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Cropping Pattern Influences on Farmers Suicide: A Case Study of Karnataka

Economics

KEYWORDS : Distress, cash crops, integrated farming, capital intensive farming, suicide and mechanization.

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ABSTRACT

Agriculture is the mainstay of our people and plays a significant role in the overall economic development of Karnataka. More than 70 percent of the farmers working in this sector are marginal and small farmers. Though the food grain crops are dominant in the state, the area covered under food crops has been shown marginal decline during the study period compared to the total cropped area. The present study has undertaken to examine changing cropping pattern influences on the farmers' suicides in Karnataka. The study provides insight into their underlying causes of farmers' suicides and symptomatic of a deep-rooted crisis in agriculture. Results of the study reported that the average size of the landholdings of the marginal and small farmers is economically unviable and unprofitable for the adoption of modern mechanization. Both production and yield of major food grains were found to be more volatile however it was visible the production and yield with respect to non-food grains has been continuously increasing except 2014-15 whereas yield was declined. The low returns for the production of food grains forced the farmers to change their preference for production of commercialized crops rather than production of subsistence crops. Furthermore, stand still in yield and unattractive minimum support price made agriculture unprofitable. Finally, the uneconomical holdings, frequent failure of cash crops and more volatile prices of commercial crops increased the agrarian distress and push more and more farmers to commit suicide in the state.

Introduction

In India, agriculture continues to be the stronghold of people, in spite of constructive efforts have been making towards industrialization for the last two and half decades. It is visible that the major shift in the agricultural policy towards the modernization of the sector. A dynamic change has been witnessed in agricultural sector, particularly during post-green revolution and post liberalization period. With the invention of new technologies, HYV seeds, effective pesticides and chemical fertilizers and with the ever increasing demand for agricultural products farmers showed lot of interest in incorporating new methods of cultivation. They started cultivation of cash crops, like sugarcane, ground nut, cotton, areca nut, fruits which can fetch them more income. This resulted in the conversion from labour intensive farming to capital intensive farming. Moreover, the technological advancement in crop varieties and other yield increasing factors of production are hypothesized to have influence on farmers' behaviour which has been reflected in the changing cropping pattern from cultivation of low value crops to high value crops in most parts of the state (Patil, 2013). Again the shift towards cash crop production, which requires monetized inputs, including fertilizers and subsidies has further increased the cost of cultivation. Coupled with these the output prices were also falling since mid-1990s caused huge loss and indebtedness among farmers. In addition, economic reforms and the opening of Indian agriculture to the global market over the past two decades have increased costs, while reducing yields and profits for many farmers, to the point of great financial and emotional distress. As a result, small farmers are often trapped in a cycle of debt (Smita Narula, 2011). Furthermore, the rate of growth of agriculture in the last decade has been poor and is a major cause of rural distress. Consequently, the farming is increasingly becoming an unviable activity (Manmohan Singh, 2007). Even when the output prices started rising, there was no gain because of increasing cost of cultivation and falling yield. In this background, this study has undertaken to examine the influence of changing cropping pattern on farmers' suicides in Karnataka.

Small and marginal farm families will be given financial assistance of Rs.10,000 in two equal installments for a maximum of 2 acres to take up high income crops. The assistance will be credited to the beneficiaries' bank account. Of the total 10 lakh beneficiaries in the state under this scheme, 3 lakh are from agriculture wherein they are provided this assistance to take up production of pulses, oilseeds and cotton (Government of Karnataka, 2010). Hence, the policy of government directly and indirectly encourages the small and marginal farmers to change the cropping pattern from subsistence crops to the high value crops. Though there are several reasons for farmers' suicide, the changing cropping pattern is one of the important causes of farmers' suicide in Karnataka. Thus the farmers are switching over from low value cereal crop production to high value cash crops and the mono-cropping is also a major cause for suicides in the state.

