SURVIVAL STRESS FOR LIVELIHOOD SECURITY OF FARMERS IN PALAKKAD DISTRICT: THE CASE OF NALLEPPILLY PANCHAYAT

V. KUMARAN

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Kerala Agricultural University, Thrissur**

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**DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
VELLAYANI, THIRUVANANTHAPURAM-695 522**

DECLARATION

I hereby declare that this thesis entitled **"Survival stress for livelihood security of farmers in Palakkad District: the case of Nalleppilly Panchayat"** is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other university or society.

Vellayani

V. KUMARAN
(2006-11-120)

CERTIFICATE

Certified that this thesis entitled **"Survival stress for livelihood security of farmers in Palakkad District: the case of Nalleppilly Panchayat"** is a record of research work done independently by **Mr. V.KUMARAN (2006-11-120)** under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.

Vellayani,

Dr. A. ANIL KUMAR
(Chairperson, Advisory Committee)
Professor,
Department of Agricultural Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695 522

Approved By

Chairperson

Dr. A. ANIL KUMAR
(Chairperson, Advisory Committee)
Professor,
Department of Agricultural Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695 522

Members

Dr. S. MOTHILAL NEHRU
Professor and Head,
Department of Agricultural Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695 522

Dr. ELSAMMA JOB
Professor and Head,
Department of Agricultural Economics,
College of Agriculture, Vellayani,
Thiruvananthapuram-695 522

Dr. B. PRASANNA KUMARI
Professor,
Department of Home Science,
College of Agriculture, Vellayani,
Thiruvananthapuram-695 522

External Examiner

DEDICATED TO

My beloved parent, my sister and
My own country

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INTRODUCTION

1. INTRODUCTION

Agriculture scenario in India, at present, is being faced with a serious crisis consequent to globalization, international trade agreements, removal of quantitative restrictions, domestic government policies and a number of other reasons which are mostly beyond the control and reach of farmers. Agriculture is now increasingly becoming export oriented business in line with terms dictated by international equations disregarding the concerns and interests of our farmers. Therefore, farmers are exposed to an open international market entailing falling global prices even as inputs cost and credit cost rose. Farmers, especially rice farmers, who have thus made to depend on market forces, which continue to be hostile to their livelihood interests. Sequel to this process, the farmers get alienated from their traditional profession of farming and driven to take up casual labour for their survival.

Over the years, agriculture's contribution to the gross domestic produce in India has reduced from 56 per cent in 1950-51 to 25 per cent in 2001-02 whereas as per the 2001 census 58 per cent of the total workers are still depend on agriculture either as cultivators or as agricultural labourers. In addition to the issues and constraints in the pro-farmer agricultural development efforts at national level, the agriculture situation in Kerala state has some unique problems like lesser area under food crops, smaller size of holdings, scarcity of agricultural labourers, predominance of plantation crops etc.

Rice cultivation in Kerala, is mostly confined to three districts-Palakkad, Thrissur and Alappuzha. There has been a steady fall in the area and production of paddy during the past few decades, though rice is the staple food of 3 crore people of Kerala. From 7.79 lakh hectares in 1961 the area under rice cultivation in Kerala has been reduced to 3.11 lakh hectares in 2002-03.

An important characteristic of rice farmers in general is that for them, rice farming is not merely a profit oriented agricultural intervention but it is deeply ingrained in their culture, traditions and psyche. Therefore, despite the economic and other constraints and market pressure, rice farmers continue to cultivate rice as it is difficult for them to part with rice farming.

In the present open market scenario, rice farmers are being faced with a number of problems especially cost escalation of agricultural inputs, falling price of rice, difficulty in doing agricultural operations on time due to scarcity of labour and high wage rate. Hence the farmers who solely depend on rice farming are in a very difficult life situation as they are unable to meet their livelihood requirements. Farmers are forced to reduce their livelihood expenses which eventually lead to borrowing from banks and private money lenders. It becomes almost impossible for the farmer to escape from this vicious circle of cumulative indebtedness. In this predicament he gradually loses his self esteem and morale and shows withdrawal symptoms. Farmers fail to repay the loan due to the fact that they are getting very low returns from farming.

The culture of the society in which farmers live, the value system of the farmers and their inability to meet their increasing livelihood requirements generate varying degrees of anxiety and survival stress among farmers. Due to the inability to withstand this survival stress consequent to the personality related vulnerability, attitude and value system of farmers, it is unfortunate that, some farmers commit the extreme step of suicide. Therefore, it is to be recognised as a very important current human right issue which needs urgent attention and humanist social intervention.

The State of Maharashtra recorded highest number of farmers' suicides especially in Vidharbha region. Similarly Wayanad, Kannur,

Idukki and Palakkad districts in Kerala also witnessed substantial increase in farmers' suicide.

Though many reasons can be attributed to this tragic situation, the role of globalization and different international trade agreements played an important role in worsening the agrarian situation. We cannot deny, if some argue that behind all these trade agreements, there is an imperialist agenda for destroying self sufficiency and self reliance of our country with respect to agricultural production, in favour of world's super powers. But policy makers and administers refuse to take cognizance of the implicating these agreements.

1.1 NEED FOR STUDY:

Consequent to the severity of cumulative indebtedness, inability to meet livelihood requirements, social isolation and loss of self esteem, to a high level of anxiety and survival stress is created among farmers. The manifestations of this anxiety are different in different individual farmers. It may vary from showing withdrawal symptoms and mood swings to the extreme extent of committing suicide. These random suicides of farmers in predominantly agricultural areas warrant urgent social intervention. The pathetic plight of farmers and the factors contributing to this, need to be thoroughly probed and analyzed to draw meaningful inference so as to design a development strategy to resolve this most serious human rights issue.

1.2 SCOPE OF THE STUDY:

This was an attempt to deconstruct the concept of survival stress of farmers and to delineate the various dimensions of, and the factors contributing to, the survival stress and there by enriching the field of behavioural sciences and extension education. Further, this will help in developing and providing database and strategic wisdom for planners and policy makers for constructing a pro-farmer and pro-people agricultural development policy and for its praxis through different and appropriate projectised interventions.

Objectives

To assess the extent of survival stress for livelihood security being experienced by the farmers of Nalleppilly Panchayat of Palakkad District. Delineation of the factors leading to survival stress, the profile characteristics of farmers, extent of indebtedness and perception on governmental interventions in resolving the agrarian crisis will also be studied.

