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Mauritania

Human Capital Review



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Mauritania Human Capital Review

Building, Utilizing, and Protecting Human Capital
for Inclusive and Resilient Economic Development

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Abbreviations

ANEPEJ	National Youth Public Employment Agency (Agence nationale pour la promotion de l'emploi des jeunes)	PBF	performance-based financing
ARC	African Risk Capacity	PEJ	Youth Employability Project (Projet d'employabilité des jeunes)
BCC	behavioral change communication	SCAPP	Accelerated Growth and Shared Prosperity Strategy (Stratégie de la Croissance Accélérée et de la Prospérité Partagée)
CCT	conditional cash transfer	SPJ	Social Protection and Jobs
FNRCAN	National Fund to Respond to Food and Nutritional Insecurity (Fond National de Réponse aux Crises Alimentaires et Nutritionnelles)	SQ-LNS	small-quantity lipid-based nutrient supplement
GDP	gross domestic product	UHCI	Utilization-Adjusted Human Capital Index
HCI	Human Capital Index	UNICEF	United Nations Children's Fund
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome	WASH	water, sanitation and hygiene
HNP	Health, Nutrition and Population	WHO	World Health Organization
LMIC	lower-middle-income country		
NEET	not in education, employment, or training		

All dollar amounts are U.S. dollars unless otherwise indicated.

Executive summary

This human capital review assesses human capital outcomes in Mauritania and identifies actions to strengthen, utilize, and protect human capital.

The government of Mauritania has demonstrated a strong commitment to placing human capital at the forefront of its long-term vision, with dedicated efforts focused on enhancing childhood health and education outcomes. Despite Mauritania's positive initiatives, the country's human capital wealth per capita has declined over the last 20 years; and it is imperative to look at ways to quickly reverse this situation. Children born today in Mauritania will only be 38 percent as productive when they grow up as they could have been had they enjoyed complete education and full health. Increasing the productivity of Mauritians—both men and women—and thus allowing them to fully contribute to the development of their society entails transforming the human capital challenge to a human capital opportunity. This report takes a comprehensive, cross-sectoral approach and proposes recommendations for building, protecting, and utilizing human capital in Mauritania.

To better build human capital, it is essential to enhance maternal health and nutrition, encourage the utilization of health services, and enhance early childhood education through multisectoral solutions.

Challenges such as high maternal mortality rates and limited access to family planning and quality health services have been identified; the country should therefore focus on working toward overcoming the constraints in early childhood education, fostering a more supportive and effective learning environment for young children, and doing so in a coordinated and concerted manner. Enhancing maternal health requires addressing barriers to health care access,

and improving the availability and quality of service delivery while closing urban-rural health care gaps—performance-based financing mechanisms can be an effective tool to support this, as pilot experiences in the country have shown. Implementation of measures targeting malnutrition among children under age five, including by adopting a package of interventions that includes cash transfers, are an important avenue to improve children's nutrition status of children. Conditional cash transfers, which provided a top-up transfer to incentivize childhood vaccination among Tekavoul beneficiaries, are an example of a successful, effective multisectoral intervention. The Tekavoul platform should be leveraged further and could be coupled with other interventions, such as the direct provision of nutritional supplements to counter childhood malnutrition. Its human capital accompanying measures (the *promotion sociale*), including those focusing on early childhood nutrition and stimulation, could be made available to an audience beyond safety net beneficiaries.

Mauritania has significant untapped human capital potential that can be harnessed and utilized for development.

Challenges such as limited employment opportunities for young people can be addressed by creating pathways for smoother transitions into the workforce. In 2019, the proportion of youth not in employment, education, or training was 44.8 percent—ranking high in Sub-Saharan Africa, second only to Niger. Efforts can focus on enhancing the relevance of skills provided by the education system to expedite the transition to work, recognizing that less than a quarter of young adults are employed by age 34.

Empowering women in the workforce is a key element for unlocking Mauritania's human capital potential. Early marriage, unequal family obligations, employment segregation, and legal barriers are contributors to only 23 percent of prime-age women participating in the labor force. Moreover, women currently earn, on average, only 60 percent of men's salaries for comparable jobs and equivalent levels of human capital. Addressing these barriers and rectifying this imbalance can unleash a valuable source of development and prosperity and contribute to a more inclusive and equitable workforce.

To better utilize its human capital, Mauritania should improve the relevance of its education system, improve the business climate for entrepreneurship, and scale up labor market programs for vulnerable youth. Improvements of business climate and concerted efforts to diversify the economy, coupled with entrepreneurship support, are needed for robust job creation. Mauritania is currently scaling up its youth employment programs. Further multi-sectoral solutions—including improvements in the relevance of basic and technical education—are needed to have a greater impact on the job prospects for youth. Work on social norms around gender roles is also necessary to strengthen nondiscrimination and empower women and girls. Finally, demographic change will put aging on the agenda in the medium to long term, requiring better access to health care, changing strategies of urbanization, and requiring a framework to extend working life.

Mauritania needs to protect and safeguard its human capital in the face of recurrent challenges. With the growing exposure to shocks, ensuring inclusive systems for protecting human capital will help strengthen resilience. From 2000 to 2021, Mauritania ranked third highest in Sub-Saharan Africa on the level of human impact from climate-related events, after Somalia and Eswatini. About half of Mauritania's households report facing shocks; extreme climate events make close to a million Mauritians food insecure every year. Mauritania has made impressive progress in building a comprehensive shock response system. Its core safety net, Takavoul, and its shock response program, Elmaouna, are at scale covering all the extreme poor and vulnerable. These rely on an early warning system and innovative financing mechanisms, providing a harmonized framework for government and development partners. Robust evaluations of the first experiences in utilizing this system are needed to ensure efficiency, timeliness, and adequacy. The vaccination campaign in response to COVID-19 has demonstrated strong commitment through a joint effort to better surveillance, prevention, and response.

Mauritania's sustainable growth depends on its human capital wealth. Unlocking this opportunity is one of the country's biggest challenges—for which, however, solutions are known. This growth is in reach, and this report aims at contributing to this process of change.

1 Overview

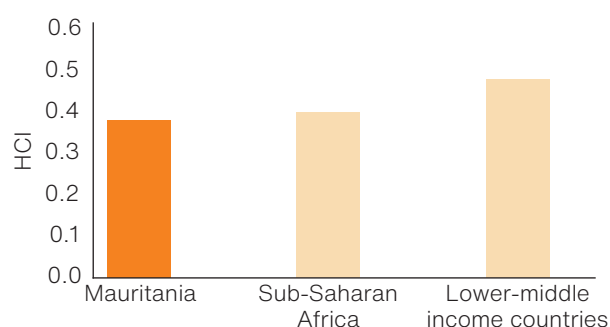
Human capital, which encompasses knowledge, skills, health, and nutrition, is a significant determinant of long-term economic growth and social advancement. Human capital drives economic growth globally and represents two-thirds of global wealth. The COVID-19 pandemic led to a sharp decline in human capital in the critical stages of life, with children and young people most affected. Mauritania, a sparsely populated, arid, and resource-rich lower-middle-income country (LMIC), is facing frequent shocks, which limits progress in poverty reduction by depleting the assets of poor households and by increasing the risk faced by the nonpoor of falling into poverty. The COVID-19 pandemic reversed progress in poverty reduction with an increase of extreme poverty to 6.1 percent in 2020, and of the overall poverty rate to 33.6 percent in 2021 (World Bank 2022d). The country is particularly vulnerable to climate shocks, which disproportionately affect the poorest, who depend on agriculture for 45 percent of their total income, and for whom food products comprise 57 percent of their consumption.

This human capital review assesses human capital outcomes in Mauritania and identifies actions to build, utilize, and protect human capital. The government of Mauritania has put human capital development at the center of its long-term vision, and concerted efforts have been made to improve childhood health and education outcomes in Mauritania. However, progress has been limited. This report takes a cross-sectoral approach toward

inclusive and resilient economic development along the three pillars of the human capital framework—that is to build, use, and protect human capital.

Mauritania’s human capital wealth per capita has declined over the last 20 years. Human capital accounts for an estimated 64 percent of global wealth (World Bank 2021a). While its contribution to overall wealth increased between 1995 and 2018 globally, it decreased in Mauritania, where the stock of human capital per capita shrunk by an average of 1.6 percent per year, and its share in the nation’s wealth is just 50 percent. The accumulation of the stock of human capital has been lagging population growth because of increasingly poor employment outcomes, especially for women, and a failure to diversify the economy.

Mauritania’s Human Capital Index (HCI) was 38 percent in 2020, meaning that children born in Mauritania today are expected to only be 38 percent as productive when they grow up as they could have been had they enjoyed complete education and full health. The country’s HCI is slightly above the average for Sub-Saharan Africa, but below that of other LMICs ([figure 1.1](#)). Girls tend to fare slightly better than boys across all dimensions of the HCI: they are less likely to be stunted, more likely to survive to age five and beyond, and their expected schooling is higher ([table 1.1](#)). However, women have much lower potential to realize their human capital than men in Mauritania.

Figure 1.1 Mauritania's HCI is below its peers

Source: World Bank 2022a.

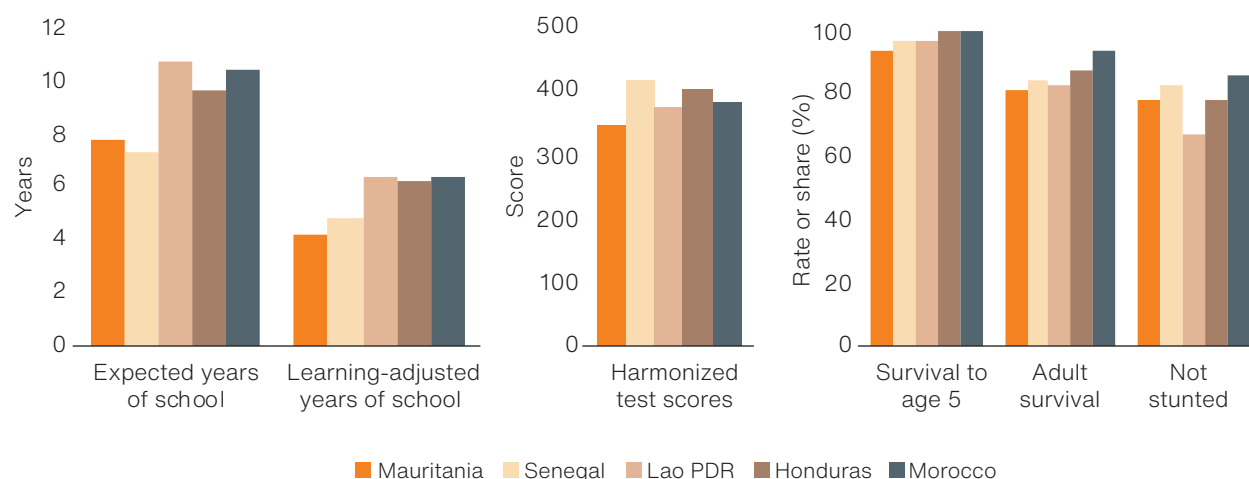
Table 1.1 Mauritania's HCI by sex

Component	Boys	Girls
HCI overall	0.37	0.39
Survival to age 5	0.92	0.93
Expected years of school	7.5	7.9
Harmonized test scores	340	343
Learning-adjusted years of school	4.1	4.4
Adult survival rate	0.78	0.83
Not stunted rate	0.74	0.80

Source: World Bank 2022a.

Mauritania scores lower on HCI components than its peers. [Figure 1.2](#) shows that Mauritania scores below the values achieved by neighbors (bordering countries; i.e., Morocco), structural peers (countries with similar economic characteristics as Mauritania in 2015–21; i.e., Senegal), and aspirational peers (countries with structural characteristics similar to Mauritania's in 1990–2010 that have enjoyed faster per capita growth since 2010; i.e., Honduras and Lao People's Democratic Republic) across most of the components of the HCI.¹ Mauritania scores particularly low on learning outcomes—learning-adjusted years of schooling and harmonized test scores—and could do better on early childhood outcomes such as childhood survival rates. These issues are of particular importance given the structure of the Mauritanian population: 29 percent of the current population is below age 10. Proportionally, the 0–4-year-old age group is the country's largest population group. Building the human capital of these young Mauritians is therefore of utmost importance.

¹ See World Bank (2020a) for a fuller discussion of these three peer groups.

Figure 1.2 Mauritania scores lower on the human capital components than neighbors, structural peers, or aspirational peers


Source: World Bank, [World Development Indicators](#).




This human capital review offers a cross-sectoral approach toward greater and shared prosperity.

Building, utilizing, and protecting human capital occurs across the life cycle (table 1.2). It is beyond the scope of this review to provide a thorough detailed analysis of human capital in Mauritania; rather, the report highlights the most pressing

challenges in building, utilizing, and protecting human capital. In **building** human capital, the report focuses on key constraints to accumulating early childhood human capital. Early childhood is the period that carries the highest return to investment. It further lays the foundation for people's ability to keep building their human capital throughout their

Table 1.2 Building, utilizing, and protecting human capital occurs across the life cycle






Objective	Early years	School years	Youth	Working age	Old age
Building human capital 	<ul style="list-style-type: none"> ■ Nutrition ■ Early childhood stimulation ■ Social safety nets with health incentives (antenatal visits, vaccinations) ■ Quality child-care services 	<ul style="list-style-type: none"> ■ Quality of education ■ Social safety net with incentives for schooling ■ Reduce early marriages, empower girls, ensure schooling progression, provide relevant skills, including life skills 	<ul style="list-style-type: none"> ■ Secondary education ■ Tertiary education ■ Remedial education ■ Apprenticeships ■ On-the-job training providing relevant skills, including life skills 	<ul style="list-style-type: none"> ■ Remedial education ■ On-the-job learning ■ Lifelong learning ■ Improved quality of health service delivery ■ Adaptive social protection to avoid food insecurity 	<ul style="list-style-type: none"> ■ Caregivers of young children ■ Need to be engaged for changing social norms and empowering women
Utilizing human capital 		Avoid child labor	<ul style="list-style-type: none"> ■ Reduce early marriages and utilize human capital in labor market ■ Youth labor market programs, including subsidies, childcare services, green jobs 	<ul style="list-style-type: none"> ■ Labor market intermediation and reform of the legal framework ■ Competition, access to finance and markets ■ Productive economic inclusion ■ Childcare services, green jobs 	<ul style="list-style-type: none"> ■ Retirement schemes to incentivize longer working life ■ Better work environment for older workers ■ Better-quality/affordable health care
Protecting human capital 	<ul style="list-style-type: none"> ■ Adaptive social protection, health insurance, etc., to avoid coping strategies that affect nutrition and learning ■ Resilience of service delivery for continued access 		<ul style="list-style-type: none"> ■ Adaptive social protection, health insurance, index insurance to avoid negative coping strategies and protect assets ■ Resilience of service delivery for continued access ■ Social cohesion through community-based programs 		

lives. In **utilizing** human capital, the report focuses on the constraints that vulnerable groups such as women and youth face in making productive use of the skills and knowledge acquired. This part of the report focuses on Mauritania's untapped resources, which need to be activated to reap the demographic dividend. In **protecting** human capital, the focus is on protection against climate shocks. Mauritania is already affected by frequent and severe climate

shocks, which will get worse due to climate change. [Table 1.3](#) presents the framework for building, utilizing, and protecting human capital, identifying the key constraints as well as main policy actions identified in the review. Because constraints to human capital accumulation, utilization, and protection are cross-sectoral, the recommended policy actions require strong collaboration across sectors and government.

Table 1.3 Key constraints and policy actions for building, utilizing, and protecting human capital

Objective	Key constraints	Key policy actions
<p>Building human capital</p>  <p>By promoting the demand for, use of, and access to quality health, nutrition, and education services</p>	<ul style="list-style-type: none"> ■ High maternal mortality rate and poor maternal health outcomes ■ Poor child health and nutrition outcomes ■ Lack of (early) childhood education and stimulation ■ Non-enforcement of child protection policies 	<ul style="list-style-type: none"> ■ Increase access to and use of family planning ■ Increase the quality of health services pre- and post-partum ■ Support the adoption of recommended health/nutrition practices ■ Improve infant and young child feeding practices ■ Improve water, sanitation, and hygiene practices ■ Improve knowledge of responsive caregiving among caregivers ■ Strengthen teachers' content knowledge and pedagogical skills ■ Ease the birth registration process and eliminate penalties for late registration
<p>Utilizing human capital</p>  <p>By helping people maximize their productive potential and access high-quality jobs and livelihood opportunities</p>	<ul style="list-style-type: none"> ■ Challenging transition from education to work ■ Underutilization of the human capital of prime-age workers ■ Gender disparities in terms of access to opportunities and distribution of care responsibilities ■ Underutilization of older workers' skills 	<ul style="list-style-type: none"> ■ Improve the quality of education and implement remedial education programs ■ Diversify the economy and private sector development ■ Improve labor market information and intermediation ■ Consider wage subsidies for vulnerable groups such as youth and women ■ Establish a system for lifelong learning in partnership with the private sector ■ Scale up apprenticeship programs and social pensions
<p>Protecting human capital</p>  <p>By developing resilience to shocks and protecting people from welfare and human capital erosion due to shocks</p>	<ul style="list-style-type: none"> ■ Low coverage of insurance from health-related idiosyncratic shocks ■ Increased frequency and severity of climatic shocks ■ Prevalence of negative coping strategies ■ Weakening of traditional informal safety nets 	<ul style="list-style-type: none"> ■ Expand the universal health coverage scheme and increase coverage to reduce out-of-pocket spending ■ Improve early warning systems and ensure they are integrated with emergency response protocols and financing instruments to respond effectively to emergencies ■ Increase the adequacy of social protection coverage and gradually expand social insurance to the informal sector ■ Improve labor market prospects for poor and vulnerable groups and increase social cohesion at the community level through behavioral change interventions

Building (early childhood) human capital

Maternal health and nutrition—even before conception and the prenatal years—are of critical importance for building human capital.

The health and nutritional status of women of reproductive age significantly affects early childhood outcomes, including intrauterine growth, birthweight, neonatal and maternal mortality, and early childhood development. Mauritania faces challenges such as high maternal mortality rates and limited access to family planning and quality health services, leading to inadequate adoption of recommended health and nutrition practices. Child marriage, teen pregnancy, and female genital mutilation are prevalent, contributing to maternal morbidity and mortality and poor birth outcomes. Maternal malnutrition, including overnutrition and micronutrient deficiency, also poses risks to maternal and child health. Insufficient health infrastructure, especially in rural areas, further exacerbates these challenges. Maternal health, education, and socioeconomic status play crucial roles in shaping childhood health outcomes.

Childhood health and education outcomes, as well as the protection of children’s rights, have far-reaching implications for future productivity and well-being.

The prevalence of stunting (low height for age) remains high at 25.1 percent of children under five years old (UNICEF, WHO, and World Bank 2021; MoH and ANSADE 2022). If present trends continue, Mauritania will be unable to reach the global target for childhood stunting by 2030.² Worryingly, Mauritania’s 2022 SMART (Standardized Monitoring and Assessment of Relief and Transitions) survey results suggest an almost 8 percentage point increase in wasting in the last year, likely due to COVID-19.³

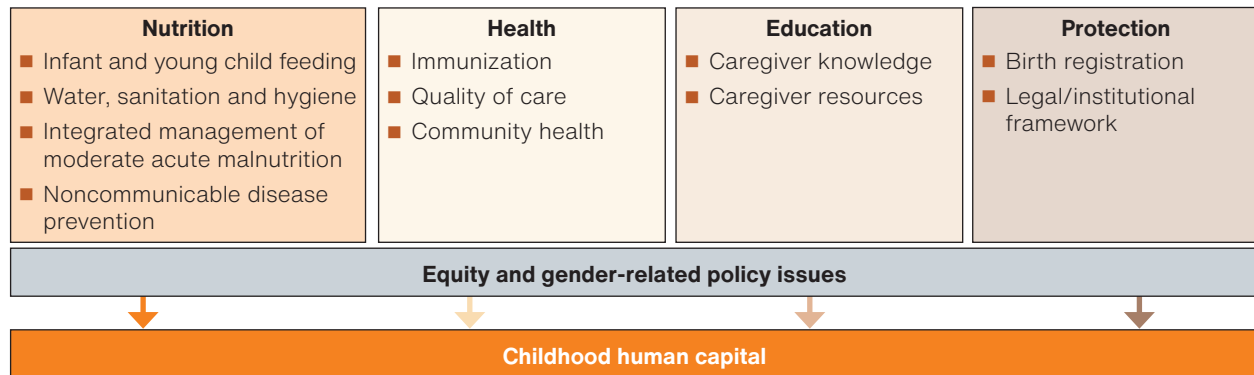
² The global target for childhood stunting is a 50 percent reduction in the number of children under five years old who are stunted by 2030.

³ Wasting refers to acute malnutrition. Stunting refers to chronic malnutrition.

Similarly, although school enrollment has increased, learning poverty remains high. Fourth grade students score, on average, 21.0 percent, 38.6 percent, and 31.6 percent on tests evaluating French, Arabic, and mathematics skills, respectively (Gauthier et al. 2023). Childhood immunization rates in Mauritania are notably low, and air pollution is a significant contributor to child morbidity and mortality, affecting both fetal health and childhood development. Early childhood education faces various constraints, including limited caregiver knowledge and resources for early learning, along with low enrollment rates in preprimary education. Child protection and rights are also of concern, with a notable decline in birth registrations and persistent issues related to child marriage, child labor, and female genital mutilation. Mauritania’s academic performance is significantly worse than the average of other African countries where comparable assessments have been conducted: 45.4 percent and 45.2 percent on tests evaluating French/English and mathematics skills, respectively.

To better build early childhood human capital, it is essential to enhance maternal health and nutrition, encourage the utilization of health services, and enhance early childhood education (figure 1.3).

Enhancing maternal health will require addressing barriers to accessing health services, improving service availability and quality, and bridging urban-rural health service disparities. Investments in the health sector are also needed to ensure remote populations have access to quality primary health services. Performance-based financing mechanisms adopted by the Ministry of Health can incentivize health workers to serve in rural areas, potentially supported by financial incentives like hardship allowances. To improve child health and nutrition, Mauritania should urgently implement measures targeting undernutrition among children under age five, including by adopting a package of interventions that include cash transfers and nutritional supplements. School feeding programs and

Figure 1.3 Building early childhood human capital is a multisectoral policy issue

health-related social and behavioral change communication can contribute to improved child nutrition. To enhance child education and development, caregivers need to be empowered to stimulate children's cognitive and behavioral development. Lessons from the Tekavoul program, which has successfully induced behavior change and increased parent-child interaction, could inform other national programs. Given that most Mauritanian children are cared for by immediate family members, information campaigns should utilize various tools and engage traditional figures of authority like village or religious leaders to reach potential caregivers effectively.

Utilizing human capital

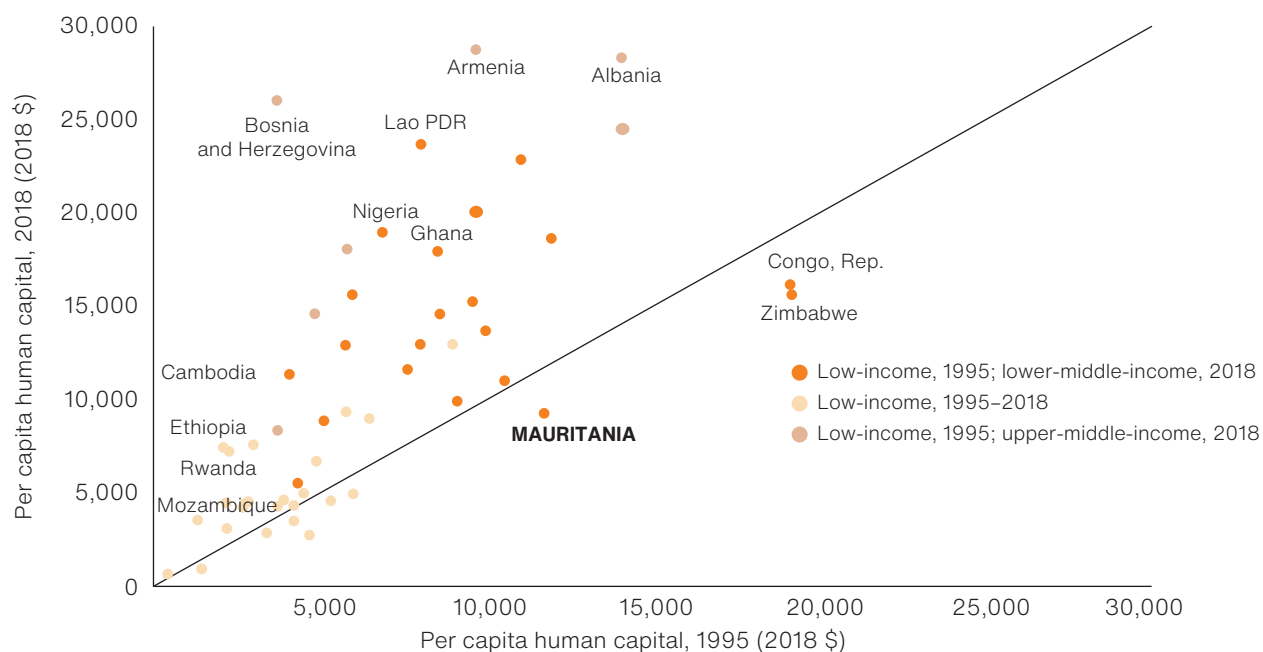
Mauritania is not yet fully utilizing the country's accumulated human capital. According to the Wealth of Nations approach, which separates national wealth into natural, physical, and human capital, the country's human capital wealth per capita has decreased over the last two decades, representing only 50 percent of total wealth in 2018. This decline, particularly pronounced among women, has hindered the country from fully capitalizing on its demographic dividend. The transition to LMIC status was attributed largely to the growth of mineral wealth: Mauritania is one of only three countries that became a lower-middle income

country despite a reduction in human capital wealth (figure 1.4). The Utilization-Adjusted Human Capital Index (UHCI) reveals very low human capital utilization in Mauritania, especially among women. Children born in Mauritania today are expected to utilize only 15 percent of their human capital potential by the time they enter the labor market.

The country faces significant challenges in effectively utilizing its human capital, primarily because of low employment, poor quality of jobs, and low educational attainment. Mauritania's labor market struggles with low participation rates, especially among women, and employment rates are low for the country's population, with even fewer opportunities for women. The labor force participation rate among the working-age population (age 15–64) was low at 47 percent in 2019 (29 percent among women, compared to 64 percent among men),⁴ much lower than the Sub-Saharan African average of 68.4 percent. However, the country's labor force participation and overall unemployment rate of 20.19 percent in 2017 mask even higher rates of nonparticipation, unemployment, and underemployment among youth (age 15–24). When employed, women face severe penalties in terms of wages, earning on average only 60 percent of men's salaries for comparable human capital and type of job.

⁴ Source: International Labour Organization, [ILOSTAT](#).

Figure 1.4 Mauritania became a lower-middle-income country despite a reduction in human capital wealth



Source: World Bank 2021a.

Note: Countries above the line have seen an increase in their human capital wealth over the 1995–2018 period.

This gender disparity in the labor force contributes to a significant portion of women dropping out of the job market. The quality of jobs is also a major concern, as most employment occurs in the informal sector with low productivity, offering little or no protection for workers' rights and no social security. A substantial proportion of jobs are precarious, affecting both men and women, with higher prevalence in rural areas compared to urban centers.

A large proportion of youth fails to transition successfully into employment, remaining unemployed or largely inactive in the labor market. In 2019, 44.08 percent of young people between the ages of 15 and 24 (and 54.8 percent of young women) were not in employment, education, or training—the second highest level in Sub-Saharan Africa after Niger. Over 60 percent of the population in Mauritania is below age 25, which means that many young people are soon entering the labor

market. The transition from school to work is particularly challenging for Mauritanian youth, who often face unrealistic expectations about job prospects. On the other hand, older workers tend to withdraw from the labor force relatively early, reflecting their deteriorating health and the prevalence of jobs not suitable for them.

Mauritania can significantly improve utilization of its human capital. Bridging the gender gap in labor force participation and earnings, combating early marriages and pregnancies, and promoting equal opportunities for women are vital steps to harness the full potential of the country's human capital. Reform of labor market regulations, such as ensuring equal remuneration for equal work and adopting legislation against workplace harassment, could enhance gender equality in the workforce and encourage women's participation in higher-quality jobs and leadership roles. Regulatory

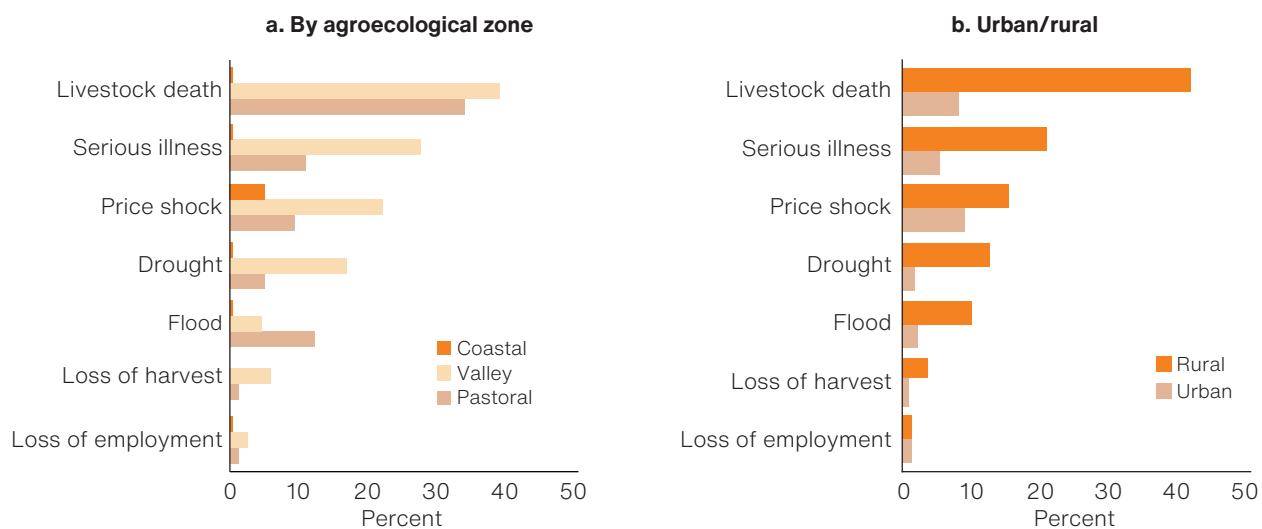
issues, corruption, and skill mismatches hamper job creation across sectors. To increase employment opportunities, Mauritania is currently working on initiatives such as tax and land reforms, but the authorities must also focus on accelerating private sector growth, promoting entrepreneurship, and expanding access to finance.

