

Farmer Suicides in India and the Road to Resilience

Ashwini Suraj Devadiga

Research Scholar,
Mangalore University,
Mangalore

Amith S M

Assistant Professor,
SDM Law College, Mangalore

Diya K

Law Student,
SDM Law College,
Mangalore

Abstract

India, known as an agricultural powerhouse, where more than half of its population relies on agriculture as their primary source of livelihood, faces a dire situation- the distressing and escalating issue of farmer suicides. Despite being the world's second-largest food producer, India has the highest number of farmer suicides worldwide. According to research data, between 1995 and 2018, nearly 4,00,000 farmers in India took their own lives, equating to an alarming average of approximately 48 suicides daily.

The paper aims to comprehensively examine the myriad factors contributing to the distressing phenomenon of farmer suicides in India, shedding light on the complex web of economic, social, and psychological stressors that propel them to take extreme steps in life. The objective of the paper is to

Analyze the state-wise data on farmers' suicide.

Analyze the effectiveness of government initiatives intended to address farmers' suicide.

Analyze the role played by Non-governmental organizations in assisting the beleaguered farming community.

Keywords: Farmers, suicide, distress.

Introduction to Agriculture in India

India's agriculture sector is a vital part of the economy, providing income and food security to millions of people. The country is one of the top three global producers of various crops, including wheat, rice, pulses, cotton, peanuts, fruits, and vegetables. The agricultural practices across different regions are diverse, with each region having unique farming practices. Agriculture has a rich history dating back to 9000 BCE in north-west India.

The British colonial rule in India had a significant impact on the country's agriculture sector, leading to a decline in food production and self-sufficiency. However, the British also introduced modern agricultural practices such as irrigation systems and improved seed varieties. After India gained independence in 1947, the government implemented several policies and reforms aimed at improving the agricultural sector. The first wave of reforms focused on increasing food production and achieving food self-sufficiency, leading to the Green Revolution. Land reforms were then introduced to redistribute land to the landless and empower small-scale farmers.

Indian agriculture faces significant challenges due to its unequal land ownership and distribution patterns, which have led to land fragmentation and consolidation. The government has introduced measures to tackle these concerns, such as land pooling programs and land leasing strategies. However, there are still lingering obstacles that need further efforts to ensure fair land distribution and resolve issues related to land fragmentation and consolidation. Apart from that, challenges such as climate change, water scarcity, and market volatility continue to pose significant threats to the sector's sustainability and growth.

Problem Statement

The issue of farmer suicides in India remains a significant concern, emphasizing the necessity for a thorough understanding of its root causes, consequences, and potential solutions. The crisis is complex, encompassing various economic, social, and psychological factors that contribute to the distress experienced by farmers. A comprehensive comprehension of these factors is crucial for formulating effective remedies and providing meaningful assistance. The evaluation of the role played by government initiatives and non-governmental organizations (NGOs) in alleviating this crisis demands careful scrutiny.

This research paper examines the phenomenon of farmer suicides in India, analysing data across different states to identify regional trends and disparities. It also assesses the efficacy of government measures designed to tackle farmer suicides and the contributions made by NGOs in supporting the troubled farming community. The primary objective is to offer a holistic perspective on farmer suicides in India, providing insights into the underlying causes, repercussions, and ongoing endeavours to enhance resilience within the agricultural sector.

Methodology

Data Collection

This research paper primarily relies on secondary data sources, encompassing a mixed-method approach that involves both quantitative and qualitative data. Secondary data sources include government reports, agricultural statistics, and existing databases on farmer suicides.

Data Analysis

The study employs a range of data analysis techniques focused on secondary data sources. State-wise data on farmer suicides will be analysed to identify geographic patterns and regional variations in suicide rates.

Government initiatives will be assessed through a combination of statistical analysis and policy evaluation. The role of NGOs will be examined through an analysis of their activities and case studies based on existing records and reports.

Scope of the Study

The study primarily aims to analyse the factors contributing to farmers suicides, the efficacy of government measures, and the role played by NGOs in addressing the issue.

Limitations of the Study

The study's limitations include a limited data collection period from 2017 to 2021, and discrepancies between NCRB report statistics and news reports. This could lead to varying reported suicide rates, as some states reported zero farmer suicides as per the NCRB data, while newspaper articles reported cases in those same states. However, this study is based on the NCRB Data

Indian Agriculture and Farmers Suicide

Suicide among farmers in India is a significant issue, involving financial obligations, inadequate harvests, and psychological distress. Factors contributing to suicide include personal issues, monsoon failure, climate change, government policies, increased input expenses, and lack of direct market integration. Backward castes, including Dalit farmers, are the majority of those who commit suicide. Between 1995 and 2018, an estimated 400,000 farmers committed suicide, with 48 daily suicides. The suicide rate in India fluctuated between 1.4 and 1.8 per 100,000 population. However, there has been a notable rise in recent years, with over 600 farmers dying by suicide in the Marathwada region of Maharashtra in 2022. Agriculture in India is a physically demanding and financially precarious occupation, with annual incomes susceptible to numerous uncertainties.

