategic agricultural zones focused on maximizing farm incomes for all producers, reducing poverty, and focusing on sustainability rather than maximizing production.

A second element to meet this challenge of better alignment is to focus more on programs that fund public goods that are currently underfunded. Increased public spending on initiatives driving public rather than private goods like input subsidies has successfully improved the quality and impact of agricultural expenditure worldwide (Lopez and Gallinato 2007; Goyal and Nash 2013). Reducing input subsidies would create budget space to ramp up spending on currently underfunded public goods such as research and development, agriculture extension and innovation systems, market information, and biosecurity. Programs supporting CSA and climate-smart infrastructure, including the maintenance of FMRs, should also receive funding.

For example, agricultural research is a classic public good, which yields high benefits by increasing productivity and raising incomes at very modest costs. Spending on research in the Philippines is very low—about Php 1,213 million in 2019, relative to an agricultural GDP of about Php 1,722 billion that year—and needs to be significantly enhanced in quantity and quality. (Note that this figure does not include research spending falling outside the banner programs) Developed countries with strong agricultural sectors, such as Australia, New Zealand, France, and the Netherlands, report investments in public agricultural R&D of 3–4 percent of agricultural GDP (AgGDP), often supplemented by strong private agricultural R&D investment. In a survey of research programs in Southeast Asia, a recent study by the Agricultural Science and Technology Institute concluded that the Philippines had a research intensity of 0.41 percent as of 2017. This figure placed the country in the middle among the Southeast Asian countries but far below best practice examples globally. The country had the greatest gap between actual and attainable investment in agricultural research among all these countries.

Investments in improving agriculture extension services also offer big rewards, particularly

---

As measured by the difference between actual research intensity (public research expenditure/AgGDP) and potential attainable research intensity as estimated by ASTI.
those with strong public goods characteristics such as disease prevention and control, climate adaptation and mitigation, or those with significant demonstration effects beyond the immediate beneficiaries. There have been major developments in digital agriculture and new information and communication technologies and tools. Such developments have led to major agricultural extension and advisory service delivery improvements. New modes of communication between agents and farmers allow more efficient dissemination of information than the old face-to-face contact model. As extension services are increasingly decentralized, investments in technologies that help local extension staff reach a larger number of farmers should have high payoffs.

Policies and programs to scale up CSA will foster increased resilience of the agri-food system to weather shocks and reduce GHG emissions from the sector. Climate-related disasters are a significant threat to Philippine agriculture, and this threat is likely to be magnified over time by global warming related to GHG emissions. Philippine agriculture, particularly in the rice sector, contributes significant emissions, and the sector can increase its resilience to weather shocks. The following are some key CSA recommendations:

- Reform agricultural support policies to encourage more diversified production systems, which tend to be more resilient to climate shocks, while repurposing support for rice (one of the biggest producers of GHGs). Subsidize adopting CSA production technologies where appropriate and use social safety nets for disaster relief where feasible, rather than setting up special programs. Shift from physical input/fertilizer distribution to E-vouchers in the short term as these encourage the over-use of nitrogen fertilizers, which contributes to GHG emissions (nitrous oxide). Over the longer term, decoupled direct payments are well suited to promoting climate-smart technology adoption and are designed for this in other countries (Box 6).

- Improve water management and pricing policies to increase incentives for efficient use. This means curtailing both the provision of free irrigation and the use of non-volumetric water charges based on the area of land irrigated rather than water volume.

- Use legal and regulatory reform to provide greater tenure security for farmers to encourage investments in more resilient, integrated, and diversified agriculture systems.

- Support technology generation and dissemination to promote CSA technology adoption. Many innovative and longstanding production technologies are available. Measures include increased investments in research on climate impacts and technologies for both adaptation and emission reductions and strengthening extension systems.

- Take advantage of the Mandanas process to build local capacity for mainstreaming CSA into policies and planning. This process should ensure inclusion in community planning since CSA solutions are only sustainable if there is strong community ownership (World Bank and BioCarbon Fund 2021).

Improving budget prioritization is needed to support programs to overcome barriers to farmer collective action and economies of scale. There is a need for increased focus on improving value chain coordination and integration under the Farm and Fisheries Clustering and Consolidation Program (F2C2) initiative, with government support for efforts to overcome market failure by supporting buyers and producer organizations in preparing and implementing profitable business plans. Measures to support collective action will also help promote the adoption of CSA investments with high investment costs, e.g., solar-powered pumps, biodigesters, and small farm reservoirs, and therefore require joint action by groups of farmers. The PRDP has already implemented such a model through its Enterprise Development Component.

Government budgeting institutions also require procedural improvements. Getting the greatest value from public funds requires an efficient and effective process to plan and execute the budget and see how and where the government spends money. In particular, attention is needed in two areas: (i) to identify the causes of low disbursement rates and resolve them; and (ii) to improve processes for evidence- and results-based monitoring and evaluation.

---

42 Due to the current geopolitical scenario on account of the Russia-Ukraine war, fertilizer prices have skyrocketed. This has led the DA to provide a temporary cushion to counter rising fertilizer prices through additional subsidies.
Building Strong Agri-Food Systems under Devolution

Devolution can bring good results with improved clarity over the implementation plan. The strategy of delegating powers and responsibilities to LGUs provides opportunities for providing responsive and high-quality services and the possibility of strengthening accountability and extensive public participation in the delivery of services. To strengthen the impact of devolution to build a strong agri-food system, the central government needs to consider mechanisms to influence the spending priorities of the LGUs. The proposal for an enhanced menu system listing investment programs that LGUs may invest in using the 20 percent budget on capital outlays is imperative. This is the current policy for using the 20 percent capital budget, but reported underspending may reflect that the menu system has not been effective in providing appropriate options. Also, an Equalization Fund (EF) could be a grant to provide targeted support to LGUs incapable of adequately carrying out the devolved functions. The fund may be in the form of a conditional grant that can provide a mechanism to influence and direct capital investment priorities. Here, the menu system can be more effective by listing and prioritizing investments with spillover effects outside the LGU jurisdictions, like FMR and road repair and maintenance, among others.