Mauritania can optimize labor market programs, improve vocational training, and promote green jobs for youth and women. Wage subsidies and better labor market information systems could enhance the experience of Mauritanian workers. Increasing women’s labor market participation requires addressing their education, health, and entrepreneurial empowerment as well as issues related to child marriage. Older workers’ productivity could be maintained by increasing their access to health services and developing a retirement scheme with activation incentives. Multisectoral policies are crucial to unlock the potential of Mauritania’s human capital.

Protecting human capital

Mauritania is frequently affected by a variety of shocks, including both slow and rapid onset shocks as well as predictable and unpredictable events, leading to protracted crises. Climate-related disasters, such as desertification, rising temperatures, soil erosion, and extreme weather, pose significant threats to livelihoods and food security. Over 2000–21, Mauritania ranked third highest in Sub-Saharan Africa on the level of human impact from climate-related events, after Somalia and Eswatini. The country’s vulnerability to climate change is high, with potential gross domestic product (GDP) losses of 2.8 percent by 2030 in the absence of urgent climate adaptation investments. Shocks affecting households include health crises, loss of cattle, and weather-related events, with poverty rates rising significantly during droughts (figure 1.5). Trade costs, price shocks, high transport costs, and an overvalued real exchange rate further challenge food security. Additionally, the country’s reliance on livestock exposes it to contagious zoonotic diseases,

Figure 1.5 Mauritan households, regardless of location, are affected mostly by agropastoral and climate shocks



Source: Based on data from the [2017/18 Resilience Index Measurement and Analysis](#).

necessitating health system improvements and disease surveillance. Gaps in health insurance coverage leave many vulnerable to catastrophic health spending, further exacerbating the impact of health shocks. According to data from the [2017/18 Resilience Index Measurement and Analysis Survey](#), almost half of all households and two-thirds of rural households reported having experienced shocks over the previous year. Usually, between 300,000 and 800,000 individuals are food insecure during the lean agricultural period; the number of food insecure reached 660,000 in 2022.⁵ Acute malnutrition, which is highly correlated with seasonal food insecurity, affects about 12 percent of children under 5 years old during the lean season; and one in five children is chronically malnourished.⁶

Traditional reliance on informal community and family networks as coping strategies is eroding.

Although these networks remain common, the increasing frequency and severity of covariate shocks often make them inadequate to weather an emergency. Moreover, they do not guarantee protection for everyone in need. Sudden shocks push vulnerable households toward adopting negative coping strategies, which have an adverse effect on human capital investment. Only 27 percent of school-age children in vulnerable households attend formal school. This cycle of underinvestment in human capital leads to issues like acute and chronic malnutrition. To address these challenges, improving social risk management is crucial; this involves providing social insurance to protect against income loss due to various shocks, including illness and job loss, as well as insurance mechanisms for productive assets like crops and livestock. Additionally, adaptive social protection and resilient delivery systems are needed to shield households from covariate shocks effectively.

⁵ Source: Integrated Food Security Phase Classification (IPC), [Cadre Harmonisé](#), 2022.

⁶ Source: World Food Programme, [Mauritania](#) webpage.

The implementation of adaptive social protection programs is crucial in Mauritania to prevent the use of negative coping strategies during shocks.

These programs complement informal risk-sharing networks, especially in vulnerable communities. Adaptive social protection systems use tools such as social registries, disbursement protocols, and payment systems to respond effectively to shocks, helping households prepare, cope, and recover while building resilience. Adaptive social protection improves preparedness by diversifying livelihoods, building asset bases, and enabling access to private and public instruments to mitigate the impact of severe shocks. Tekavoul and Elmaouna form the backbone of Mauritania's integrated adaptive social protection system. Tekavoul provides regular cash transfers and social promotion activities to practically all the country's extreme poor. Elmaouna, a shock-responsive program, assists poor households affected by various shocks. Both programs have grown in recent years, and their integration ensures efficient coverage during crises. Mauritania's social registry—a vital component of an effective shock response—is becoming a critical coordination tool for social and humanitarian programs during the lean season. The social registry includes complete data for 225,855 households, of which 43 percent have up-to-date records (less than three years old).

Efforts are also under way to protect human capital from health-related shocks.

Initiatives like the equity bonus for health facilities and universal health insurance coverage aim to provide health protection to a larger portion of the population—particularly those not covered by existing state-subsidized health insurance systems—contributing to Mauritania's social protection goals. The social registry's linkage with the country's health insurance scheme has resulted in 100,000 additional beneficiaries being included in the subsidized health insurance system.

Mauritania's integrated adaptive social protection system needs more agile response mechanisms and better integration with early warning systems

and disaster risk management. Updating the social registry is crucial, as records become outdated, which could hinder its reliability in coordinating a disaster response. Additionally, the authorities need to improve the monitoring and evaluation of the productive elements in safety nets, clarify multi-year financing frameworks, and promote insurance instruments. The expansion and enhancement of the Tazour payment platform is essential, and it is necessary to expand its use across the government and to nongovernment users. Index-based insurance could be explored to enhance financial resilience against climate shocks, focusing on both crop and livestock farmers. While the universal health insurance scheme is expanding, its coverage remains low, necessitating investments in resilient health systems.

Education systems and infrastructure need to be more resilient to shocks. On the service delivery side, this includes expanding digital learning platforms and enhancing teacher training for distance learning. Building agile, resilient, and adaptive human development systems is essential, emphasizing the ability to respond quickly to shocks, promote interoperability, and utilize data and technology effectively while ensuring resilience through integration and dynamic targeting based on up-to-date information. The authorities need to ensure plans are in place for business continuity,

emergency response, and reconstruction, ensuring facilities can support contingency measures such as shelter and classroom relocation. Reconstruction planning should be evidence based, leveraging lessons from infrastructure failures to accelerate implementation, maximize efficiency, and reduce vulnerability.

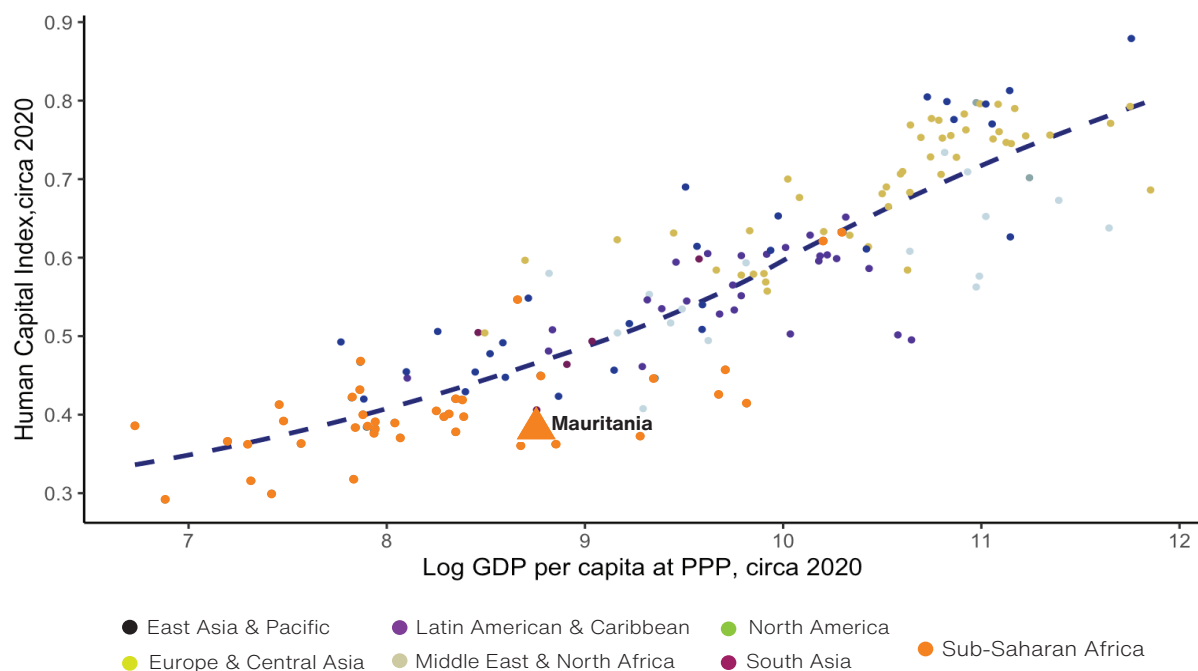
Financial instruments to increase resilience, including contingency borrowing and sovereign wealth funds, need to be prepared to ensure rapid deployment during crises. This involves improving fiscal management, creating medium-term expenditure frameworks, regulatory adjustments, and international cooperation. The government has started implementing innovative financing approaches, such as the Shock Response Framework (Dispositif National de Prévention et de Réponse aux Crises Alimentaires et Nutritionnelles—DCAN) and the National Fund to Respond to Food and Nutritional Insecurity (Fond National de Réponse aux Crises Alimentaires et Nutritionnelles—FNRCAN), which will provide important technical lessons for future expansion and coordination with climate-related insurance mechanisms such as the African Risk Capacity (ARC) initiative.

2 Introduction

Human capital is a key determinant of long-term economic growth and social advancement in the modern world economy. It consists of the knowledge, skills, nutrition, and health that people accumulate over their lives, enabling them to realize their potential as productive members of society. Human capital has been shown to be a driver of economic growth across the world (figure 2.1) and accounts for two-thirds of global wealth, making it the most important component of wealth globally

(World Bank 2021a). There are also high rates of returns and multiplier effects from human capital investments (World Bank 2021b). Human capital is therefore indispensable for unlocking and protecting human, economic, and social rights by providing the framework necessary to secure good health, security, and economic well-being as well as social and political participation—all of which is crucial to accelerate inclusive socioeconomic development.

Figure 2.1 Human capital strongly correlates with GDP per capita



Source: Based on data from World Bank 2021a.

The COVID-19 pandemic led to a sharp decline in human capital across countries, especially among children and youth, who are at a critical stage of human capital development. Across the world, people age 25 and younger have been the most affected by the erosion of human capital due to the pandemic, and this cohort will make up 90 percent of the prime-age workforce by 2050 (Schady et al. 2023). The pandemic led to a sharp reduction in critical inputs for child development and resulted in school closures: nearly 1 billion children in low- and middle-income countries missed at least one year of in-person schooling during the crisis. The learning losses observed today could reduce future earnings around the world by \$21 trillion. The pandemic reduced youth employment rates dramatically and delayed the transition for young people into the labor market. The number of young people neither employed nor enrolled in education or training increased substantially during the pandemic.

Mauritania is a sparsely populated, arid, and resource-rich country. The country's population of over 4.8 million is spread across 15 regions (*wilayas*). At a density of 4 inhabitants per square kilometer, it is one of the least densely populated countries in the world. Mauritania is classified as a lower-middle-income country (LMIC), with a gross national income per capita of \$1,730 in 2021, higher than the Sub-Saharan African average of \$1,578.¹ Since 2002, the country's gross domestic product (GDP) per capita has almost tripled due to discoveries of mineral resources.

Mauritania has recovered strongly from the COVID-19 pandemic and has maintained a relatively strong fiscal position until very recently. Following real GDP contraction of 0.9 percent in 2020 due to the pandemic, the recovery started in 2021, with economic activity growing by 2.4 percent in 2021 (slightly above the population growth rate) to resume

a pre-COVID path of 5 percent growth in 2022 and an estimated 4.4 percent growth in 2023 (Yogo 2023). Mauritania recorded a fiscal surplus of about 2 percent of GDP in 2019–21. However, the country has been affected by the fallout from the Russian Federation's invasion of Ukraine, which has been weathered only at the cost of a significant increase in subsidies and transfers. As a result, the fiscal balance entered negative territory in 2022 for the first time since 2017, posting a deficit of 3.5 percent of GDP.

Frequent shocks limit progress in poverty reduction by depleting the assets of poor households and increasing the risk faced by the nonpoor of falling into poverty. Recurrent droughts, climate change impacts, and land degradation and desertification jeopardize food security and threaten livelihoods. The most critical shocks are environmental, with climate change creating a new source of risk by increasing the frequency and intensity of shocks. Household strategies of coping with shocks involve measures that directly negatively affect the accumulation of human capital: reducing the intake of nutrition, pulling children out of school, selling assets, and depleting savings.

Mauritania's Human Capital Index (HCI) of 0.38 means that children born in the country today will only be 38 percent as productive when they grow up as they could have been had they enjoyed complete education and full health. The country's HCI ([box 2.1](#)) is low both in absolute terms and relative to regional and economic peers: it is lower than the average of Sub-Saharan Africa (0.40) and LMICs (0.48) ([figure 2.2](#)) (World Bank 2022a).

Mauritania scores lower on the human capital components than its peers. [Figure 2.3](#) shows that Mauritania scores below the values achieved by neighbors (bordering countries; i.e., Morocco), structural peers (countries with similar economic characteristics as Mauritania in 2015–21; i.e., Senegal), and aspirational peers (countries with structural characteristics similar to Mauritania's in 1990–2010 that have enjoyed faster per capita growth since

¹ World Bank, [World Development Indicators](#).

Box 2.1 The Human Capital Index

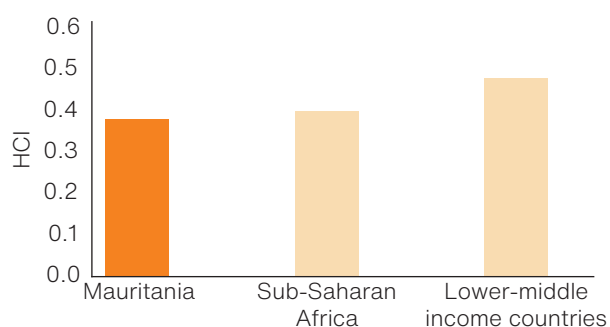
The HCI is designed to capture the amount of human capital a child born today could expect to attain by age 18. It measures the human capital of the next generation, defined as the amount of human capital that children born today can expect to achieve in view of the risks of poor health and education prevailing in the country where they live.

The HCI is based on three components: survival, expected years of learning-adjusted school, and health:

- **Survival** refers to the need of children to survive until they can start accumulating human capital through formal education. Survival is measured using the under age five mortality rate.
- **Expected years of learning-adjusted school** refers to the level of education a child can expect to obtain by age 18, which is combined with a measure of quality. This measure captures how much children learn in school based on a country's relative performance on international student achievement tests.
- **Health** is measured through two indicators of a country's overall health environment: (1) the rate of stunting of children under age 5; and (2) the adult survival rate, defined as the proportion of 15-year-olds who will survive until age 60. The first indicator reflects the health environment experienced during prenatal, infant, and early childhood development; the second reflects the range of health outcomes a child born today may experience as an adult.

The HCI is constructed by transforming its components into contributions to productivity, anchored in micro-econometric evidence on the effects of education and health on worker productivity, consistent with the broader literature on development accounting (e.g., Caselli 2005). The resulting index ranges from 0 to 1. A country where a child born today can expect to achieve both full health (no stunting and 100 percent adult survival) and full education (complete 14 years of high-quality school by age 18) will score a value of 1 on the HCI. From a productivity point of view, an index of 1 implies that the future productivity of the next generation would not be reduced due to health and education constraints; thus, a score of 0.70 signals that productivity as a future worker for a child born today is 30 percent below what could have been achieved with complete education and health.

Figure 2.2 Mauritania's HCI is below its peers

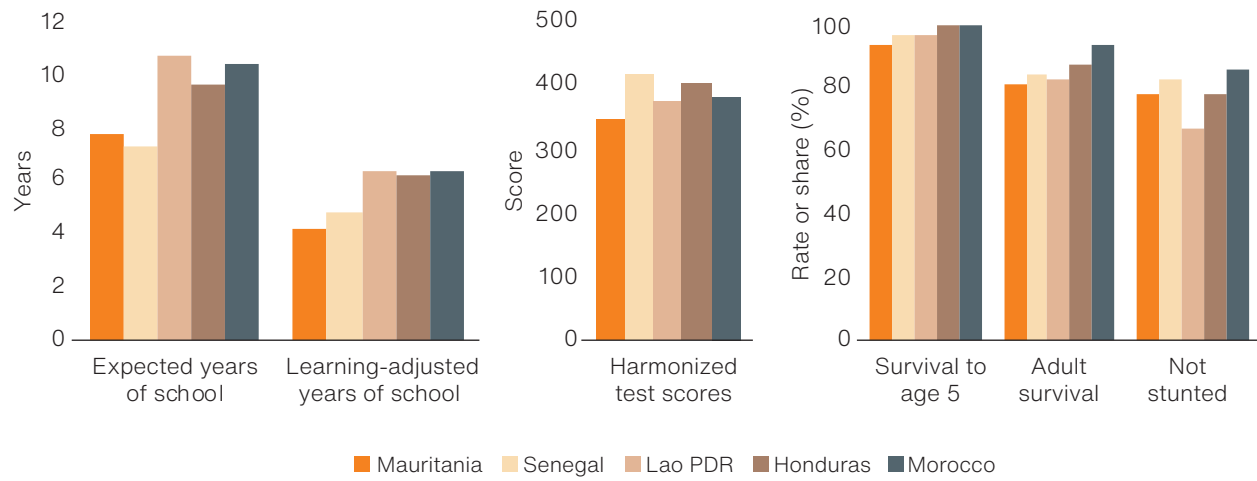


Source: World Bank 2022a.

2010; i.e., Honduras and Lao People's Democratic Republic) across most of the components of the HCI.² Mauritania scores particularly low on learning outcomes—learning-adjusted years of schooling and harmonized test scores—and could do better on early childhood outcomes such as childhood survival rates. These issues are of particular importance given the structure of the Mauritanian population: 29 percent of the current population is below age 10. Proportionally, the 0–4-year-old age group is the country's largest population group (figure 2.4). Building the human capital of these young Mauritians is therefore of utmost importance.

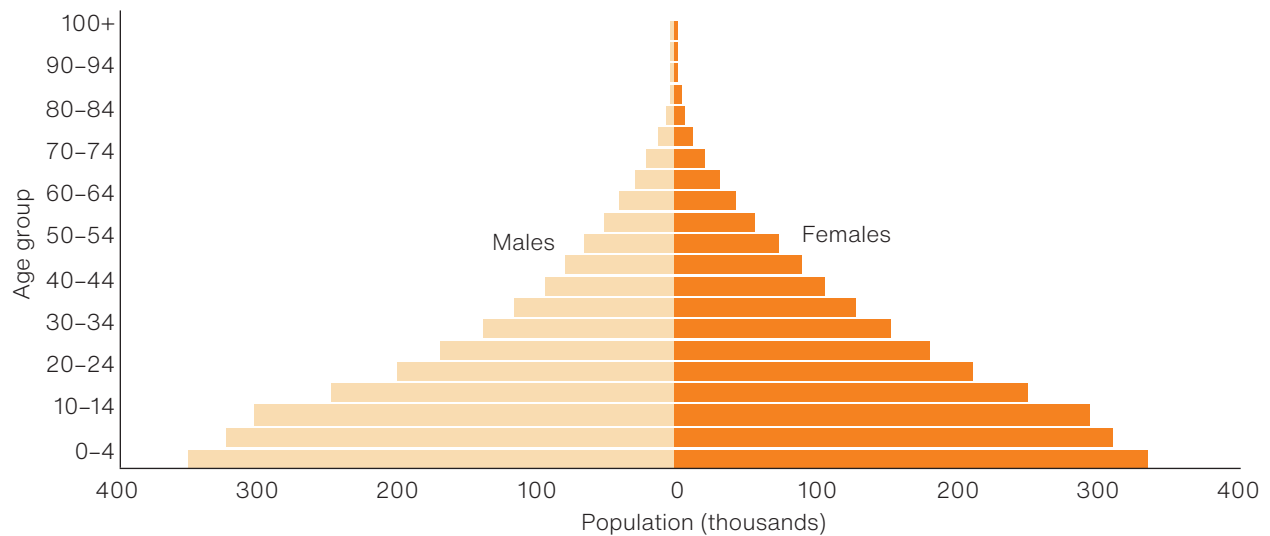
² See World Bank (2020a) for a fuller discussion of these three peer groups.

Figure 2.3 Mauritania scores lower on the human capital components than neighbors, structural peers, or aspirational peers



Source: World Bank, [World Development Indicators](#).

Figure 2.4 Population pyramid in 2021



Source: United Nations Department of Economic and Social Affairs Population Division.

While human capital outcomes during the formative years differ little by sex in Mauritania, women face distinct barriers in later years. Perhaps surprisingly, girls tend to fare slightly better than boys across all dimensions of the HCI: they are less likely to be stunted, more likely to survive to age five and beyond, and their expected schooling is higher ([table 2.1](#)). However, Mauritanian women are much less likely than their male counterparts to realize their human capital. Based on the latest Gender

Table 2.1 Mauritania's HCI by sex

Component	Boys	Girls	Overall
HCI	0.37	0.39	0.38
Survival to age 5	0.92	0.93	0.92
Expected years of school	7.5	7.9	7.7
Harmonized test scores	340	343	342
Learning-adjusted years of school	4.1	4.4	4.2
Adult survival rate	0.78	0.83	0.80
Not stunted rate	0.74	0.80	0.77

Source: World Bank 2022a.

Inequality Index, Mauritania is ranked 157th out of 189 countries.³

The government of Mauritania has put human capital development at the center of its long-term vision.

Human capital development is part of the government's Accelerated Growth and Shared Prosperity Strategy 2018–2030 (Stratégie de Croissance accélérée et de Prospérité partagée—SCAPP), adopted in October 2017. SCAPP's objectives are to (1) promote strong, inclusive, and sustainable growth, (2) develop human capital and increase access to basic social services, and (3) strengthen overall governance. Improving access to and the quality of education, expanding access to health services, creating job opportunities for youth, and building resilience for the most vulnerable constitute a central pillar of the strategy (Government of Mauritania 2020). Although concerted efforts have been made to improve childhood health and education outcomes in Mauritania, progress has been limited.

Mauritania's current health expenditure (current health expenditure) was 3 percent of GDP in 2020.⁴

Although current health expenditure as a share of GDP has remained relatively constant over the last decade, current health expenditure per capita increased from \$43 in 2010 to \$59 in 2020. The health budget showcases allocative and technical inefficiencies, particularly at the primary health care level. Two-thirds of the health budget is dedicated to noncommunicable disease treatment, while allocations for maternal health and nutrition are alarmingly low at 12.2 percent and 0.2 percent, respectively. Mauritania still lacks a focus on preventive and primary health care, as opposed to higher levels of

care such as hospitals (MoH and World Bank 2021). Nutritional action is an essential component of the health strategy; however, its financing relies heavily on external sources. A multisectoral action plan has been drawn up for 2016–25 (MEF 2015), but planning, coordination, and implementation difficulties persist—especially at the subnational level.

The country's preprimary education expenditure was an estimated 0.03 percent of GDP in 2019.

This represented a slight increase from 0.02 percent of GDP in 2010.⁵ Mauritania's most recent education policy—Programme National de Développement du Secteur de l'Éducation (PNDSE II) 2011–2020—includes a three-part strategy to strengthen early childhood education. This includes increasing access to preprimary education, particularly among lower-income and rural populations; strengthening parenting education for children under three years old; and improving the quality of available preprimary education.

Spending on poverty-targeted social assistance remains only a small part of total social protection spending.

While Mauritania's total spending on social protection (3 percent of GDP) is higher than that of regional peers, its spending on poverty-targeted social assistance constituted a mere 0.17 percent of GDP in 2018 (World Bank 2021c), which is projected to increase to 0.8 percent of GDP by 2024. Coverage of the country's regular social safety net program (Tekavoul) is significant,⁶ and the program is predominantly financed by the government. Tekavoul includes social and behavioral change communication (*dialogue familiale*), which, among other things, introduces beneficiary families to the Nurturing Care Framework (e.g., nutritional

³ The index is measured using three gender-based inequality dimensions: reproductive health, empowerment, and economic activity; source: United Nations Development Programme's [Mauritania Human Development Report Profile](#).

⁴ Source for the current health expenditure data in this paragraph: World Health Organization, [Global Health Expenditure Database](#).

⁵ Source: World Bank, [Education Statistics \(EdStats\)](#).

⁶ The program currently supports 97,886 households, covering 47 percent of the poorest quintile. The national coverage target is all extreme poor households (100,000 households).

needs and suggestions for early childhood stimulation).

Meanwhile, regressive spending on pensions,⁷ and in-kind programs continue to dominate public finances. Explicit food subsidies are high but provide only meager support, and they do not guarantee food security for poor households (including young children). The total volume of subsidies is estimated at 1.9 percent of GDP in 2019 (World Bank 2021c). They have risen since because of COVID-19-related measures (during which electricity and fuel prices were effectively frozen) and a series of disasters (floods and droughts of 2022). In 2022, the total cost of energy subsidies alone (UM 13.2 billion) was comparable to all public spending on education (UM 13.8 billion), and much higher than spending on social protection (UM 8.1 billion) or health (UM 4.5 billion). Refocusing energy subsidies and providing targeted social programs instead would lead to a greater impact on poverty reduction.

This human capital review offers analyses and policy recommendations to build, utilize, and

protect Mauritania's human capital. Building human capital involves investing in education, health, and other essential services that help individuals develop the knowledge, skills, and abilities needed to contribute to their societies. It begins with improving maternal health before a child is born. Since the early years lay the foundation for lifelong health and learning outcomes, this report focuses on building early childhood human capital. Ensuring the utilization of human capital involves creating an environment that enables people to fully participate both in the economy and society. Protecting human capital involves ensuring that individuals are safe, healthy, and able to reach their full potential, free from violence, discrimination, or other forms of harm. Protecting human capital is particularly important in the Mauritanian context, given that the frequent and severe climate-related shocks affecting the country have the potential of quickly eroding any human capital gains. Accelerating human capital development in Mauritania will require a whole-of-government ([box 2.2](#)) and a whole-of-World-Bank approach, with strong collaboration between ministries and global practices outside the human development sectors.

⁷ Current schemes cover civil servants and some formal sector workers, a mere 5 percent of the population.

Box 2.2 Best practice examples of a whole-of-government approach to human capital

This box presents examples of three countries—the **Philippines, Morocco, and Ghana**—which vary considerably in their levels of development, their choice of policies and programs to develop human capital, and the outcomes they achieved. Yet all followed a whole-of-government approach to strengthen human capital.

The Philippine government's commitment to education in the 1970s jumpstarted an expansion in school enrollment, with primary gross enrollment rates well over 100 percent and nearing 90 percent at the secondary level in 2017. While access has increased, quality remains an issue, with 15-year-old Philippine students scoring lower in the latest round (2018) of the Programme for International Student Assessment (PISA) than students in most participating countries. Morocco's commitment to human capital development has led to remarkable gains in the health of its citizens. The government has launched efforts to combat child and maternal mortality while controlling fertility rates through intensive family planning programs. Ghana's commitment to improving human capital and innovative policies have led to marked human capital improvements. Primary enrollment rates have increased substantially to 95 percent in 2017, without harmonized test scores declining; stunting rates have fallen to 17.5 percent in 2017.

The Philippines has adopted multisectoral policies, promoted integrated approaches, and encouraged greater participation by stakeholders in service delivery. Many policies reflect the understanding that factors beyond the social sectors affect human capital development, such as clean air, a safe water supply, and the provision of sanitation services. An example of a multisectoral program is the Pantawid Pamilya Pilipino Program (4Ps), which provides cash transfers to chronically poor households with children age 0–14 years. In return, these households are required to take their children to health centers, send them to school, and attend prenatal checkups in the case of pregnant women. The 4Ps actively involved local service providers (such as school principals and midwives) in implementation.

Ghana's progress in decreasing stunting rates and improving test scores has in large part been due to a multisectoral approach. For example, the Ghana School Feeding Program spans three different sectors—agriculture, education, and health. It links school feeding programs with agricultural development, especially smallholder production, thus helping to create new markets for locally grown food. In addition, initiatives aimed at improving water, sanitation, and hygiene in schools have helped increase access to water and sanitation, which is a proven factor in improving health and education outcomes.

A consistent approach to building human capital has been harder to achieve in Morocco, where political commitment to education across successive governments did not extend to other policies critical to improving human capital outcomes. However, the conditional cash transfer program (Taissy) and universal health insurance coverage have achieved a degree of coordination between health, education, and social protection sectors, based on targeting and monitoring of outcomes.