1.3 LIMITATIONS OF THE STUDY:

The present study had the limitations of time and money, as it was undertaken as part of the requirement for the PG. Programme. The study location was confined to only one Panchayat. This may perhaps narrow down the scope of generalizing the results for the entire state. The study was based on the expressed opinion of the respondents; it may or may not be free from their individual biases or prejudices. In spite of these, every effort is taken to conduct the study as systematic as possible.

1.4 PRESENTATION OF THE STUDY:

The report of the study has been presented under five chapters. The first chapter deals with introduction, wherein the statement of the problem, need, scope, and limitations of the study are discussed. The second chapter covers the review of the studies related to the present study. The third chapter relates to the details of methodology used in the process of investigation. The fourth chapter deals with the results of the study obtained and discussion of the results in detail. The fifth and final chapter presents the summary of the study and suggestions for future research. The references, appendices and abstract of the thesis are given at the end.

THEORETICAL ORIENTATION

2. THEORETICAL ORIENTATION

This chapter aims at developing a theoretical frame work on the concept of "survival stress" for the livelihood security of farmers. This has been furnished on the basis of definitions, ideas and concepts. Each topic presented in this chapter is associated with the available research findings either directly or indirectly. This helps to give a proper orientation of the study and also to place the problem on a theoretical perspective. This also assists in evaluating one's own research efforts by comparing them with the related effort of others.

The crisis in the agrarian sector due to many socio-economic, climatic and technology related factors has had its direct impact on the behaviour of farmers. The farmers who produce grains, fruits and vegetables for the entire society, are adversely affected by the agrarian crisis and they have been impoverished, dispossessed and marginalized. They have been relegated to the fringes of society as a result of the crisis hitherto unheard of in the recent history. They are not being given their due attention empathy, and compensation by the society and the government in particular. The callous attitude of government further accentuated their already pathetic plight. As a result, they failed in meeting their livelihood necessities which pushed them into the vicious circle of debt trap and many hapless farmers committed suicide. These unlucky farmers resorted to this extreme step as they could not withstand the stress for their survival by meeting their basic livelihood requirements.

Going by Abraham Maslow's model of 5-tier hierarchy of needs, the primary needs are one's physiological and security needs which are nothing but livelihood security requirements. And hence, when one's income level is perceived to have reached the minimum threshold limit of meeting even these primary needs, a person undergoes a psychological stress to circumvent the eventuality and for his survival. This stress should be viewed and dealt with as survival stress distinctively from a persons usual

and day to day temporary and mild stress as this has a long-term consequence which can be get rid of only if he earns additional income. This stress is termed "Survival stress" in this study. Moreover, since almost all the farmers are heads of family as well, the responsibility of looking after the needs of all the members of his family at all hierarchy of need levels, especially the fundamental ones, also fall on him, the stress of a farmer is developed in relation to the question of survival of a farmer and his family in meeting the basic livelihood requirements, which is referred to as survival stress in the present study. All the accepted definitions of stress are based on the principle that a demand is placed on a person, and stress arises as a result of their perceived ability to cope. Stress can be positive until it affects your ability to cope or your ability to think, and when it affects your ability to cope and think it becomes pathological. Stress is also experienced in different ways by different groups of people. Thus farmers stress has economic, social and psychological dimensions.

The review has been presented under the following heads:

2.1   Concept of stress.

2.2   Survival stress of farmers.

2.3   Indebtedness of farmers.

2.4   Profile characteristics.

2.5   Sources of credit.

2.6   Credit utilization pattern.

2.7   Perception of farmers on governmental interventions.

2.1   CONCEPT OF STRESS

The concept of psychological stress is still in an amorphous state. Selye (1956) introduced the term 'stress' defining it as 'the nonspecific response of the organism to any pressure or demand.

French (1963) stated that stress can be viewed as individuals' reactions to the characteristics of work environment which appear threatening. It points to a poor fit between individuals' capabilities and their work environment, in which either excessive demand are made upon the individuals, or the individuals are not fully equipped to handle a particular work situation.

Marshall and Cooper (1977) pointed out that the term 'stress' has been used to denote any of the three things: (a) an excessive environmental force (b) the harm caused or (c) the individual's reaction in such a situation. Some researchers like Lazarus et al. (1970) viewed it as an intervening variable similar to emotion and motivation. Still more researchers like Cannon (1935), Caplan (1964) and Cofer and Appley (1964) suggested a homeostatic energy exchange model of stress.

Cox (1978) defined stress as a perceptual phenomenon arising from a comparison between the demand on the person and his or her ability to cope. An imbalance in this mechanism, when coping is important, gives rise to the experience of stress, and to the stress response.

Matteson and Ivancevich (1982) referred to stress as a stimulus or force which act on people, affecting them in someway, whereas Charles (1984) defined stress in terms of responses to stressors.

Lazarus and Folkman (1984) pointed out that stress results from an imbalance between demands and resources.

Palmer (1989) defined stress is the psychological, physiological and behavioural response by an individual when they perceive a lack of equilibrium between the demands placed upon them and their ability to meet those demands, which, over a period of time, leads to ill-health.

Vimalanathan (1990) stated that 'stress' is one of the most significant concepts ever developed in the social and biological sciences. However, its potential as a prime intellectual tool for not only understanding but also explaining individual and collective human behaviour and disorder has not yet been fully realized.

Jones (1997) pointed out that stress arises as due to the inability to cope with the demands placed on a person. Stress is positive until it affects his ability to cope with it but differs from each individual as they perceive.

Ansari and Singh (1997) reported stress as the reaction within the individual to the changing demands of the external environment.

Centre for Stress Management (2003) states that "stress occurs when pressure exceeds his or her perceived ability to cope".

Jone parry (2005) quoted stress as the adverse reaction of the people to excessive pressure or other types of demand placed on them.

2.2 SURVIVAL STRESS OF FARMERS

Farmers are one of the most deprived, marginalized and impoverished sections in our society due to a number of reasons. Their survival and existence is at stake. Inability to cope with livelihood demands creates a stress among them for their survival and existence which is referred to as survival stress in the present study.

Hornby (1998) quoted survival as a state of continuing to live or exist, often in spite of difficulty or danger. The word 'survival' means living or continuing longer than, or beyond the existence of another person, thing, or event; an out living.

Walker and Walker (1987) found that farmers scored higher than non-farmers on a range of stress-related symptoms, including chronic tiredness, difficulty in relaxing, forgetfulness, loss of temper, problems concentrating, back pain and sleep disruption.

Dillner (1994) inferred that the high suicides rates associated with farming are indicative of the stress currently faced with in the occupation.

Mc Gregor et al. (1995) found that livestock farmers suffered higher levels of stress than arable farmers; especially dairy farmers have high stress levels.