Creating a mechanism to ensure that FMRs and other long-duration infrastructure investments receive needed investments in operations and maintenance is appropriate. This would ensure that they do not continue to suffer from poor maintenance, resulting in high costs. The government should create a mechanism: (a) to monitor each LGU’s spending on operations and maintenance (O&M) systematically, (b) to evaluate whether that is adequate to maintain infrastructure in good condition, and (c) to sanction LGUs that fall out of compliance.
Box 6. Advantages of Decoupled Payment

A decoupled payment would not depend on current input use, product choice, or production quantity. This mechanism can help support farmers’ incomes without creating biases that favor the production of any specific crop or favoring the negative effects of input subsidies. Decoupled payment schemes have played a key role in reform in the EU, USA, Turkey, Mexico, and other countries, where the form of payment has been per hectare. A decoupled payment system has numerous advantages:

a) It is more controllable and WTO-friendly than support linked to inputs or outputs.
b) It is more effective than vouchers at helping farmers develop farm management skills since it gives farmers more flexibility in choosing how to optimize their choices of production technology.
c) It can incentivize farmers to make decisions on the environment, land management, public and animal health, or animal welfare, which prevent or minimize negative externalities. This incentivization is done successfully in several countries, including the US and EU.
d) A decoupled payment system could be made progressive, with more limited payments per hectare for large farms. This improvement is also possible for vouchers.

In the short term, moving to an e-voucher system for input subsidies would give farmers more choices and incentives to develop better farm management skills and encourage private sector development in input supply.

The government would have multiple options for handling the fiscal cost of this kind of reform. First, the net fiscal cost would be zero if decoupled payments were substituted peso per peso for existing subsidies. If decoupled payments can compensate for eliminating nontariff trade barriers, the government has net fiscal costs. In this case, if tariffs are substituted for the NTBs as was done for rice, this additional revenue can be used to finance decoupled payments. Another option would be to use some of the fiscal savings from phasing out subsidies to finance decoupled payments and channel some of the savings to other forms of spending on public goods.
Comparing regional rankings, the DA allocations for Visayas and Mindanao underprioritize regions with higher poverty and agricultural GVA. The comparisons above contrast the size of regional budgets with the size of other indicators such as agricultural GVA or the number of poor persons. Alternatively, we can simply base comparisons on the ranking of spending priorities vs. ranking based on output and poverty indicators. Table 3 displays the regions sorted in ascending order of expenditure allocation; also shown are rankings of each region based on the size of agricultural GVA and poor agricultural population, both in descending order. For instance, the first-ranked region by expenditure is Region III, which is also the first-ranked region by GVA, with a deviation of zero. However, the first-ranked region by expenditure is only ranked eleventh by poverty, with a deviation of 10.

The spending priority for a region is, on average, about four places different from the ranking of that region in terms of GVA and about six places higher or lower based on its ranking by the number of agricultural poor. Therefore, the mean absolute deviation is smaller for the GVA ranking than for the poverty ranking. An expenditure allocation need not exactly align the rankings based on one indicator, as doing so will inevitably entail misalignment with other indicators. Table 3, the third column presents the GVA ranking relative to the poverty ranking. The mean absolute deviation is 3.9; aligning expenditure priorities to rank regions consistently with agricultural poverty will deviate from perfectly aligned GVA ranking by an average of about four places. The reality of trade-offs across various indicators should be recognized. Further comparison of DA allocation compared with the crop choice of farmers suggests that DA prioritization across regions is being driven by its commodity priorities, led by rice. Hence it is unlikely to make better choices in terms of distributional allocation unless it reorders its overall spending priorities.

Table 3. Comparison of Regional Ranking Based on Different Agricultural Indicators, 2018.

<table>
<thead>
<tr>
<th>Region</th>
<th>GVA rank</th>
<th>Poverty rank</th>
<th>GVA rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region III</td>
<td>0</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Region II</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Region I</td>
<td>4</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Region V</td>
<td>9</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Region IVB</td>
<td>4</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Region VI</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Region IVA</td>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Region XII</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Region VIII</td>
<td>3</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Region VII</td>
<td>8</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Region X</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>CAR</td>
<td>2</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Region IX</td>
<td>10</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Region XI</td>
<td>3</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Caraga</td>
<td>1</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Mean absolute deviation</td>
<td>4.1</td>
<td>6.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s calculation.
Note: Poverty denotes the population count of poor agricultural households.


FAO/CIESIN Center, Columbia University. “Challenges to Decentralization of Agricultural Extension”, in The Online Sourcebook on Decentralization and Local Development. Available at: https://www.ciesin.columbia.edu/decentralization/English/Issues/Agrextension.html


Philippines’ Agricultural and Water Sectors”. In: Uitto, J. and R. Shaw, (eds), Sustainable Development and Disaster Risk Reduction. Disaster Risk Reduction. Springer, Tokyo. URL: https://doi.org/10.1007/978-4-431-55078-5_12