The experiences of these countries highlight the importance of sustained effort across political cycles, sufficient resource mobilization and effective allocation across programs, good data and measurement to inform and design programs, and multisectoral strategies that address the complex underlying determinants of human capital outcomes.

Sources: Blunch 2020 (Ghana); Benkassmi and Abdelkhalek (Morocco); King (the Philippines).

3 Building early childhood human capital

Key messages

- Building human capital begins before conception—maternal health is a strong determinant of early childhood human capital outcomes.
- Mauritania’s maternal mortality rate is high: almost one-third of all deaths of women of reproductive age are due to pregnancy-related complications.
- Recent estimates suggest that there has an increase in childhood stunting, making malnutrition and stunting a multisectoral priority.
- Lack of cognitive and behavioral development in early childhood leads to low learning outcomes.

The importance of the first five years of life in building human capital cannot be overstated.

Early childhood is a critical period for growth and development, and, consequently, for ensuring that children develop the knowledge, skills, and physical well-being that encourage future productivity and economic growth (Victora et al. 2008). Economic growth is a product of capital, labor productivity, and advances in technology. Importantly, present levels of human capital and productivity largely reflect investments in human capital in early childhood. Investments in human capital have the highest rate of return when focused on children under five years old, including the period in utero ([figure 3.1](#)) (Alderman, Hoddinott, and Kinsey 2006; Cunha et

al. 2006). Given the complexity and interrelated relationship of the components of nurturing care, applying the Nurturing Care Framework for investing in childhood human capital—which involves multi-sectoral policy actions—is critical in building human capital. [Figure 3.2](#) includes more details on the framework.

Prenatal years and maternal health and nutrition

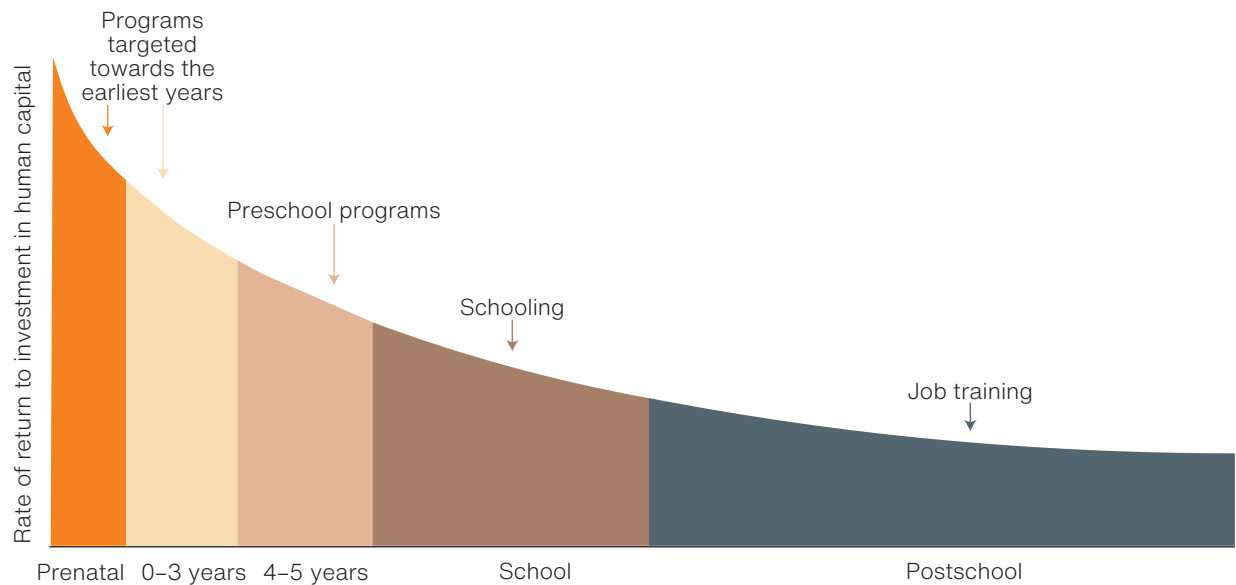
Building human capital begins before conception.

The health and nutritional status of women of reproductive age can significantly affect early childhood outcomes (Abu-Saad and Fraser 2010). During pregnancy, women’s poor health and lack of nutrition increase the risk of intrauterine growth restriction, low birthweight, postpartum health complications, neonatal mortality, and maternal mortality. Additionally, disruptions to maternal health and nutritional status postpartum can disrupt childcare and feeding practices—and consequently, early childhood development ([figure 3.3](#)).

Mauritania’s maternal mortality ratio surpasses the lower-middle-income country (LMIC) average.

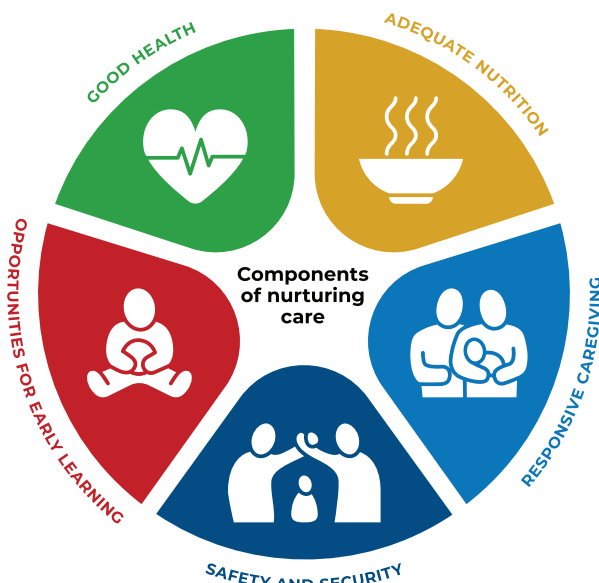
Mauritania’s mortality rate is 424 per 100,000 live births, compared to the LMIC average of 253 per 100,000 live births (ONS, MS, and ICF 2021).

Figure 3.1 The return to a unit dollar invested in human capital is highest in the early years



Source: Adapted from Heckman 2008.

Figure 3.2 The Nurturing Care Framework



Source: WHO and UNICEF 2022.

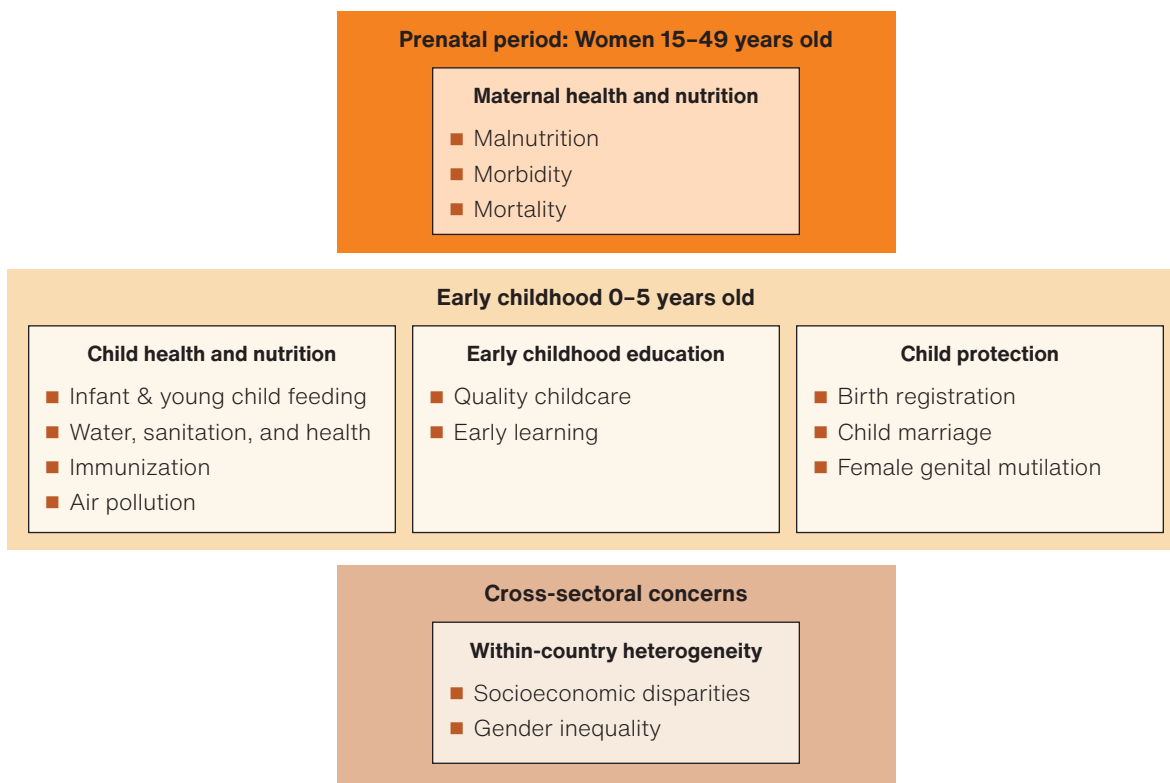
Additionally, the country has the world's third highest proportion of deaths of reproductive-age women due to pregnancy-related complications—representing almost one-third of all deaths in this group (WHO 2016). Three in four maternal deaths

in Sub-Saharan Africa are attributable to medical complications that occur during pregnancy, labor, and/or the puerperium period (largely hemorrhaging and hypertension);¹ one in four maternal deaths are attributable to non-obstetric medical conditions that develop or are worsened during pregnancy (largely preexisting medical conditions) (Say et al. 2014). Only 69 percent of health facilities offer assisted deliveries, and only 70.4 percent of births are attended by skilled health professionals (which drops to 53.3 percent in rural areas) (ONS, MS, and ICF 2021). Cultural norms and limited accessibility result in nearly 50 percent of all births occurring in the home.

Mauritania's high maternal mortality, along with poor maternal health, reflects inadequate access to and use of family planning and quality health services in pre- and postpartum periods as well as limited adoption of recommended health/nutrition practices. Conservative estimates, calculated using a sample of married women, suggest that only 28 percent of

¹ The puerperium period is the period postpartum up until six weeks after giving birth.

Figure 3.3 Building early childhood human capital is a multisectoral policy issue



reproductive-age women believe that their demand for family planning is being met. Moreover, only 67 percent of the country’s health facilities offer family planning, and only two in five women with children attend all four antenatal care visits recommended by the World Health Organization (WHO). Finally, more than half of all women of reproductive age suffer from anemia—most commonly attributable to nutrient deficiencies (ONS, MS, and ICF 2021).

Mauritanian women highlight finances and distance to a health facility as key barriers preventing them from accessing health services. Women in low-income households and/or with limited formal education exhibit lower demand for health services,² have limited physical access to health facilities, and are

less likely to have adopted clinically recommended health/nutrition practices. According to recent survey estimates, almost 56 percent and 41 percent of reproductive-age women cite finances and distance to a health facility, respectively, as a barrier to accessing health services (ONS, MS, and ICF 2021). Perceived gender norms are a further barrier for women’s access to health services. This is especially true for poor women, as 44 percent of women from the poorest wealth quintile consider “getting permission to go to the hospital” to be an important problem, while 49 percent say “not wanting to go alone” is an important barrier to accessing health services.

Child marriage, teenage pregnancies, inadequate spacing between births, and female genital mutilation are common in Mauritania and associated with an increased risk of maternal morbidity and mortality as well as poor birth outcomes (Nour 2006; Sylla, Moreau, and Andro 2020). Almost 58 percent of Mauritanian women age 15–49 are

² Relevant health services during pregnancy and postpartum include family planning; services to identify, treat, and monitor medical conditions in women of reproductive age; antenatal care; and labor, delivery, and postpartum services.

married before the age of 18, and 17 percent of them are married before the age of 15 (ONS, MS, and ICF 2021). Statistics are similar among older and younger age groups, signaling limited progress over the last decades. In addition, 17.6 percent of women age 15–19 are pregnant or have given birth to one or more children; contrary to clinical recommendations, one in four births occur within 23 months of a previous birth. Moreover, almost two in three of the women in this age cohort have been the victim of female genital mutilation, despite its ban in 2015.

The high prevalence of maternal malnutrition in Mauritania—specifically overnutrition and micronutrient deficiency—is an important determinant of maternal health and child outcomes both in-utero and postpartum. More than half of reproductive-age women in the country are overweight or obese, and 56 percent of them are anemic (ONS, MS, and ICF 2021). During pregnancy, being overweight or obese increases the risk of obstetric complications and fetal morbidity (Galtier-Dereure, Boegner, and Bringer 2000), and anemia increases the risk of pregnancy complications, intrauterine growth restriction, preterm birth, and low birthweight (Abu-Ouf and Jan 2015). Maternal nutrition is typically worse for women who do not adopt clinically recommended diets; are not regularly attending antenatal care to identify, treat, and monitor malnutrition; and live in households experiencing food insecurity. Half of Mauritanian women experience moderate/severe food insecurity.³

The country’s health system affects the types of services available to mothers and children and the quality of care afforded to them.⁴ Data about the current state of the health system in Mauritania are limited. However, estimates from the last

decade suggest an insufficient number of health professionals and facilities. There was an average of 4 hospital beds per 10,000 people in 2006;⁵ there were 1.03 tertiary-level hospitals and 11.65 primary-level health facilities per 100,000 people in 2013;⁶ and there were an estimated 1.92 doctors and 9.54 nurses/midwives per 10,000 people in 2018 (WHO 2016). The country’s health facilities are in poor condition and suffer from limited use of clinical guidelines and lack people-centered care.⁷

Mauritania’s health challenges are compounded by a high concentration of health professionals and facilities in high-density or urban areas relative to rural areas. More than 20 percent of the rural population lacks access to a health facility within a five-kilometer radius.⁸ Mothers-to-be therefore have limited physical access to health facilities for clinical care, such as antenatal care.⁹ Primary health facilities are typically staffed by nurses who are unable to provide emergency obstetrics care in the case of complications. The community health program is insufficient, with limited capacity to deliver basic care and public health interventions (e.g., family planning, malaria testing and treatment). Moreover, the retention and competency of health workers is problematic, especially in remote areas. Health personnel are highly concentrated in urban areas, and high absenteeism and reluctance of health workers to serve in rural regions, along with underrepresentation of women and youth in high-skilled

³ Source: Food and Agriculture Organization of the United Nations, FAOSTAT, [Suite of Food Security Indicators](#).

⁴ WHO-defined components of a health system include service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance.

⁵ Source: WHO, [Global Health Observatory](#).

⁶ Source: WHO, [Global Health Observatory](#).

⁷ For example, only one-third of health facilities have electricity, and two-thirds have access to improved water sources. Perceived poor reception and low-quality care deter individuals from seeking timely health and nutrition services (UNICEF 2015).

⁸ The Ministry of Health is working to enhance the coverage of community health workers and extend their outreach with mobile teams.

⁹ Only 39 percent of women had four or more antenatal care visits for their most recent live birth (ONS, MS, and ICF 2021).

positions, further strain health services in deprived areas (MoH 2021). For these reasons, many Mauritanian women likely have limited physical access to primary-level health services such as family planning, antenatal care, and postnatal care.

Beyond the impact of maternal health on fetal health and birth outcomes, maternal health, education, and socioeconomic status are important determinants of child health outcomes. Maternal malnutrition while breastfeeding can affect the quantity and/or composition of breast milk, which directly affects the child's nutritional status (Allen 1994). This is particularly important in low-income settings where access to improved water sources and baby formula/milk are limited. Moreover, maternal socioeconomic status is associated with health, nutrition, and education outcomes in early childhood (Jeong, McCoy, and Fink 2017; Ngandu et al. 2020). Lower socioeconomic status among mothers is associated with limited parental knowledge or implementation of recommended childcare and infant and young child feeding practices, affecting childhood outcomes.

Early childhood: 0–5 years

Following birth, and in addition to maternal health, building human capital is dependent on the child's nutrition, health, education, and protection.

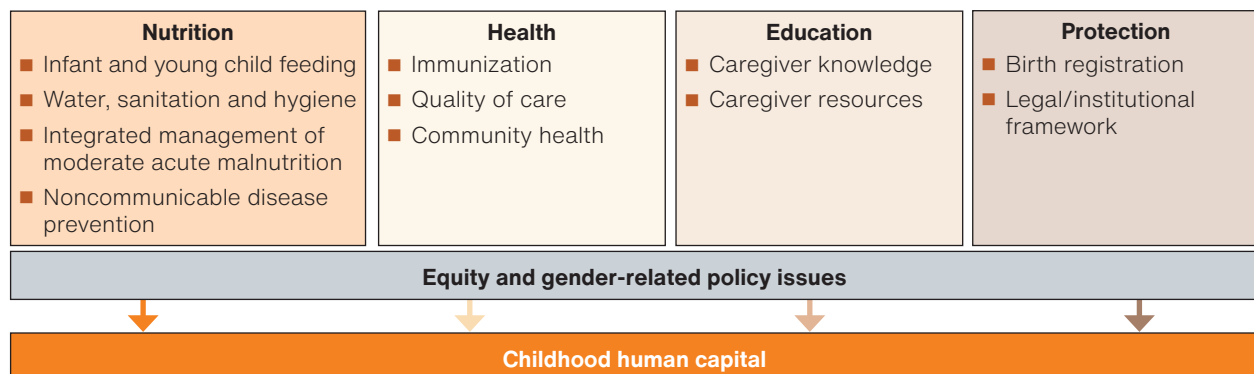
Childhood health and education outcomes and the protection of children's rights are associated with health and education outcomes in adolescence and adulthood as well as future productivity (figure 3.4).

Nutrition

One in four children under five years of age in Mauritania is currently stunted (low height for age). This increases the risk of poor health outcomes in childhood and adulthood, low school performance, and lower future productivity and wages. Although the prevalence of stunting in Mauritania (25.1 percent) is lower than among peers in Sub-Saharan Africa (32.3 percent) and the average of LMICs (28.7 percent), it remains high (MoH and ANSADE 2022). The high stunting rate is compounded by limited progress over the last 10 years and significant inequality by age group, income quintile, and area of residence. Over the last decade, the prevalence of stunting in Mauritania decreased by only 0.4–0.6 percentage points annually—much lower than the average annual decrease of 1.19 and 1.56 percentage points in Sub-Saharan Africa and LMICs, respectively.

Estimates suggest a recent increase in wasting, making malnutrition a multisectoral priority. Worryingly, Mauritania's 2022 SMART (Standardized Monitoring and Assessment of Relief and

Figure 3.4 Early childhood policy issues in Mauritania



Transitions) survey results suggest an almost 8 percentage point increase in wasting in the last year,¹⁰ likely due to the COVID-19 pandemic, climate shocks, and a growing refugee population (MoH and ANSADE 2022). Importantly, childhood undernutrition carries an economic cost: the annual economic loss associated with chronic malnutrition in Mauritania is estimated at \$759 million, which is approximately 7.6 percent of the country's GDP.¹¹ Severe climate shocks are likely to become more frequent due to climate change, which will have further detrimental impacts on food insecurity and subsequently childhood nutrition.

Nutritional status is contingent on health and feeding practices. First, children who are ill are at an increased risk of becoming undernourished because of higher nutritional demand, decreased appetite, and/or difficulty absorbing nutrients. Second, children who do not consume an adequate diverse diet are more likely to be undernourished. Finally, malnourished children usually have an impaired immune system, increasing their risk of contracting infectious diseases.

Infant and young child feeding practices in Mauritania are largely inadequate to support optimal growth and development. On average, Mauritanian children are exclusively breastfed for 3.8 months (compared to the WHO recommendation of 6 months); only 55 percent of children age 6–8 months have been introduced to complementary foods; and less than 1 in 10 children age 6–23 months have a diet that meets the minimum acceptable level according to the WHO. Determinants of infant and young child feeding practices include sociocultural feeding practices, levels of household food security, and parental knowledge about clinically recommended feeding practices.

A significant share of young children in Mauritania live in households with unimproved water and/or inadequate sanitation infrastructure facilities and poor water, sanitation, and hygiene (WASH) practices, increasing the risk of contracting infectious diseases and becoming malnourished. In 2020, 15 percent (32 percent in rural areas) of Mauritians only had access to unimproved drinking water sources, 31 percent (58 percent in rural areas) had no access to sanitation facilities, and 19 percent (33 percent in rural areas) had no hygiene facilities.¹² The share of households with access to improved water/sanitation facilities and adopting safe WASH practices is also lower among households in the lower wealth quintiles relative to their more well-off counterparts. Poor WASH practices are compounded by inadequate treatment of diarrheal diseases: 53.2 percent of mothers provide no treatment to their children with a diarrheal disease.

Health

Less than 16 percent of children aged 12–35 months receive all age-appropriate vaccinations in Mauritania. Age-appropriate immunizations are important to prevent the incidence of disease and/or minimize the risk of severe illness. Children who are malnourished and unvaccinated are more likely to suffer from severe illness. In Mauritania, 7 percent of children were never vaccinated (ONS, MS, and ICF 2021). These “zero-dose children” are at greater risk of diseases like polio and measles, which strain health resources. Twenty-three percent of under age five deaths are linked to households with a zero-dose child (GAVI 2023). Childhood immunization practices are influenced by parents' awareness of the importance of immunization, cultural beliefs about vaccines, and the accessibility of vaccination services (Ali et al. 2022; Bangura et al. 2020).

¹⁰ Wasting refers to acute malnutrition. Stunting refers to chronic malnutrition.

¹¹ Source: World Food Programme, [Mauritania](#) webpage.

¹² Source: [WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene](#).

Children do not receive the needed care after birth, and many remain untreated due to insufficient community health services.

High neonatal mortality can be attributed to poor quality of newborn care (for those delivering at a facility) and the absence of seeking care (among those delivering at home). Postnatal care for newborns remains poor, thereby failing to initiate childhood health care. Given insufficient community health services, many children remain untreated for diseases that could be addressed through basic clinical care, such as malaria, pneumonia, or diarrhea,¹³ and do not receive preventative and promotive care.

Air pollution is the third leading risk factor for child mortality and morbidity in Mauritania, responsible for 13.64 percent of all disability-adjusted life years (UNICEF, WHO, and World Bank 2021).¹⁴

Natural sources of air pollution include dust storms; human-made sources include waste disposal, cooking, heating, lighting, transport, agroforestry practices, and energy production. Exposure to air pollution during pregnancy can affect fetal health, fetal growth, and birth outcomes (WHO 2018). Childhood exposure to air pollution is further associated with an increased risk of mortality and morbidity (respiratory infections and childhood stunting). From 2010 to 2017, there was a nearly 20 percent increase in average annual exposure to air pollution in Mauritania.¹⁵ Furthermore, access to clean fuel and technologies has remained largely constant at only 43 percent of the population over the last 10 years.

¹³ Only 46 percent of children sought care for pneumonia from a health facility or a provider—this is the lowest Demographic and Health Survey estimate in West Africa in the past five years (ONS, MS, and ICF 2021). Only 20 percent of children with diarrhea received oral rehydration salts (World Bank, forthcoming).

¹⁴ The WHO defines disability-adjusted life years (DALYs) as the sum of the years of life lost due to premature mortality (YLLs) and the years of healthy life lost due to disability (YLDs) due to a particular cause.

¹⁵ Source: Institute for Health Metrics and Evaluation, [Global Burden of Disease Study 2017](#).

Early childhood education

The latest data (2015) show that 40 percent of children age 36–59 months are developmentally off track in three or more of the following areas: literacy/numeracy, social-emotional, learning, and physical development.¹⁶

This is an important determinant of future academic performance, school completion, and educational attainment. Optimal development in the first three domains requires quality childcare and learning. Caregiving is considered good quality when it is responsive,¹⁷ and early learning involves early stimulation through play/reading. In Mauritania, fewer than half of all children age 24–59 months are engaging with adult household members in activities that provide early stimulation and responsive care.¹⁸ Lack of awareness about responsive caregiving and its value as well as time constraints hinder the provision of responsive care to young children (Naveed 2020).

There are various constraints on early learning in Mauritania.

These include limited caregiver knowledge/awareness of early learning practices, limited access to tools/resources to strengthen early learning at home, and limited access to high-quality early childhood education centers outside the home once children turn three years old. Only one in three children under the age of five years has two or more play items in his or her home, and 1 percent has three or more books (World Bank 2021c). Enrollment in preprimary education facilities is estimated at 10.5 percent; 67 percent of that enrollment is in private facilities (GPE 2018), but data about the quality of services provided at these facilities are limited. In this context, empowering caregivers with the skills and tools to strengthen early learning in the home is important to improve children's cognitive

¹⁶ Source: UNICEF, [Early Childhood Education](#) data.

¹⁷ Responsive caregiving is defined by the WHO as the “ability of [a] caregiver to notice, understand, and respond to the child's signals in a timely and appropriate manner.”

¹⁸ Source: UNICEF, [Early Childhood Education](#) data.

and behavioral development and future educational outcomes.

Childhood education

Children reach school age without being school ready and are faced with an educational system that is not set up to foster their learning.

Lack of cognitive and behavioral development in early childhood leads to low learning outcomes. Policies that improve health and nutrition are an integral part of interventions that address skill and learning deficits. A significant portion of children age 6–11 years old do not attend school (33.9 percent in rural areas, compared to 19.8 percent in urban areas); this share is higher among boys than girls (ANSADE 2021). Mauritania faces a lack of public provision of education: at the primary level, only 42 percent of schools offer the necessary educational facilities.¹⁹ According to the Service Delivery Indicators surveys 2022, only 18.6 percent of schools have the minimum infrastructure,²⁰ defined as the availability of functional toilets for pupils and sufficient light in the classroom.

The low quality of education offered translates to low learning outcomes. In Mauritania, 95 percent of children age 10 do not read (World Bank 2019d), either because they are not at school or because they have not acquired the necessary skills at school. Bilingual instruction is not yet yielding fruit. Environments where most pupils have a mother tongue other than Arabic have the worst scores, with two-thirds of pupils in those areas not being able to identify letters, and four out of five pupils being unable to write more than a single word.²¹ Students are performing better in mathematics,

although learning outcomes remain low. At the primary level, over 54 percent of pupils do not have the requisite skills in addition and almost 64 percent in subtraction. At the secondary level, only 2 percent of students achieved the desired threshold of 60 percent of the overall mark (MEN/CNE 2021b).

Teachers are a key determinant of the learning process, but do not receive the needed support.

Teachers in Mauritania are struggling to fulfill their duty, partly due to the challenges of bilingual instruction. The latest SDI showed that no teacher scored 80 percent in French—the minimum level of knowledge required for a teacher to perform his or her duties. Teachers scored better in Arabic and mathematics, where 6.6 percent and 11.2 percent reached the minimum threshold. A 2021 small-scale teacher evaluation conducted by the government confirmed this low teacher competency in both French and Arabic instruction (MEN/CNE 2021a). The reform agenda will further complicate this issue with the introduction of national languages in the education system.

Not addressing the chronic quality gap is costly for the budget: high repetition (more than half of all primary-level students repeat grades) and dropout rates cost 0.2 percent of GDP, while compensating teacher absences and learning time lost cost another 0.2 percent of GDP. A recent public expenditure review for Mauritania estimated that 30 percent of spending at the school level does not achieve results and can be cut without any impact on the quality of service delivery (World Bank 2021c).

Child protection/rights

In 2021, 55 percent of children under five years old in Mauritania were not registered. A birth certificate

¹⁹ Source: Ministry of Education, *Système d'Information et de Gestion de l'Éducation (SIGE)*, 2023.

²⁰ Source: World Bank, [Service Delivery Indicators surveys](#).

²¹ Among pupils in the first years of primary and secondary school, on average, 25 percent have difficulty identifying letters in Arabic, two out of three are unable to read a

short sentence, and 40 percent are unable to write more than a single word (MEN/CNE 2021b).

is a legal document that allows access to social services, and it is meant to protect against practices such as child marriage and labor. However, birth registration has decreased in Mauritania over the last decade, following the introduction of a new legal framework for civil registration and compounded by the COVID-19 pandemic. In 2015, 66 percent of children under five years old were registered.²² Since then, birth registrations have fallen by 21 percentage points. Obstacles to registering births in Mauritania include travel distance and costs (direct and indirect), lack of supporting documents (e.g., marriage certificate, national ID for each parent, and a copy from the health facility birth registry), formal and informal payments for birth registration, network issues at registration centers, and lack of understanding about the registration process. This situation is made worse by fines or legal repercussions for late registration.²³

Over the years, Mauritania has established legal and institutional frameworks to protect children's rights. Specifically, there have been efforts to increase birth registration and reduce the occurrence of practices such as child labor, child marriage, and female genital mutilation. These efforts have been combined with mass media and education campaigns to encourage changes in sociocultural norms and practices. Following the introduction of the 2011 civil registration law, the authorities employed a mass enrollment campaign that included the deployment of mobile registration centers, resulting in a 90 percent registration rate in 2015. Similarly, a commission was created in 2017 to address community-specific barriers to registration.

Mauritania has made concerted efforts recently to close the enrollment gap. The mass enrollment campaign sped up in 2023 through the deployment of fixed and mobile missions throughout the country,

encouraging people to enroll. Initially, the goal was to have caught up with enrollments by January 2024. From this date onwards, all newborns born in hospitals or clinics would be registered at birth, with solutions to be defined for those not born at establishments. However, as the enrollment campaign was delayed, it is currently set to continue beyond December 2023.

Within-country heterogeneity

A comprehensive understanding of childhood human capital will require insights into existing disparities in childhood development. There are significant disparities in child health, education, and rights by socioeconomic status and gender in Mauritania. Building human capital will therefore require additional policy actions that target vulnerable populations and regions.