Eisner et al. (1998) reported raised levels of anxiety and depression among male farmers than females.

Booth and Lloyd's (1999) also found that stress was higher among farming women than farming men.

The World Health Organization (2001) report on mental health states 'Mental disorders occur in persons of all genders, ages and backgrounds, but the risk is higher among the poor, the unemployed, persons with low education etc.

Mann (2002) identified that most farm suicide victims had a diagnosable psychiatric illness or disorder and the most common disorder was mood swings.

Durkheim (2002) pointed out that suicide could be because of social isolation or individualism (egoistic) or excess of social integration (altruistic), breakdown of social regulation (anomic) or excess of social regulation (fatalistic).

Mishra (2006) identified the socio-economic stressors that are interrelated and co-existing in frequency orders which are responsible for farmers' suicide.

Meeta and Rajivlochan (2006) concluded that the suicides are direct results of the stress caused to the farmers by the pressure to clear various financial debts.

Shreyas (2006) found that apart from agricultural crisis, family problems, physical and mental illness also has a reason for farmers' suicides.

Sengupta (2008) reported that farmers kill themselves by consuming pesticides due to extreme conditioned stress and economic assets loss.

Kaushal (2008) quoted that mental illness as a main attribute for farmers' suicide.

Government of Kerala (2006) stated that the reasons for high prevalence of suicides in Kerala are because of high career expectations which are not fulfilled, family problems, etc.

2.3 EXTENT OF INDEBTEDNESS

National Sample Survey Organization (2005) found that the average amount of debt per farmer household in Kerala was Rs.33907 as against the national average of Rs.12,585.

Mishra (2005) found that 86.5 percent of farmers who took their own lives were indebted, their average debt was about $835 (Rs.37613) and 40 per cent had suffered a crop failure.

Dandekar et al. (2005) identified that among 111 farm suicide cases, 96 (86) per cent were indebted and concludes it as an important risk factor for the cause.

National Sample Survey Organization (2006) pointed out that the incidence of indebtedness in rural areas was 39 per cent in Kerala as against the national average of 27 per cent in 2002.

Shreyas (2006) found that the average outstanding debts of a distressed farmer in Kerala is Rs.72000 and it varied from Rs.33907 to Rs.1, 89,153 depending upon the survey area and crops grown by the farmers.

Mohanakumar and Sharma (2006) reported that accumulation of debt beyond the repayment capacity during a few years was the immediate provocation for resorting to the extreme step of suicide.

Jeromi (2007) stated that the severity of the indebtedness is reflected in high debt-asset ratio among the lowest asset holding class which leads to farm suicides.

Kaushal (2008) found that there is no direct link between indebtedness and farmers suicides.

Heyzer (2008) pointed out that the average outstanding debt reported was Rs.12, 585 per farmer households and Rs.25,902 per indebted farmer household.

2.4 PROFILE CHARACTERS OF THE FARMERS

2.4.1 Age

Prasad (1995) found that the development of any new skill is possible only by the younger age group as their physical strength and their psychomotor skills are at the peak.

Thomas (2000) reported that the age had positive and significant relationship with the knowledge of farmers.

Sharma (2004) found that a majority of those who committed suicides were relatively young, below the age of 45 years.

Mishra (2005) reported that in 269 farmer suicide cases in Maharashtra reported during 2004, 84 belonged to the age group 30-40 and 85 belonged to 40-50 years of age.

Dandekar et al. (2005) observed that most of the suicide victims were men and mostly in the age group of 30 to50.

Mishra (2006) reported that in the age-wise distribution of suicide victims in agriculture for males, 26 per cent were youth, 40 perc ent in the early middle age group, 23 per cent in the late middle age group, and 11 per cent were in the old age group. Among females, 47 per cent were youth, 31 per cent were in the early middle age group, 15 per cent were in the late middle age group, and 7 per cent in the old age group.

Sharma et al. (2006) also in their report on causes of indebtedness among the farmers stated that about 46 per cent of the respondents were from middle age group followed by those belonging to the young and old age groups.

Kaushal (2008) stated that over 70 per cent who committed suicide were married and around 90 per cent were over 45 age.

2.4.2 Educational status

Viju (1985) stated that the education level of farmers was seen influenced their knowledge level and their attitude towards farming which in turn influenced their adoption level.

Adhiguru et al. (1996) reported that the educational status of farmers has positive significant relationship with the utilization of farm subsidies.

Jacob et al. (1997) found that lack of proper education influences the stress level of people in rural communities and for their development.

Thomas (2000) reported that the age had positive and significant relationship with the knowledge of farmers.

Araya et al. (2003) identified lower level of education as a risk factor associated with major depressive disorders.

Kuruvilla and Jacob (2007) found that low education levels correlate with poverty leading to common mental disorders among people.

2.4.3 Area under cultivation

Dandekar et al. (2005) stated that the small and medium sized landholders have committed suicide though large landholding families are also affected by the crisis in the farming sector.

National Sample Survey Organization (2005) reported that 48.6 per cent of the farm households surveyed was indebted; of these 61 per cent had operational holdings below one hectare.

Mishra (2006) regarding farmers suicide reported that 14 per cent of the victims are marginal farmers, 39 per cent are small farmers, 21 per cent are semi-medium, 15 per cent medium, four per cent are large farmers and seven percent have not given information.

Mohanakumar and Sharma (2006) found that 60 per cent of farmers who committed suicide had land area below one acre. About 35 per cent had area between 11 and 50 cents.

Shreyas (2007) reported that 1.3 per cent of the farmers who committed suicide in Wayanad were landless while 10.1 per cent had below 10 cents of land, followed by 35.1 per cent with 11 to 50 cents, 13.3 per cent had 51 to 99 cents, 28,8 per cent had 1-2 acres and 11.4 per cent had more than two acres of land.

Jeromi (2007) stated that the average size of landholdings in the state is only 0.27 hectare as against 1.41 hectare at the all India level.

Gill (2007) found that the marginal farmers cultivating less than 2.5 acres of land and small farmers cultivating between 2.5 acres and 5 acres of land are in deep crisis.

2.4.4 Family size

The relationship of family size with adoption of improved agricultural practices is summarized below.

Review of studies	Nature of relationship
Jain, 1980	Positively significant
Hague, 1989	Positively significant
Sagar, 1989	Positively significant
Tyagi and Sohal, 1984	Non-significant
Agarwal and Arora, 1989	Non-significant
Reddy, 1991	Non-significant

Prasad (2004) identified that farmers' suicide are common in large sized families as their expenditure is more.

Mishra (2006) found that the average family size of suicide household is relatively larger size with more number of females.