Factors Contributing to Farmers Suicide in India

Socio-Economic Factors The economic challenges encountered by farmers in India are not just anecdotal; they are backed by alarming statistical data. These challenges significantly contribute to the distress within the farming community. Here, we delve into these economic factors with supporting statistics:

Mounting Debt: According to the National Crime Records Bureau (NCRB), in 2019, there were 5,957 farmer suicides attributed to bankruptcy or indebtedness. This statistic illustrates how the burden of debt plays a direct role in pushing farmers to the brink.

Fluctuating Crop Prices: Data from the Food and Agriculture Organization (FAO) highlights the volatility in crop prices. For example, in 2020, India saw a significant drop in onion prices, causing distress among onion farmers. Such fluctuations directly impact the income and financial stability of farmers.

Limited Access to Credit: The National Sample Survey Office (NSSO) reported that only 48.9% of Indian agricultural households had access to credit in 2015-2016. This lack of access to formal credit sources forces many farmers to resort to high-interest loans from informal sources, further increasing their financial vulnerabilities.

India's farmers face economic challenges like debt, unpredictable crop prices, and limited credit access, leading to distress and suicides. Around 90% cannot afford essentials like fertilizer, seeds, and pesticides. Climate change and genetically modified seeds contribute to crop failures and financial losses. Inadequate government policies, particularly for Dalit cultivators and "backward" castes, harm farmers.

Psychological Factors Distress, anxiety, financial hardship, crop failure, and debt are all psychological obstacles that farmers must contend with. They are, nevertheless, dissuaded from obtaining assistance due to stigma and ignorance surrounding mental health resources. In conjunction with economic hardships and indebtedness, this social disapproval can worsen mental health disorders and fuel suicidal thoughts. The suicide rate among farmers is exacerbated by social isolation and loneliness, which engender hopelessness and despair, particularly in remote areas.

Impact of Farmers Suicide

Suicidal agricultural labour in India has profound cultural, economic, emotional, and social repercussions. Post-traumatic stress disorder, anxiety, and depression result from the loss of agricultural labour; the social stigma associated with mental health issues exacerbates the situation. The psychological ramifications proliferate throughout the immediate family and the wider community. Suicides among farmers result in substantial economic declines, and stigma frequently prevents bereaved families from seeking assistance. Desire and despair contribute to social disintegration and isolation in areas with high suicide rates. Frequently, the economic and social repercussions are borne primarily by women.

Overview of Government Initiatives to Address Farmers Suicide

The Indian government has implemented various initiatives to address farmer suicides, including financial assistance and loan waivers, which provide relief to farmers burdened with debt. However, critics argue that these short-term solutions do not address the underlying issues of the agricultural sector, such as low productivity and poor market access. Crop insurance and compensation schemes aim to protect farmers from crop failures and natural disasters, but their effectiveness has been questioned.

Agricultural reforms and diversification initiatives aim to increase productivity and profitability of agriculture, reduce farmer debt, and improve market access. The government has introduced schemes to promote crop diversification, encourage organic farming, and improve irrigation facilities. Additionally, the government has introduced electronic trading platforms to improve market access for farmers. While these initiatives are promising, their effectiveness is yet to be fully evaluated.

Financial Assistance and Loan Waiver: The Indian government has implemented several schemes to reduce farmer suicides, including the Pradhan Mantri Fasal Bima Yojana, Kisan Samman Nidhi, and Kisan Credit Card Scheme. These schemes aim to alleviate financial burdens on farmers and reduce debt-related suicides. However, their effectiveness is debated due to potential encouraging debt, implementation challenges, and distributional issues. Loan waivers often benefit only a small percentage of farmers, and corruption and bureaucratic inefficiencies can hinder their effectiveness. These measures may not address root causes of the problem.

Crop Insurance and Compensation Schemes: The Indian government has introduced crop insurance and compensation schemes to help farmers cope with financial risks and losses caused by crop failure, natural disasters, or other unforeseen circumstances. These schemes aim to reduce the risk of falling into debt and prevent farmer suicides. However, their effectiveness in addressing farmer suicides in India has been a subject of debate. Challenges include lack of awareness among farmers, particularly in remote or marginalized areas, and bureaucratic processes that can be time-consuming and complex. Additionally, the compensation provided may not always cover the losses, leaving farmers vulnerable financially. Despite these a 2017 study by K. R. Shanmugam and S. Bhavani found that crop insurance schemes have a positive impact on reducing farmer suicides, especially in drought-prone regions.

Agricultural Reforms and Diversification: Agricultural diversification is a potential solution to address farmer suicides in India. This involves expanding the range of crops and activities farmers engage in to generate income, reducing dependence on a single crop and providing alternative income sources. This

approach can improve financial stability and address root causes of farmer suicides. However, challenges such as lack of access to credit and insurance, corruption hinder the effectiveness of these policies. Technology and innovation play a crucial role in addressing farmer suicides. Precision agriculture techniques and mobile technology can optimize resource use and increase crop yields. However, adoption among farmers has been limited due to factors such as lack of education, access to resources, and limited market opportunities.

A comprehensive strategy is required to address the issue of farmer suicides in India. This strategy should encompass various components, such as promoting agricultural diversification, implementing policies effectively, integrating technology, and providing mental health support. Implementing this measure will enhance the agricultural community's financial stability and general welfare through the resolution of root causes of distress and the provision of essential resources.