Socioeconomic status

Child health, education, and protection outcomes are, on average, significantly worse in lower-income households and rural regions. For instance, the prevalence of child stunting in Mauritania ranges from 34.8 percent in households in the lowest wealth quintile to 14.5 percent in households in the richest wealth quintile.²⁴ The prevalence of stunting is much higher in rural areas (29.8 percent) than in urban areas (19.6 percent). A similar trend is observed in terms of birth registrations, which range from 16 percent in the lowest household wealth quintiles to 81 percent in the highest, and the birth registration rate in urban areas is more than double that in rural areas: 68.0 percent compared to 29.7 percent.

²² Source: UNICEF, [Multiple Indicator Cluster Surveys 2015](#).

²³ Source: UNICEF data, [Mauritania](#).

²⁴ Source: UNICEF data, [Mauritania](#).

The utilization of health services is lowest among the poor due to limited access and high out-of-pocket expenditures. Low utilization of health services among poor communities reflects an inequitable allocation of resources across *wilayas* as well as challenges reaching poor and rural populations. In 2019–21, an average of 61 percent of women from the lowest wealth quintile reported the long distance to the closest health facility as an important barrier to accessing health services; this was almost three times the number of women in the highest wealth quintile (22 percent) (ONS, MS, and ICF 2021). Over half of total health expenditure is out of pocket in Mauritania, presenting a barrier for especially poor households. Around 71 percent of women from the poorest wealth quintile consider out-of-pocket expenses for treatment an important barrier to health services, compared to 37 percent of women from the wealthiest households (ONS, MS, and ICF 2021). From the demand side, gender norms and the low household decision-making power of women, opportunity costs of seeking care, limited health literacy (underestimating the severity of illnesses), and perceived poor quality of care at accessible health facilities further limit utilization.

Gender inequality

Childhood human capital outcomes vary by sex, with girls being more susceptible to practices that increase the risk of poor health and education. Women have limited decision-making power in Mauritania, both legally and within households. More than one in five women of reproductive age are not involved in making major decisions in their households (ONS, MS, and ICF 2021). Male heads of household make decisions about investments in children, which is associated with poorer childhood outcomes. In addition, women are more likely than men to have been subjected to child marriage (37 percent of women age 20–24 were married of as children) and to experience gender-based violence (9 percent); 58 percent of women in Mauritania

have undergone female genital mutilation (ONS, MS, and ICF 2021).²⁵ These practices are associated with an increased risk of poor maternal and birth outcomes, child health, and educational attainment.

Evidence-based multisectoral programs focused on early childhood

Multisectoral policy action is needed to improve human capital in early childhood. Not only are risk factors and determinants of childhood health and education outcomes multisectoral, childhood outcomes in each sector are also interrelated with one or more outcomes across other sectors. In addition to information on a successful multisectoral program in Mauritania, this section details case studies of multisectoral World Bank programs in other countries that can offer lessons for the Mauritanian context.

Rwanda Stunting Prevention and Reduction Project

The World Bank Rwanda Stunting Prevention and Reduction Project aimed to reduce the prevalence of stunting in children under five years old (as well as children under two years old) in 13 districts in Rwanda. It consisted of the design and implementation of several operations by the World Bank's Agriculture and Food Global Practice; Health, Nutrition, and Population (HNP) Global Practice; and Social Protection and Jobs (SPJ) Global Practice. This multisectoral project was designed based on a similar successful program in Peru (Marini, Rokx, and Gallagher 2017).

²⁵ In rural areas, 81 percent of women (ages 15–49) have undergone female genital mutilation (ONS, MS, and ICF 2021); this figure is also high—54 percent—in urban areas.

Each operation had a complementary focus on early childhood development. The Agriculture and Food operation sought to increase household food security and improve the accessibility/quality of nutritious food; while the HNP-led operation included behavioral change communication (BCC), home-based early childhood development centers,²⁶ and caregiver education/support. The SPJ-led operation included caregiver education/support, childcare centers for participants of a public works program, cash transfers conditional on the use of maternal and child health services and attendance at parenting sessions, and BCC. The BCC included messages about child health, nutrition, WASH, and early childhood stimulation. Importantly, BCC messages were harmonized and disseminated across different sectors.

Over the four years that this project has been implemented, the prevalence of stunting in children under five years old has decreased by 10 percentage points. Similar findings were observed for children under two years old. Improvements have also been observed in maternal and child health and nutrition practices and in the use of health care services.

Mauritania INAYA-Health System Support Project

The Mauritania INAYA-Health System Support Project aimed to improve the utilization and quality of reproductive, maternal, neonatal, and child health services. The first iteration of the project was a collaboration between HNP and SPJ (World Bank 2017a). The second iteration included additional collaboration and sought to increase the reach of the project to support the country's large and growing refugee population. The social registry was central in strengthening the provision of various social services among the target population.

²⁶ Home-based early childhood development centers, based in communities, encouraged early learning and provided caregiver education/support.

The project was introduced in selected regions with high rates of poverty and poor maternal and child health outcomes. It included two main components: a performance-based financing (PBF) scheme and conditional cash transfers (CCTs). PBF was provided to health facilities based on the quantity and quality of health services related to maternal and child health, nutrition, family planning, HIV/AIDS, malaria; and tuberculosis. Financing could be used to provide bonuses to health workers or cover facility-related operational costs and improve the working environment according to an approved business plan.

The CCTs complemented a national cash transfer program, Tekavoul, that imposed soft conditions.

Tekavoul beneficiary households with children under four years old were offered a top-up transfer (the CCT) in addition to their regular Tekavoul transfer. The cash transfer was conditional on children under four years old receiving their vaccinations until they reached age two and attending growth monitoring visits regularly until age three. Cash transfers were distributed quarterly alongside BCC sessions that covered the use of relevant health care services; gender equality as it relates to the use of health care; and cultural practices such as female genital mutilation, child marriage, and teenage pregnancy. In 2021 and 2022, a total of 29,416 households received these CCTs.

This project has resulted in improvements in the quality and utilization of reproductive, maternal, and child health services in Mauritania.

Between 2017 and 2022, 126,650 children age 12–23 months were fully immunized; 76,497 births were attended by a skilled health professional; 51,700 women accepted modern family planning; and 222,729 women and children accessed basic nutrition services. Additionally, 87 percent of the households eligible for CCTs met the conditions, and the average grading of quality of health care services increased by 38 percentage points to 52 percent (World Bank 2022b).

Early Childhood Education Innovation Project

The Early Childhood Education Innovation Project sought to improve multiple areas of both formal and informal early childhood education in China.

The project, led by the World Bank's Education Global Practice, focused on addressing caregiving in a holistic way, reaching young children through different models, from building and equipping kindergartens (and training teachers) and supporting community-based kindergartens run by nongovernmental organizations in rural areas to directly reaching parents through information and advocacy campaigns, TV media on childcare practices, media distribution on WeChat, and the provision of parent education kits at primary care facilities. While it was not strictly a multisectoral project, it adopted a holistic approach to addressing early childhood education.

The project has improved early childhood education in China. In addition to the significant construction and renovations of classrooms, including in remote villages, the project increased kindergarten enrollment dramatically (from 54 percent to 89.4 percent) and improved the quality of education (both in terms of a better pupil-teacher ratio and a higher proportion of qualified teachers). The time parents devote to teaching their children has increased, supported by videos that showcase home-based learning and play activities that promote the development of cognitive, motor, and socioemotional skills.

Lessons learned from the multisectoral case studies

Effective multisectoral action requires a clear plan for involving different sectors and combining supply- and demand-side solutions at both the national and local levels. There are different ways to design multisectoral programs. In Rwanda, there was close collaboration between sectors, although

separate projects were simultaneously designed and implemented. In Mauritania, there was a joint health–social protection project, but the complex implementation arrangements likely slowed project implementation.

Effectiveness can be strengthened by incorporating the use of modern mass media and local events.

Using mass media and integrating messages into local community events/activities can increase the speed and reach of information dissemination. In Rwanda, Umuganda, a monthly holiday requiring people to engage in community work, was used as an avenue to disseminate BCC messaging. In a multisectoral setting of multiple projects operating jointly or independently in the same functional areas, coordinating messaging is crucial. In Rwanda, the same BCC messaging was delivered across sectors, ensuring beneficiaries received one set of simple, memorable information.

A community-based approach is the most effective at improving early childhood outcomes.

Community-based approaches rely on local institutions or soft infrastructure to coordinate activities at the community level. In Rwanda, a robust community health worker program proved particularly effective. Local leaders are an invaluable resource in terms of promoting behavioral change in their communities and relaying information about community-specific barriers that can be accounted for in program design/modification. Community members can also be used as role models to bring about behavioral change. The positive deviance approach involves identifying successful community members with positive behavior to encourage similar behavior among other community members.

Although the authorities can identify national policy issues, the associated determinants and risk factors can vary across local populations. Effective solutions may look slightly different across different population groups. In cases where there are program conditionalities, it is important to, for example,

ensure they are feasible in the context of existing supply-side programs and the overall environment. The China project employed a holistic approach to early childhood education, recognizing that the determinants of better learning differ between urban and rural areas and between formal and informal childcare settings. The project therefore designed tailored solutions for each population subgroup.

Policy recommendations for building human capital in early childhood

[Table 3.1](#) summarizes the main issues that prevent Mauritania from building human capital, demonstrates why addressing these issues is strategically important for the country, and provides recommendations for how to enhance the current approach.

Maternal health and nutrition

Increase access to and use of family planning

There is a need to meet the demand for family planning and increase the availability of modern contraceptives. Efforts should focus on social and behavioral change communication, empowering women and girls to increase demand for family planning. Influential community leaders, women's groups, and service providers also need to be engaged on family planning and reproductive health. The critical inputs (commodities and qualified staff) need to improve to meet the demand—including, for example community-based distribution of contraceptive commodities—to ensure that supply follows growing demand in communities.

Increase the quality of health services in pre- and postpartum periods

To improve maternal health, the authorities need to address the barriers to accessing health services, the availability and quality of service delivery, and the urban/rural divide in the health sector. Investments in the health sector are needed to ensure that even remote populations have access to primary health services of decent quality. The Ministry of Health has adopted PBF mechanisms as a national strategy to improve health outcomes. PBF is being used to transition systems toward results-oriented management with improved equity, and the PBF mechanisms have been enshrined in the Accelerated Growth and Shared Prosperity Strategy 2016–2030 (Stratégie de la Croissance Accélérée et de la Prospérité Partagée, SCAPP).²⁷

The Ministry of Health has leveraged mobile health units to reach populations in remote areas, a practice that could be strengthened. To continue to incentivize health workers to serve in rural and remote areas, the government could consider financial incentives, such as hardship allowances or housing, depending on the needs of health workers. As part of PBF, for example, health facilities have the right to hire and fire medical personnel as needed, and they are relatively autonomous in setting the contract duration and salaries of additional personnel. Health facilities that manage additional activities or provide better quality of service (according to a predefined set of indicators) could receive additional premiums that could be used to incentivize staff. To keep civil servants in remote or less desirable locations, a few countries have explored the idea of regionalizing certain civil service occupations such as teachers or health workers. In the regionalization of hiring, the central government could remain responsible

²⁷ Indeed, the World Bank–financed INAYA project has demonstrated improvements in utilization of essential health and nutrition services by the vulnerable population, including refugees, and shows its effective implementation strategies of financial incentives to increase autonomy and performance of health facilities.

Table 3.1 Addressing key issues to building early childhood human capital in Mauritania

Key issue	Impact on the accumulation of human capital	Policy to build human capital in early childhood	Outcome
High maternal mortality rate and poor maternal health outcomes	<ul style="list-style-type: none"> ■ Poor health and nutritional status of women of reproductive age affects early childhood outcomes ■ Disruptions to maternal health and/or nutritional status post-partum negatively affect childcare and feeding practices 	<ul style="list-style-type: none"> ■ Increase access to and use of family planning ■ Increase the quality of health services in pre- and post-partum periods ■ Support the adoption of recommended health/nutrition practices 	<ul style="list-style-type: none"> ■ Improved maternal health and reduced maternal mortality ■ Improved birth outcomes (such as reduction in stillbirths, preterm births, low birth-weights)
Poor child health and nutrition outcomes	<ul style="list-style-type: none"> ■ Poor health outcomes among children have led to premature deaths and preventable childhood illnesses ■ Inadequate infant and young child feeding practices led to a high and increasing prevalence of stunting, then reduced child cognitive and physical development ■ Low immunization rates and poor water, sanitation, and hygiene practices increase the risk of severe illness and lifelong morbidities 	<ul style="list-style-type: none"> ■ Improve infant and young child feeding practices ■ Increase access to water and sanitation facilities ■ Improve water, sanitation, and hygiene practices ■ Increase childhood vaccinations ■ Strengthen community-based case management for prevention, early detection, and treatment of childhood malnutrition 	<ul style="list-style-type: none"> ■ Improved child nutrition status and reduced child stunting and wasting ■ Improved ability to learn and develop physically
Low learning outcomes	<ul style="list-style-type: none"> ■ Lack of early childhood education and stimulation results in children scoring lower than expected on indicators related to literacy/numeracy, social-emotional skills, learning, and physical development ■ Lack of resources and awareness of early childhood development results in (1) low caregiver knowledge/awareness of early learning practices, (2) limited access to tools/resources to strengthen early learning at home, and (3) low access to high-quality early childhood education centers outside the home ■ The system is failing in-service and preservice teachers who are not equipped to teach children effectively 	<ul style="list-style-type: none"> ■ Improve knowledge of responsive caregiving among caregivers ■ Improve knowledge on early learning through play/reading ■ Increase the availability of high-quality childcare facilities ■ Support in-service and preservice teachers to teach effectively ■ Turn classrooms and schools into learning spaces 	Improved learning outcomes
Non-enforcement of child protection policies	<ul style="list-style-type: none"> ■ The large share of children with no birth certificates has limited access to social services and protection against child marriage ■ Female genital mutilation remains widespread despite its ban in 2015 	Ease birth registrations by eliminating penalties and increasing knowledge of the process	<ul style="list-style-type: none"> ■ Reduced vulnerability to harmful practices ■ Increased access to social services

for screening (through national exams) while localizing decisions regarding assignments and career progression.²⁸

Support the adoption of recommended health/nutrition practices

There is a need to reduce the high prevalence of malnutrition, morbidity, and mortality among women of reproductive age and the associated impacts on fetal and neonatal health. Efforts should target pregnant and lactating women, particularly in vulnerable populations (e.g., women in lower-income deciles and rural areas). This would require implementation of a multisectoral program that addresses the multifaceted challenges to improving health and nutrition. From the social protection side, the provision of cash transfers to vulnerable households could be considered, alongside the provision of accompanying measures such as social and behavioral change communication that encourages behavioral change related to maternal health and nutrition. The national safety net program, Tekavoul, is close to reaching its target of covering 100,000 households, which corresponds to all extreme poor households in Mauritania. The program could be used to encourage positive health-seeking behavior. Previous efforts to provide top-up transfers to encourage the vaccination of children could be expanded to other health-seeking behaviors such as attending prenatal visits. Programs aimed at keeping young girls in school and helping them continue to secondary education have been shown to delay the first birth, thereby reducing total fertility and the likelihood of adverse outcomes due to childbirth.

²⁸ The central government would remain responsible for accreditation through a national exam to set the standards for the profession. However, regional hiring of medical personnel could take place after the initial screening process, with local career development and the potential for regular rotations within regions.

Child health and nutrition

Improve infant and young child feeding practices

Mauritania needs to urgently implement measures aimed at addressing the high prevalence of under-nutrition among children under five years old. Efforts should target vulnerable communities and households with lactating women and/or children under age five with information, cash transfers (if below the poverty threshold), and the direct provision of nutritional supplements—for example, preventative small-quantity lipid-based nutrient supplements (SQ-LNS) have been highly successful in reducing acute to moderate malnutrition.²⁹ Existing research emphasizes the need for a package of interventions and not just stand-alone programs. Programs that have successfully reduced childhood undernutrition include a variety of different interventions.³⁰ School feeding programs in vulnerable communities could increase household resources available for non-school-age children; while health-related social and behavioral change communication could inform households about immunization, WASH, and air pollution. The authorities could strengthen energy infrastructure in vulnerable communities to make electricity more accessible and affordable, collaborate with the private sector to identify and subsidize clean cooking technologies, and monitor/regulate pollutant emissions by public and private firms.

²⁹ A systematic review and meta-analysis of 14 randomized controlled studies in LMICs found that providing SQ-LNS to children age 6–23 months for three months or longer was associated with improvements in child growth and development and lowered the incidence of undernutrition (Dewey et al. 2021).

³⁰ In Madagascar, the provision of SQ-LNS was done monthly through existing growth monitoring and promotion clinics. In these community clinics, mothers were educated about infant and young child feeding and WASH behavior. Community health workers also regularly conducted cooking demonstrations using local and affordable food items (Stewart et al. 2020).

Increase access to water and sanitation facilities

Poor outcomes for early childhood development are exacerbated by the limited and uneven coverage of basic WASH services. Slightly more than half the population has access to safe water (57 percent) and 40 percent benefit from improved sanitation. Despite progress in recent years, this still compares poorly with regional and international standards. In Senegal, for example, the corresponding shares are 92 percent and 48 percent, respectively. There is a significant gap between rural and urban areas: only 14 percent of Mauritania's rural areas have access to sanitation versus 58 percent of urban areas, suggesting a prevalence of open defecation. Because of the lack of sanitation, diarrheal diseases accounted for almost one in six neonatal and under age five deaths (16 percent) in 2013 and are one of the top causes of mortality and disability (IMHE 2015; WHO 2014).

Acute deficits in access to water and sanitation in rural areas and underprivileged urban areas reflect a combination of weaknesses in the legal and policy framework. Concerted efforts are needed to improve the quality of service provision by strengthening institutional and individual capacity at both the central and decentralized levels. While decentralization processes will take time to develop, there are immediate gains to be made from harnessing the potential for citizen engagement in monitoring service delivery provision. To support the reform agenda, it is necessary to analyze allocation of resources and the performance of public and private providers of WASH services.

Child education

Improve knowledge of responsive caregiving and of early learning through play/reading among caregivers

Caregivers need to be empowered to stimulate children's cognitive and behavioral development. The Tekavoul social safety nets program includes

human capital-accompanying measures (as part of the *promotion sociale*) that have been successful in inducing behavior change among participants and increasing the amount of time parents spend with their children (along with the quality of interactions). Lessons learned from Tekavoul could be implemented in national programs targeting childhood development. In the absence of widespread formal childcare arrangements, almost all Mauritanian children are cared for by their immediate family. Mothers, grandmothers, and other female family members are the predominant caregivers. Information campaigns need to reach all potential caregivers. For example, the China case study demonstrated the impact of brochures at primary health facilities, radio and TV messages, social media campaigns via WhatsApp, and screening educational material in more remote settings. It is equally important to engage traditional figures of authority such as village or religious leaders in information campaigns.

Increase the availability of high-quality childcare facilities

More and better-quality investments in childcare could improve outcomes for women, children, families, and businesses. The childcare sector provides an opportunity for women to own their own businesses and offers employment opportunities. It also enables women to continue and complete their education (IWPR 2021). Quality childcare can enable women to participate fully in the workforce while supporting children's development and school readiness. It is important that these facilities are of high quality, as low-quality childcare centers can be detrimental to children's development (Blimpo et al. 2022).

Support in-service and preservice teachers to teach effectively

More investments are needed to give teachers the skills and motivation to teach effectively. This requires urgent investments in the quality of teacher training so teachers are themselves able to master

the content they are teaching. In the short run, this includes a package of integrated interventions focusing on improving teaching practices and pedagogy in the classroom through regular teacher training and coaching, structured pedagogy, and the provision of adequate classroom learning materials for students. In the medium to long run, a rethinking of the teacher profession is needed. Teaching should be a meritocratic profession, with clear and structured career paths. Teachers' management is an integral part of a quality education system to make sure teachers are motivated, held accountable, and are present in the classroom—and can therefore teach effectively.

Turn classrooms and schools into learning spaces

Classrooms and schools need to be equipped to enable students to learn. In the classroom, this includes having books and supportive technology available with content suitable to students' levels so teachers can teach at the right level. It also includes teaching in the mother tongue so students can understand the content they are meant to learn. On the school side, this includes providing the minimum infrastructure needed to make schools safe and inclusive spaces—such as functional toilets and sufficient light in the classroom—and to ensure that students with any disability are receiving the right services. Regular monitoring through granular data can inform teaching and learning.

Child protection

Ease birth registrations by eliminating penalties and increasing knowledge of the process

Birth registration needs to increase to allow all children to reach their full potential. Making birth registration free of cost and linking it to other benefits and support services has been shown to increase registration rates. In many countries, birth registration is integrated into health system facilities, significantly reducing the burden on parents and increasing registration rates. This is precisely what Mauritania is envisioning starting January 2024. In countries where home births are prevalent, other solutions have been found, including through the use of mobile devices by birth attendants, links to local population registers, and recognition of trusted local officials as birth witnesses. These solutions still need to be defined in Mauritania to ensure no child is left unregistered. Vaccination and other health campaigns are another opportunity to facilitate the registration of children born outside health facilities through coordination between health and civil registry services. Registration could also be made available during school enrollment. Finally, social protection programs that reach the poorest provide an opportunity to promote awareness of the importance of, and to facilitate, birth registration. Social mobilization efforts to increase awareness of the importance and process of civil registration should continue. Partnerships with local organizations that provide support to disadvantaged populations through an often complex civil registration process could reduce reliance on intermediaries.

4 Utilizing human capital

Key messages

- Mauritania is not fully utilizing its human capital—a significant share of the potential labor force is not gainfully employed and returns to human capital are low.
- Human capital per capita has been falling in Mauritania during the last two decades.
- Poor utilization of human capital particularly affects women and youth and negatively affects investments in future human capital.
- Better utilization and higher valuation of human capital in Mauritania is possible and would bring economic and social benefits to the country.
- Mauritania deploys policies and programs to improve functioning of the labor market and job creation. Bringing those initiatives to scale based on rigorous evaluation will be required to make a dent in the problem of underutilization.

Economic gains from human capital accumulation can only be realized if people can utilize their skills and ingenuity over a long and productive lifetime. The extent to which human capital is equitably distributed across the population affects the sustainability and inclusiveness of socioeconomic development. The economy and society at large drive returns to human capital, which makes the adoption of multisectoral policies important for realizing a country's human capital potential. Reflecting this complexity, this

chapter describes the current state and evolution of human capital utilization in Mauritania, benchmarks it against comparable countries, discusses current policy approaches to enhance the use of human capital, and concludes with policy recommendations aimed at improving the utilization of human capital.

Measures of human capital utilization

Human capital and the wealth of nations

The Wealth of Nations approach separates national wealth into natural, physical, and human capital.

Wealth is one measure of prosperity, capturing a stream of benefits into the future. The approach uses the lifetime income stream methodology developed by Jorgenson and Fraumeni (1989) and Fraumeni (2011) and is utilized by the Organisation for Economic Co-operation and Development (OECD 2023) and the World Bank (e.g., World Bank 2011, 2018a) According to this approach, human capital is estimated as the total present value of the expected future labor income of the current working population. The Wealth of Nations' measure of human capital focuses on the economic benefits that a well-educated and healthy workforce generates. It brings together a host of factors that shape the stock and utilization of a country's

human capital: the total population and its structure, people's expected lifespan (a measure that reflects health conditions), their educational attainment, and their labor market experience in terms of employment probabilities and earnings.

Mauritania's human capital per capita wealth has declined over the last 20 years. Human capital accounts for an estimated 64 percent of global wealth.¹ While its contribution to overall wealth increased between 1995 and 2018 globally, it decreased in Mauritania ([figure 4.1](#)). In 1995, Mauritania's level of human capital wealth per capita was higher than that of comparable countries, representing 71.7 percent of its wealth. However, the stock of human capital per capita in Mauritania had declined by 2018, shrinking by an average of 1.6 percent per year. This was because the accumulation of human capital in the country was lagging behind population growth, reflected in the falling employment rate and stagnant rates of returns to education. The depletion of human capital in Mauritania resulted in human capital representing only 50 percent of total wealth, less than in most other countries ([table 4.1](#)). This fall was particularly pronounced for women, who experienced a sharper reduction in per capita volume of human capital than did men, reflecting falling employment rates and diminishing returns ([table 4.2](#)). In 2018, women held only 20 percent of total human capital wealth in Mauritania.

Mauritania was one of just three countries in the world that became a lower-middle-income country (LMIC) between 1995 and 2018 despite a reduction in its human capital wealth.² These countries' transition to LMIC status was largely due to the rapid growth of fossil fuel and mineral wealth ([figure 4.2](#)). The discovery and exploitation of mineral assets does not necessarily lead to underinvestment in

human capital. However, the risk of mismanaging commodity revenue is high,³ and resource wealth may lead to slower economic growth and higher inequality, especially if countries are endowed with weak political institutions (van der Ploeg 2011; Venables 2016). The countries with the strongest economic growth in 1995–2018 were those that experienced the strongest increase in human capital, which allowed them to transition from low-income to upper-middle-income status. Using a simple growth accounting framework⁴ illustrates that the elasticity of gross domestic product (GDP) growth in Mauritania remains higher in terms of human capital (for each percentage increase in the stock of human capital, GDP increased by 0.57) than with respect to natural and physical capital (0.43). Therefore, investment in and better utilization of human capital should be at the forefront of Mauritania's growth strategy.

Utilization-Adjusted Human Capital Index

The basic Utilization-Adjusted Human Capital Index (UHCI) shows that the utilization of human capital in Mauritania is remarkably low, especially for women.⁵

Like the original Human Capital Index (HCI), the UHCI refers to a child's future productivity ([appendix A](#) provides an overview of the calculation of the UHCI). Adjusting Mauritania's HCI value for the utilization of

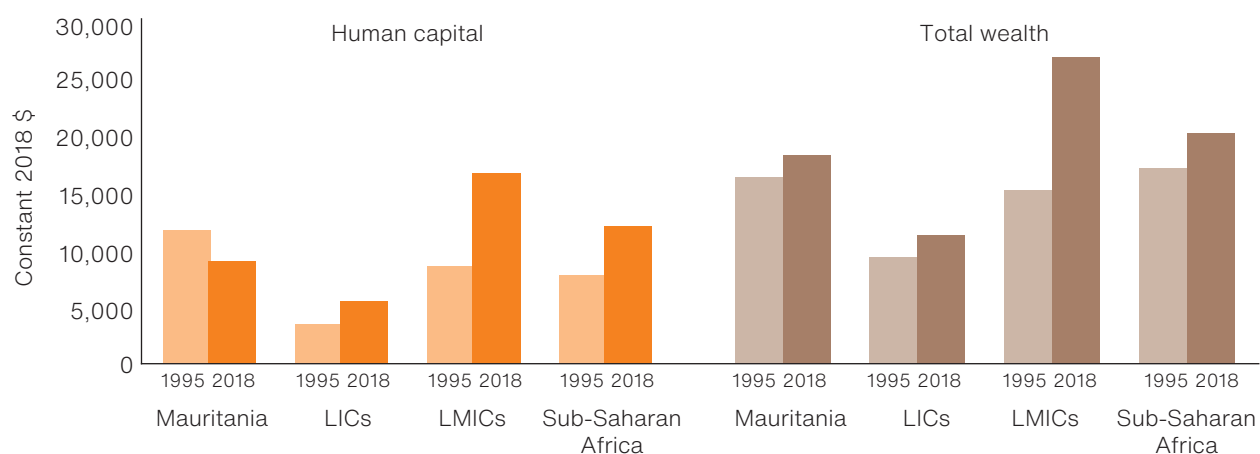
¹ Seventy percent in high-income and 41 percent in low-income countries (World Bank 2021a).

² The other two countries were Zimbabwe and the Republic of Congo.

³ Distortions can occur through three channels: (1) risk of Dutch disease, leading to suboptimal level of development for nonproductive nontradables; (2) strong distortions in the gender distribution of human capital, which are related to the nature of resource-driven growth; and (3) large public sector distortions, with overblown public employment and insufficient investment in both human and physical capital.

⁴ Cobb-Douglas production function with constant returns to scale.

⁵ The most recent data for Mauritania are from the 2014–15 Labor Force Survey, which may not fully reflect the current situation. However, an analysis of employment trends demonstrates few to no changes over the last 10 years.

Figure 4.1 Mauritania's human capital wealth has declined over the last 20 years (1998–2018)

Source: World Bank 2021a.

Note: LICs = low-income countries; LMICs = lower-middle-income countries.

Table 4.1 Mauritania's per capita human capital wealth growth rate is negative (1995–2018)

Country/region	Human capital as share of wealth (%)		Per capita human capital growth rate (%) ^a	Per capita total wealth growth rate (%) ^a
	1995	2018		
Mauritania	71.7	50.1	-1.6	1.0
Low-income countries	38.2	50.3	4.7	1.7
Lower-middle-income countries	56.2	62.1	7.4	6.0
Sub-Saharan Africa	45.6	60.0	4.3	1.4

Source: World Bank 2021a.

a. Growth rates are annualized over 1995–2018.