Geetha (2007) reported significant positive correlation between family size of farmers and their risk preference.

Sengupta (2008) found that the average family size of the suicide victims is relatively larger size with more number of females.

2.4.5 Annual income

Income is the most important factor influencing survival stress and decision to commit suicide. Most of the farmers commit suicides as they could not repay the debt and cope with their present livelihood demands. Economic determinism and pivotal role in social and behavioural process is once again proved in the case of survival stress of farmers and farmer suicide.

Pandey (1976) observed that the household income was just sufficient to meet the consumption expenditure for the sample as a whole, provided that the amount of outstanding debts was kept more or less the same either by not repaying them or by incurring new debts to repay the old ones.

Rajendran (1981) reported that income from crops formed the major source of income of the farm households and it formed about 82 per cent of the gross income of the farm families.

Varadarajan et al (1981) opined that consumption expenditure is influenced significantly by the income of the families. Consumption is

influenced by the total variance income. Elasticity of consumption for farm families was found to be inelastic as suggested by theories of consumption.

Badagaonkar (1989) found a positive and significant relationship between annual income and management orientation of the farmers.

Singh and Hazell (1993) observed that per capita income is a useful measure of poverty because it summarizes a household's ability to satisfy all its basic needs.

Unnikrishnan (1994) defined income of an agricultural labour as the total earnings and receipts of the households for the past one year from agriculture, wages, live stocks, pensions, salaries, grants and other social contributions.

The World Health Organization (2001) on its psychiatric epidemiological survey reported that higher rates of mental illness are common among low-income communities.

2.4.6 Expenditure pattern

National Council of Applied Economic Research (1961) defined income of a household as the earnings both in cash and kind that has accrued to and realized by the members of the households during the reference period.

Puhazhendi (1980) observed that expenditure on food was 67.45 per cent followed by clothing (6.16 %) and the expenditure on social and religious functions ranked third in total expenditure.

According to Sankar (1985) consumption expenditure comprises all expenditure incurred by the households exclusively on domestic account

including consumption of home grown produce, gifts, loans, wages received in kind etc.

Unnikrishnan (1994) denoted consumption as the expenses incurred by the families as a unit for food and non food items like cloths, lighting, medicine, education, travel, recreation, social and religious functions, service charges, maintenance charges etc.

National Sample Survey Organization (2005) indicates that the monthly per capita income to a farmer household is much low than the monthly per capita consumption expenditure.

Mishra (2006) reported that the expenditure of farmers would depend on the economic position of the household and indicated that it would be in order of Rs.20000 - Rs.40000 per ha for marginal / small farmers.

Gill (2007) stated that the annual consumption expenditure of the farmers is more than their income and thus they borrow for their consumption needs and fall in debt trap.

2.4.7 Mass media exposure

Sudha(1987) found a significant relationship between mass media participation of trained farmers with their level of economic performance.

The relationship of mass media exposure with knowledge is summarized below

Review of studies	Nature of relationship
Lalitha, 1986	Negatively significant
Gnanadeepa, 1991	Negatively significant
Sasankan, 2001	Negatively significant
Preetha, 1997	Positively significant
Thomas, 2000	Positively significant

Ahire and Shenoy (2005) in their study regarding the utilization of communication channels by mango growers of Andhra Pradesh observed that newspaper, TV and farm magazines as the most utilized mass media sources.

Sengupta (2008) stated that most of the farmers are extremely vulnerable to misinformation about crop prospects due to the lack of mass media exposure.

2.4.8 Social participation

Hussain (1992) observed that group management approach had brought in favourable changes in the character of social participation of the rice farmers.

Sindhu (2002) reported that the old farmers are likely to loose interest in active participation within and outside the social system.

Kumar and Rao(2002) found that majority of the cotton cultivators had medium level (59.20 %) of social participation and 24.50 per cent had low level and only 12.30 per cent had a high level of social participation.

Sasankan (2004) found that majority of the respondents had medium level of social participation due to the lack of credible institutions and organization and extension contacts.

Mishra (2005) reported that most of the suicide victims are with more social responsibilities.

2.4.9 Extension orientation

These researchers identified the following relationship between extension orientation and knowledge.

Review of studies	Nature of relationship
Ganadeepa, 1991	Negatively significant
Gangadharan, 1993	Negatively significant
Manju, 1996	Non- significant
Manju, 1997	Positively significant
Jose, 1999	Non- significant

Santhosh (1999) found that extension agency contact had a positive and significant relation with participation of farmers in agricultural development programs implemented through people's plan.

Thomas (2000) reported that 51 per cent of medicinal plant cultivations had low extension contact and least extension participation.

Mishra (2005) found that most of the farmers are not aware of latest technologies and schemes regarding agriculture and their major source of information are local shop supplying farm inputs.

2.4.10 Level of aspiration

English and English (1958) defined level of aspiration as the standard by which a person judges his own performances as a success or failure or as being up to what he expects of himself.

Cantril and Free (1962) stated level of aspiration of an individual as his own over all assessment of his concern for wishes and helps for the future or for the fears and worries about the future in his own reality world.

Muthayya (1971) reported that one's personal and socio-economic attributes to a great extent contributed to one's level of aspiration which increased the adoption of new idea.

Sushama (1979) observed that level of aspiration (future) of tribal people had a positive and significant relationship with knowledge about modern living practices.

2.4.11 Economic motivation

Sabapathi (1988) observed that those who are economically motivated would try to improve their farming practices by acquiring knowledge from localite sources or cosmopolitan sources.

Juliana (1989) found that 47.50 per cent of big farmers followed by 37.5 per cent of marginal and small farmers had a high level of economic motivation.

Anantharaman (1991) reported that economic motivation significantly contributed to the efficient management of the farms.

Meera (1995) found that a positively significant relationship exists between economic motivation and adoption behaviour of the farmers.

Gowda (1996) observed a negative and significant relationship between economic motivation and income from rice farming.

Sivaprasad (1997) found that economic motivation as an important character that persuades people to adopt improved agricultural practices for sustainable returns from farm.

 Thomas (1998) reported that the more one is motivated by economic ends, the more he/she will try to adopt the practices which are aimed at increasing sustainable returns.

Geetha (2007) observed that there is significant relationship between economic motivation and indebtedness.

2.4.12 Risk orientation

Viju (1985) reported that risk orientation has positive and significant relationship with the attitude of farmers towards farming.

Jaleel (1992) found that risk orientation had positive and significant relationship with the extent of adoption.

Sindhu (1997) reported that members of cut flower growing groups exhibited high levels of risk orientation.