"According to the National Crime Record Bureau Statistics, since 2004, 47 farmers have been committing suicide every day in India on an average. The recent spate of suicides with four to six farmers killing themselves every day in Karnataka alone demonstrates the severity of the crisis (The New Indian Express 29 July 2015). But the State Agriculture Department has reported that the number of farmers' suicide in Karnataka has declined from 145 in 2009-10 to 50 in 2014 (Times of India Jan 9 2015). In the last five years (2009 to 2014), the totals of 509 cases of farmers' suicides have been reported in Karnataka (Times of India Jan 9 2015). Further, it went up to 197 by the end of July 2015 (Ministry of Agriculture, Government of Karnataka Bangalore). The last crisis of this nature took place between December 1997 and June 1998, when 400 farmers committed suicide in Karnataka and Andhra Pradesh due to failure of cotton crop (Bhardwaj 2015). Thus the suicides occurred overwhelmingly amongst cash crop farmers. Growers of cotton, sugar cane, groundnut, vanilla, coffee, pepper and others. Far fewer suicides occur amongst growers of paddy.

2. Review of Literature

All over the world the impact of an industrial approach to boosting crop yields has exposed many small and marginal farmers of their self-sufficiency and thrown them into despair. This section deals the review of past literature related to this study and highlight the important objectives and findings of the study.

The maize crop is gradually replacing specialized crops of various districts because of its relative profitability, adaptability to varying agro-climatic condition, need of less farm

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management operations and serves as a source of feed and fodder. This outcome was in line with the results indicating that the growth rate of maize crop in terms of area and production has increased significantly and overtaken the traditional crop, and occupies largest share of area and production in the state. In this manner, the state of Karnataka, traditionally known for rice cultivation has slowly switched over to the cultivation of maize crop in the recent years. (Singha and Chakravorty, 2013)

Several factors pushing the farmers to commit suicide such as low irrigation facilities, dry land, uncertain and untimely rainfall, crop failure and low yield, pest attack, lack of institutional credit, declining subsides, investment and extension services, competing with imports due to trade liberalization, fall in output prices, increase in cost of cultivation, moneylenders and pesticide and fertilizer agents, inferior inputs, excessive use of fertilizers and pesticides, monoculture of cash crop cultivation or cultivation of commercial crops, hybrid varieties, absence of non- agricultural opportunities, family and social commitments: marriage, education, alcohol addiction and lack of support (Sanchita, 2009). It was evident that the farmers are switching over from low value cereal crop production to high value cash crops and the mono-cropping is also a major cause for suicides in the state. In Northern Karnataka regions the main crops were jawar, bajra, cotton, ragi, wheat, paddy, tur. Commercial crops also have a significant presence in the cropping pattern. The presence of at least one or two such cash crops can be seen across the size classes (Deshpande, 2002).

Rao, et. al., (2015) attempted to study geospatial inputs for precision farming as a means to reducing input cost: a case study in grape gardens as. The study reported that Indian farming community is passing through a phase of reducing incomes, uncertain markets and unpredictable weather conditions. Farmers needed advance information and intelligence on agricultural commodities and their supply and demand position in the local as well as global markets. They also need advises on the impending climate and weather so as to regulate their choice of crops and farm management and operations. Combining the satellite technology with the tools of ICT, it is possible to develop knowledge kiosks at the village level that can serve the information and advisory services to the farming communities and empower them to practice agriculture as a profession. Finally, such support would give them confidence and resilience to face the threats to their survival. Strong farm communities would bring in evergreen revolution and sustainable development.

Vasavi (2004) highlights the ways in which a range of new risks and contradictory social trends render the lives of farmers into distress conditions. Such conditions of distress are compounded by the social structuring of commercial agriculture that has led to the 'individualization of agriculturists'. These trends combine with the larger context of neo-liberal India, where agricultural issues and agriculturists are in a state of 'advanced marginalization', and account for the making of distress in which large numbers of farmers have taken their lives. From 1960s till 1990s, agriculture in the state was intensively practiced with more land under commercial crops than food crops, while during the last two decades it witnessed significant shift in acreage from commercial non-food crops to horticultural crops (Purushothaman and Kashyap, 2010). As per the National Crime Bureau Records (NCBR), the total number of farmers committed suicide in Karnataka was put at 321 in 2014. Karnataka was the 5th state in the number of farmer suicides, next only to Maharashtra, Telangana, Madhya Pradesh and Chattisgarh in the country. In Karnataka, as per the official records, about 520 farmers resorted to commit suicide till October 7, 2015, and it is continued to rise. As an average, the farmers' suicide rate was put at 9 per lakh cultivators in the state as whole and 16 in Mandya district (Biradar and Kurnal, 2015).