Table 4.2 Human capital held by males and females in Mauritania, 1995 and 2018

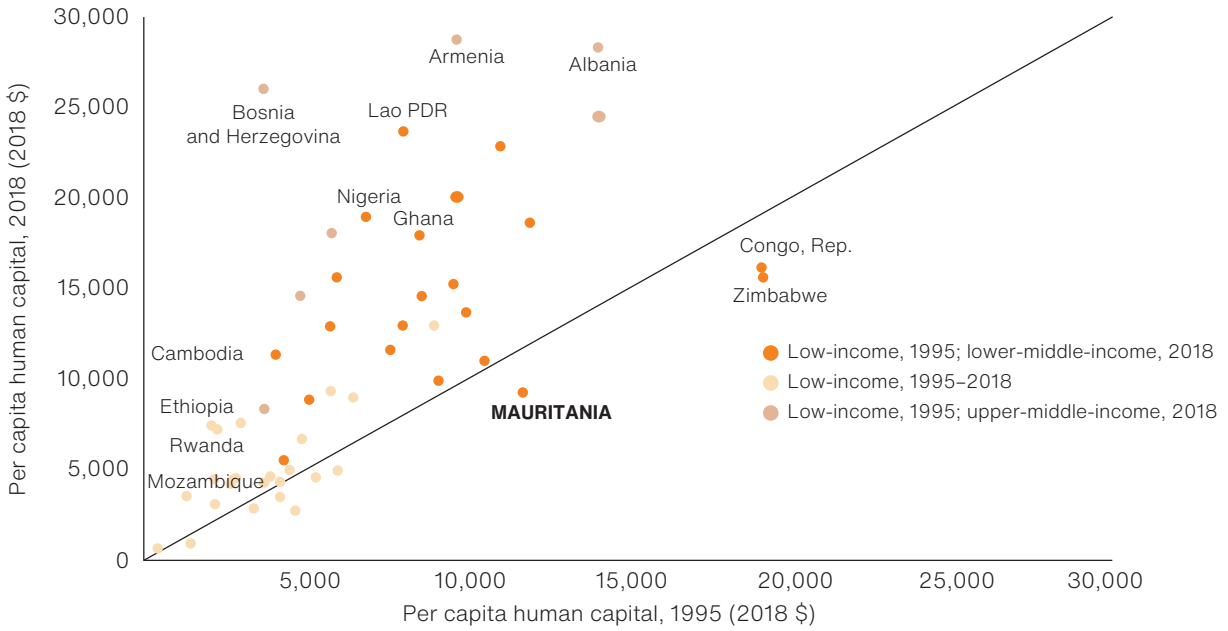
Measure	Males		Females	
	1995	2018	1995	2018
Total human capital (constant billion 2018 \$)	21.4	32.5	5.7	8.3
Percentage of Mauritania's human capital	79	80	21	20
Per capita human capital (constant billion 2018 \$)	18,496	14,773	4,927	3,773
Percentage change 1995–2018 in per capita human capital		-20		-23

Source: World Bank 2021a.

human capital reduces it from an already low 0.38 to 0.15 (figure 4.3). This index means that children born in Mauritania today can expect to utilize only 15 percent of their human capital potential by the time they turn 18, compared to a child in full health, with the best possible education and unrestricted

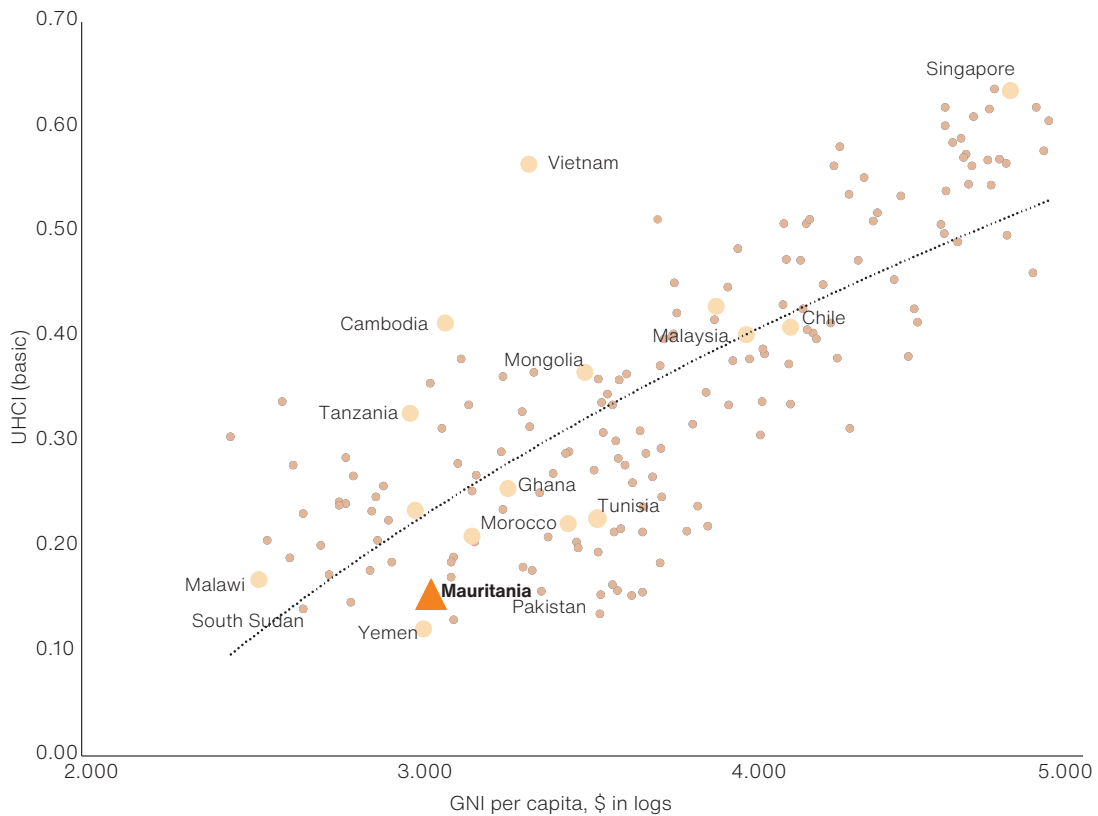
access to economic opportunities. Differences between men and women are stark: the UHCI value is only 0.10 for women compared to 0.22 for men. Mauritania is an outlier for its income group, as its UHCI is on par with conflict-affected states or small islands.

Figure 4.2 Mauritania became a lower-middle-income country despite a reduction in human capital wealth



Source: World Bank 2021a.

Figure 4.3 Mauritania is among countries with the worst utilization of human capital



Source: World Bank 2021a.

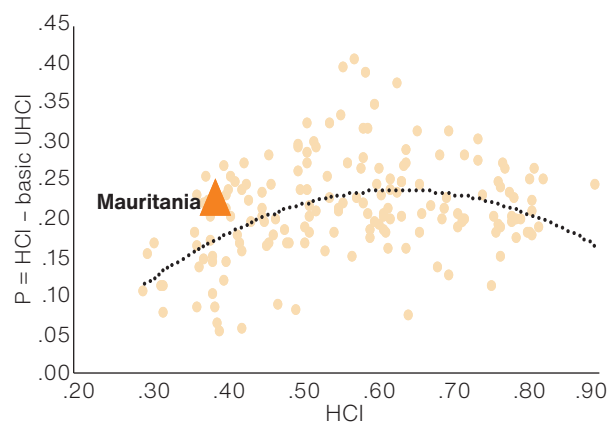
Note: Data are for 2017. GNI = gross national income.

While there is potential for Mauritania to utilize all its human capital, the country remains at the bottom of the UHCI distribution. The full UHCI is using a concept of “better jobs” (defined as non-agricultural wage employment and employers). It assumes that these jobs are fully utilizing the available human capital of those employed at these jobs. For the remaining workers it assumes that all potential workers—whether they are currently employed, inactive, or unemployed—are in substandard informal jobs, utilizing only the minimum level of their human capital (equal to 0.2). For Mauritania, this assumption of full employment for currently not working potential workers slightly increases its full UHCI to 0.23—still well below the actual HCI (0.38), but above its basic UHCI (0.15). Its full UHCI places Mauritania among countries with the worst utilization of human capital. This highlights the need to improve the quality of jobs while striving for increased employment.

Efforts to increase human capital need to be complemented by measures to address its underutilization.

As illustrated in [figure 4.4](#), countries tend to fall into the trap of increasing underutilization of their human

Figure 4.4 Penalty for underutilization of human capital versus the level of HCI



Source: World Bank 2022c.

Note: The “penalty” (P) shows how the lack of employment opportunities reduces the valuation of human capital.

capital when the HCI increases. Mauritania is at the bottom of the inverted U-shape and may risk seeing further deterioration in its UHCI, if the improvements in employment rate and quality of employment are not achieved.

Dimensions associated with low utilization of human capital in Mauritania

Three factors determine Mauritania’s low utilization of human capital: low employment, poor quality/productivity of available jobs, and low educational attainment.

Low labor force participation and employment

Employment rates are low, especially for women.

Survey-based estimates of the labor market for the working-age population show that the rate of employment in Mauritania is low for the general population and even lower for women⁶ ([table 4.3](#)). Women also tend to drop out of the labor market at a higher rate than men: 57 percent of women do not work for earnings and are not looking for a job. In Mauritania, there is a very gradual increase in employment over a person’s lifetime, reaching a peak at ages 45–49, before starting to fall after age 55 ([figure 4.5](#)).

Low quality of employment

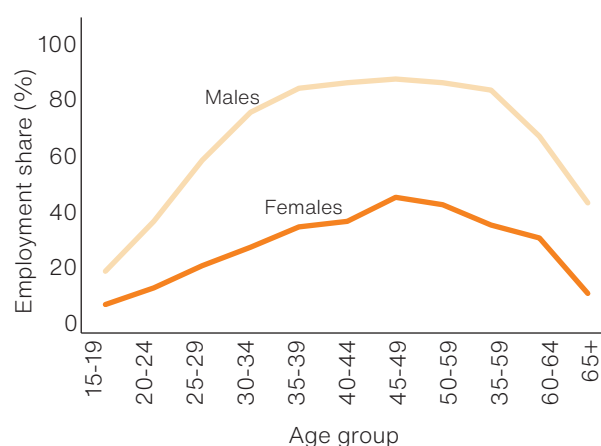
Most employment in Mauritania occurs in the informal sector. Job quality is commonly measured

⁶ The World Bank and the International Labour Organization use 15–64 as working age, even though there are different legal starting ages in Mauritania (the legal age for employment in the private sector is 14, and 18 in the public sector).

Table 4.3 The employment rate is low, especially among women

Employment status of working-age population	Male (%)	Female (%)
Employed, > 6 hours/week	55	23
Employed, < 6 hours/week	1	2
Unemployed, new entrant	6	7
Unemployed, lost job	6	2
Inactive, willing to work	3	9
Inactive, not willing to work	30	57

Source: Based on data for working-age population (15–64 years old) from ONS 2017.

Figure 4.5 Employment peaks in middle age and declines quickly thereafter

Source: International Labour Organization [ILOSTAT](#).

along three dimensions: type of workers' rights protection (formal/informal), hours of work (overwork or underemployment), and (in)stability of work. The informal sector in Mauritania employs about two-thirds of the economically active population, of which about 35.7 percent are employed in the informal non-agriculture sector ([table 4.4](#)). Informal jobs,⁷ which are especially prevalent among youth, offer no or only minimal protection of workers' rights and no social security. The formal private sector constitutes only 6.6 percent of total employment, with less than 3 percent of working women employed by formal private sector firms. Public

⁷ An informal job is defined here as a job without a written contract and no social security coverage for the employee.

sector employment continues to dominate, representing over 12 percent of jobs ([table 4.4](#)).

Hours of work are often unregulated and are either excessive or insufficient. Both excessively long hours and insufficient hours of work represent worse forms of employment than a regular working week with a predictable schedule.⁸ Excessively long hours are a bigger challenge for the Mauritanian workforce than underemployment. More than 67.4 percent of the country's employed workers worked more than 40 hours/week in 2017, up from 63.3 percent in 2012, driven by the informal sector. Mauritania's underemployment rate was 6.1 percent in 2017, and it is slightly higher among men and the youth (ONS 2017).

A significant share of jobs are considered precarious. Workers in casual, seasonal, and temporary occupations are particularly at risk of losing their jobs or making insufficient income from work. In 2017, 20 percent of the employed working-age population was in unstable, precarious jobs. This relatively high degree of job insecurity affects both men and women to similar degrees. Precarious jobs are more prevalent in rural areas (representing 33.7 percent of total employment) than urban areas (13.0 percent).

⁸ Underemployment refers to working less than 40 hours/week when the respondents express their willingness to work longer hours. Excessively long hours refers to working more than 40 hours/week.

Table 4.4 Public sector employment dominates, 2017

Employment	Employed population (number)			Employed population (%)		
	Male	Female	Total	Male	Female	Total
Central administration	29,560	12,280	41,840	6.8	4.8	6.0
Public administrative establishment	21,626	8,349	29,975	4.9	3.3	4.3
State-controlled nonfinancial company	14,485	1,493	15,978	3.3	0.6	2.3
Private financial company	12,271	2,193	14,464	2.8	0.9	2.1
Private nonfinancial company	26,557	4,916	31,473	6.1	1.9	4.5
Individual or family business	277,89	185,00	462,89	63.5	72.3	66.7
Household	51,783	32,858	84,641	11.8	12.8	12.2
Other	3,673	8,770	12,443	0.9	3.4	1.8
Total	43,784	25,586	69,370	100.0	100.0	100.0

Source: Based on data for working-age population (15–64 years old) from ONS 2017.

Note: “Other” contains nongovernmental organizations (voluntary or wage) and international organizations.

Low educational attainment, lack of skills, and job mismatch

A large share of the country’s working-age population has low levels of education, but higher educational attainment does not necessarily lead to better employment outcomes. Most Mauritians of working age have at most a primary education or no education (or have only attended koranic school) (table 4.5). Only a quarter of the labor force has a secondary degree or above. While employment

and unemployment show a typical pattern of raising employment probabilities with higher levels of educational attainment, unemployment rises for certain degrees, reaching 41 percent for women with technical education (this is, however, based on a small sample of women) and 28.8 percent for people with only secondary education. This may indicate that secondary school is not providing students with the skills demanded in the labor market.

The high unemployment rate for technical education is unexpected, as it is generally considered

Table 4.5 Many Mauritians have low levels of education, 2017

Highest level of education completed	Employment rate (%)			Unemployment rate (%)			Labor force (number)		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
No complete education	71.6	31.4	44.5	4.0	4.8	4.4	93,265	85,529	178,794
Koranic	62.5	26.5	41.6	6.4	7.6	6.8	129,752	77,184	206,936
Mahadra	50.5	19.2	41.9	11.8	18.0	12.6	19,212	2,938	22,150
Primary	56.5	22.8	35.5	22.0	33.3	26.9	136,902	106,735	243,637
Secondary	36.7	18.1	26.9	24.3	35.9	28.8	100,577	65,600	166,177
Higher	59.5	39.8	53.7	16.2	26.9	18.8	40,511	13,112	53,623
Technical and professional	58.2	35.9	52.3	16.5	41.3	22.4	5,085	1,594	6,680
Total	53.1	24.5	36.6	10.9	13.3	11.8	525,304	352,692	877,997

Source: Based on data for working-age population (15–64 years old) from ONS 2017.

Note: Population aged 15–64; employment rate uses full working-age population as reference.

one of the solutions to a lack of relevance of secondary schooling. However, this type of skill is extremely rare in Mauritania: less than 1 percent of the working-age population holds a diploma with a technical degree. Still, their prospects in the labor market indicate that vocational training is poorly preparing young graduates for productive employment (IIPPE 2018). The employment rate of technical and professional training degree holders is just 52.3 percent; this rate for men (58.2 percent) than women (35.9 percent).

Difficult transition from school to work

Youth, who represent most of the active population in Mauritania, struggle to transition from school to employment. Young people age 15–35 represent about 61.4 percent of the country’s population. While over 60 percent of the youngest cohort (aged 15–18) remains in education, 20 percent has dropped out and has not entered the labor market (figure 4.6). A significant share of young adults (15 percent) is still in search of their first employment by age 24, and only 20 percent are employed by age 34. Entering the labor market is therefore a long process for many young Mauritians. The number of young people not in education, employment, or training (NEET) is especially worrying (table 4.6).

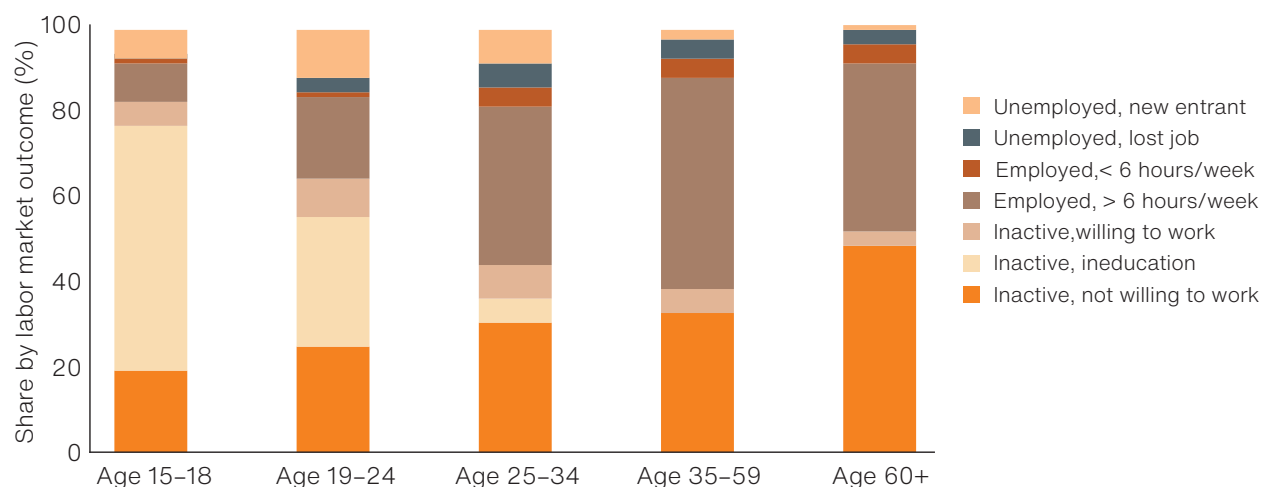
The problem of youth not in education, employment, or training is especially acute for the younger cohorts. Mauritania stands out as the country with the second highest rate in Sub-Saharan Africa (after Niger) (figure 4.7). The rate has increased between 2012 and 2019 from 39.7 percent to 44.8 percent. In Mauritania, NEET touches girls disproportionately: 54.85 percent of young women are NEET compared to 34.02 percent of young men. The sheer number of inactive young adults represents a threat for social stability, reinforcing the need to adopt comprehensive, multipronged strategies regarding youth employment. The diversity of NEET

status—and consequently the variety of constraints faced by different types of youth—should lead to tailored responses.

Unrealistic expectations of young jobseekers also play a role in the slow transition from education to work. The results of a qualitative survey of youth from poor and vulnerable families reveal that most of them drop out of school (having achieved minimum educational attainment); start looking for any jobs to make ends meet; and accept temporary, low-paying, and precarious jobs. They also lack information on the labor market; are ignorant of employment programs; have unrealistic expectations about the steps needed to find stable employment; and do not seek additional training and skills development, leaving them uninformed about the demands of employers regarding the profile of recruits. This is combined with a lack of information and resources among employers: one-third of formal sector firms complain about the inadequacy of skills of young recruits, and yet few offer on-the-job training or apprenticeships (World Bank 2019b, 2020a).

Dropouts and their job prospects

Young people face difficulties in progressing through the education system and completing their studies. Among those enrolled in formal primary education, only 33 percent go on to pursue secondary studies, and only 5 percent continue to higher education (World Bank 2020a). Hence, most young people only complete primary education or less. This group faces challenges in finding remunerative employment and lacks the basic skills to continue building human capital. The main reasons for young people not completing basic education or continuing their studies are financial (lack of means), constraints related to family circumstances (e.g., pregnancies, disability, and need to start working), and “failure to study” or failing to pass exams. Failure to study/failing exams accounts for the largest share

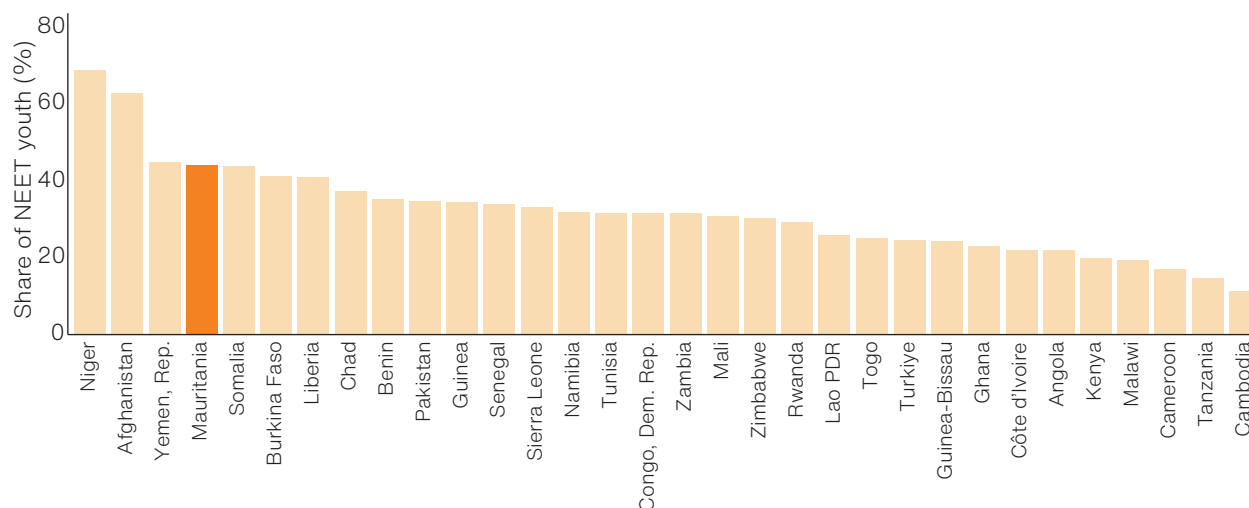
Figure 4.6 Youth struggle with the school-to-work transition

Source: Based on data from ONS 2017.

Table 4.6 NEET rates are high across levels of education

Highest level of education completed	NEET rate (%)		Unemployment rate (%)	
	Male	Female	Male	Female
Primary	31	59	16	12
Secondary	13	22	10	9
Higher	15	18	15	19
Koranic	17	47	7	9
Mahadra	11	19	10	8
Technical and vocational education and training	21	53	18	40
Total	18	37	12	10

Source: Based on data for youth (15-29 years old) from ONS 2017.

Figure 4.7 Mauritania has the second highest NEET rate for youth 15-24 in Sub-Saharan Africa

Source: World Bank, [Gender Data Portal](#).

of dropouts, ranging from 48 percent for those who abandon school following primary education and 39 percent for koranic school graduates to 22 percent for those who have not completed their primary schooling. This suggests that remedial education should be made available to vulnerable youth to increase their chances of staying in school.

Returns to education

Returns to education in terms of earnings are low in Mauritania, although returns are higher beyond primary education. An analysis of age-specific average wages for different levels and types of education completed shows that those who only complete koranic school earn a lower wage than people (across age groups) who complete other types of education (figure 4.8). The profile is also flat over the lifespan, suggesting little accumulation of human capital through on-the-job training or few returns to seniority. The returns to higher education and technical and vocational education seem similar and exceed the wages of those with only a primary education. On-the-job accumulation of human capital continues throughout a person's productive life through (1) progression to higher productivity or skills at the same place of work; and (2) acquisition of new skills, resulting in higher pay by transitioning between jobs. The data also show a rather steep age gradient, suggesting a more normal learning by doing and a wage premium for experience. Indeed, controlling for gender, location, education, and sector of employment, each additional year of experience is associated with a wage increase of 5 percent, but these returns diminish and peak at the age of 50. The prevalence of transitions and secondary employment is low. During the year preceding the survey, only 5 percent of those currently employed changed their place of work and 4 percent report any secondary activity, indicating that the labor market is not dynamic.

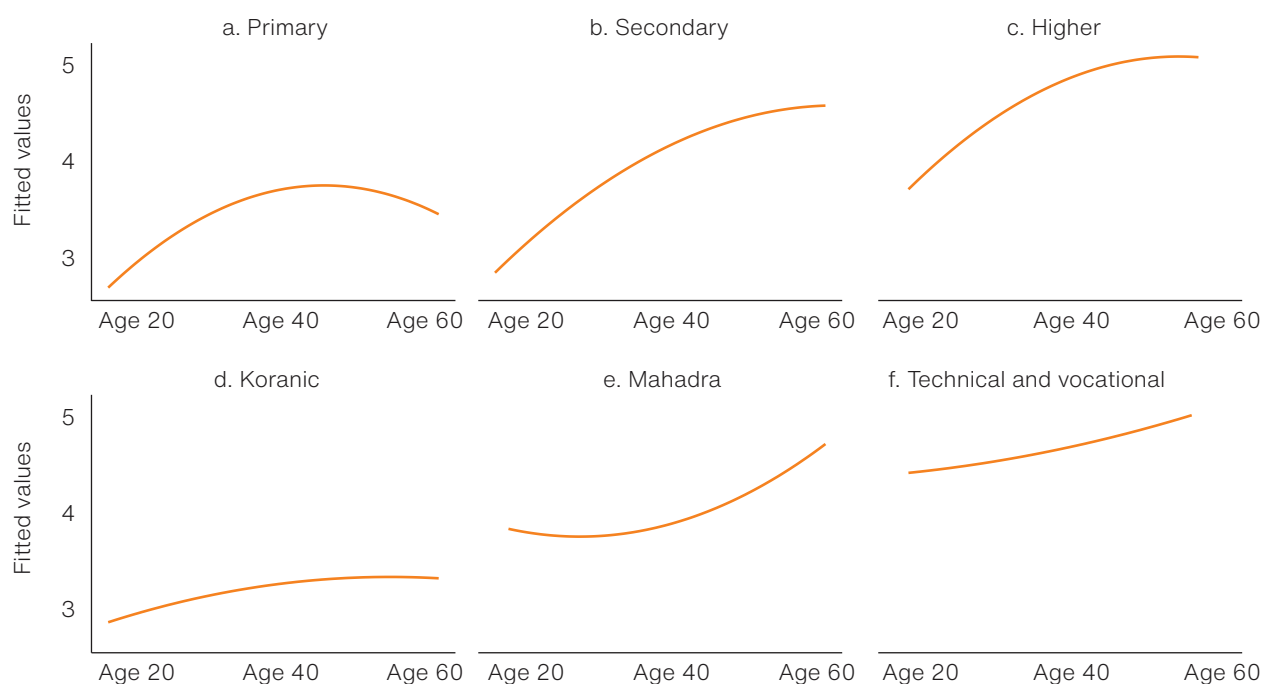
Public sector employment is characterized by higher wages. In 2017, public sector jobs paid a wage premium of 30 percent compared to wages in other sectors, controlling for education, location, industry, gender, and type of contract (World Bank 2020a). This premium is distorting incentives for seeking employment and leads to “wait unemployment,” especially among people with higher education attainment.

Patterns of job creation in Mauritania

Economic growth has been driven by capital-intensive natural resource extraction (World Bank 2020a). The extractive sector has traditionally been the biggest contributor to GDP growth,⁹ leading to growth in the nontradable and service sectors (e.g., construction, retail, and public services), which has generated some jobs (table 4.7). Still, growth driven by natural resource extraction has resulted in limited job creation. While the traditional primary sectors of agriculture and fisheries have made the biggest contributions to GDP and employment, these sectors have been growing more slowly than the overall economy. Their share of employment has been falling but remains high.

Labor has transitioned from rural areas and agriculture (with its volatile returns) to the less productive urban sectors (such as services and petty trade) that are dominated by informality and limited value added. The mining sector, which has been the main driver of recent growth and exports, employs a mere 1 percent of the country's employed population. Mauritania's small manufacturing sector averages only 9 percent of GDP and constitutes 12 percent of employment. There is a difference in employment

⁹ As a result of the dramatic rise in global commodity prices, the value of mineral exports jumped from \$318 million in 2003 to \$2,652 million in 2023. Over the period, the extractives sector represented, on average, 25 percent of GDP, 82 percent of exports, and 23 percent of domestic budgetary revenue (World Bank 2018b).

Figure 4.8 Returns accrue only beyond primary education

Source: Based on data from ONS 2017.

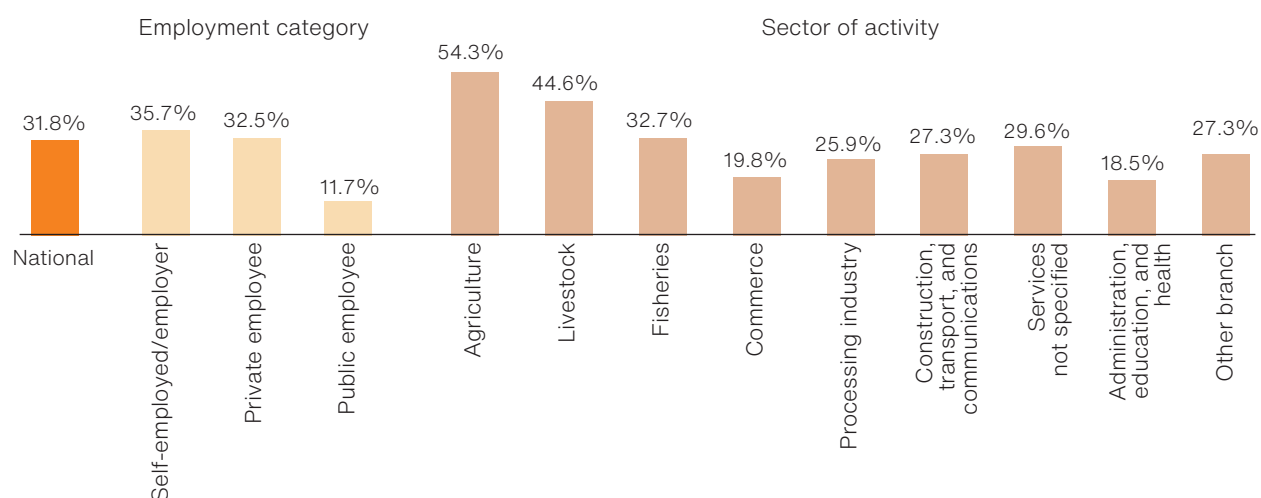
Table 4.7 Agriculture and services continue to drive employment

Sector	Employment (number)			Structure of employment (%)		
	Male	Female	Total	Male	Female	Total
Agriculture, including livestock	140,490	65,669	206,159	31.1	23.6	28.2
Fisheries	18,658	575	19,233	4.1	0.2	2.6
Mines	8,471	460	8,931	1.9	0.2	1.2
Manufacturing and energy	43,299	46,831	90,130	9.6	16.9	12.3
Construction, transport, and communications	32,835	734	33,569	7.3	0.3	4.6
Commerce	72,446	85,050	157,496	16.0	30.6	21.6
Services	136,258	78,523	214,781	30.1	28.3	29.4
Total	452,457	277,842	730,299	100.0	100.0	100.0

Source: Based on data for working-age population (15–64 years old) from ONS 2017.

between men and women within each sector. For example, while manufacturing employment is almost equally split between men and women, female industrial workers are mostly employed as seamstresses and food production workers; while men are mostly manual workers, electricians, carpenters, and administrative personnel in enterprises.

