

Chapter 1

Poverty and development

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Introduction

This book is about poverty eradication, addressed in the first United Nations (UN) Sustainable Development Goal (SDG). Poverty is considered the main challenge to achieving global targets. This SDG aims to end poverty in all its forms everywhere.

According to the UN Committee on Economic, Social and Cultural Rights' definition (Substantive..., 2001, § 8), poverty should be understood not only as a deprivation of financial resources but more broadly as:

[...] a human condition characterized by sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights.

SDG 1 shows the importance of expanding the meaning of poverty, which is usually linked only to the individual income. The UN proposes to go beyond the international and national poverty lines and include human rights and access to different basic services, which means considering poverty in all its dimensions. Thus, there is a strong connection between SDG1 and the targets of other SDGs (Figure 1).

The next chapters will present contributions of Embrapa for achieving targets 1.1, 1.2, and 1.5 of SDG 1 (United Nations, 2018), namely:

Targets

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.

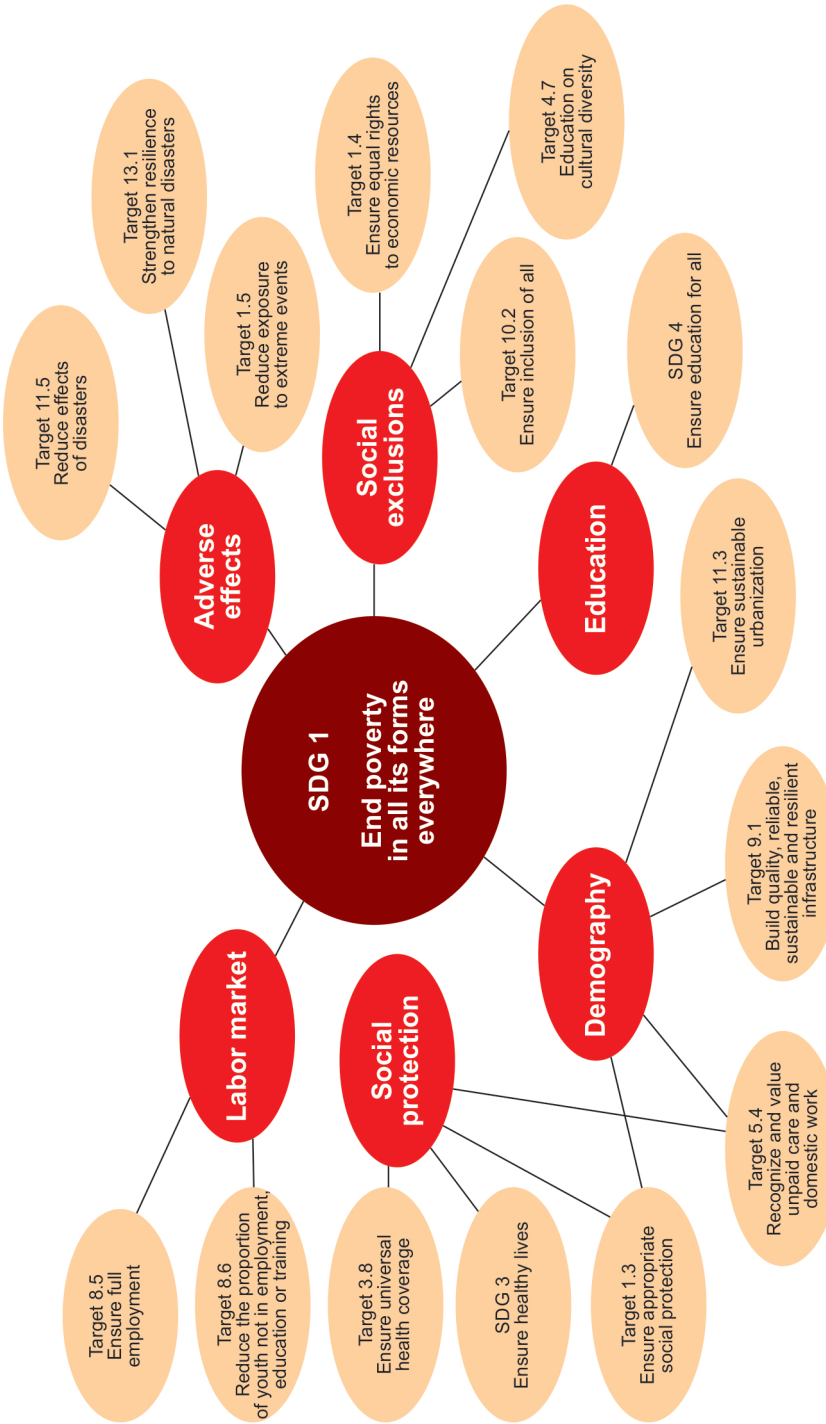


Figure 1. Relationship between SDG 1 and the targets of other SDGs, demonstrating poverty multidimensionality.

Source: PNUD (2016) cited by Objetivos... (2017).

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

[...]

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

This book concerns numerous actions developed by Embrapa that contribute to the achievement of SDG 1, as well as the advances and future challenges to ending poverty in Brazil.

Poverty definitions

In 2013, the World Bank defined people living below poverty line as those with daily per capita income of less than US\$ 1.25 per person (Monitoring..., 2017). This amount was revised and updated in 2015, thus establishing the amount of US\$ 1.90 daily per capita income in terms of purchasing power parity (PPP) for the year of 2011 (Monitoring..., 2017). As of October 2017, a new metric was adopted to determine the number of people living below poverty line, for which the amounts were adjusted to the realities of each country (Monitoring..., 2017). Two new lines were adopted: the amount of US\$ 3.20 per capita per day represents the median of the lines for lower middle income countries, while US\$ 5.50 per capita per day corresponds to the median for upper middle income countries, including Brazil (Monitoring..., 2017).