Statistically, the rising cost of cultivation and diminishing net returns came out to be significant with the incidences of indebtedness. The states having high level of agricultural development are characterized by high incidence of indebtedness. Most of the indebted farmers belong to the small and marginal categories but the states where the degree of commercialization is high, the incidence of indebtedness is found to be high among the semi-medium and medium farmers (Nethravathi, 2015). The present agricultural credit system is abysmal and the farmers are not getting the appropriate price for their crops.

Karnataka is a drought-prone region with a large proportion of wastelands, high outstanding agricultural credit from scheduled banks and high density of marginal and small farmers. These conditions could trigger a serious agrarian crisis and the state is dominated by rain-fed agriculture. Under these circumstances, the narrow techno-centred green revolution strategy gave rise to inappropriate cropping patterns in many parts of the state. Agricultural distress is acute in Karnataka's northern dry regions, while the incidence of suicides has been very high since 1997. In addition, agricultural transformation has been slow due to low growth of farm productivity, low agricultural prices, inadequate employment opportunities outside agriculture and low demand for agricultural products due to stagnation of per capita food consumption for the last two decades.

3. Statement of the Problem

Agriculture plays an important role in the overall economic development of Karnataka. It is still one of the priority sectors of the state's economy, particularly rural economy, not withstanding its diminishing share in the State Domestic Product (SDP). Several policies and programmes are being planned and implemented by government from time to time to improve productivity. Recently, the government encouraged farmers to shift from food crops to commercial crops such as tobacco, cotton, sugarcane, chillies, fruits and vegetables, areca nut etc. Small farmers who did so found themselves ill-equipped to cope with the market, which was governed by the WTO regime. The huge investments made on commercial crops went down the drain, while the debt burden went up. As the old debt is not repaid, the farmer cannot get a new loan. The risk of producing a commercial crop, which is borne entirely by the grower, is greatly increased when the crop is grown for export, which induces price volatility. As the cotton price improved in 1990, farmers shifted towards its cultivation from millets, by expanding net sown area. They took loan from banks, traders and commission agents. As prices fell, they were badly hit (Patnaik, 2003). Thus, the rising input costs, declining farm prices due to globalization of agriculture and the increasing indebtedness of the farmers are the prime culprits behind these unnatural deaths (Shiva, Vandana, Nov. 2001, The Ecologist). Hence, the thousands of farmers across the state have been forced to commit suicide. In this context, this study has undertaken to examine the changing cropping pattern and its impact on farmers' suicides with special reference to the state of Karnataka.

4. Objective of the study

The study is based on broad primary objective of know-

ing the pattern of landholding and to examine the changing cropping pattern and its impact on farmers' suicides in Karnataka. Suggest the measures to prevent the farmers from committing suicide in Karnataka.

5. Methodology of the study

Present study is based on secondary data. The data required for this study has been collected from the research articles published in journals, RBI handbook, Central and the State Governments reports. Data relating to the farmers' suicide has been also collected from the Ministry of Agriculture, the Government of Karnataka, and the regional and national news papers. Therefore, this study is completely based on the secondary data.

6. Results and Discussion

The results of the study has been discussed and presented under the following sub heading,

6.1 Size of Landholdings

Land is very important asset in rural areas and influence on the socio economic status of an individual in the society. The size of farms in Karnataka were broadly categorized as marginal (<1hactare), small (between 1 and 2ha), semi-medium (between 2 to 4ha) medium (between 4 to 10ha) and large farms (>10) respectively. The information relating to different size of landholdings has been collected and presented in the table 1. There are 78.32 lakh farm households in the state. Of these, the marginal farm households' accounts 49 percent followed by small (27.3%), semi-medium (16.2%), medium (6.5%) and large farm households (1%). The area operated was found to be highest among semi-medium farm households (33.93%) compared to small (24.8%), medium (23.9%) and the marginal farm households (15.2%). Whereas the area operated in percentage was found to be lowest in case of large farm households (8.2%).