Employment patterns vary by poverty incidence and location. The primary sector (agriculture, livestock, and fisheries) is characterized by low productivity. Household heads relying on these sectors as well as on self-employment for their primary activity have the highest poverty incidence (figure 4.9). High patterns of migration to Nouakchott have led

Figure 4.9 Poverty rate by employment/activity status of head of household

Source: World Bank Poverty Assessment on Enquête Permanente Auprès des Ménages—EPCV 2014–19.

to a concentration of the population in the capital city, which is now home to more than 50 percent of the urban population. Economic activity has not kept pace with the growing number of urban dwellers.¹⁰ As in other resource-rich countries with high urbanization rates, the largely informal and low-productivity commerce sector has increased in size, absorbing most of the rural migrants. These trends indicate that urban centers in Mauritania have not been able to absorb poor households into highly productive sectors, resulting in worse living conditions in cities, particularly Nouakchott.

Several constraints have been associated with lack of dynamism of private sector employment and job creation. The real exchange rate is overvalued due to limited exchange flexibility and ineffective monetary policy. Moreover, Mauritania suffers from financial vulnerabilities and barriers to access finance, especially among small and medium-sized enterprises. The business environment is further impaired by limited competition and poor infrastructure, especially

in terms of connectivity and electricity access. The challenging business environment is compounded by high import tariffs that shield domestic producers from international competition and impede access to cheap imported inputs. Beyond tariffs, the prevalence of nontariff measures and the absence of clear procedures hinder trade (World Bank 2020a).

Patterns of finding employment

Despite efforts to expand them, the role of labor market intermediation agencies remains limited.

Matching workers to jobs through intermediation, coaching, and information exchange is important to improve the utilization of skills and planning of education. Intermediation in Mauritania is limited, and the country does not have a (functioning) intermediation system. In 2017, only 2 percent of jobseekers used private employment agencies, 1 percent used regular public employment services, and 4 percent were registered with the National Youth Public Employment Agency (Agence nationale pour la promotion de l'emploi des jeunes—ANEPEJ). Data on placements are not available, and no information is collected by public employment services on the demand for labor (i.e., employers wishing to fill jobs openings). The lack

¹⁰ Although there is a lack of data, it is likely that migrating populations were predominantly poor, unskilled laborers who could not find a job due to mechanization of agriculture or inability to purchase livestock, resulting in a shift of poverty from rural to urban areas.

of formal intermediation mechanisms is reflected in how workers search for and find jobs. Less than 1 percent of those currently employed found their job through a labor intermediation agency, and only 5 percent found their job through some form of formal recruitment. Most Mauritians rely on personal and family connections for their jobs or are absorbed in their families' enterprises.

Due to the lack of labor market information, the unemployed typically have a very vague idea about the employment they could seek. In surveys of the unemployed population, almost 50 percent of respondents say that they would take “any job” available, while 20 percent express a preference to work for the public sector—a share that is especially large among higher education graduates. Given relatively high unemployment rates for graduates of higher education institutions, there is a clear gap between expectations and reality and opportunities to improve the outcomes through labor intermediation.

Gender disparities and human capital utilization

Women's human capital is being underutilized through their low participation in the labor force, low employment, poor quality of employment, and low pay. The low human capital of Mauritanian women can be attributed to (1) limited opportunities to pursue education, especially for girls from poor and vulnerable families; (2) early marriage and pregnancy, which affects a critical period of human capital accumulation and entry into the labor market; (3) penalties based on social norms prioritizing care responsibilities, forcing women to work part time to meet family needs (these penalties may also lead to preferences on the part of women for occupations that are lower paid); (4) legal barriers that prevent women from attaining similar economic opportunities as men; and (5) lack of women in leadership positions in the workforce.

Limited opportunities to pursue education

Women have lower educational attainment than men in Mauritania. More women than men have no education (32 percent versus 21 percent). While women are slightly more likely than men to have completed primary school (22 percent versus 19 percent), they are far less likely to complete secondary school (23 percent versus 30 percent), and only 2 percent of women (compared to 5 percent of men) have completed higher education (ANSADE 2021). Educational attainment is correlated with place of residence and poverty, with rural and poor women displaying the lowest levels of educational attainment. Notably, nearly half of poor women (48 percent) have no education, higher than 32 percent of poor men, 22 percent of nonpoor women, and 13 percent of nonpoor men.

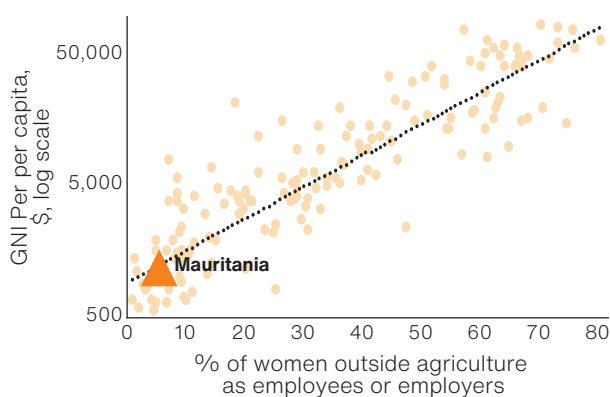
Low labor force participation

Female labor force participation is lower in Mauritania than among regional peers. Among people age 15 and older, the labor force participation rate is 27 percent among women, much lower than 61 percent among men (ANSADE 2021). Young women age 15–24 have a particularly low labor force participation rate of 19 percent, lower than in neighboring countries such as Burkina Faso (57.2 percent), Chad (46.9 percent), Mali (57.7 percent), and Niger (61.7 percent). One possible explanation for Mauritania's low labor force participation among women is the country's social norms, which value women for their domestic work rather than their presence in the labor market. Women's labor force participation is slightly higher in urban (28.5 percent) than rural (26.3 percent) areas. Higher levels of education are correlated positively with higher labor force participation.

Poor quality of jobs

Most women are engaged in poor quality employment in the informal economy. As much as 76 percent of female employment is self-employment or employment in a family business, much higher than 41 percent of male employment.¹¹ Out of all women who are currently working, 11.8 percent are only engaged in household and domestic work (ONS, MS, and ICF 2021). Women are more likely than men to work without a written contract, making them vulnerable to exploitation. The share of Mauritanian women who are employees or employers outside of agriculture is just 5 percent, one of the lowest rates in the world. This is concerning, given the observed correlation between the share of women in better jobs and gross national income (GNI) per capita (figure 4.10). Even more worryingly, the proportion of wage workers among females has decreased over the past years and is currently less than a quarter of the share of wage workers among males (ONS 2017).

Figure 4.10 Women’s better employment rate is correlated with income per capita



Source: World Bank 2022a.

Gender wage gap

Women who work earn lower wages than men. In Mauritania, the wage parity index stands at 0.60

in favor of men, which means that women earn, on average, 60 percent of the salary men are paid for comparable work (ANSADE 2021).¹² The gap is more pronounced in rural than urban areas and among workers with a primary education compared those with no education or secondary/higher education. Some of the country’s current labor market regulations reinforce many of these gender trends and contribute to women’s low earnings. For example, there is no law mandating equal remuneration for work of equal value, and there is no legislation on criminalization of sexual harassment at the workplace (World Bank 2021d).

Social norms, legal barriers, and gender imbalances

Variations in social norms may further affect women’s opportunities. Early marriage, particularly among girls, is widely practiced in Mauritania and affects both the prospects of completing education and productively engaging in the labor market. One out of three women age 16–20 is married (ONS, MS, and ICF 2021), and almost 20 percent of women age 18–22 had their first child before age 18. Early marriage is more prevalent among poor women and women with no education: 58 percent of women age 20–24 from the poorest income quintile were married by age 18; this is much higher than the 15 percent of women from the highest income quintile. The likelihood of being married by age 18 decreases among women who have at least some education. Social norms reinforce the idea that housework and caring for dependents are reserved for women and girls, which underutilizes their human capital.

The slow progress in achieving better health and nutrition outcomes for the new generations of Mauritians is attributable to gender inequality. One in 10

¹¹ Source: World Bank, [World Development Indicators](#).

¹² There was a slight improvement in the gender parity index in earnings from the main job between 2014 and 2019 (from 0.53 to 0.60), according to survey (Enquête Permanente Au près des Ménages—EPCV) data for the period.

women in Mauritania is a victim of physical violence. Six percent of all women have experienced sexual violence; this level is more pronounced in rural areas (7.6 percent) and among the poorest quintiles (8.4 percent) (ONS, MS, and ICF 2021). This situation is rooted in gender inequality, which contributes to poor health and nutrition outcomes—and even premature deaths—of young women and newborns. In response, the government has proposed a national law on gender-based violence (which is still pending as a draft) and created a National Observatory for the Rights of Women and Girls. However, there is still no comprehensive legal provision addressing gender-based violence, and challenges pertaining to gender equality remain. Nevertheless, in practice, the government and religious leaders have engaged in programs that combat these harmful practices.

Women are not regularly involved in household decision-making. Only 55.1 percent of women age 15–49 participate (alone or jointly with their partner) in major decision-making activities in the household,¹³ while 22 percent do not participate at all (ONS, MS, and ICF 2021). Decision-making power within the household increases with wealth: where only 52 percent of women from the poorest wealth quintile participate (either alone or jointly) in decision-making regarding their own health, 73 percent of women from the richest income quintile do.

Existing legal provisions strongly affect women's economic opportunities, constraining their access to certain jobs and ability to inherit and own property. Mauritanian women are prohibited from working in occupations that are likely to affect their health and physical integrity or “injure their morality.” Moreover, women are prohibited from working night hours in specific environments, including factories, plants, and mining quarries (Labour Code, Art. 166). If married, a woman may pursue a profession outside the marital home, yet she is bound to those professions that are

considered appropriate under Sharia law (Personal Code, Art. 57). Women are also disadvantaged in ownership rights over immovable property and inheritance of assets. A woman may only inherit half of what is allocated to a man, and a daughter may inherit only half of the property entitled to her male sibling (Personal Status Code, Art. 253–259). Furthermore, under the Personal Status Code (Art. 58), for property acquired during a marriage, there is no legal provision of joint ownership between the husband and wife. As a result, women have less access to productive assets, resulting in only 6 percent of women owning land in Mauritania.¹⁴

Women are also underrepresented in politics and other forms of social activities. Even though the share of seats held by Mauritanian women in Parliament increased dramatically from 4 percent in 2000 to 20 percent in 2021, it remains far below that of most regional peers such as Chad (32.3 percent), Mali (27.3 percent), Niger (25.9 percent), and Senegal (43.0 percent).¹⁵ Women's political representation has likely improved due to the introduction of the quota system in 2012, which stipulates that women should make up at least 20 percent of legislative candidates (Organic Law Promoting Women's Access to Electoral Mandates and Elective Offices Law 2012-034, Art. 4A). Still, women are largely absent from senior positions in the public sector.

There is evidence that social norms in Mauritania are not rigid and can be changed. While less than 1 percent of employed women are entrepreneurs, there is a minority of women, especially among the Moorish ethnic group, who have overcome unequal gender relations to form a group of successful businesswomen (Lesourd 2014).

¹³ Decisions regarding own health, own earnings, and large household purchases.

¹⁴ Gender disparities also exist in financial inclusion: 1 percent of rural women have an account at a financial institution—which is lower than 5 percent of rural men, 10 percent of urban women, and 21 percent of urban men (ONS, MS, and ICF 2021).

¹⁵ Source: World Bank, [World Development Indicators](#).

Estimating the impacts of boosting gender equity in human capital utilization

Greater equity in earnings could increase human capital. In 2018, the global gender gap in human capital was 57 percent, leaving the gap to close at 43 percent (table 4.8). In Mauritania, the gap to close is much wider at 74 percent. Simulations using the gender gap in human capital to calculate the gains that could be achieved from greater equity in earnings show that human capital worldwide could increase by 21 percent with gender parity. In low-income and lower-middle-income countries where the gender gaps in human capital are more pronounced, the gains from gender parity would be larger. For example, Mauritania's human capital could increase by 37 percent with gender parity.

Human capital utilization of older workers

Older workers leave the labor force relatively early partly due to poor health. To participate in productive economic activities later in life, it is essential to be in good health and have working conditions that are adapted for older workers. There are several health-related challenges facing the Mauritanian labor force. First, the adult survival rate for people age 15–60 is 80 percent, meaning that 20 percent

of potential workers do not live to the age of retirement. Second, the burden of noncommunicable diseases is growing.¹⁶ While the incidence of diabetes (3 percent) and hypertension (4 percent) in the disease burden is low, it is growing. Obesity, particularly among women, is highly prevalent: 54 percent of women age 15–49 are overweight or obese (ONS, MS, and ICF 2021). This creates a double challenge of completing the epidemiological transition while managing the new types of health conditions.

The poor quality of the water supply is one of the reasons for the country's poor health outcomes.

Mauritania has the lowest overall rate of access to improved water in the region (World Bank 2017c). Limited access to improved water has contributed to poor health, which in turn has led to a difference of 10 percentage points in labor participation and employment among people age 55–64 compared to those age 45–55. In Mauritania, only 10 percent of workers age 50–65 stop working because there is no need to continue employment. By contrast, as much as 16 percent of them list health problems, 28 percent cite family obligations, and 4 percent point to the absence of suitable employment as reasons to quit working.

¹⁶ Acute respiratory infections and diarrhea, followed by helminthiasis and malaria, are the leading causes of morbidity in Mauritania—acute respiratory infections and diarrhea account for 52.0 percent and 28.4 percent of confirmed cases of common pathologies, respectively.

Table 4.8 The potential gain from achieving gender equity in human capital is large

Country/region	Gender gap ratio in the value of human capital per capita (%)		Potential gain from gender equity (increase of human capital as % from base)	
	1995	2018	1995	2018
Mauritania	27	26	37	37
Low-income countries	51	47	25	27
Low-middle-income countries	36	28	32	36
Sub-Saharan Africa	78	49	11	25
World	55	57	23	21

Source: World Bank 2021a.

Policies to improve the utilization of human capital in Mauritania

Mauritania needs to strengthen and increase the utilization of human capital to accelerate and sustain inclusive growth. The country is positioning itself to sustain and accelerate inclusive growth by leveraging its existing comparative advantages such as exploiting resources related to the extractives, fisheries, and livestock industries. Meanwhile, it is gradually shifting to private sector-led diversification in urban-based competitive, labor-intensive sectors, which requires a well-educated workforce. In addition to the macroeconomic, governance, and fiscal policies that are necessary for enabling human capital-based development, specific human development-related policy action is needed. This section provides an overview of existing policies to better utilize human capital, identify current policy gaps, and formulate policy recommendations.

Labor market policies in Mauritania

Mauritania has taken steps to reform its Labor Code, Social Security Code, and collective bargaining agreements which date back to 1974. The country aims to provide workers in informal and occasional occupations in some sectors (e.g., transportation) with formal wage contracts and extend social security benefits, including health insurance. Alongside these reforms is a renewed emphasis on strengthening job inspection to improve the enforcement of labor regulations as well as to reduce child labor. Optimizing labor regulations and social security will become increasingly relevant as Mauritania looks to accelerate the growth of better jobs.

In its Accelerated Growth and Shared Prosperity Strategy 2016–2030 (Stratégie de la Croissance Accélérée et de la Prospérité Partagée, SCAPP), the government has prioritized employment to increase

inclusive economic development. In connection with the SCAPP, the Ministry of Employment, Vocational Training, and Information Communication Technologies has drawn up the National Employment Strategy (Stratégie Nationale pour l'Emploi—SNE) for 2018–2030, which was approved by the government in March 2018.¹⁷ Its main objective is to increase the number of youth accessing jobs through employment programs from 20,000 in 2018 to 110,000 by 2030. This expansion is essential, as it will enable the ANEPEJ to manage the annual influx of graduates to the labor market and help develop a more comprehensive and better-tailored approach for various groups. The strategy defines “the priority targets of Mauritania’s employment policy as women, youth (aged 15–24), and lower skilled with primary and secondary education.” A Demographic Dividend Laboratory has been established, and it has been an important part of monitoring the implementation of Mauritania’s human capital strategy.

SCAPP implementation has so far been slow, partially due to extreme institutional fragmentation. For example, a recent stock-take of youth employment programs identified a range of initiatives managed by 19 international organizations¹⁸ (World Bank 2019a). Supply-side programs have dominated in Mauritania, and there have only been a few demand-side programs focused on boosting

¹⁷ In its general policy statement delivered in September 2019, the government of Mauritania reiterated that increasing employment is one of its strategic priorities. It announced its intention to “implement an employment strategy that will create tens of thousands of new quality jobs in an inclusive and equitable manner,” and to set up “an annual youth employability program, particularly in promising sectors.”

¹⁸ These include the European Union, the Agence Française de Développement, the African Development Bank, the German Credit Institute for Reconstruction (Kreditanstalt für Wiederaufbau—KfW), the German Federal Ministry of Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung—BMZ), the United States Agency for International Development, International Organization for Migration, and the International Labour Organization.

enterprise development for small and medium-sized enterprises. Most of these demand-side programs have a relatively small budget (between \$0.3 million and \$10 million) and cannot be sustained without donor financing.

To successfully implement planned labor market policies, the authorities need to ensure better monitoring and assess labor regulations and their potential impact on job creation. Certain sectors are positioned to become drivers of growth through increased private sector development (e.g., mining, tourism, agriculture, and digital services); these sectors, along with enabling sectors such as personal services, commerce, transportation, and housing, have the potential to spur job creation. This needs to be closely monitored through, for example, dedicated jobs indicators ([table 4.9](#)).

The World Bank–supported Youth Employability Project (Projet d’employabilité des jeunes—PEJ) is the largest employment project in Mauritania

and employs an integrated approach to address key constraints for youth to access jobs. On the supply side, the project offers life and technical skills training in both formal and informal sector firms. On the demand side, the project fosters entrepreneurship and self-employment through business skills training, cash grants, and business development services. The involvement of the private sector in the upstream identification of training aims to improve the relevance of programming and job placement rates for young project beneficiaries/graduates. In addition, the PEJ strengthens the capacity of labor market services and intermediation centers such as Techghil to provide job orientation and counseling as well as labor market information. The project further supported building a cloud-based management information system, which could serve as a platform for intermediation going forward. The project is using the social registry to target vulnerable youth from poor households.

Table 4.9 Suggested indicators to track outcomes along different dimensions of jobs

Job creation	Job access	Job quality
Job creation <ul style="list-style-type: none"> ■ Number of direct or indirect jobs ■ Number of short- or long-term jobs 	Labor force participation Extent to which population is economically active (employed or actively looking for work)	Worker productivity Value of total volume of output produced (in US\$ or local currency unit) during a given time period divided by the number of full-time-equivalent employees during the same period
New enterprises Number of new firms	Working of labor market <ul style="list-style-type: none"> ■ Functioning of labor market in balancing supply of labor (workers) and demand for labor (firms) ■ Number of workers using (public or private) employment services ■ Average length of time to fill a vacancy 	Working conditions and benefits <ul style="list-style-type: none"> ■ Physical work conditions ■ Work satisfaction ■ Number of hours worked ■ Coverage by social security insurance, e.g., pension, unemployment insurance
Entrepreneurs/self-employed Number of existing and new enterprise owners who employ at least one nonfamily worker; farmers, self-employed	Access to and opportunity for jobs Access to employment opportunity for disadvantaged groups (women, youth, poor and vulnerable populations)	Earnings/livelihoods Improved income or savings due to livelihood/income-generating activities

Source: Adapted from World Bank, [Jobs M&E Toolkit](#).

To address the low economic inclusion of women, the Sahel Women’s Empowerment and Demographic Dividend project aims to create an environment for Mauritanian women to achieve equal rights with men regarding education, reproductive health, and productive income. This multicountry, integrated project combines health, education, economic empowerment, and behavioral change of adolescent girls with country-specific activities. The project is financed by the World Bank and receives technical assistance from the United Nations Population Fund (UNFPA) and other partners. It includes a subcomponent dedicated to the economic empowerment of women and girls, including training in nontraditional professions to provide them with higher income-earning opportunities and grants for self-employment and entrepreneurship. The project is unique in that it relies effectively on local religious authorities to advance the family planning agenda and combat gender stereotypes that prevent the full utilization of women’s human capital. It further supports a dialogue on national legislation and an exchange between parliamentarians and legal associations on national and regional priorities to ensure the national legal framework respects women’s rights to health and education.

Opportunities to strengthen the utilization of human capital

Based on the analysis of human capital utilization, [table 4.10](#) summarizes the main issues that prevent Mauritania from fully reaping the benefits of its human capital, and clarifies why addressing these issues is strategically important and how the current approach can be enhanced.

Lack of job opportunities is due to various demand-side constraints. Since the agriculture sector is the largest employer in Mauritania, low agricultural productivity impedes growth. The agriculture sector is hampered by lack of expertise and

appropriate skills, and it is further weakened by the absence of integration with trade and secondary agri-businesses. Moreover, job creation in untapped sectors such as construction, industry, and fisheries has been dampened by the country’s poor regulatory framework, corruption, and clientelist hiring practices. Employers also face challenges in recruiting workers because of lack of practical, job-relevant skills. Mismatched labor regulations in terms of contracting restrictions and high labor taxes may be driving firms to remain in the informal sector, dampening wages and opportunities for improving the quality of jobs. To meet these challenges, the country has taken steps to improve macroeconomic fundamentals such as adopting tax and land reforms. However, unaddressed constraints to private sector growth, including access to finance, reduce job creation and hinder the employment prospects of especially vulnerable groups.

There is a need to optimize the country’s labor market intervention programs. This could be done by first ensuring the effective monitoring and evaluation of existing mechanisms and understanding their impact on the labor market. After a rigorous evaluation, including an assessment of the results of the various programs being implemented, the authorities could streamline initiatives and better target youth and women. The government could also develop a strategy to promote the green economy and encourage the specialization of women. In addition, it could develop organic agriculture, particularly in rural areas, which would require more resources to train and support women.

The authorities need to ensure that Mauritania’s vocational training centers address young people’s poor labor market prospects. Low employment rates for youth and very low starting earnings for younger workers suggest an inadequate education system (e.g., lack of relevance of skills and overall poor quality of education, including literacy and numeracy); lack of dynamism of the private sector; and failure of the labor market to match jobseekers

Table 4.10 Addressing key issues of human capital utilization in Mauritania

Key issue	Impact on the utilization of human capital	Policy to enhance the utilization of human capital	Outcome
Challenging transition from education to work	High youth unemployment leads to delayed entry to the labor market, loss of human capital, poor matching of skills to jobs, reduced earnings over the life cycle, and discouragement of continued education	<ul style="list-style-type: none"> ■ Improve the quality of education ■ Implement remedial programs to support continued education and targeted youth employment and skills programs ■ Better integrate social protection and employment policies 	<ul style="list-style-type: none"> ■ Improved social cohesion ■ Higher incomes ■ Retained talent ■ Lower unemployment ■ Lower informality
Underutilization of the human capital of prime-age workers	<ul style="list-style-type: none"> ■ Prevalence of low-return, low-quality informal sector jobs ■ Low accumulation of skills at work ■ Inflexible career pathways ■ Low job occupational mobility ■ Poor matching of skills to jobs 	<ul style="list-style-type: none"> ■ Diversify the economy and private sector development ■ Improve labor market information and intermediation ■ Enhance labor market regulations ■ Establish system for lifelong learning in partnership with the private sector 	<ul style="list-style-type: none"> ■ Increased labor incomes and poverty reduction ■ More flexibility to adapt to technological change
Gender disparities in terms of access to opportunities and distribution of care responsibilities	<ul style="list-style-type: none"> ■ Underutilization of women's human capital in the economy ■ Unmet needs of adolescents and youth on their reproductive health and rights ■ Low female ownership of productive assets ■ Barriers to participate in the labor market and increase financial/economic inclusion 	<ul style="list-style-type: none"> ■ Improve girls' access to education ■ Enhance adolescent health ■ Increase the economic and social empowerment of women ■ Remove legal barriers ■ Change social norms ■ Promote female entrepreneurship by improving women's access to finance 	<ul style="list-style-type: none"> ■ Full utilization of women's human capital ■ Improved demographic dividend ■ Reduced violence against women ■ Improved equity ■ Greater resilience
Underutilization of older cohorts' skills	<ul style="list-style-type: none"> ■ Tendency to drop out of the labor market relatively early due to poor health ■ Limited transfer of job experience to younger cohorts ■ High dependency rate 	<ul style="list-style-type: none"> ■ Improve primary health and preventive care access and affordability ■ Improve the safety and accessibility of jobs ■ Scale up apprenticeship programs and social pensions 	<ul style="list-style-type: none"> ■ Reduced vulnerability ■ Enhanced income security ■ Better transfer of knowledge and competencies

to jobs. When new entrants to the labor market must wait for extended periods to get their first job and have to accept jobs that may not be reflective of their skills, there is a depreciation of human capital gained through education, reducing people's life-long earnings prospects.

To address low youth employment, the government needs to ensure greater integration between education/professional training (including remedial education for underperforming youth), the private sector, and social safety nets. For example, there could be a greater focus on supporting the informal sector in hiring young graduates. In Mauritania,

there are many young people with the potential to utilize their human capital effectively by creating enterprises, but they lack access to credit. To increase access to financing, the PEJ is providing seed funding for vulnerable youth entrepreneurs. This initiative needs to be evaluated, and the insights should inform efforts to scale similar type of programs. The government could further consider introducing employment subsidies so vulnerable groups such as youth or women could gather first work experience (see [box 4.1](#)). Even though there are programs in Mauritania that cover the cost of training or the provision of start-up kits (World Bank 2017b), subsidies to employers have not yet been evaluated.

Many prime-age working adults in Mauritania fail to be fully employed, and those who do suffer from low labor productivity, reflected in low earnings. Relatively flat age earnings profiles suggest lack of on-the-job skills acquisition and continued poor matching of jobs, and there are large regional differences in employment rates and earnings. The authorities could potentially enhance workers' labor market experience through better labor market information systems, enforcement of existing laws protecting workers, and a focus on boosting productivity by promoting sectors with promising potential. Migration management and policies to facilitate the mobility of workers could also address spatial mismatches. Strengthening opportunities for formal wage employment entails a two-pronged approach: (1) enhancing job creation incentives for short-term impacts, and (2) reforming labor regulations to improve jobs over the mid to long term. Restructuring labor regulations to improve prospects for the 84 percent of the workforce located in the informal sector will be critical. Key issues that remain include ensuring that employment contracts and social security policies facilitate a gradual transition from precarious jobs to employment with working conditions and incentives adapted to a modern, inclusive economy. Increasing

Box 4.1 Experiences with employment subsidies for vulnerable populations: lessons from Jordan

Global experience suggests that employment subsidies for hiring vulnerable groups such as youth and women may be a cost-effective and well-targeted tool to facilitate entrance into the labor market. The target populations for subsidized employment programs tend to be more-vulnerable youth and those who need assistance to overcome labor market frictions. While these programs have traditionally focused on the formal sector, subsidizing employer social security contributions, recent experiences have looked at the potential for the informal sector. Subsidizing initial employment offers a chance for vulnerable groups to gain work experience and demonstrate their productivity to employers who might be underestimating it (e.g., because of social norms).

As an example, Jordan's New Opportunities for Women (Jordan NOW) pilot offered a wage subsidy voucher to reduce the cost of employing women. Employers may see females as having a higher probability of leaving early, which lowers any estimated returns from training them and from the experience females accumulate over their tenure with the employer. If the expected benefit is lower, wage subsidies can keep the expected return of investing in female employees positive by partially offsetting the costs of employing them. Community college graduates were given a nontransferable job voucher that they could take to a firm while searching for jobs. The voucher paid employers the minimum monthly wage for a maximum of six months if they hired the worker. A randomized controlled trial evaluating the program found that the wage voucher led to a 38 percentage point increase in the short run (Groh et al. 2016). In this particular case, the evaluation finds that the program did not lead to long-term employment increases, as productivity levels remained below the binding minimum wage for college graduates. This highlights that employment subsidies can be an interesting tool to offer initial work experiences but need to go hand in hand with a strong and relevant education system to prepare productive workers.

transparency in recruitment for public jobs is also necessary, as nepotism remains the general rule, preventing the efficient use of human capital and discouraging applications.