Role Played by Non-governmental Organizations in Assisting the Beleaguered Farming Community

Non-governmental organizations (NGOs) are non-profit entities operating independently of governmental authorities, with a focus on social or humanitarian objectives. Their role is pivotal in fostering societal development, enhancing communities, and encouraging active citizen engagement. Within the agricultural sector, NGOs are instrumental in offering crucial assistance to farmers confronted with diverse challenges, including climate change, environmental degradation, and economic instability. NGOs contribute resources, education, and advocacy to bolster the farming community, enrich participatory democracy, and address constituent requirements.

Their significance becomes particularly pronounced in aiding marginalized and vulnerable farming communities, encompassing small-scale farmers, women, and indigenous populations. NGOs provide training and education on sustainable farming methods, advocate for policies supporting small-scale farmers and environmental conservation, grant access to financial resources and markets, support community-based organizations, and foster social and economic empowerment.

Education and Training: NGOs are instrumental in assisting farming communities by offering education and training on modern farming methods, financial management, and sustainable practices. They introduce farmers to eco-friendly techniques like crop diversification and water collection, which improve yields and reduce environmental impact. They also provide training on financial management, enabling smallholder farmers to manage their finances effectively. They also teach farmers about sustainable farming practices like crop rotation, intercropping, and natural pest management, which maintain soil health, preserve resources, and reduce environmental impact.

Financial Support: NGOs provide financial support to the agricultural community through microfinance loans, enabling farmers to start or expand their activities, acquire resources, and invest in equipment and infrastructure. These loans boost farmers' income and yields, improving their overall economic status. NGOs also extend grants for farming equipment and supplies, especially for small-scale farmers, and offer emergency relief funds for unforeseen challenges.

Advocacy and Representation: NGOs are key in advocating for farmer-friendly policies, fair trade practices, and legal representation. They lobby governments to create policies that benefit farmers, ensure access to resources, and promote sustainable farming practices. They also represent farmers in legal issues, aiding those evicted from their land and educating them about their rights. Their goal is to protect farmers' rights and ensure their long-term viability.

NGOs are vital in supporting farming communities, especially in developing nations, by advocating for sustainable practices. These practices improve crop yields, reduce soil erosion, and increase income. However, they face challenges like inadequate funding, bureaucratic hurdles, political interference, and lack of coordination. Collaborative efforts among NGOs, governments, and stakeholders are needed to address systemic issues.

State-Wise Analysis of Farmers Suicide in India

Between 1995 and 2018, nearly 400,000 farmers in India committed suicide, or 48 per day, according to a study by NK Kannuri in 2021. The farmer suicide rate in India fluctuated between 1.4 and 1.8 per 100,000 of the total population over a decade-long span. However, the number of agricultural suicides has been on the rise in recent years, claiming the lives of nearly thirty individuals daily, most of whom are overcome with debt.

According to the National Crime Records Bureau (NCRB), there was a 6% surge in suicides in 2019. This trend continued in 2021, with a 6.6% increase, primarily observed in the agricultural industry. The report lacked a comprehensive breakdown of suicide causes and classifications, and the gender distribution remained ambiguous. Upon examining the suicide rates of farmers in India by state, a significant concentration of such incidents is identified in particular geographic regions.

Table 1

Presents the data pertaining to farmers' suicides across different states during the period from 2017 to 2021. The dataset encompasses individuals involved in the agricultural sector, including farmers, cultivators managing their own land, those leasing land, and agricultural laborers. (Source: National Crime Records Bureau)

*Jammu & Kashmir is listed under the states for the years 2017, 2018 and 2019, and for the year 2020 and 2021 it is under Union Territories.

Sl. No	State	Persons Engaged in Farming Sector Suicide				
		2017	2018	2019	2020	2021
	Andhra Pradesh	2007	1693	2686	2342	2611
	Arunachal Pradesh	04	08	02	15	00
	Assam	101	115	240	246	607
	Bihar	02	00	00	00	00
	Chhattisgarh	1289	1116	1231	1301	749
	Goa	04	00	02	02	04
	Gujarat	389	285	239	257	252
	Haryana	218	208	438	560	465
	Himachal Pradesh	18	39	44	54	61

	Jammu & Kashmir	02	57	62	-	-
	Jharkhand	158	116	110	34	00
	Karnataka	5477	6175	5315	5104	5508
	Kerala	640	447	322	853	642
	Madhya Pradesh	2339	1613	1224	1705	1459
	Maharashtra	9828	9427	10534	10579	10768
	Manipur	00	06	00	03	00
	Meghalaya	12	00	02	14	17
	Mizoram	00	51	74	12	02
	Nagaland	00	04	02	00	03
	Odisha	00	00	00	14	00
	Punjab	825	875	843	688	711
	Rajasthan	147	42	54	202	282
	Sikkim	29	19	04	38	42
	Tamil Nadu	795	808	860	1033	1259
	Telangana	2548	2716	1489	1408	1070
	Tripura	30	20	76	00	00
	Uttar Pradesh	516	588	630	431	485
	Uttarakhand	00	00	00	00	00
	West Bengal	00	00	00	00	00
	Union Territories					
	Andaman & Nicobar	06	12	15	18	14
	Chandigarh	00	00	00	00	00
	Dadra & Nagar Haveli	00	21	21	18	48
	Daman & Diu	00	00	00		
	Delhi	00	00	00	00	02
	Jammu & Kashmir	-	-	-	02	07
	Ladakh	-	-	-	00	06
	Lakshadweep	00	00	00	00	00