Jeya (1999) found that 78.00 per cent of the farm women had medium level of risk orientation and almost equal per cent with low and high levels of risk orientation.

2.4.13 Management Orientation

Mathew (1982) reported that stress arises only when the people realize that they can not manage problems adequately under a difficult situation.

Massie (1987) found marketing management as regulating the level, timing and characteristics of demand for one or more product of the team and it consist of planning, organizing, controlling and implementing the marketing programmes and strategies.

Anantharaman (1991) related managerial efficiency with the management function in terms of components such as planning, labor management, information management, financial management, risk management, production management and marketing management.

Cyriac (1999) indicated that 'Managing problem' is a variable which could have significant negative relationship with burnout.

Heyzer (2008) found that their better management orientation is a key for driving away the distress in farming.

2.4.14 Political orientation

Halmstorm (1978) indicated that more than 90 per cent of the farmers were members of South Indian factory trade unions.

Rexlin (1984) stated that majority of the small farm women (94.7 %) were not participating in any political organization.

Geetha (2002) found that 76 per cent labours of Thozhil sena were of the opinion that politics is one of the main hindering factors for the successful implementation of any new programmes.

Kaushal (2008) reported that the political environment infuses suicidal tendencies among some farmers group.

2.5. SOURCE OF CREDIT

Verma et al.(1995) reported that agricultural credit is the amount of money needed by a farmer to achieve a proper combination of productive factors like land, labour, inputs, machinery, livestock and managerial ability, so that the planned level of income is generated by the farm.

Dandekar et al. (2005) found that the small and medium land holders are starved of credit –mostly institutional credit. Thus they are forced to depend on money lenders for survival and then fall into debt trap.

Singh and Singh (2005) found major financing to the farmers were contributed by the commercial banks followed by cooperatives and most of the farmers who avail loan are marginal farmers.

Mishra (2005) reported that about 82 per cent farmers have taken loan from formal sources like banks and 53 per cent from informal sources like money lenders. In fact in 39 per cent of the farm suicide cases loans were from both the formal and informal sources.

National Sample Survey Organization (2005) indicated that supply of credit from formal sources to the agricultural sector is inadequate, leading to greater reliance on informal sources at higher interest burden. Small farmers depend mostly on informal sources.

National Sample Survey Organization (2006) reported that farmer households in rural areas in Kerala mostly borrowed more from formal institutional agencies than informal agencies. In 2003, 82.3 percent of the outstanding loans of farmer households were taken from formal agencies, which was considerably higher than the national average of 57.7 per cent. A noteworthy feature of source of borrowing of farmers in Kerala was their lower dependence on moneylenders, which was only 7.4 per cent as against the national average of 25.7 per cent.

Meeta and Rajivlochan (2006) discovered that a loan from a relative rather than a bank or money lender was often the cause of economic distress for the suicide victims.

Jeromi (2007) stated that the total loans issued to agriculture and allied activities in Kerala, by all institutional agencies (commercial bank and all cooperatives), recorded an average annual growth rate of 16.7 per cent during 2000-01 to 2004-05, which was much higher than the growth of NSDP from agriculture during the above period at 3.5 per cent per annum.

Heyzer (2008) reported that more than two-fifth of debt was owned to non-institutional agencies. Of this, 37.5 per cent carried an interest rate above 30 per cent.

2.6 CREDIT UTILIZATION PATTERN

Muthiah (1970) in his study on the cause for more overdue loans revealed that the percentage of defaulting members were higher among tenants and small farmers as compared to the over all average. Successive crop failure, social ceremonies and family consumption were the reasons attributed for the default.

Adhiguru et al (1996) found that 31 per cent of farmers had low level of utilization of farm subsidies, 18 per cent had medium level of utilization and 51 per cent had high level of utilization.

Birdar and Jayasheela (2000) stated that many empirical studies in agricultural credit revealed that loans are being utilized for other than specific purposes. The misutilization of loans increases burden on the borrowed because they are not in a position to generate enough income to repay the loans, which they have availed from the banks.

Priya (2003) found that utilization of micro credit was complete as the reported cost of cultivation was more than the loan amount.

National Sample Survey Organization (2006) reported that in 2003, only 21.4 per cent of the borrowings were utilized for farm-related activities (current and capital expenditure in farm), as against the national average of 58.4 per cent. The share of non-farm business in total loans borrowed was more than the share of expenditure on farm. Only around 44 per cent of the loan amount was utilized for productive purposes.

Mishra (2006) found that most of the farmers spent their farm loans for other purposes like sister's or daughter's wedding, family functions, health care, children's education, for starting new enterprises etc.

Swaminathan (2008) indicated that in the total outstanding debt of the farmers, 41.6 per cent was taken for purposes other than farm-related activities, such as health care and domestic needs.

2.7 PERCEPTION ON GOVERNMENTAL INTERVENTIONS

According to Young (1957) perception refers to activity of sensing, interpreting and appreciating objects both physical and social. Perception also involves past experience or meaning. Moreover, perception is related to motivation or needs. What we see or hear will be partly determined by the particular motive or drive at the moment, as well as by what we have learned about this particular object or situation.

Bhatia (1967) says that perception is the true beginning of knowledge. Sensations provide the raw material which perception elaborates into a definite knowledge of the external world, of the attributes and relations of objects around us. We sense the physical world: we perceive what it means. Perception is sensation plus meaning. An element of thought, memory, learning, past experience and motivation enters into perception. It gives knowledge and information about the external world.

Mitchel (1978) stated that perception is that factor that shapes and produces what we actually experience.

METHODOLOGY

3. METHODOLOGY

This chapter deals with the description of the methods and procedures adopted in conducting the present research study. The various aspects are furnished in this chapter under the following subheadings.

3.1   Research Design.

3.2   Locale of the study.

3.3   Selection of sample.

3.4   Operationalisation and measurement of variables.

3.5   Methods used for data collection.

3.6   Statistical tools used for the study.

3.1 RESEARCH DESIGN:

Ex-post facto design was employed in the present study. Ex-post facto research is the systematic empirical enquiry in which the scientist does not have direct control over the independent variables because their manifestations have already occurred or because they are inherently not manipulated.(Kerlinger, 1973).

3.2 LOCALE OF THE STUDY:

The study was confined to Nalleppilly Panchayat of Palakkad District of Kerala. It includes three villages namely Nalleppily, Chittur and Thekadesam. It belongs to Chittur Block of Palakkad District and it is located very close to Tamil Nadu State border. The map showing the location of the study is given in fig.