Promoting green jobs could also improve productive employment prospects. Transitions to green jobs affect close to 3 percent of employment in emerging markets.¹⁹ For Mauritania, an analysis of the green economy could provide additional insights on how to harness skills associated with traditional knowledge in rural areas to improve the utilization of existing human capital. These green jobs focus on conservation, resource management, and climate resilience, safeguarding rural livelihoods, and increasing incomes in rural areas. The government can play a vital role in supporting these types of jobs (IFAD 2023; UNCCD 2020). Moreover, the green economy could offer a new niche for young people and women to specialize (box 4.2). This could entail further developing organic agriculture, particularly in rural areas; but would require vocational training centers providing more support and training for women.

Improving women's participation in the labor market requires the adoption of multisectoral policies. Low employment rates for women and the poor quality of jobs available to them reflect labor market barriers facing women and girls and low investment in their human capital. No country can reach its full potential unless it utilizes the talents, skills, and energy of women in the economy. In Mauritania, efforts to improve women's labor market participation include (1) ensuring better adaptation of the education sector to gender-specific constraints to complete their education, (2) integrating labor market programs with safety nets to create additional incentives to complete schooling (e.g., through conditional cash transfers), (3) improving

access to primary health, (4) implementing incentives to prevent child marriage, and (5) empowering women to establish their own businesses and providing them with nontraditional skills. Priorities include interventions focusing on skills, financing, and behavior (World Bank 2017b).

There needs to be better targeting and delivery of lifelong education support to young women, driven by private sector demand. The authorities need to ensure that financial instruments reach women and provide them with better access to bank accounts, access to mobile money, and alternative forms of collateral. This can be supported by leveraging solutions that utilize information and communication technologies. To address important constraints related to social norms, the government needs to support behavioral change among Mauritians by, for example, raising awareness of opportunities available to women; ensuring greater legal enforcement of restrictions on child marriage and sexual harassment; enhancing the visibility of advances made by Mauritanian women; increasing the public participation of women at all levels of society; and providing services such as household-based counseling.

While Mauritania is a young country (with half its population below the age of 20), it needs to ensure the full utilization of older workers' human capital. Mauritania's population over age 60 is expected to grow rapidly in the coming decades, tripling between 2020 and 2050. Despite this growth, few policies are implemented designed to support older populations. Further, little research in economics has specifically examined aging in Mauritania, though many opportunities exist for economists to generate research evidence to inform the design of effective policies in this area. Despite no income security in old age, workers in Mauritania tend to withdraw from the labor force relatively early, reflecting their deteriorating health and the prevalence of jobs not suitable for older workers. Better public health care and preventative programs could

¹⁹ Source: International Monetary Fund PowerPoint presentation made to September 2023 meeting of the Senior Gender and Inclusion Advisory Group.

Box 4.2 Approaches to estimate the potential of green jobs

The International Labour Organization (ILO) and the Organisation for Economic Co-operation and Development (OECD), along with many countries around the world, are developing methodologies to estimate the scale of labor reallocation from polluting industries to new green occupations. The ILO (2011) adopts the direct carbon emissions per unit of value as a proxy to classify high (or low) carbon-intensive sectors as those above (or below) the median of carbon dioxide emissions across industries. The OECD (2012) classifies polluting industries by using carbon dioxide emissions intensity to help identify the top 10 polluting sectors that are most likely facing the strongest structural adjustment pressures. The United Kingdom uses greenhouse gas and carbon dioxide emissions intensity as the level of emissions per unit of economic output, while the US Energy Information Administration applies carbon intensity as the amount of carbon by weight emitted per unit of energy consumed. The Emissions Trading System of the European Union uses a list of specific sectors based on the rate of direct emissions plus emissions derived from electricity consumption (in kilograms of carbon dioxide), divided by the gross value added of those sectors. Finally, Statistics Canada utilizes a measure of the economywide effect on energy consumption or greenhouse gas emissions brought about by a change in the demand for an industry's output. In most countries—including in Mauritania—the most polluting industries are often in the energy, transport, intensive agriculture, and manufacturing sectors.

A growing number of national governments are developing their own definitions of green jobs. The US Bureau of Labor Statistics use two different approaches: (1) an output approach, which identifies jobs in businesses that produce goods or services that benefit the environment or conserve natural resources; and (2) a process approach, which identifies jobs in which workers' duties involve making their establishments' production processes more environmentally friendly or use fewer natural resources. Of 1,500 occupations, the US Bureau of Labor Statistics has identified 127 as green. In Germany, the definition of green jobs refers to "employees who produce environmental goods and services, or employees involved in environment-related activities." Other countries such as France do not have an official definition of green jobs, even though the country's statistical agency reports on green employment counts. China in 2010 defined green jobs as those related to the development of a low-carbon, environmentally friendly economy, including low-carbon development and environmental protection. In 2008, the ILO, in cooperation with the United Nations Environment Programme, the International Organisation of Employers, and the International Trade Union Confederation, developed a broad industry-based definition of green jobs and stipulated that green jobs must also offer adequate wages, support workers' rights, and offer safe working conditions. China's green occupations accounted for 7.03 percent of all jobs and totaled about 54.42 million in 2015; these occupations are projected to double by 2035.

Source: World Bank 2021e.

help the older population stay healthy and retain their productivity. Moreover, Mauritania should consider implementing a retirement scheme and

sustain efforts in scaling up health insurance to support the older workforce.

5 Assessing the strengths and gaps in protecting human capital

Key messages

- Mauritanian households are highly exposed to individual- and population-level shocks that affect the accumulation and utilization of human capital. These shocks are likely to be further amplified by climate change, food insecurity, and greater volatility in the global economy as well as increasing insecurity in the Sahel region.
- Households' coping mechanisms in the event of a shock often have negative effects on human capital.
- An effective and comprehensive adaptive social protection system can protect households from individual- and population-level shocks. The government has made significant investments and advances in strengthening its adaptive social protection system.
- To enhance the protection of human capital, human development-related service delivery needs to become more adaptive and resilient, which will require further investments in data and information, such as early warning systems, delivery platforms, tools, and coordination.

This chapter provides an overview of various shocks affecting Mauritania, responses to those shocks, and options to strengthen social risk management to prevent negative coping strategies.

Human capital risks and policy responses

Understanding the types, complexity, interaction, and drivers of concurrent shocks is critical to developing a prevention, preparedness, and response strategy. An effective response to shocks considers various needs and ensures the appropriate timing, scale, design, and delivery of response measures. In the Sahel region, overlapping dynamic covariate shocks are characterized as either slow and rapid shocks, which are predictable and recurrent; and unpredictable shocks, many of which individually or concurrently lead to protracted crises. There are also shocks that are idiosyncratic—specific to a household such as illness of a family member.

Traditionally, Mauritians have relied on strong family and community ties to weather shocks. These types of informal safety nets are, however, increasingly under stress and are unable to efficiently cope with covariate shocks. The COVID-19 pandemic reversed progress in poverty reduction with an increase of extreme poverty to 6.1 percent in 2020, and of the overall poverty rate to 33.6 percent in 2021 (World Bank 2022d). As a result, households often rely on coping strategies that can lead to losses in human capital accumulation or utilization, such as taking children out of school or reducing the nutritional content and quality of foods consumed; or strategies that can impoverish households, such

as herders decapitalizing livestock, leading to a collapse of livestock prices.

Climate-related disasters are particularly prevalent in Mauritania, which is located between an expanding desert and an eroding coastline.

The livelihoods and food security of Mauritians—especially those who rely on livestock rearing, agriculture, or fishing or live in precarious informal urban settlements—are jeopardized by encroaching desertification, rising temperatures and ocean levels, warming seawater temperatures, ocean acidification, biological overexploitation of fish stock, the increasing scarcity of water, and flash flooding, coupled with the greater regularity and intensity of drought and soil erosion. In 2022, Mauritania experienced one of the worst lean seasons since 2012: over 875,000 people (20 percent of the population) were considered in crisis in terms of food and nutritional insecurity;¹ this was more than twice as many as in 2021, and was due to a combination of drought and global price pressures. Mauritania also experienced some of its worst flooding in 2022 because of strong and erratic rainfall, which affected nearly 40,000 individuals and destroyed 3,800 buildings, mostly in the poorest areas of the country (World Bank 2023d). It led to disruption or destruction of roads, water, and sanitation infrastructure; schools; health facilities; and more.

Climate change will likely aggravate current trends, especially considering the gaps in the country's preparedness.²

Annual mean temperatures have already increased in Mauritania by approximately 3.1°C since the 1950s, and the country ranks 145th out of 185 countries on the Notre Dame Global

¹ Source: United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Reliefweb, [Mauritania: Drought - Jun 2022](#).

² Mauritania is likely to experience an increase in average temperatures of 2.0°C to 4.5°C by 2080 relative to preindustrial levels (AGRICA 2021). The number of very hot days (maximum temperature above 35°C) is projected to increase substantially, with the southwestern areas reaching about 300 very hot days by 2080.

Adaptation Index,³ behind many peer countries in the region such as Ghana, Senegal, Côte d'Ivoire, Morocco, and Algeria. Mauritania is among the countries most vulnerable to climate change, and its level of preparedness for climate change is lower than the average of peer countries. The World Bank (2022e) predicts that Mauritania's gross domestic product (GDP) will be reduced by 2.8 percent by 2030 due to climate change impacts, with an amplification of economic losses by 2050, if urgent investments in climate adaptation are not implemented.

The main shocks reported by households relate to agropastoral activity and include the loss of cattle, drought, and floods.

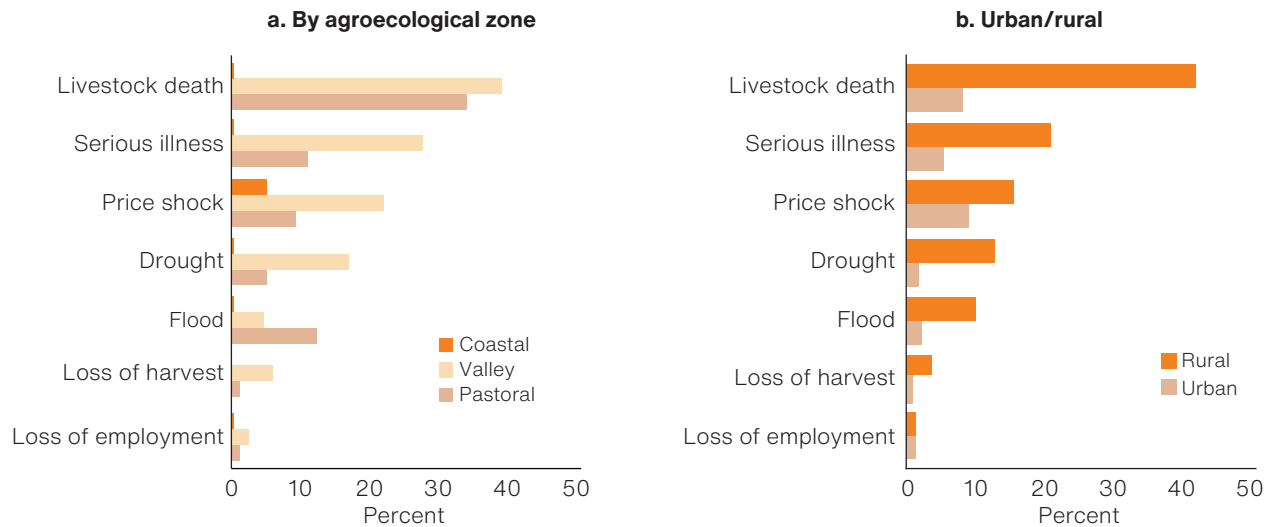
Almost half of all households and two-thirds of rural households report having experienced shocks over the previous year ([2017/18 Resilience Index Measurement and Analysis Survey](#)). The most prevalent are idiosyncratic shocks, especially serious illnesses in the household or loss of cattle;⁴ followed by covariate shocks, such as floods and drought.⁵ Poverty rates among pastoral households can increase by up to 27 percent during periods of drought (World Bank 2022c). Households located in inland regions are more affected by shocks than households in coastal zones ([figure 5.1](#)). While rural households are more likely than their urban counterparts to suffer weather-related shocks, people living in urban areas are also at risk, as they rely on livestock as a mechanism to accumulate wealth.

³ The [Notre Dame Global Adaptation Index](#) shows a country's current vulnerability to climate disruptions and assesses its readiness to leverage private and public sector investment for adaptive actions.

⁴ Many rural households regularly deal with zoonotic diseases that kill livestock and pests decimating crops. Mauritania is a breeding ground for desert locusts and grasshoppers.

⁵ One of the main challenges in Mauritania is the scarcity of freshwater resources both for human consumption and agricultural activities. The country consistently experiences large variations in precipitation.

Figure 5.1 Mauritanian households, regardless of location, are affected mostly by agropastoral and climate shocks



Source: Based on data from the [2017/18 Resilience Index Measurement and Analysis](#).

Using traditional mechanisms to optimize the use of scarce resources, such as internal and cross-border migrations by livestock farmers, has become more difficult. Livestock farmers have traditionally practiced internal and cross-border migration to optimize access to water and pasture, regularly crossing the border with Mali and Senegal. However, these movements have been hindered by violent conflicts and climate change (IOM 2020). As a result, many livestock farmers have abandoned their traditional livelihoods and have instead migrated to urban centers—specifically the capital city of Nouakchott, which now accounts for half of Mauritania’s urban population. However, a large part of the city is located below sea level (42.9 percent), and the quality of its housing stock and infrastructure makes it highly vulnerable to rising sea levels, more frequent and intense flooding, and extreme weather events. These topographic challenges are aggravated by uncontrolled infrastructure building and inadequate drainage systems. The lack of sanitation infrastructure and urban waste management makes urban groundwater supplies particularly vulnerable to floods and other shocks.

Higher temperatures will reduce productivity due to heat stress and increase production costs; and they can severely affect learning, worsening the environment for building human capital. The effects of higher average temperatures on labor heat stress, human health, and the availability of water and sanitation all directly affect the economy, primarily through labor productivity. Moreover, inland flooding, sea level rise, and soil erosion directly affect the use and availability of capital goods. The shock of higher temperatures on productivity can be as large as 15 percent by 2050, depending on the scenario (ILO 2019). Lack of safe drinking water is likely to contribute to local outbreaks of water- and vector-borne diseases in addition to causing food shortages and malnutrition in children (UNICEF 2022), negatively affecting children’s learning outcomes (Pabalan et al. 2018; Goodman et al. 2018). Floods and storms could directly damage school buildings and other assets, interrupt education, and reduce access to health facilities. Periods of drought can also require children and young adults to spend more time tending to family farming operations, hampering learning.

Mauritania imports more than half of its staple foodstuffs and struggles with high trade costs.

The country is self-sufficient in the production of red meat and fish, but imports 60 percent of staple foodstuffs, especially rice, vegetables, sugar, and cooking oil.⁶ Price shocks are widespread and affect most households, even though not all are suffering to the same degree. Variations in the international price of basic foodstuffs are worsened by high trade costs. Despite declining over time, aggregate trade costs in Mauritania remain the highest among peer countries (such as Senegal, Morocco, or The Gambia; see World Bank 2020a). Long distances and the high cost of transportation limit the integration of products and labor markets. Every spike in international prices of basic foodstuffs is thus multiplied by high transaction costs, leading to drastic cuts in the purchasing power of households and undermining their food security and nutrition.

The country's dependence on natural resource revenue and imports of basic foodstuffs makes it extremely vulnerable to changing world prices of basic commodities.

The real exchange rate in Mauritania is overvalued due to limited exchange flexibility and ineffective monetary policy (World Bank 2020a). This is coupled with financial vulnerabilities that undermine economic diversification and increase the country's exposure to external shocks. High import tariffs shield domestic producers from international competition and impede access to cheap imported inputs, and they amplify the impact of changes in international markets on domestic prices. These challenges result in pervasive food insecurity in Mauritania. Every year, between 300,000 and 800,000 individuals are food insecure during the lean agricultural period; 660,000 individuals were deemed food insecure in 2022.⁷ In

2019, almost 40 percent of nonpoor households in rural areas were at risk of falling into poverty, much higher than the 9 percent of nonpoor households living in urban areas (World Bank 2022c).

Mauritania is exposed to fast-spreading outbreaks of infectious diseases because it is at the crossroads of Sahelian population movements and highly dependent on livestock.

Due to its heavy reliance on animals, many recurrent zoonoses are present in Mauritania, including rabies, Q-fever, and Crimean-Congo hemorrhagic fever. The risk of these diseases affecting the human population is high. The capacity of human health and veterinary services to handle the risk is low due to a shortage of well-qualified health and veterinary paraprofessionals, the low capacity of provincial laboratories, and lack of public awareness about human and animal health. In response, Mauritania has been investing in building a disease surveillance system to strengthen human health, animal health, and disaster response systems to ensure resilience to outbreaks and health emergencies (the One Health approach). It also helped create a coordinated approach to detecting and swiftly responding to public health threats and strengthened health information systems, which allowed the government to respond quickly to the COVID-19 crisis.

Protection against idiosyncratic health shocks is hampered by gaps in health insurance coverage.

The country's insurance schemes do not provide sufficient coverage. Neither the national health insurance scheme (covering 15 percent of the population only in the formal sector) nor the community-based health insurance scheme (covering 0.35 percent of the population) manage to cover those most in need. As a result, 1.5 percent of the population is likely to fall into poverty because of catastrophic health spending (World Bank 2022c). The costs of services and medicines are prohibitive for the

⁶ International Fund for Agricultural Development, [Mauritania](#) webpage.

⁷ Source: Integrated Food Security Phase Classification (IPC), [Cadre Harmonisé](#), 2022. During the 2012 lean season, an estimated 1 million people—nearly 27 percent

of Mauritania's total population—experienced food insecurity (van der Borgh, Ishizawa, and Lefebvre 2023).

poorest households, and making special payment arrangements or using personal connections to receive treatment is common.

The COVID-19 pandemic has negatively affected access to essential health and nutrition services.

Fear of infection and lockdown measures curtailed community-based health education, promotion, and service utilization during the pandemic. While the country developed the National Action Plan on Health Security in 2018 and is strengthening the One Health platform, the national prevention, preparedness, and response capacity assessment, using Joint External Evaluation tools, was outdated in 2017. Furthermore, the 2022 flood revealed a need for constant and timely multisectoral coordination and collaboration among multiple ministries and development agencies not only in response to emergencies but also for better preparedness at both the national and subnational levels.

Existing coping strategies to respond to shocks and human capital risks

Most households across Mauritania lack effective mechanisms to cope with shocks. Households' main self-reported coping strategies during a drought are selling household assets (29.1 percent), reducing food intake (20.5 percent), seeking help from informal risk-sharing networks (27.2 percent), increasing the supply of labor (8.3 percent), and relying on child labor (0.7 percent) (World Bank 2022c). Several of these coping mechanisms are only useful in the presence of idiosyncratic shocks. For example, it may not be possible to sell livestock or land when regionwide shocks have reduced the price of these assets. During a drought, there is a sell-off of livestock—a dangerous coping strategy that can impoverish herders because an increase in supply leads to a collapse of prices. Similarly, informal risk-sharing networks may prove ineffective

when most members of the community are affected simultaneously.

Households have traditionally relied on informal community and family networks to cope with shocks, but these traditional safety nets are unable to keep up with the high frequency of covariate events.

Informal networks remain especially common in the valley and pastoral areas, where aid from informal risk-sharing networks is the most prevalent risk-sharing mechanism (44.5 percent). However, the increased frequency and severity of covariate shocks overwhelms these networks, which have already been eroded due to social and demographic changes.⁸ In addition, informal risk-sharing mechanisms do not guarantee protection for everyone in need (World Bank 2022c).

Households exposed to sudden shocks are forced to respond primarily by using negative coping strategies.

Households that are the most vulnerable to shocks are also those that are the least equipped to invest in human capital. Only 27 percent of school-age children living in households identified as vulnerable to shocks attend a formal school; this is one-third the enrollment rate of nonvulnerable children (World Bank 2022c). As a result of the use of negative coping strategies, the cycle of underinvestment in human capital starts early in life. Acute malnutrition, which is highly correlated with shocks, is affecting 12 percent of Mauritanian children under 5 years old during the lean season, and one in five children in the country is chronically malnourished.⁹ Furthermore, the majority of the informal sector is not covered by health insurance schemes and tends to defer or forego necessary care.

⁸ Migration and changing social norms have led to shifts in household composition. The share of nuclear households has increased, which has led to more fluid community compositions.

⁹ Source: World Food Programme, [Mauritania](#) webpage.

Social risk management is necessary to reduce the negative impact of shocks on human capital. Given that both idiosyncratic and covariate shocks are prevalent in Mauritania, social insurance is needed to protect people from income loss due to illnesses, unemployment, and life-cycle events and reduce households' reliance on negative coping strategies. A public social security scheme that protects people needs to be complemented by a system of insurance mechanisms that protect productive assets (e.g., crops and livestock insurance). In addition, there is a need for adaptive social protection and resilient delivery systems to protect households from covariate shocks. [Table 5.1](#) describes the key risks for Mauritanian human capital accumulation and utilization.

Existing approaches to protect human capital in Mauritania

Supporting household resilience

Adaptive social protection programs are important to avoid the use of negative coping strategies and complement risk sharing through informal networks.

Social protection measures can help build social cohesion and maintain informal risk sharing in communities, enabling some of the most vulnerable households to access informal risk-sharing networks (de Milliano et al. 2021). Adaptive social protection systems use social protection tools (e.g., a social registry, disbursement protocols, a payment system, or a grievance redress mechanism) to respond to a shock quickly and effectively.¹⁰ Adap-

tive social protection can help improve the resilience of poor and vulnerable households to shocks by directly investing in their capacity to prepare, cope, and adapt to a crisis while building their resilience. Therefore, adaptive social protection should be at the core of strategies to protect human capital and build resilience to shocks.

Adaptive social protection programs build resilience by helping people better prepare, cope, and recover from shocks.

Preparedness relates to households' access to information and their efforts to minimize risks, such as (1) diversifying or adjusting livelihood portfolios away from sources of income that are especially vulnerable to the impact of a shock; (2) building an asset base, including productive, financial, and human capital-related assets; and (3) leveraging assets to relocate away from an area of spatially concentrated risk. A more resilient household typically has access to a range of private insurance and public social protection instruments during severe shocks. The additional income provided through regular cash transfers aims to enable poor and vulnerable households, which tend to underinvest in informal reciprocal safety nets (i.e., family and the community), to strengthen traditional coping mechanisms of self-insurance to sustain repeated shocks. In the aftermath of a shock, shock-responsive transfers support affected households in their recovery efforts and prevent them from engaging in negative coping strategies.

Historically, social safety net spending in Mauritania has been driven by the need to cope with catastrophic shocks, in particular food security shocks.

In 2013, 90 percent of spending on social safety nets was connected to a crisis response (World Bank 2014), with food transfers representing an average of 82 percent of total spending. However, the response was extremely costly and not well targeted. The emergency program accounted for almost 10 percent of total government expenditure from 2010 to 2013 and exceeded this level in 2013 (11.8 percent) (World Bank 2019c). To better

¹⁰ Adaptive social protection relies on an integrated approach based on synergies between social protection, disaster risk reduction/management, resilient service delivery, and climate change adaptation; it aims to reduce the vulnerability of the poor and vulnerable to shocks.

Table 5.1 Key risks for Mauritania's human capital accumulation and utilization

Risk factor	Impact on human capital	Importance for Mauritania
Health-related idiosyncratic shocks	<ul style="list-style-type: none"> ■ A sick family member puts pressure on the entire household, leading to the adoption of strategies that may undermine investment in or the utilization of human capital (especially of women, who are the primary care providers) ■ Multiple crises expose the population to risks of worsening health and nutrition outcomes and put health facilities under pressure to operate with elevated risks of disrupted essential health service delivery 	<ul style="list-style-type: none"> ■ The risk of serious illness is widespread in Mauritania, affecting 20% of households; a sick family member has a strong negative impact on all household members due to large out-of-pocket health care payments and lack of access to care ■ Existing disparities in service utilization may be further widened during and postcrisis ■ The already low service readiness of health facilities would further strain its capacity in the face of multiple crises
Increased frequency and severity of climatic shocks	<ul style="list-style-type: none"> ■ Droughts, which can result in famine, which in turn can hamper childhood development and lead to forced migration and displacement, lowering the utilization of human capital ■ Floods, which can result in a loss of assets, which in turn can undermine human capital investment and increase long-term health risks ■ Temperature rise, which can result in heat stress, which in turn can lead to productivity loss (livestock and labor productivity loss) and reduce learning ■ Other shocks, including pests, which can destroy crops and livestock; and pandemics, which can reduce investments in human capital and negatively affect its utilization 	<ul style="list-style-type: none"> ■ The country is exposed to regular droughts, whose frequency and severity are increasing ■ Floods pose spatially concentrated risks to Mauritania, as a large part of the capital city of Nouakchott (42.9%) is located below sea level; households in the south are also exposed to catastrophic floods due to changing precipitation patterns ■ Temperatures are expected to increase by 2–4°C by 2080 ■ Recurrent locust invasions and death of cattle due to droughts undermine rural livelihoods
Exposure to external economic shocks	External economic shocks can result in volatile budget allocations for human development sectors if the financing of these sectors is dependent on (volatile) natural resource revenue; moreover, price shocks are amplified throughout the economy, affecting growth and employment prospects, and high exposure to international food prices leads to higher inflation	In 2014, the fall in commodity prices decelerated economic growth and reduced budget allocations for human development in Mauritania; spikes in international food prices are amplified throughout the country's economy due to market imperfections and undermine food security
Prevalence of negative coping strategies	<p>Various negative coping strategies employed by households can have an adverse impact on human capital:</p> <ul style="list-style-type: none"> ■ Reducing nutrition is especially harmful for children and women and can lead to malnutrition, increased morbidities of preventable and treatable diseases, and prolonged illnesses; deferred and foregone care would cost the population and health systems more in the longer term ■ Pulling children out of school interrupts children's education (sometimes permanently) ■ Selling assets and depleting savings limit households' capacity to recover after a shock 	<p>Many Mauritanian households employ coping strategies that involve some or all of the following:</p> <ul style="list-style-type: none"> ■ Pulling children out of school ■ Relying on child labor to supplement revenue (prevalence of child labor is 4%) ■ Deferring or foregoing care ■ Cutting meals, which undermines nutritional status, especially of mothers and children ■ Selling assets (as many as a third of households sell assets when exposed to shocks)
Weakening of traditional informal safety nets	Households experiencing life cycle-related crises can rely less on support from traditional networks; high unemployment and low employment diminish the resources available to ensure household and community resilience; informal networks do not cover all in need of assistance, as they are based on reciprocity, and poor households have less to contribute	Informal networks are especially important for rural households (40% rely on them in case of shocks), and very high dependency rates in Mauritania reduce resources available for self-insurance and contribution to informal networks

respond to shocks, the national emergency program Emel was created during the 2010–11 droughts. Up until 2017, Emel was Mauritania’s largest safety net program, comprising both (1) a human component, consisting of free emergency food distribution, restocking of the country’s cereal banks, and the Boutiques Emel program, which created a network of over 1,200 shops selling basic food items at subsidized prices (e.g., wheat, rice, oil, sugar, and pasta); and (2) an animal component providing live-stock support to pastoralists. In 2017, the program was integrated into Taazour.

Mauritania has built the necessary foundation for an integrated adaptive social protection system, which includes both a regular and a shock-responsive safety net program. Currently, there are two main social safety nets in the country: Tekavoul, a regular social safety net program targeting the chronic poor; and Elmaouna, a shock-responsive program targeting the chronic and transient vulnerable poor. Tekavoul combines regular cash transfers to the extreme poor with social promotion activities and productive inclusion measures to help chronically poor households build better resilience to shocks. The coverage of Tekavoul is significant: the program currently supports 97,886 households (including 7,214 refugee households), covering 47 percent of households in the poorest income quintile. The national coverage target of Tekavoul is all extreme poor households (100,000 households). The government’s commitment to funding Tekavoul is strong and growing. At its inception in 2020, the program was entirely financed by donor resources. Since then, the government’s contribution has grown, accounting for 25 percent of the total cost of the program in 2021 and 50 percent in 2022.

Under the National Social Protection Strategy, the shock-responsive social safety net program Elmaouna is at the core of Mauritania’s adaptive social protection system. Elmaouna aims to assist poor households affected by shocks that affect their economic capacity and well-being. It follows

the principles of adaptive social protection, which means that it uses social protection tools (e.g., a social registry, disbursement protocols, data from an early warning system, and/or a payment platform) to effectively respond to shocks. Elmaouna is closely integrated with the Tekavoul program’s terms of payments and data management. It has increased significantly in size since its inception and is now also responding to predictable shocks (e.g., the annual lean season). It has cumulatively reached 168,192 households through shock-responsive cash transfers. In addition to cash transfers, Elmaouna provides access to Temwin stores (the former Boutiques Emel), which offer animal feed as well as food suitable for people, offering an integrated service point for pastoralists.

Despite the scale of the 2022–23 crisis, progress in building coordinated adaptive social protection programs has improved the coordination of technical and financial stakeholders and for the first time ensured that cash transfers reach all in need (in line with the National Response Plan). The President’s Flagship Expanded Program (Programme Prioritaire Elargi du Président—ProPEP) 2020–2023 was launched amid the COVID-19 crisis to support recovery and boost long-term inclusive growth with the protection of vulnerable populations.¹¹ There is a strong endorsement of the government and its partners’ adaptive social protection agenda and vision. In 2022–23, the government’s shock response programs Elmaouna and Tekavoul reached 75,925 households (455,550 individuals)—over 50 percent of those in need—while humanitarian partners covered the remaining gap to reach the entire food-insecure population (850,000 individuals).