	Puducherry	00	00	00	00	00
	Total	27384	26461	26519	26933	27074

Table 2

Presents the data on farmer suicides categorized by gender, including male, female, and transgender individuals for the year 2017, along with the respective percentage shares in the overall suicide rate. (Source: National Crime Records Bureau)

Sl. No	Profession	Male	Female	Transgender	Total	Percentage Share
1.	Persons Engaged in Farming Sector	9852	802	01	10655	8.2
2.	Farmers/ Cultivators	5633	322	0	5955	4.6
3.	Who Cultivate their Own Land with or without assistance of Agricultural Labourers	4949	254	0	5203	4.0
4.	Who Cultivate on Leased Land/ Work on Lease/ on Others Land with or without assistance of Agricultural Labourers	684	68	0	752	0.6
5.	Agricultural Labourers	4219	480	01	4700	3.6

Table 3

Presents the data on farmer suicides categorized by gender, including male, female, and transgender individuals for the year 2018, along with the respective percentage shares in the overall suicide rate. (Source: National Crime Records Bureau)

Sl. No	Profession	Male	Female	Transgender	Total	Percentage Share
1.	Persons Engaged in Farming Sector	9528	821	00	10349	7.7
2.	Farmers/ Cultivators	5457	306	0	5763	4.3
3.	Who Cultivate their Own Land with or without assistance of Agricultural Labourers	4848	240	0	5088	3.8
4.	Who Cultivate on Leased Land/ Work on Lease/ on Others Land with or without assistance of Agricultural Labourers	609	66	0	675	0.5
5.	Agricultural Labourers	4071	515	00	4586	3.4

Table 4

Presents the data on farmer suicides categorized by gender, including male, female, and transgender individuals for the year 2019, along with the respective percentage shares in the overall suicide rate. (Source: National Crime Records Bureau)

Sl. No	Profession	Male	Female	Transgender	Total	Percentage Share
1.	Persons Engaged in Farming Sector	9312	969	00	10281	7.4
2.	Farmers/ Cultivators	5563	394	00	5957	4.3
3.	Who Cultivate their Own Land with or without assistance of Agricultural Labourers	4801	328	00	5129	3.7
4.	Who Cultivate on Leased Land/ Work on Lease/ on Others Land with or without assistance of Agricultural Labourers	762	66	0	828	0.6
5.	Agricultural Labourers	3749	575	00	4324	3.1

Table 5:

Presents the data on farmer suicides categorized by gender, including male, female, and transgender individuals for the year 2020, along with the respective percentage shares in the overall suicide rate. (Source: National Crime Records Bureau)

Sl. No	Profession	Male	Female	Transgender	Total	Percentage Share
1.	Persons Engaged in Farming Sector	9956	721	00	10677	7.0
2.	Farmers/ Cultivators	5335	244	00	5579	3.6
3.	Who Cultivate their Own Land with or without assistance of Agricultural Labourers	4737	203	00	4940	3.2
4.	Who Cultivate on Leased Land/ Work on Lease/ on Others Land with or without assistance of Agricultural Labourers	598	41	00	639	0.4
5.	Agricultural Labourers	4621	477	00	5098	3.3

Table 6:

Presents the data on farmer suicides categorized by gender, including male, female, and transgender individuals for the year 2021, along with the respective percentage shares in the overall suicide rate. (Source: National Crime Records Bureau)

Sl. No	Profession	Male	Female	Transgender	Total	Percentage Share
1.	Persons Engaged in Farming Sector	10228	653	00	10881	6.6
2.	Farmers/ Cultivators	5107	211	00	5318	3.2
3.	Who Cultivate their Own Land with or without assistance of Agricultural Labourers	4627	179	00	4806	2.9
4.	Who Cultivate on Leased Land/ Work on Lease/ on Others Land with or without assistance of Agricultural Labourers	480	32	00	512	0.3
5.	Agricultural Labourers	5121	442	00	5563	3.4

Recommendations to Prevent Farmers Suicide

Improving mental health service accessibility is crucial to reduce farmer suicides in India. Rural areas often lack access or stigma. Government and non-governmental organizations can expand services by establishing telemedicine, training professionals, and implementing community-based programs, which can help reduce stigma and improve mental health outcomes.

Promoting sustainable agricultural practices can reduce farmer suicide rates by enhancing resilience to economic and environmental shocks. Providing resources and training for sustainable techniques like crop rotation, intercropping, and organic farming can help farmers diversify their income streams and reduce financial vulnerability.

Government investment in agriculture can reduce farmer suicide rates by subsidizing inputs, improving irrigation infrastructure, and strengthening market linkages. Targeted policies and programs can address root causes of farmer distress, such as debt and crop failures.

Conclusion

The alarming occurrence of approximately 30 daily suicides among India's workforce of 260 million agricultural laborers is a stark reminder of their precarious situation. Compounded by the unintended consequences of the Green Revolution, issues such as environmental degradation, potential health hazards linked to pesticide exposure, and overwhelming debt have deeply entrenched themselves in these tragedies. The severity of this crisis is further intensified by the influence of climate change and adverse weather conditions, leading to an unprecedented surge in farmer suicides, notably in agricultural-reliant regions like Punjab.