More than 85 per cent of the people in Nalleppilly Panchayat depend on agriculture, of which 75 per cent are rice growers (2157

MAP OF KERALA

PALAKKAD DISTRICT MAP

NALLEPPILLY PANCHAYAT

MAP SHOWING THE LOCATION OF THE STUDY

hectares). They are also adopting group farming in rice under 'Padashekara Samithis' scheme. Apart from rice they cultivate coconut, sugarcane, banana, tapioca, groundnut, flower plants etc.

3.3 SELECTION OF SAMPLES:

Respondents in this study are the farmers in three villages, namely Nalleppilly, Chittur and Thekadesam belonging to Nalleppilly Panchayat which is a major rice belt of Palakkad district. From each village nearly thirty farmers with a total of hundred farmers were selected randomly. Thus a total of hundred farmers constituted the sample for the study. Priority was given for the rice farmers as it is the major crop of the area.

3.4 MEASUREMENT OF VARIABLES:

Based on the objectives, review of literature, discussions with experts and observations made by the researcher's, the following variables were selected for the study.

The dependent variables are

1. Extent of Survival Stress.
2. Extent of indebtedness.

The independent variables selected were

1. Age

2. Educational status

3. Area under cultivation

4. Family size

5. Annual income

6. Mass media exposure

7. Social participation

8. Extension Orientation

9. Level of Aspiration

10. Economic motivation

11. Risk orientation

12. Management orientation

13. Political orientation

3.4.1 Operationalisation and measurement of the dependent variables:

3.4.1.1 Extent of survival stress:

The concept of 'Survival stress' was already referred to and explained in chapter 2. However, in this study for more clarity Survival stress is operationally defined as the psychological pressure developed in a human being consequent to his/her inability to fulfill their basic livelihood needs of life. For the purpose of the study stress inventory scale developed by Menon (2003) is used with slight modification.

The scale consists of fifty negative statements regarding different kinds of problems often faced by the farmers in farming. The respondents are asked to state their response in a three point continuum viz. 'sometimes', 'usually' and 'never' with scores of 'two', 'one' and 'zero' respectively by putting a tick mark in the column which suits them most.

The scale consists of four dimensions. First related to Physical complaints of the respondents (1-13 statements), second on Negative affective reactions (14-26 statements), third on Negative cognitive behaviour (27-38) and fourth on Negative overt behaviour (39-50 statements).

The total score obtained for all the four parts by an individual indicate his score level and the interpretation is done as given below. The total score that can be obtained ranges from 0-100.

Total score (range)	Stress level (category)
Above 80	Very high
65 – 80	High
50 – 65	Moderate
36 – 50	Low
<35	Very low

3.4.1.2 Factors influencing Survival Stress:

To identify and rank the factors which influence the survival stress of the farmers, a scoring procedure consisting factors in five dimensions viz. personality factors, family factors, economic factors, technological factors and environmental factors with each dimensions having six factors was used. The farmers were asked to indicate their response on a five point continuum ranging from 'Strongly Agree' to 'Strongly Disagree' respectively. The scores of each of the factors in a given dimension were summated over all the respondents and means worked out. Similarly the individual score of each of factors over all the respondents and the means were worked out.

The dimension with higher score value was considered as the most important one followed by the others in the order of decreasing score values.

Response	Score
Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

3.4.1.3 Extent of Indebtedness

Indebtedness is operationally defined as the total debt in terms of money, a farmer owed to various money lending sources at the time of investigation. Indebtedness was measured in rupees. The amount of money owed to a respondent to any of the sources, the amount of credit and the amount repaid were taken into account.

Debt amount (Rupees)	Score
< 25000	1
26000-50000	2
51000-75000	3
76000-1 lakhs	4
1-2 lakhs	5
Above 2 lakhs	6

3.4.2. Operationalisation and measurement of independent variables
3.4.2.1. Age

It is defined as the number of calendar years completed by a farmer at the time of interview. This was measured by directly asking the respondent the number of years she/he has completed at the time of investigation. Then the responses are categorized as below for statistical analysis.

Category	Age
Young	$\leq$ 35 years
Middle	36 - 50 years
Old	$\geq$ 50 years

3.4.2.2   Education

It is defined as the level of educational status attained by the respondent at the time of investigation. It is obtained by directly asking the respondents. Then it is categorized as followed for finding the frequency distribution of the respondents in each category.

Category	Score
Illiterate	0
Primary school	1
Middle school	2
High school	3
College	4

3.4.2.3 Area under cultivation

It refers to the extent of area (in acres) under agricultural practices by the respondent. It is obtained by interviewing the respondents.

3.4.2.4   Family size

It refers to the specific numbers of members of the family of respondents. They were asked directly how many members were there in the family and it is categorized for analysis.

3.4.2.5 Annual income

Annual income of the household can be said to be the total returns of a farmer in monetary terms during one year. It is computed as the total sum of income in monetary terms from various sources such as agriculture, labour wages, livestock, pensions etc.

3.4.2.6 Mass media exposure:

It refers to the degree to which a farmer has exposure to various mass media for obtaining agricultural information. This was measured by using the scoring pattern adopted by Prasidha (2006) with slight modification.

Sl.No	Media	Frequency		
		Regularly (2)	Occasionally (1)	Never (0)
1	Newspaper			
2	TV			
3	Radio			
4	Farm magazines			
5	Books			
6	Others (specify)			

The mass media exposure was obtained by adding up all the scores for different medias.

3.4.2.7   Social participation:

It refers to the content and nature of participation of an entrepreneur in various activities. In this study, social participation was measured using the scale followed by Fayas (2003). The scale has two dimensions namely, membership in organizations and participation in organizational activities. The scores were assigned as follows.

1. For membership in organization

No membership in organization	0
Membership in each organization	1
Office bearer in each organization	2

2. Frequency of participation

Never attending any meeting	0
Sometimes attending meetings/activities	1
Regularly attending meetings	3

The scores obtained by a respondent on the above two dimensions were summed up across each item for all the organizations which gave his social participation score. The scores range from 0-18.

3.4.2.8   Extension orientation

It refers to the extent of contact a farmer has with different Extension agencies and his/her participation in various extension activities or programmes like seminar, group discussions, meetings etc. The scoring procedure used by Bhaskaran (1979) was followed. The response was measured as follows. The scores range from 0-27.

Response	Score
Regularly	2
Occasionally	1
Never	0

3.4.2.9 Level of aspiration

It is defined as the overall life goals in his reality world that a farmer is striving for. Procedure used by Saradamony (1983) was adopted for the study with slight modification. Five statements, showing the future wishes of farmers were given for rating on a two-point continuum. The scoring was as given below.