The shock response system and coordination mechanisms have proven effective during the catastrophic floods in 2022. The Food Safety Commission (Commissariat à la sécurité alimentaire), the

¹¹ It also envisages fee exemption for obstetric care and is supported by funding of approximately \$50.8 million.

General Delegation for National Solidarity and the Fight against Exclusion (Délégation Générale à la Solidarité Nationale et à la Lutte contre l'Exclusion), Taazour, and the Mauritanian Red Crescent were coordinated by an interministerial committee under the leadership of the prime minister. The response was accompanied by the rapid evaluation of livelihood and infrastructure losses due to floods, which helped guide the response and assess its adequacy.¹² This assessment revealed that the response was not sufficient to cover all losses and follow-up is needed to fully recover from the effect of the floods (World Bank 2023d).

Mauritania needs to protect human capital against shocks associated with health risks, given how widespread these types of shocks are in the country.

The World Bank–supported INAYA project is working with Tekavoul and the United Nations High Commissioner for Refugees to develop the eligibility requirements for the equity bonus.¹³ These bonuses incentivize health facilities to serve poor patients and waive fees, and they enable facilities to recover the cost of delivering services to extremely poor women and children, including those among refugees and host populations. The government has also prioritized efforts to expand health insurance coverage, including among those in the informal sector. In November 2022, the government launched an insurance scheme through the National Health Solidarity Fund (Caisse Nationale de Solidarité en Santé—CNASS), which aims to cover

¹² The assessment was guided by the General Delegation of Civil Security and Crisis Management (Délégation Générale de la Sécurité Civile et de la Gestion des Crises), which benefited from technical assistance and financing from development partners.

¹³ INAYA was designed to support the implementation of the government's 2015 results-based financing strategy (Stratégie Nationale du Financement basé sur les Résultats dans le Secteur de la Santé) in two *wilayas* and the 2012 National Community Health Strategy. The results of INAYA's core activities—improving the utilization and quality of assisted births, immunization, and prenatal care—have been satisfactory and offered lessons for nationwide scale-up of results-based financing.

70 percent of the Mauritanian population not yet covered by a state-subsidized health insurance scheme, in line with the National Health Development Plan and National Social Protection Strategy. It was launched in three *mughaatas* in the Brakna region and in the suburbs of Dar Naïm and Sebkhia in Nouakchott, before being gradually extended to other regions of the country. However, important challenges remain. For example, some members of a household may fail to be included in the insurance scheme; and there is a problem of access to local health points, as opposed to access to regional hospitals, sometimes located far from their villages.

Building the resilience of delivery systems

A social registry is at the core of an effective shock response system.

Mauritania's system to respond to shocks is based on its poverty map, an initial census of poor households, and subsequent verifications. The work on expanding the country's social registry can be divided into two periods: a launch and first phase of expansion (2016–22), covering 28 percent of the population; and a second phase of expansion (2023–24), achieving the target of covering 40 percent of the population, and the start of work to update existing beneficiary information. The social registry includes complete data for 225,855 households, of which 43 percent have up-to-date records (less than three years old). The authorities have initiated efforts to update and scale up the registry to increase its effectiveness as a coordination tool for social and humanitarian programs and activities.¹⁴

The social registry is a crucial tool for the government's response during the lean season and is used by several partners. It is the main coordination tool and database to target beneficiaries, providing

¹⁴ The registry is expected to be fully updated in 2024/25, at which point it should include 300,000 households, all with up-to-date records.

reliable data to all partners involved in response efforts during the lean season (the registry is now used by 14 programs in Mauritania). The digital monitoring and payment platform developed by the social registry is further leveraged by several humanitarian partners for their cash transfer interventions during the 2023 lean season. This platform allows for the monitoring of cash transfer intervention in real time and the leveraging of the existing government contract with payment agents to distribute cash transfers.

An important link has been established through the social registry between the health insurance scheme and the social protection system. This has allowed the authorities to cover more poor households by subsidized health insurance, resulting in 100,000 new beneficiaries being included in the health insurance system.¹⁵ Some of Mauritania's successful multisectoral coordinations in shock responses are highlighted in [box 5.1](#).

Options to strengthen the protection of human capital in Mauritania

To protect human capital, public policies need to build the resilience of households; invest in the resilience, agility, and adaptability of service delivery systems; and prioritize the resilience of service delivery tools. Households need to be protected against individual- and population-level shocks; delivery systems need to be operational without disruption and able to respond quickly in times of crisis; and public service delivery mechanisms

Box 5.1 Coordinating the response to shocks

Mauritania has faced multiple simultaneous crises in recent years, including droughts, floods, and the COVID-19 pandemic. The country has been unique in how stakeholders across human development sectors have come together to jointly address these crises. These joint efforts included the following:

- A package of human development interventions combining health, education, employment, and social protection efforts, including
 - The response to COVID-19, which temporarily increased the value of cash transfers under the Tekavoul safety net to households with children below age five years and the Elmaouna program to facilitate a response to the lean season;
 - The provision of conditional cash transfers, providing a one-off financial incentive to households to have their children vaccinated; and
 - The adoption of the One Health concept aimed at employing a holistic approach and encouraging multisectoral collaboration during a response to public health emergency events, such as the outbreak of high-impact infectious diseases emerging at the interface between humans, animals (domestic and wild), and the environment.
- Integrated support for early childhood development and inclusive education.
- The use of integrated payment platforms to easily reach target beneficiaries.
- The use of integrated grievance redress mechanisms across human development sectors, such as the gender-based violence-responsive grievance redress mechanism supported through the Ministry of Social Affairs, Children and Family.

¹⁵ While an excellent starting point, beneficiaries report issues with this scheme. For instance, while the household head might be included in it, the family is not; in some cases, beneficiaries do not have access to the local health point, but only to regional hospitals that are far from their villages.

need to be designed in such a way to ensure uninterrupted access to health and education during disasters.

Human capital accumulation and protection is not only a productive investment but also critical for green, resilient, and inclusive development.

Investing in people supports the transition to a greener economy and strengthens resilience to climate change. Education for girls, together with family planning, reproductive and sexual health, and economic opportunities for women, can have a positive impact on resource use and the environment. People with good health and nutrition, relevant and adequate education, savings and alternative livelihoods, and adaptive safety nets are more likely to successfully weather a climate shock or pandemic. Service delivery systems that are adaptive and adequately staffed and supplied are also in a better position to respond to the next crisis.

Resilience of households

While Mauritania has built the necessary foundation of an integrated adaptive social protection system, it can strengthen linkages with other sectors and the agility of response efforts. The level of support and the agility of current response efforts could be improved, and response programs lack integration with the early warning system and disaster risk management. Efforts to update the social registry are under way; these are urgently needed, as less than half of its records are up to date. The lack of up-to-date records could make the social registry an unreliable tool to coordinate a response. In addition, the productive elements of the safety nets, such as their productive inclusion component, need to be better monitored and evaluated to facilitate their expansion; the multiyear financing framework needs to be clarified; and the government needs to promote the use of insurance instruments. The authorities also need to improve and expand the Taazour payment platform (including evaluating the

digital payment platform pilot) to ensure it can be successfully promoted by government agencies and nongovernment partners alike.

The country's social protection programs are undergoing a transition as the first beneficiary households are set to complete the Tekavoul program.

Following the registry update in 2023, around 20 percent of current Tekavoul beneficiaries are expected to become ineligible, and an equivalent number of new households will be enrolled for a five-year cycle (the overall beneficiary number will remain the same). This will make Tekavoul a truly dynamic program. Exiting Tekavoul households will be offered to participate in economic inclusion activities to promote a soft transition out of the program by strengthening their productive capacity and resilience. These activities will represent the first completion of a full Tekavoul cycle—from entry to exit and (re)enrollment.

Index-based insurance can support the financial resilience of households to climate shocks.

Index-based insurance schemes are private sector solutions to reduce the adverse socioeconomic impact of climate shocks. They exist at different levels, with policyholders being individuals, such as farmers who take out policies from banks; cooperatives; or microfinance institutions; risk aggregators, such as cooperatives; and governments within the international or regional reinsurance market. Mauritania has joined regional insurance mechanisms through the Africa Disaster Risk Financing (ADRIFI) program, which is part of the African Risk Capacity (ARC) initiative, to enable the country to take out an index-based insurance policy for drought risk. Index-based insurance products have traditionally focused on crop farmers, insuring a particular crop and providing a payout in case of drought based on a predefined index of drought, most commonly through satellite data (e.g., the satellite normalized difference vegetation index or satellite rainfall estimates).

Index-based insurance solutions have recently started to be developed for pastoralists to provide payouts in case of drought. Livestock farming is the dominant form of agricultural production in Mauritania, as most of the country is not arable. Like crop farmers, livestock farmers are very exposed to climate-related shocks and vulnerable to droughts. Key features of these index-based insurance schemes for pastoralists are the regular monitoring of forage availability and payouts to pastoralists and other value chain actors in the event of conditions that threaten livestock survival. Satellite observations are used to measure forage levels, which are then used to calculate potential payouts using predefined rules. Payouts are made to pastoral groups or individual households, often using mobile payment systems to maximize access, speed, and transparency. These types of schemes have recently been introduced in northern Kenya and southern Ethiopia.¹⁶

The country's health insurance scheme—key to improving resilience to idiosyncratic health shocks—has been expanding, but its current reach is small. While comprehensive health insurance is critical to protecting households (in particular poor households) against the risk of catastrophic health expenditures, Mauritania's current scheme does not adequately cover the population. Out-of-pocket health expenditures remain high, as many procedures are not currently covered by the basic insurance package. In addition, urgent investments are needed to enable households to make use of health services. Resilient health systems and health coverage require fit-for-purpose primary health facilities equipped with financial and human resource surge capacities to respond to unexpected shocks as well as improved care-seeking behaviors and user adherence to treatment. Currently, health facilities are unable to fully deliver adequate care

even in normal times and even less so in times of shocks; and the population has multiple, interrelated reasons to delay in seeking necessary care.¹⁷ They require multidisciplinary teams engaged in local surveillance and outreach activities. Such systems coordinate patients' movements through the health system, build trust-based relationships, and hold themselves accountable for the health outcomes of local communities.

Tackling high food prices for the urban poor will require ensuring coordinated action between improving the substitutability of domestic rice production and enhancing the competitiveness of the rice importation market. High food prices and amplification of global price volatility negatively affect the poor and vulnerable, especially in urban areas, and there is a strong case for further investigating and addressing the indications of market domination and uncompetitive practices that appear to influence price levels. At the same time, the government's import substitutability program could reduce the country's food import dependency, creating a buffer against food insecurity when world food prices are high. This would require efforts to support producers in quality-enhancing initiatives across the value chain and longer-term efforts to facilitate the pro-poor extension of small-scale irrigation.

Resilience of delivery systems

To better protect human capital, Mauritania needs to move toward building agile, resilient, and adaptive human development delivery systems. These systems (1) can expand and contract quickly in response to shocks, including the disbursement

¹⁶ International Livestock Research Institute, [Index-Based Livestock Insurance](#), 2022.

¹⁷ Health facilities often lack equipment, space for consultation, and human resource competencies to deliver health services: only 67 percent of facilities provide family planning, 58 percent provide the basic package of prevention services for children, and 69 percent provide assisted delivery services ([ONS, MS, and ICF 2021](#)).

protocols; (2) promote interoperability and the capacity of local stakeholders to make decisions in response to changing conditions, along with ensuring effective coordination; and (3) effectively use data and technology.

To support those affected by shocks and ensure access to services in case of covariate shocks, human development systems need to be integrated and their service delivery needs to be resilient.

Systems without these features risk service delivery disruptions, compounding the impact of shocks. For example, when targeting is based on a social registry that is not dynamic (i.e., a social registry that is not regularly updated), households newly exposed to shocks may not receive assistance.

In terms of health systems resilience, it is important to follow the “5s” concept: staff, stuff, space, systems, and social support.

To build resilient health systems, it is important to (1) build health foundations (human resources for health, infrastructure, equipment, medicines, etc.) to effectively manage routine demand regardless of shocks; (2) improve service readiness for continuous service delivery; (3) improve health systems and networks (organization of services); (4) collaborate with other sectors such as disaster risk management and civil protection agencies; and (5) strengthen basic infrastructure systems (electricity, transport, water, telecommunications).

The Mauritanian authorities have made concerted efforts to address weaknesses in the country’s capacity to deliver primary health services.

A results-based approach is expanding to strengthen health service delivery. The COVID-19 pandemic response and the successful vaccination campaign, together with the implementation of health-related conditionalities to strengthen the link between the provision of health services and social safety net programs, show the path toward further improvements in the resilience of service provision, with a focus on the poor and vulnerable. For example, the

COVID-19 project enabled the country to immediately respond to COVID-19 outbreaks and conduct intensified COVID-19 vaccination campaigns nationwide with timely acquisition of COVID-19 vaccines. The project supported strengthening surveillance and diagnostic capacity. The project also supported COVID-19 vaccination campaigns and routine vaccination, which boosted overall COVID-19 vaccination coverage. The project further supported strengthening the prevention and preparedness capacity to strengthen the disease surveillance information management system at the decentralized level, and included training for health workers in treating gender-based violence survivors and providing them with psychological support, given the elevated risks of gender-based violence during and postpandemic with strained financing at households.

The Regional Disease Surveillance Systems Enhancement Project Phase III (REDISSE III) is another example of strengthening the national and regional intersectoral capacities for disease surveillance and epidemic preparedness, and rapid response in the event of a health crisis.

The project has supported the government in setting up a One Health platform to promote cooperation between environmental, animal, plant, and human health agencies to prevent and control zoonoses. The platform has managed several outbreaks, including COVID-19, Rift Valley fever, Crimean-Congo hemorrhagic fever, avian influenza, and polio. Other major achievements include reinforced capacity of laboratories, establishment of a community network in nine regions, setting up sentinel herds for hemorrhagic fever surveillance, reinforcement of the Kobo toolbox real-time information system, and acquisition of a mobile veterinary clinic. Additionally, multidisciplinary rapid response teams were trained.

Education systems that ensure that learning can happen anywhere are more resilient to crises.

Building these types of education systems requires expanding accessible digital learning platforms at schools and investing in information systems to

track the enrollment and retention of at-risk students and engage citizens. In a resilient education system, teachers need to know how to employ distance learning platforms and tools to reach students in their households. The COVID-19 pandemic offered an opportunity to make the delivery of education more resilient. In response to the pandemic, Mauritania introduced distance learning programs through radio and TV broadcasts and digital learning platforms. However, these tools were often inaccessible due to the unavailability of the Internet and a lack of television sets, particularly among poor families.

The authorities need to improve the resilience of service delivery infrastructure to ensure it can function despite more frequent and severe climate-related shocks. For instance, 15 health facilities were severely affected by the 2022 floods in their infrastructure and equipment, which disrupted their health service delivery.¹⁸ Efforts to improve resilience include reducing delays in public service delivery in the aftermath of a disaster (World Bank 2020b). Enhancing the resilience of infrastructure is not limited to improving facilities. It also includes developing plans for business continuity, emergency response, and reconstruction. The objective is to improve existing facilities to ensure they can support contingency measures included in continuity and emergency plans (e.g., providing shelters or relocating classrooms in the case of schools). These plans define the decision-making process, stakeholders, roles, and resources required during an emergency or crisis. Reconstruction planning considers the sector's capacity to assess the impact of disasters, derive evidence-based data from infrastructure failures, and integrate findings into the reconstruction strategy. This would ensure that reconstruction planning contributes to accelerating

the implementation process, maximizing investment efficiency, and reducing the vulnerability of infrastructure to future hazard events.

Better preparing for increased frequency and severity of climatic shocks

Climate change has already started to deeply affect the livelihoods and economic prospects of the Mauritanian population. Even through the country has made progress in building social protection programs that can adapt to climate change, more efforts are needed to integrate these programs into a coherent social protection system. The absence of nationally approved and multisectoral standard operating procedures describing how social protection programs and delivery mechanisms will be leveraged in case of emergencies is a major challenge across Sahel countries. Standard operating procedures need to define (1) triggers for expansion—based on, for instance, information provided through early warning systems; (2) agreement on the program(s) to be scaled up or adapted in case of a shock; (3) transfer amounts to be provided; (4) transfer modalities; (5) the targeting methodology and tools (e.g., building on Cadre Harmonisé and early warning system data or the social registry); (6) overview of roles and responsibilities; and (7) ways to scale up human resource capacity where needed. Establishing these procedures is important to reinforce shock-responsive social protection systems, as they can ensure a more agile, efficient, and coordinated response and avoid delays.

In Mauritania, the Food Security Monitoring Survey is conducted twice a year and provides first-hand information on the country's food security situation for planning interventions. However, these surveys are mainly focused on monitoring the cereal production deficit. This limits their effectiveness because the proportion of households dependent on the external market for food security is larger than the

¹⁸ The stagnated water throughout the cities and the absence of a solid and liquid sanitation system further elevated risks of waterborne diseases. Cases of Rift Valley fever and Crimean-Congo hemorrhagic fever were recorded.

share of households dependent on agricultural production. The timing of surveys is also not ideal to support calibration of the forecast model developed in collaboration with the government and the World Food Programme. Moreover, the Food Security Monitoring Survey does not analyze urban vulnerability and does not consider livestock, even though its contribution to food security is very high in Mauritania.

New approaches offer a promising way to strengthen the use of data for early warning.

The catastrophe risk model developed by Blanchard et al. (2023) can produce fairly accurate food-insecurity predictions for the lean season early in the agricultural season (October–November), which translates to six to eight months before the start of the lean season. Applying this model to estimating the risk of food insecurity at the household level shows that 31 percent of households in rural Mauritania have at least a 50 percent chance of being food insecure in any given year. The accuracy of this new approach represents a clear improvement in the existing (largely qualitative) early warning system used in Mauritania and other countries in the region. The model could feed into early warning systems to support intervention planning and inform the design and targeting mechanisms of early response programs that prevent the negative effects of shocks on the vulnerable.

Based on the lessons learned from its shock responses, Mauritania can further strengthen its adaptive capacity.

At the next stage, it will be important to update and strengthen the legal and institutional framework for risk management and emergency response to have effective management and decision-making tools and mechanisms in place. The establishment of a unified legal framework for disaster preparedness and response will be particularly sought to ensure a more consolidated and coordinated response of the various institutions. It will also be important to update outdated contingency plans and develop a new national multi-hazard contingency plan. There is also a need to

strengthen the integration of risk reduction into sectoral development policies and strategies to better understand risks, implement adaptation and/or reduction measures, and better protect against future disasters. This will include the development of a national disaster risk reduction program; the revision or development of industry codes and standards; and ensuring that climate risks are better taken into account in land use planning, particularly urban planning. Finally, it will be useful to set up awareness-raising programs on the risks of floods and droughts, to be disseminated to the most-vulnerable and exposed populations, local authorities, and officials of ministerial departments.

Financing mechanisms for preparedness and response to climate-related events

To improve Mauritania’s resilience to future shocks, the authorities need to ensure financial instruments can be deployed rapidly at the onset of a crisis.

These instruments could include contingency borrowing, sovereign wealth funds, and other crisis response vehicles. There is also a need for careful fiscal management, including medium-term expenditure frameworks for planning and debt sustainability analysis. Beyond direct financial planning, adequate preparation could involve regulatory adjustments and national and international cooperation on forward-looking strategic planning.

The government has taken steps to create innovative ways to finance the country’s adaptive social protection programs.

It has been working on operationalizing the Shock Response Framework (Dispositif National de Prévention et de Réponse aux Crises Alimentaires et Nutritionnelles—DCAN) since it was approved by decree in December 2022. The framework was used for the first time in 2022 to oversee the preparation of the national response plan for the lean season as well as its implementation. The government also adopted the

decree establishing a National Fund to Respond to Food and Nutritional Insecurity (Fond National de Réponse aux Crises Alimentaires et Nutritionnelles—FNRCAN) in May 2022 and is currently working on operationalizing the fund through the preparation of its operation manual (van der Borght, Ishizawa, and Lefebvre 2023). Prior to the FNRCAN, the response to food-insecurity crises was largely financed through ad hoc donor support, with the risk of potential overlaps or redundancies in donor support. The financial credibility of the FNRCAN relies on its ability to efficiently and transparently channel funds with a measurable impact.

The new mechanism effectively combines national budget contingency resources and development partner contributions within a harmonized framework. By bringing all resources under a unique dedicated fund with its own operational manual, the FNRCAN provides a clear, rule-based mechanism for allocating, disbursing, monitoring, and auditing funds. The fund also ensures a coordinated multiyear approach among government entities and (inter)national humanitarian and development partners, further reducing transactional costs and improving efficiency. As a separate financing vehicle

to absorb the costs associated with food-insecurity crises, the FNRCAN mitigates climate risks within the broader fiscal risk management strategy of the government. By acting as a buffer for government expenditure, it helps safeguard programmed investments in social sectors from emergency budgetary reallocations.

It is important to deploy and evaluate the results of the new financing instrument.

The FNRCAN is planned to be used for the first time during the 2023 lean season; this is expected to provide important technical lessons to expand its use in subsequent years. Further expansions of the FNRCAN manual will consider national response plan activities beyond cash transfers (the focus for the first year), including food, nutrition, and livelihood programs. It will also be important to ensure the appropriate coordination of the fund with other financing instruments, in particular climate-related insurance such as the ARC initiative.

6 Conclusions

Mauritania is facing serious challenges in making human capital the main engine of its sustainable inclusive growth. It is not creating enough human capital, not utilizing what it has, and is losing some of it because of a lack of protection against shocks. Most of the issues identified in this review are cross-sectoral by nature, and overcoming them will require coordinated multisectoral programming and monitoring.

Low and poorly coordinated investments in young children and their mothers produce poor early childhood development outcomes and low learning outcomes. Mauritania's challenge to build human capital starts with prenatal and postnatal early childhood. The maternal mortality rate is high: almost one-third of all deaths of women of reproductive age are due to pregnancy-related complications. Recent estimates suggest that there has been an increase in childhood stunting, making malnutrition and stunting a multisectoral priority. Lack of cognitive and behavioral development in early childhood leads to low learning outcomes. The education system is not geared toward learning, compounding the deficit in human capital, and resulting in children who lack fundamental skills.

To better build early childhood human capital, it is essential to address barriers to accessing social services, improving service availability and quality, and bridging urban-rural disparities. Performance-based financing mechanisms adopted

by the Ministry of Health can incentivize health workers to serve in rural areas. To improve child health and nutrition, Mauritania should urgently implement measures targeting undernutrition among children below age five, including by adopting a package of interventions that include cash transfers and nutritional supplements. To enhance child education and development, caregivers need to be empowered to stimulate children's cognitive and behavioral development. Lessons from the Tekavoul program, which has successfully induced behavior change and increased parent-child interaction, could inform other national programs. The introduction of a package of interventions to improve teaching practices and pedagogy is needed to urgently address some of the learning deficits.

Mauritania is not fully utilizing its human capital, despite potentially significant returns. Indexes corrected for utilization are showing that less than one-half of available human capital is utilized. The transition from education to jobs is difficult due to a lack of labor demand and a mismatch between what is needed in the economy and the competencies and qualifications provided by the education system. Increasing numbers of women decide not to join the labor force, leaving the country with an untapped source of development and prosperity. Those who manage to find employment are not fully utilizing their earning potential since they are mostly employed in low-productivity precarious jobs in the informal sector. There is a worrying trend of

increasing inactivity and stagnating earnings, leading to the human capital value per capita shrinking and losing its role as an engine of growth. Strengthening ongoing initiatives—for example, reducing the fragmentation of labor market programs for youth and bringing those initiatives to scale based on rigorous evaluation—is needed to address underutilization.

Mauritania can better protect its human capital from shocks, which are increasingly frequent and severe.




About half of Mauritania's households report facing shocks on a recurrent basis; extreme climate events make close to a million Mauritians food insecure every year. The most common coping strategy reported by households is selling assets or reducing food intake—compromising future recovery and human capital investments. Mauritania has created foundations of an effective and comprehensive adaptive social protection system that can protect households from shocks. To further enhance the protection of human capital, human development-related service delivery needs to become more adaptive and resilient; this will require further investments in data and information, such as early warning systems, delivery platforms, tools, and coordination. Testing the effectiveness of the innovative financing mechanism that was recently put in action will be needed to strengthen its future role.

This human capital review provides a broad overview of the issues pertaining to building, utilizing, and protecting human capital—however, it should only be seen as the first analytical piece. [Table 6.1](#) offers concrete actions for the key issues identified in this review to be implemented in the short run (next year) to medium run (next two to five years).

Important knowledge gaps remain that need to be addressed in future work. For example, Mauritania's Human Capital Index is based on data that are obsolete and require updating: the data underlying the harmonized test to assess the quality of education date from 2004. Better data will allow for better monitoring of policies. In addition, further work is needed to identify better concrete policy options. These include the following:

- **A comprehensive job diagnostic.** Such a diagnostic is needed in order to identify the potential of job creation in specific sectors, actions needed to spur growth, and the gaps in human capital to fully capture this potential.
- **Political economy analysis or sectoral analysis (health, education).** Given the complex institutional landscape of each sector, it is necessary to better understand incentives of service providers in order to achieve better performance.
- **In-depth diagnostics on human capital and climate change adaptation.** Given that Mauritania is one of the countries most affected by climate change, it is necessary to understand the factors of resilience in the provision of services, and the role of human capital in better adaptation and in capturing the potential of the green economy in generating jobs.

Table 6.1 Operationalizing the policy recommendations

	Key issue	Concrete next action	Proposed lead agency	Time frame for implementation
Building human capital 	High maternal mortality rate and poor maternal health outcomes	Increase the availability and quality of health services through performance-based financing	Ministry of Health	Short to medium term
		Political economy analysis or sectoral analysis (health, education)		Short to medium term
	Poor child health and nutrition outcomes	Consider direct provision of nutritional supplements to malnourished children	Ministry of Health, Taazour (for safety net beneficiaries)	Short to medium term
	Low learning outcomes	<ul style="list-style-type: none"> ■ Offer Tekavoul social and behavioral change messages to wider population ■ Introduce package of integrated interventions to improve teaching practices and pedagogy 	Ministry of Education	Short term
	Child protection	Define registration options for children not born at health facilities	ANRPTS	Short term
Utilizing human capital 	Transition from education to work	Consider using the cloud-based management information system of the Youth Employability Project (PEJ) as a platform for intermediation		Short term
	Underutilization of human capital by prime-age workers	Conduct a jobs diagnostic		Short term
	Gender disparities in terms of access to opportunities and distribution of care responsibilities			
	Underutilization of older cohorts' skills	Conduct more work on implications of Mauritania's aging labor force and suitable policy solutions		Medium term
Protecting human capital 	High vulnerability to health-related idiosyncratic shocks	Expand the universal health coverage scheme and increase coverage to reduce out-of-pocket spending	Ministry of Health	Short to medium term
	Increased frequency and severity of climatic shocks	Improve early warning systems and ensure they are integrated with emergency response protocols and financing instruments to effectively respond to emergencies		Short to medium term
		Conduct in-depth diagnostics on human capital and climate change adaptation		Short to medium term
	Prevalence of negative coping strategies	Complete the first transition in and out of the Tekavoul program and expand its productive economic inclusion elements	Taazour	Short to medium term

Note: ANRPTS = National Agency for the Population Register and Secure Documents (Agence nationale du registre des populations et des titres sécurisés).

Utilization-Adjusted Human Capital Index

A main limitation of the Human Capital Index (HCI) is that it implicitly assumes that when today's child becomes a potential worker, she will be able to find a job—which may not be the case in countries with low employment rates. Moreover, even if today's child is able to find employment in the future, she may not be in a job where she can fully use her skills and cognitive abilities to increase her productivity. In these cases, human capital can be considered underutilized, because it is not being used to increase productivity to the extent it could be.

To account for the limitations of the HCI, a complementary index was developed: the Utilization-Adjusted Human Capital Index (UHCI). While the HCI is an index of supply of a factor of production (in the future), the UHCI is a hybrid between an index of factor supply (capturing investment in human capital) and a productivity index (capturing how efficiently that human capital is used in production). The UHCI is defined as the product of the HCI and the utilization rate of human capital:

$$\text{UHCI} = \text{Utilization Rate} \times \text{HCI}$$

Utilization can be measured in two ways, which leads to two different UHCIs: a “basic” and a “full” utilization index:

- **The basic UHCI captures the income gains from employing all potential workers.** The basic utilization measure is the employment to working-age population ratio. The basic UHCI has the advantage of simplicity, and ease of construction and measurement.
- **The full UHCI also takes account of the income gains from moving workers to jobs where they can better use their human capital to increase productivity (“better” employment).** The full UHCI is a weighted average of the HCI score for those in the better employment (who are as productive as their human capital allows), and the theoretical minimum HCI for the rest of the working-age population (who are underutilizing their human capital):

$$\begin{aligned} \text{UHCI (full measure)} = \\ \text{BER} \times \text{HCI} + (1 - \text{BER}) \times (\text{minimum HCI}) \end{aligned}$$

The better employment rate (BER) is defined as the share of the working-age population working as non-agricultural employees or employers; these categories are proxies for higher-quality jobs.

The theoretical minimum HCI is assumed to be around 0.2 and represents the relative productivity of raw labor, before it is boosted by human capital.

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