Addressing farmer suicides in India is crucial for the well-being of farmers and the nation's progress. Supporting struggling farmers and implementing systemic reforms is essential for fostering an equitable and sustainable agricultural framework, safeguarding the long-term well-being and economic prosperity of the agricultural industry. The government must address farmer suicides by ensuring fair commodity prices, enhancing agricultural infrastructure, and providing financial aid. Raising awareness and providing mental health support services are also crucial.

Glance at Kerala's Agricultural Aspects

Kerala has distinguished itself in India by implementing the highest Minimum Support Price (MSP) for its agricultural sector, offering a significant Rs 2,630 per quintal for rice growers. This bold move has yielded a substantial 44% profit above the average production cost per quintal, highlighting the state's commitment to prioritizing the well-being of its farming community. Kerala's rice production costs rank as the second-highest among 18 states, further emphasizing the state's dedication to supporting its agricultural workforce. Additionally, the state offers an attractive state incentive bonus, currently set at half the MSP established by the Union government.

Kerala has expanded its MSP framework to include 16 vegetable varieties and uses six major wholesale markets for procurement. Direct procurement from farmers ensures fair compensation for agricultural produce like bananas, pineapples, and ginger. Despite the absence of an Agricultural Produce Market Committee, Kerala uses six major wholesale markets and an E-market network for procurement and export facilitation. This progressive initiative benefits individual farmers involved in vegetable cultivation on plots of up to 15 acres. The price difference between the market rate and the base price will be deposited into the accounts of farmers who sell their produce through agricultural societies, thereby providing a safety net for their livelihoods.

A Comparison of Kerala and Maharashtra's Farmer Policies

Kerala has taken significant steps to prevent farmer suicides by prioritizing financial aid and relief measures. These include a debt relief scheme offering up to Rs. 2 lakh and a farmer assistance fund, alongside the establishment of a farmer helpline to provide crucial guidance and support, all aimed at reducing financial strain on farmers and mitigating the stress that may lead to suicide. The state has implemented agricultural reforms and support programs to boost farmers' productivity and income, including subsidies, organic farming, farmer producer organizations, and technology integration, aiming to strengthen financial stability and reduce vulnerability to financial hardship, and reduce suicide risk.

Kerala has integrated psychological counselling and mental health assistance into its strategies to prevent farmer suicides. The government has established a network of professionals to provide counselling and support to farmers and their families, aiming to reduce the stigma associated with mental illness and encourage seeking help when needed.

The Maharashtra government is implementing strategies similar to Kerala's to prevent farmer suicides by providing financial aid and debt relief. A dedicated team is providing support to distressed farmers, incorporating existing relief packages like a farmer helpline and direct financial support. Maharashtra has implemented agricultural reforms and support programs to improve farmers' conditions and resources for sustainable livelihoods. Initiatives like the Maharashtra Agricultural Competitiveness Project and the Maharashtra State Agricultural Marketing Board aim to enhance market access and technology, boost farming productivity, and reduce suicides. The government has introduced crop insurance and compensation schemes to prevent farmer suicides. These efforts seek to alleviate financial strain and decrease the likelihood of suicides.

Kerala and Maharashtra have implemented financial aid and agricultural reforms to prevent farmer suicides. Maharashtra has a dedicated unit for financial support, while Kerala introduced a debt relief scheme to help distressed farmers, addressing the root causes of the agricultural crisis. Despite these commonalities, notable disparities exist in the orientation and execution of the anti-farmer suicide strategies between the two states. Maharashtra places a significant emphasis on rectifying structural issues within the agricultural sector, including cash crop pricing and power dynamics among farmers and local elites. Conversely, Kerala prioritizes providing social welfare benefits, such as healthcare and education, to enhance the overall well-being of farmers.

The effectiveness of strategies in reducing farmer suicides varies between Maharashtra and Kerala. Maharashtra has seen a reduction in suicides since aid programs were introduced, although the rates persist at a significant level. While Kerala has seen lower rates due to its comprehensive social welfare programs.

References

"*Agricultural Problems and Gilded Age Politics.*" (n.d.). "Agricultural Problems and Gilded Age Politics." <https://www.austincc.edu/lpatrick/his1302/agrarian.html>

Agarwal, S. K., Gupta, S., Singh, V., Sutar, R., & Nair, D. (2022, June 14). *Insurance as an instrument of financial security in addressing mental illness among agricultural workers in the LMICs.* medRxiv. <https://doi.org/10.1101/2022.06.09.22275910>

Agarwalla, Samir K. Barua, S. K. (2017, June 21). *Crop insurance and the agrarian crisis in India.* Mint. <https://www.livemint.com/Opinion/h2uWBKUe2aQNPVEpkZ4u8J/Crop-insurance-and-the-agrarian-crisis-in-India.html>

Agrarian Crisis and Farmer Suicides. (n.d.). Google Books. https://books.google.com/books/about/Agrarian_Crisis_and_Farmer_Suicides.html?id=AHgrVVo_gKcC

Agricultural Statistics at a Glance 2021 | Official Website of Directorate of Economics and Statistics, Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Government of India. <https://desagri.gov.in/document-report/agricultural-statistics-at-a-glance-2021/>

Agriculture in India: Industry Overview, Market Size, Role in Development. . . | IBEF. (2023, October 1). India Brand Equity Foundation. <https://www.ibef.org/industry/agriculture-india>