It is interesting to note that the average size of landholdings was found to be highest among large farm households (14.71ha) compared to the medium (5.69ha), semi-medium (2.68 ha) and small farm households (1.41ha). However, the average size of landholding was lowest with respect to the marginal framers (0.48ha). It was evident from the table that the average size of the landholdings of the marginal and small farmers are economically unviable and unprofitable for reckless mechanization and switching over from the production of food grains to the production of cash crops where area is merely suitable to grow food grains. Hence, it could be inferred that small and marginal farmers undertook investment for growing commercial crops not only increased indebtedness but it would lead threat to the food security of these farm households in the long run.

Table: 1.Distribution of Farm Households according to Size of Landholdings in Karnataka (2010-11)

Sl. No.	Farm Category	No. of Farm Households (in Lakh)	Area Operated (in Lakh Ha)	Average Size of holding (Ha)
1	Marginal Farms (<1Ha)	38.49 (49.0)	18.51 (15.2)	0.48
2	Small Farms (1-2Ha)	21.38 (27.3)	30.20 (24.8)	1.41
3	Semi-Medium(2-4Ha)	12.67 (16.2)	33.93 (27.9)	2.68
4	Medium Farm (4-10 Ha)	5.11 (6.5)	29.04 (23.9)	5.69
5	Large Farms (>10Ha and above)	0.68 (1.0)	9.94 (8.2)	14.71
Total		78.32(100.0)	121.61(100.0)	

Note: Figures in parenthesis are percentages to total

Source: Week-wise Area coverage reports from JDAs during 2006-07 to 2010-11.

6.2 Cropping Pattern in India

The cropping pattern determines the economic status of the farmers in rural areas. Cropping pattern denotes the distribution of area under different crops in different seasons expressed in percentage of total crop area. A change in cropping pattern implies a change in proportion of area under different crops. The change in cropping pattern occurs periodically depending upon the market forces and agro climatic conditions. These changes bring about a chain of effects on different aspects of farming and its economy along with some changes in social and economic aspects of farming families. The data relating to area, production and yield with respect to the food grains and non-food grains has been summarized in the table 2.

It was observed from the table that for the past two decades the area under major food grains has been declining compared to the area allocated for growing the non-food grains. The area allocated to major food grains was decreased from 127.4 million hectares in 1993-1994 to 103.9 million hectares in 2014-2015 whereas area allocated to non-food grains was increased from 111.2 million hectares to 120.4 million hectares to the total cropped area during the corresponding years. Both production and yield of major food grains were found to be more volatile however it was visible that the production and yield with respect to non-food grains has been continuously increasing except 2014-15 where yield was declined. The data clearly showed that the cash crops are occupying more cultivable land than the food grains. Hence, it could be inferred that the many farmers in the country without knowing the risk of growing cash crops unscientifically switching over from the production of food grains to the production of non-food grains irrespective of their size of farms.

Table: 2. Area under Food grains and Non-Food grains (Million Hectares)

Years	Major Food grains			Non-Food grains		
	Area	Production	Yield	Area	Production	Yield
1993-1994	127.4	135.1	106.0	111.2	110.7	99.5
2001-2002	127.5	155.3	121.8	114.9	128.5	111.8
2010-2011	104.4	114.3	109.5	114.0	128.0	112.2
2011-2012	104.0	119.5	114.8	116.5	131.2	112.6
2014-2015	103.9	116.4	112.1	120.4	131.5	109.2

Source: Hand Book of RBI 2014-2015

Annual Season and Crop Reports of DE&S.

6.3 Cropping Pattern in Karnataka

Systematic understanding of changes in cropping pattern over the years is very important for the farmers to get better returns, for the entrepreneurs to decide the optimal locations and capacities of new agro-based plants, for the policy makers to check the over or under production of some farm products, thus ensuring the required overall balance. There was a shift in area under different crops mainly from cereals and commercial crops to pulses, fruits and vegetables during these years (Ahmad et.al., 2014). Non-food crop assumes significant importance in terms of overall crop production and income shares of the households in the state. Hence, the farmers face a variety of problems such as price, yield, wrong choice of crops and resource risks, which make their incomes further unstable from year

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to year. In this perspective, the cropping pattern of state was presented in the table 3.