The UN, through the United Nations Development Program (UNDP), adopts the amounts established by the World Bank (Monitoring..., 2017) to decide if a person is subject to extreme poverty (Rethinking..., 2009) but, in some of its documents the amounts are still US\$ 1.25 (Nações Unidas, 2018) or US\$ 1.90 (United Nations, 2018) for daily per capita income.

For the purposes of the Plano Brasil Sem Miséria (Brazil Without Misery Plan – PBSM), the Ministry of Social Development (MDS) establishes that families with a per capita monthly income between R\$ 85.01 and R\$ 170.00 live in poverty, while families with a per capita income of less than R\$ 85.00 live in extreme poverty (Brasil, 2018). In turn, the Ministry of Finance Department for Social Security

establishes that the per capita income of up to a quarter of the minimum wage is a borderline to access the Elderly Aid Benefit (Brasil, 2017).

Poverty in Brazil and in the world

According to the World Bank, one in ten people, or 766 million worldwide, survive on less than US\$ 1.90 a day (Poverty..., 2016). Sub-Saharan Africa is the most affected region, where approximately 388 million people are living in extreme poverty, which represents more than 40% of the local population. In South Asia, there are 256 million, and in Latin America, there are 33 million poor people (Poverty..., 2016).

Out of 766 million people living in poverty, 385 million are children, of whom more than one fifth are under 5 years old. Again, Sub-Saharan Africa has the highest number, with almost 50% of children in this condition, followed by South Asia with 36%, and India with 30% (Poverty..., 2016). As a result, children die, and those who survive have healthy physical and mental development affected.

The report also notes that most of the world's poor live in rural areas (80%), are under the age of 14 (44%), have no formal education (39%), and are employed in agriculture (65%) (Poverty..., 2016). Poverty among workers is more common among young people aged 15 to 24. Approximately 16% of workers in this age group live below poverty line, earning less than US\$ 1.90 per day, while 9% of adults are in the same situation (Poverty..., 2016).

The study *Síntese de Indicadores Sociais: Uma Análise das Condições de Vida da População Brasileira* (Synthesis of Social Indicators: An Analysis of the Living Conditions of the Brazilian Population), done by the Brazilian Institute of Geography and Statistics (IBGE) (Síntese..., 2015), indicates that about 50 million Brazilians, corresponding to 25.4% of the population, live on poverty line and have an income equivalent to US\$ 5.5 PPP per day, reviewed for 2011. The study also indicates that the highest poverty index is in the Northeast region (43.5%), and the lowest is in the South region (12.3%). The states of Maranhão (52.4%), Amazonas (49.2%), and Alagoas (47.4%) have the highest percentages of poor Brazilian population (Síntese..., 2015).

The study concludes that Brazil is an unequal country. The total income of the richest top 10% (US\$ 1,646.56¹) was, in 2016, 3.4 times higher than the income

¹ US\$ 1.00 was equivalent to R\$ 3.98 on November 1, 2019.

of the poorest 40% (US\$ 100.79²), although the ratio varies according to the state (Síntese..., 2015). Among the people with the 10% lowest income in the country, the proportion of black or mixed-race individuals of the population reaches 78.5%, against 20.8% of whites. On the opposite side, on the top 10% with the highest income, black or mixed-race individuals accounted for only 24.8% (Síntese..., 2015).

According to the report *A Distância que nos Une – Um Retrato das Desigualdades Brasileiras* (The Distance that Unites Us – a Picture of Brazilian Inequalities), by Oxfam Brasil (*A distância...*, 2017), six people's wealth is equivalent to the patrimony of the 100 million poorest Brazilians; and the richest 5% income is equivalent to the remaining 95% of the population. Social inequality of a racist nature in Brazil is also reflected in the data from the National Survey by Continuous Household Sample (*Pesquisa Nacional por Amostra de Domicílios Contínua, Pnad*) released in November 2017 by IBGE, in which, out of the 13 million unemployed Brazilians in the third quarter of 2017, 8.3 million (63.7%) were black or mixed-race (IBGE, 2017).

Final considerations

Science and technology are essential for sustainable development. Knowledge can generate changes in current patterns of development and contribute to poverty eradication. Science and its constant evolution have become a key resource for the generation of wealth, the reduction of social inequalities, and the improvement of quality of life in all its dimensions.

Understanding the criteria used to define poverty, as well as its spatial and social shape, is essential in order to establish poverty eradication targets, in accordance with SDG 1.

In this context, Embrapa has dedicated resources for innovative studies in the areas of family farming, agribusiness, food security, fisheries, soil and water resources conservation, among others. Several more efficient technologies, such as improved cultivars and adapted production systems, are being developed and presented to Brazilian society. The dissemination of this knowledge produced by Embrapa targets different audiences at different levels and in all regions of the country. Besides, technologies generated by Embrapa have subsidized programs and public policies directed specifically to the reality and needs of those who live in rural areas and are the focus of Embrapa.

² US\$ 1.00 was equivalent to R\$ 3.98 on November 1, 2019.

As a future challenge, Embrapa has identified and prioritized efforts to establish quality-focused and value-added research on productive arrangements strategies for small- and medium-scale producers, including strategies for turning family farms into highly profitable enterprises. In addition, Embrapa identifies as a worldwide trend the need to focus efforts on research that contributes to the intensification and sustainability of production systems. It is also necessary to focus on the effect of climate change on agriculture and its associated risks, achieving the proposed poverty reduction targets and increasing the resilience of the poor and those in vulnerable situations against extreme events related to climate and to other economic, social, and environmental issues.

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