Agriculture of Ancient India | TOTA. (n.d.). Agriculture of Ancient India | TOTA. <https://www.tota.world/article/422/>

As Told to Parliament (November 30, 2021): 5,579 Indian Farmers Died by Suicide in 2020. <https://www.downtoearth.org.in/news/agriculture/as-told-to-parliament-november-30-2021-5-579-indian-farmers-died-by-suicide-in-2020-80453>

Behere, P. B., & Bhise, M. C. (n.d.). *Farmers' suicide: Across culture.* PubMed Central (PMC). <https://doi.org/10.4103/0019-5545.58286>

Behere, P. B., Chowdhury, D., Behere, A. P., & Yadav, R. (2021, October 22). *Psychosocial aspects of suicide in largest industry of farmers in Vidarbha Region of Maharashtra.* PubMed Central (PMC). <https://doi.org/10.4103/0972-6748.328781>

Bhise, M. C., & Behere, P. B. (n.d.). *Risk Factors for Farmers' Suicides in Central Rural India: Matched Case-control Psychological Autopsy Study.* PubMed Central (PMC). <https://doi.org/10.4103/0253-7176.194905>

Burdened by debt and unable to eke out a living, many farmers in India turn to suicide | CBC News. (n.d.). CBC. <https://www.cbc.ca/news/world/india-farmers-suicide-1.5968086>

Chapter 23 - The role of nongovernmental organizations in extension. (n.d.). Chapter 23 - the Role of Nongovernmental Organizations in Extension. <https://www.fao.org/3/W5830E/w5830e0p.htm>

CiteSeerX. (n.d.). CiteSeerX. <https://citeseerx.ist.psu.edu>

Climate change and Indian agriculture: A systematic review of farmers' perception, adaptation, and transformation. (2022, May 4). Climate Change and Indian Agriculture: A Systematic Review of Farmers' Perception, Adaptation, and Transformation - ScienceDirect. <https://doi.org/10.1016/j.envc.2022.100543>

Climate change driving increase in farmer suicides in India. (n.d.). International Institute for Environment and Development. <https://www.iied.org/climate-change-driving-increase-farmer-suicides-india>

Climate change is causing increase in farmer suicides in India. (2023, May 10). The Independent. <https://www.independent.co.uk/climate-change/news/india-farmer-suicide-heatwave-drought-b2335830.html>

Crop Insurance – Karshika Keralam. (2021, September 13). Crop Insurance – Karshika Keralam. <https://keralaagriculture.gov.in/en/2021/05/07/crop-insurance/>

de Oliveira Santos, E. G., Queiroz, P. R., da Silva Nunes, A. D., Giacchero Vedana, K. G., & Barbosa, I. R. (2021, June 17). *Factors Associated with Suicidal Behavior in Farmers: A Systematic Review.* MDPI. <https://doi.org/10.3390/ijerph18126522>

Economic Development and Agriculture in India | Bulletin & June 2011. (2011, January 1). Reserve Bank of Australia. <https://www.rba.gov.au/publications/bulletin/2011/jun/3.html>

Every Day, 15 Farmers Died By Suicide in India in 2021; Biggest Spike in 5 Years: Govt Data - News18. (2022, October 13). News18. <https://www.news18.com/news/india/every-day-15-farmers-died-by-suicide-in-india-in-2021-biggest-spike-in-5-years-govt-data-6160171.html>

Examining Farmer Suicides in India: A Study of Literature Munich Personal RePEc Archive. <https://mpra.ub.uni-muenchen.de/id/eprint/35675>

Factors associated with the farmer suicide crisis in India. (2016, April 11). Factors Associated With the Farmer Suicide Crisis in India - ScienceDirect. <https://doi.org/10.1016/j.jegh.2016.03.003>

Farm sector suicides up but farmer suicides come down | India News - Times of India. (n.d.). The Times of India. <https://timesofindia.indiatimes.com/india/farm-sector-suicides-up-but-farmer-suicides-come-down/articleshow/93865743.cms>

Farmer suicide - Civildaily. (2021, October 30). Civildaily. <https://www.civildaily.com/news/suicides-among-farm-workers-rose-18-in-2020-ncrb/>

Farmer Suicides in India: A Policy-induced Disaster of Epic Proportions at Sanhati. <https://sanhati.com/excerpted/4504/>

Farmer Suicides in Maharashtra, 2001–2018 : Trends across Marathwada and Vidarbha. (2020, June 20). Economic and Political Weekly. <https://www.epw.in/journal/2020/25/special-articles/farmer-suicides-maharashtra-2001-2018.html>

Farmer suicides: 70% of India's farm families spend more than they earn. (2017, June 27). Hindustan Times. <https://www.hindustantimes.com/india-news/farmer-suicides-70-of-india-s-farm-families-spend-more-than-they-earn/story-GKLoObJeDtbH2Z22csJsxK.html>

Farmers' suicides in India. Google Books. https://books.google.com/books/about/Farmers_suicides_in_India.html?id=FMinkVRTdiwC

FRONTLINE/WORLD . Rough Cut . Seeds of Suicide | PBS. (2005, July 26). FRONTLINE/WORLD . Rough Cut . Seeds of Suicide | PBS. https://www.pbs.org/frontlineworld/rough/2005/07/seeds_of_suicid.html