Food grains are very important for human existence and necessary for the food security. The information relating to area covered under food grains and non-food grains has been summarized in the table.3. Since 2001, the total cropped area has been increasing in the state. Cereals and pulses together constitute the major food grains. Non-food grains consist of oil seeds, cotton, sugarcane and tobacco and hence all these non-food crops are considered as the major non-food grains. Area allocated for major food grains was found to be seen more instability between 2001-2002 and 2011-2012 which was visible in the table. Disaggregate data showed that area under cereals has been declining from 52.82 lakh hectares in 2001-2002 to 51.22 lakh hectares in 2011-2012 whereas in the corresponding years the area covered under pulses has increased from 71.75 lakh hectares to 82.36 lakh hectares respectively. Therefore, it could be inferred that the farmers prefer to allocate more cultivable area for growing pulses rather than growing cereals. It was also observed from the table that the share of area under oil seeds has been widely fluctuating since 2001. Except 2001-2002, the area allocated to grow cotton has been continuously increasing however similar trend was visible with respect to sugarcane and tobacco. But the area under these crops marginally declined during 2011-2012.

Since 2001, the agriculture in the state was intensively practiced with more land under commercial crops than major food crops. It was evident that the growth rate of cash crops in terms of area and production has increased significantly and overtaken the food crops and occupies largest share of area and production in the state. Therefore, it was inferred that the low returns for the production of food grains forced the farmers to change their preference for production of commercialized crops rather than production of subsistence crops. Thus, recently it is visible uneconomical and frequent failure of cash crops increases the agrarian distress and pushes more and more farmers to commit suicide in the state.

Table: 3.Area under Food grains and Non-Food grains in Karnataka (Area in Lakh ha)

Years	Food grains			Non-Food grains				Total Area under Agricultural Crops
	Cereals	Pulses	Total	Oil Seeds	Cotton	Sugarcane	Tobacco	
2001-2002	52.82	18.93	71.75	17.75	6.08	4.07	0.72	99.99
2009-2010	54.76	24.80	79.56	20.01	4.57	4.97	1.18	110.29
2010-2011	54.45	27.91	82.36	16.24	5.48	6.31	1.25	111.64
2011-2012	51.22	23.03	74.25	14.16	5.70	5.92	1.15	101.15

Source: Week-wise Area coverage reports from JDAs during 2006-07 to 2010-11.

7. Findings and policy measures

Agricultural transformation has been slow due to low growth of farm productivity, low agricultural prices, inadequate employment opportunities outside agriculture and low demand for agricultural products due to stagnation of per capita food consumption for the last two decades. It was observed from the study that there is an association between farmers' suicide and changing cropping pattern in the state and nation. Hence, both the central and state governments link the agricultural input subsidy only to food grains.

Area under different crops growing in Karnataka largely depends upon the monsoon and hence farmers who are practicing mono cropping fell into the problems than the farmers adopted multiple cropping. Therefore, it is needed to encourage the farmers to adopt the integrated farming for diversification and minimizing the risk.

The area under major commercial crops such as groundnut, cotton, areca nut and sugarcane, more particularly rubber in hilly zone has been increasing over the past two and a half decade in the state. Irrespective of the regions, the majority of the cereal based cropping system has paved way for more profitable commercial cropping system which has comparative disadvantage over the other. Therefore, the Department of Agriculture should make constructive efforts to convince the farmers not to shift cereal based farming to commercial crops where area is not suitable to grow such crops. In addition, the State Government should strictly implement the area specific and crop specific subsidies across the state rather than implementing uniform subsidy schemes.

It is common perception that the failure of tube wells is one of the causes of agrarian distress and pushes the farmers to commit suicide. Recently, the farmers are switching over from the low water intensive cereals crops to high water intensive cash crops across the state. Small and marginal farmers are growing cash crops even in uneconomical and unviable holdings. They also construct more than one tube wells for growing such crops due to zero marginal cost of lifting water and thus failure of such wells lead to take extreme steps. Therefore, the Government should take eco friendly steps for improving water tables by way of rain harvesting linked subsidy, water recharging of tanks, ponds instead of free supply of power and subsidy for digging wells. It is merely short term remedy and pushes them further deep debt trap.