Response	Score
True	2
False	1

3.4.2.10   Economic motivation

It refers to the extent to which a person is oriented towards profit maximization and the relative value he places on monetary gains.

This variable was measured using the scale developed by Supe (1969). The scale consists of six statements in which the responses were collected on a five point continuum viz., 'Strongly agree', 'Agree',

'Undecided', 'Disagree' and 'Strongly disagree' with weightage of 5,4,3,2 and 1 for positive statements and 1,2,3,4 and 5 in case of negative statements.

The scores obtained on each of the statements were summed up to arrive at the individual score on economic motivation. The possible scores range from six to thirty.

3.4.2.11 Risk orientation

Risk orientation was quantified with the help of a risk preference scale developed by Supe (1969). The scale consists of six statements, of which two are negative. The responses were collected on a five point continuum ranging from 'Strongly agree' to 'Strongly Disagree'. The scores assigned for positive statements were as follows. The scoring pattern was reversed for the negative statements.

Response	Score
Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

The total score obtained by a respondent indicates his score for risk orientation.

3.4.2.12 Management Orientation

The management orientation scale developed by Samantha (1977) was used for this study. It consists of eighteen statements, six statements each for planning, production and marketing orientation. In each group positive and negative statements were mixed, retaining at the same time

a more or less psychological order of statements. In the case of positive statements, scoring was like this;

Response	Score
Agree	1
Disagree	0

3.4.2.13 Political orientation

Political orientation is operationally defined as the degree to which a person recognizes the power relations existing in the society and believes that democracy, distributive justice and political parties are relevant and important for resolving the problems of people especially farmers in order to achieve the objective of peoples sustainable development.

The scale was developed for the study consisting of ten statements in which the responses were collected in a two point continuum viz. 'Agree', 'Disagree' with the scores of 'one' and 'zero' respectively for positive statements and scoring was reversed in case of negative statements.

Response	Score
Agree	1
Disagree	0

The possible score that can be obtained by an individual range from ten to zero.

3.4.3 Source of credit

It refers to the details of the credit taken by the respondents like Source of credit (either institutional / non institutional), type of loan, amount borrowed, interest rate, amount repaid and balance to be repaid.

3.4.4 Credit utilization pattern

It refers to the money spent by the respondent for different purposes from the total credit amount availed from the various credit sources. The procedure followed by Priya (2003) was followed with slight modification.

3.4.5 Income expenditure pattern

It is defined as the total amount spent annually on food, nonfood consumptive items, agriculture, livestock repayment of old debts etc. Total expenditure obtained by the summation of these individual expenses and also the percentage share of each of these in the total expenditure is found out.

3.4.6 Perception of farmers on governmental interventions in farming:

Bohlen and Beal (1960) postulated that an individual's response or action is the result of perception of a stimulus which implies the behaviour as motivated by the stimulus. Here impact of governmental interventions on farming aspects as perceived by the farmers of Nalleppilly Panchayat was studied. Based on review of literature, discussion with the local Agricultural officer, Bank managers, specialists and progressive farmers, the interventions were listed and the responses of the farmers on the interventions were obtained on a three point continuum viz. 'Very correct', 'correct' and 'Not at all correct'. A score of '3' was given to 'very correct', '2' to 'correct' and '1' to 'Not at all correct' for positive statements. The scoring pattern was reversed for the negative statements.

The mean perception score for each intervention for the entire respondents was calculated. The farmers were categorized into low and high perception categories based on their mean scores. Those farmers with scores less than the mean score were grouped under low perception

category and those, with scores equal to or more than the mean score were grouped under the high perception category for easy interpretation.

3.5 DATA COLLECTION PROCEDURE

An Interview schedule including all aspects mentioned above was prepared in English (Appendix – II) and translated to Malayalam for collecting data from the respondents.

All the 100 respondents were contacted in their respective houses and rapport was established. The questions were put in a conversational manner and responses were transcribed in the schedule itself.   In case of responses, which were not clear, re-checking was done.

3.6 STATISTICAL TECHNIQUES USED IN THE STUDY

The following statistical methods were employed in the analysis and interpretation of the data.

(A)Tabulation
1. Categorization:

Categorization of each independent variable is done by calculating the frequency percentage of the total score obtained by the respondent in each category.

2. Percentage analysis:

Percentage was used for finding out the distribution of the respondents and for easy comparison.

(B) Statistical Analysis:
1. Simple correlation Analysis:

Simple correlation analysis was done to measure the relationship between the dependent variables and profile characteristics.

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

The findings of the study inline with the objectives set forth are presented here, with appropriate discussions, under the following titles.

4.1.   Profile characteristics of the farmers

4.2.   Extent of Survival stress

4.3.   Factors influencing survival stress

4.4.   Relationship between profile characteristics and extent of survival stress

4.5.   Extent of indebtedness

4.6.   Relationship between profile characteristics of the farmers and their extent of indebtedness

4.7.   Perception of farmers on governmental inventions

4.8.   Suggestions to resolve survival stress and indebtedness

4.1   PROFILE CHARACTERISTICS OF THE FARMERS

This section reveals the distribution of farmers, with respect to various profile characters and it includes the discussions relevant to those characters. The variables studied under profile characteristics were age, educational status, area under cultivation, family size, annual income, income expenditure pattern, mass media exposure, extension orientation, social participation, level of aspiration, economic motivation, risk orientation, management orientation and political orientation.

4.1.1 Age

Table 1. Distribution of farmers according to their age

Sl.No.	Category	Age (in years)	Frequency	Percentage
1.	Young	≤35	3	3
2.	Middle	36-50	38	38
3.	Old	> 50	59	59
Total			100	100

It is observed from Table 1 that majority of the respondents (59 %) belonged to the old age group whereas 38 per cent belonged to the middle age group, and only three per cent was in the young age category. This might be because most of the educated youth are not interested in doing farming as they feel it as a risky and non-profitable occupation with low social status. The finding was inline with Dandekar et al. (2005) and Kaushal (2008) and in contrast with Sharma et al. (2006).

4.1.2 Educational status

Table 2. Distribution of farmers according to their educational status

Sl.No.	Category	Frequency	Percentage
1.	Illiterate	0	0
2.	Functionally illiterate	1	1
3.	Primary school	7	7
4.	High school	29	29
5.	Higher Secondary school	46	46
6.	College	17	17
	Total	100	100

Table 2 revealed that 46 percent of the farmers had higher secondary school education followed by high school (29 %), college (17

%) and primary school education (7 %). It may be further noted that cent percent of the farmers were literate. Thus, the result is a true reflection of the higher literacy status of Kerala State. The result is similar with that of Surrendran (2000) and Geetha (2002).