Fuseini, M. N., Sulemana, M., Abdulai, I. A., Ibrahim, M. G., & Azure, E. (2022, October 27). *Role of non-governmental organizations in poverty reduction in the global South: evidence from world vision Ghana, Kintampo South district.* PubMed Central (PMC). <https://doi.org/10.1007/s43545-022-00545-y>

Habib-ur-Rahman, M., Ahmad, A., Raza, A., Hasnain, M. U., Alharby, H. F., Alzahrani, Y. M., Bamagoos, A. A., Hakeem, K. R., Ahmad, S., Nasim, W., Ali, S., Mansour, F., & Sabagh, A. E. (2022, August 8). *Impact of climate change on agricultural production; Issues, challenges, and opportunities in Asia.* Frontiers. <https://doi.org/10.3389/fpls.2022.925548>

IFAD. (n.d.). IFAD. <https://www.ifad.org/en/ngo>

India at a Glance|FAO in India|Food and Agriculture Organization of the United Nations. <https://www.fao.org/india/fao-in-india/india-at-a-glance/en/>

India: Why are suicides among farmers on the increase? – DW – 09/04/2022. (n.d.). dw.com. <https://www.dw.com/en/india-why-are-suicides-among-farmers-on-the-increase/a-62991022>

India's Suicide Problem | Brookings. (2014, February 12). Brookings. <https://www.brookings.edu/articles/indias-suicide-problem/>

Kandikuppa, S., & Gray, C. (2022, August 6). *Climate Change and Household Debt in Rural India.* PubMed Central (PMC). <https://doi.org/10.1007/s10584-022-03407-x>

Kannuri, N. K., & Jadhav, S. (2021, November 3). *Cultivating distress: cotton, caste and farmer suicides in India.* PubMed Central (PMC). <https://doi.org/10.1080/13648470.2021.1993630>

Kaur, G. (2022, March 17). *The country where 30 farmers die each day | CNN.* CNN. <https://www.cnn.com/2022/03/17/opinions/india-farmer-suicide-agriculture-reform-kaur/index.html>

Kennedy, J., & King, L. (2014, March 26). *The political economy of farmers' suicides in India: indebted cash-crop farmers with marginal landholdings explain state-level variation in suicide rates.* PubMed Central (PMC). <https://doi.org/10.1186/1744-8603-10-16>

Kerala Only State That Pays MSPs as per Swaminathan Commission Recommendations | NewsClick. (n.d.). NewsClick. <https://www.newsclick.in/Kerala-State-Pays-MSPs-Swaminathan-Commission-Recommendations>

Kerala's Top 50 Policies and Projects | I&PRD : Official Website of Information Public Relations Department of Kerala. <https://www.prd.kerala.gov.in/en/node/106758>

Kulkarni, N. (2023, June 5). *The Truth About Indian Farmer Suicides - Fair Observer.* Fair Observer. <https://www.fairobserver.com/world-news/india-news/the-truth-about-indian-farmer-suicides/>

- Mariappan, K., & Zhou, D. (2019, April 23). *A Threat of Farmers' Suicide and the Opportunity in Organic Farming for Sustainable Agricultural Development in India*. MDPI. <https://doi.org/10.3390/su11082400>
- Mental Health Status of Farmers in Maharashtra, India: A Study From Farmer Suicide Prone Area of Vidarbha Region - ScienceDirect. <https://doi.org/10.1016/j.cegh.2020.01.002>
- Merriott, D. (2016, April 11). *Factors associated with the farmer suicide crisis in India*. PubMed Central (PMC). <https://doi.org/10.1016/j.jegh.2016.03.003>
- Non-Governmental Organizations (NGOs) | Agency For International Development*. <https://www.usaid.gov/partner-with-us/ngo>
- Origins of agriculture - Indian Subcontinent, Farming, Domestication*. (n.d.). Encyclopedia Britannica. <https://www.britannica.com/topic/agriculture>
- Rao, V. M. (2010, January 1). *5 Farmers' Distress in a Modernizing Agriculture—The Tragedy of the Upwardly Mobile: An Overview*. OUP Academic. <https://doi.org/10.1093/acprof:oso/9780198069096.003.0005>
- Roy, T. (2011, January 1). *4 Agriculture*. OUP Academic. <https://doi.org/10.1093/acprof:oso/9780198074175.003.0004>
- Rural Response to Farmer Mental Health and Suicide Prevention Overview - Rural Health Information Hub. <https://www.ruralhealthinfo.org/topics/farmer-mental-health>
- Safi, M. (2017, July 31). *Suicides of nearly 60,000 Indian farmers linked to climate change, study claims*. The Guardian. <http://www.theguardian.com/environment/2017/jul/31/suicides-of-nearly-60000-indian-farmers-linked-to-climate-change-study-claims>
- Sathyanarayana Rao, T. S., Gowda, M. R., Ramachandran, K., & Andrade, C. (n.d.). *Prevention of farmer suicides: Greater need for state role than for a mental health professional's role*. PubMed Central (PMC). https://doi.org/10.4103/psychiatry.IndianJPsychiatry_89_17
- Savoy, C. M. (n.d.). *Access to Finance for Smallholder Farmers*. Access to Finance for Smallholder Farmers. <https://www.csis.org/analysis/access-finance-smallholder-farmers>
- An Analysis*. An Overview on Farmers' Suicide in India Between 1995-2018: An Analysis by Velmurugan Palaniappan Shanmugam, Liya Teresa Alex Pananghikal :: SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3797403
- Sustainable agricultural practices*. (2015, September 6). The Hindu. <https://www.thehindu.com/business/agri-business/sustainable-agricultural-practices/article7622243.ece>
- Swain, P. K., Tripathy, M. R., Priyadarshini, S., & Acharya, S. K. (2021, July 29). *Forecasting suicide rates in India: An empirical exposition*. PubMed Central (PMC). <https://doi.org/10.1371/journal.pone.0255342>
- Team, C. (2017, September 4). *Farmers' Suicides in India - Reasons and Responses*. ClearIAS. <https://www.clearias.com/farmers-suicides/>
- The role of non-government organizations in supporting and integrating interventions to improve child health - PubMed*. (2000, June 1). PubMed. <https://pubmed.ncbi.nlm.nih.gov/11407622/>