8. Conclusion

Agriculture is the mainstay of our people and plays a significant role in the overall economic development of country. In Karnataka, more than 70 percent of the farmers working in this sector are marginal and small farmers. Though the food grain crops are dominant in the state, the area covered under food crops has been shown marginal decline during the period of study compared to the total cropped area. The study provides insights into their underlying causes, arguing that suicides are symptomatic of a deep-rooted crisis in agriculture. The average size of the landholding of the marginal and small farmers is economically unviable and unprofitable for the adoption of modern mechanization. Both production and yield of major food grains were found to be more volatile however it was visible that the production and yield with respect to non-food grains has been continuously increasing except 2014-15 where yield was declined. The low returns for the production of food grains forced the farmers to change their preference for production of commercialized crops rather than production of subsistence crops. Finally, the frequent failure of cash crops increases the agrarian distress and pushes more and more farmers to commit suicide in the state. Thus the government should adopt the crop specific and area specific input subsidy policy rather than uniform subsidy schemes.

References

1. Ahmad Fahim Rahimi, H. Basavaraja, L. B. Kunnal, S. B. Mahajanashetti And S. N. Megeri, (2014), "An Economic Analysis of Changes in Cropping Pattern in Karnataka", Karnataka J. Agric. Sci.,27 (3): (312-315).
2. Deshpande, R.S, (2002), Suicide by Farmers in Karnataka -Agrarian Distress and Possible Alleviatory Steps, Economic Political Weekly.
3. K. R. Patil, G. R. Manjunatha Andk. S. Aditya, (2013), "Structural transition in Karnataka Agriculture during post liberalization era". Journal of Crop and Weed, 9(2):65-71 Manmohan Singh, Prime Minister of India, 2007
4. Meera Bhardwaj (2015), "75 Farmer Suicides in Just One Month Reveals Mass Hysteria in Karnataka", Published: 18th July, the New Indian Express.
5. Netravathi (2015), "Agrarian distress and indebtedness in India: challenges and causes", paper presented in one day national conference held at Davangere university Davangere.
6. P P Nageswara Rao, Gowri, UN and B P Lakshmikantha (2015), "Geospatial Inputs for Precision Farming as a Means to Reducing Input Cost : A Case Study in Grape Gardens as Karnataka Remote Sensing Applications Centre, Bengaluru, Paper presented in One day National conference held at Davangere University Davangere.
7. Patnaik, Utsa, (2003), "Global Capitalism, Deation and Agrarian Crisis in Developing Courtiers", Journal of Agrarian Change, Vol.3
8. Purushothaman, S. and S. Kashyap (2010), "Trends in Land Use and Crop Acreages in Karnataka and their Repercussions", Karnataka Journal of Agricultural Science, Vol.23, No.2, pp.330-333.
9. R. R. Biradar and D.C. Kurnal (2015), "Farmers' Suicide in Karnataka: Magnitude, Causes and Remedial Measures" One National Seminar "Agrarian distress and Farmers Suicide in India: Causes and Inventions" held on 15 th October 2015 at the Department of Economics, Davangere University Davangere.
10. Report on area production, productivity and principles of Agriculture crops in Karnataka 2009-2010, Directorate of Economics and Statistics Bangalore (DES, 2009-10).
11. Singha, A. and Chakravorty, A., (2013), "Crop diversification in India: a study of maize cultivation in Karnataka". Scientific. J. Rev. 2: 1-10.
12. Shiva, Vandana, (2001), Nov., The Ecologist
13. Smita Narula, Lauren DeMartini, Colin Gillespie, Jimmy Pan, and Sylwia Wewiora,(2011), "Every Thirty Minutes: Farmer Suicides, Human Rights, and the Agrarian Crisis in India", Center for Human Rights and Global Justice (New York: NYU School of Law, 2011).
14. Sanchita Mukherjee, (2009), "Examining Farmer Suicides in India: A Study of Literature", Centre for Development Studies, Thiruvananthapuram. Online at https://mpra.ub.uni-muenchen.de/35675/ MPRA Paper No. 35675, posted 2. January 2012 12:11 UTC
15. The new Indian Express 29 July 2015, "75 Farmer Suicides in Just One Month Reveals Mass Hysteria in Karnataka".
16. Vasavi.A.R., (2004), "Suicides and the making of India's Agrarian Distress" National Institute of Advanced Studies IISc Campus, Bangalore-560012 INDIA arvasavi@gmail.com