Thippaiah, S. M., Nanjappa, M. S., & Math, S. B. (2019, October 17). *Suicide in India: A preventable epidemic*. PubMed Central (PMC). https://doi.org/10.4103/ijmr.IJMR_1805_19

Thomas, G., & Tavernier, J. D. (2017, May 11). *Farmer-suicide in India: debating the role of biotechnology*. PubMed Central (PMC). <https://doi.org/10.1186/s40504-017-0052-z>

Thousands of farmer suicides prompt India to set up \$1.3bn crop insurance scheme. (2016, January 14). The Guardian. <http://www.theguardian.com/world/2016/jan/14/india-thousands-of-farmer-suicides-prompt-1bn-crop-insurance-scheme>

Tripathi, R. (n.d.). *NCRB data shows 42,480 farmers and daily wagers committed suicide in 2019*. The Economic Times. <https://economictimes.indiatimes.com/news/politics-and-nation/ncrb-data-shows-42480-farmers-and-daily-wagers-committed-suicide-in-2019/articleshow/77877613.cms>

Umar, B. (201518, May 18). *India farmer suicides*. Al Jazeera. <https://www.aljazeera.com/features/2015/5/18/indias-shocking-farmer-suicide-epidemic>

Viswam, B., Thanawala, S., Bakshi, G. K., & Leaflet, T. (2021, January 11). *Kerala Government has Given the Right Protection to its Farmers for a Long Time – The Leaflet*. The Leaflet – an Independent Platform for Cutting-edge, Progressive, Legal, and Political Opinion. <https://theleaflet.in/kerala-government-has-given-the-right-protection-to-its-farmers-for-a-long-time/>

Welcome to Environment & Society Portal | Environment & Society Portal. <https://www.environmentandsociety.org>

World Bank Group - International Development, Poverty, & Sustainability. (n.d.). World Bank. <https://www.worldbank.org/en/home>

Yunker, T., & Radunovich, H. L. (2021, December 26). *Farmer Mental Health Interventions: A Systematic Review*. PubMed Central (PMC). <https://doi.org/10.3390/ijerph19010244>

भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. (n.d.). भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. <https://ncrb.gov.in/accidental-deaths-suicides-in-india-year-wise.html?year=2017&keyword=>

भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. (n.d.). भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. <https://ncrb.gov.in/accidental-deaths-suicides-in-india-year-wise.html?year=2018&keyword=>

भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. (n.d.). भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. <https://ncrb.gov.in/accidental-deaths-suicides-in-india-year-wise.html?year=2019&keyword=>

भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. (n.d.). भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. <https://ncrb.gov.in/accidental-deaths-suicides-in-india-year-wise.html?year=2020&keyword=>

भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. (n.d.). भारत में आकस्मिक मौतें एवं आत्महत्याएँ वर्षवार | National Crime Records Bureau. <https://ncrb.gov.in/accidental-deaths-suicides-in-india-year-wise.html?year=2021&keyword=>

Agrarian suicides in India: Myth and reality - Nair - 2021 - Development Policy Review - Wiley Online Library

Agricultural reform in India: farmers versus the state - The Lancet Planetary Health

Analysis of Farmer Suicides in Kerala on JSTOR

Confronting Farmer Suicides in India on JSTOR

Crop-damaging temperatures increase suicide rates in India | PNAS

Farmers' Suicide Rate in India: A Brief Overview | Semantic Scholar

Farmers' Suicides and Response of Public Policy: Evidence, Diagnosis and Alternatives from Punjab on JSTOR

Farmers' Suicides and Psychosocial Intervention - U. Vindhya, Sunayana Swain, Praful Kapse, Nachiket Sule, 2022 (sagepub.com)

Farmers' suicides and the state in India: Conceptual and ethnographic notes from Wayanad, Kerala - Daniel Münster, 2012 (sagepub.com)

[https://one.oecd.org/document/TAD/CA\(2018\)4/FINAL/En/pdf](https://one.oecd.org/document/TAD/CA(2018)4/FINAL/En/pdf)

<https://revistia.com/index.php/ejes/article/view/5563/5416>

https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1200&context=econ_workingpaper

<https://www.aeaweb.org/conference/2016/retrieve.php?pdfid=13955&tk=7ZR4FeTB>

<https://www.jstor.org/stable/24241261>

https://www.researchgate.net/publication/5223785_Land_Fragmentation_and_its_Implications_for_Productivity_Evidence_from_Southern_India