4.1.3 Family size

Table 3. Distribution of farmers with respect to family size

Sl.No.	No. of family members	Frequency	Percentage
1.	2 members	0	0
2.	3 members	19	19
3.	4 members	41	41
4.	5 members	25	25
5	6 and above.	15	15
	Total	100	100

It can be observed from Table 3, that 41 per cent of the respondents were having 4 members in their family, followed by 25 per cent of respondents having 5 members, 19 per cent having 3 per cent and 15 percent having 6 or more than 6 members. The result reflects the awareness of the people on the importance of family planning coupled with the high literacy rate that prevails in the state. The finding is similar to the finding of Mansingh (1990) and Prasidha (2006).

4.1.4 Area under cultivation

A close look of Table 4, revealed an overwhelming a majority 90 per cent of the farmers were having cultivation in more than 100 cents (0.4 ha). It shows that though the average land holding size in Kerala is 0.27 ha, majority of the farmers of the study area were having comparatively more area under cultivation. Still 42 per cent of them were having less than 1 ha under cultivation. The farmers had a highly fragmented and small sized holding in which they could get only very less returns. Use of farm machineries like combined harvester, tractor, etc. are being restricted
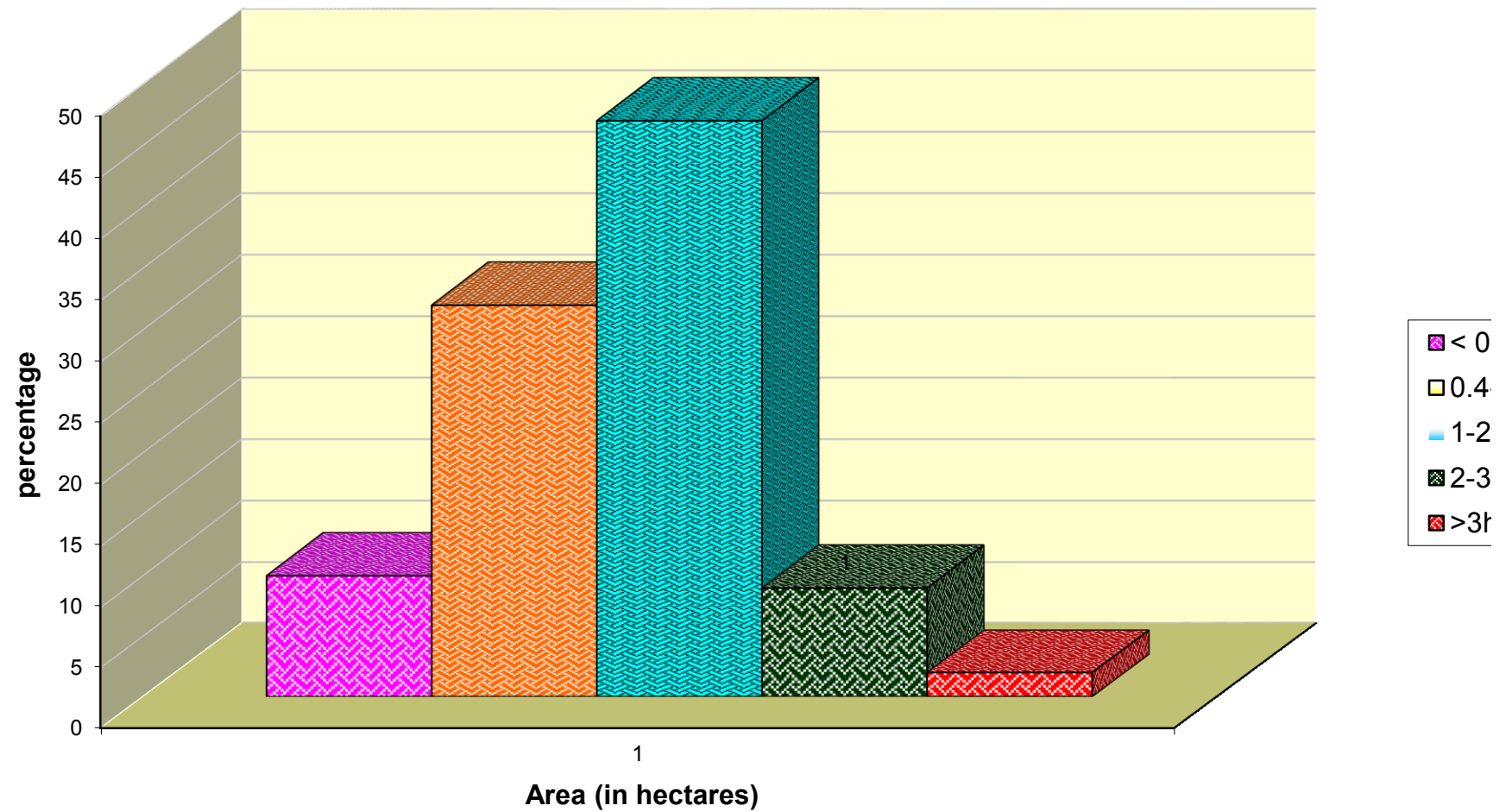
Fig 1. Area under cultivation by the farmers

in these small sized holdings to compensate the labour demands. The finding was different with the findings of Mohanakumar and Sharma (2006) and Jeromi (2007).

Table 4. Distribution of farmers based on their area under cultivation

Sl.No.	Category	Frequency	Percentage
1.	< 0.4 ha	10	10
2.	0.4-1ha	32	32
3.	1-2 ha	47	47
4.	2-3 ha	9	9
5	>3ha	2	2
	Total	100	100

4.1.5 Annual income

Table 5. Distribution of farmers based on their annual income

Sl.No.	Income (in rupees)	Frequency	Percentage
1.	≤ 20000	32	32
2.	20001-30000	34	34
3.	30001-40000	17	17
4.	40001-50000	11	11
5	Above 50000	6	6
	Total	100	100

From Table 5, it is seen that majority (34 %) of the farmers earn Rs.20001-30000 as their household income, followed by 32 percent with an income range less than Rs.20000. The result shows that many of the respondent farmers were Below Poverty Line (BPL) category. This was because agriculture was the major source of income for the farm family and cost of cultivation of the crops had increased enormously. The cost of living has also increased very much. At the same time, proportionate increase has not taken place neither in the price of farm produce nor in the production of crops. This might have resulted in the poor income of the farmers. The result coincides with the study report of George and Krishnaprasad (2006).
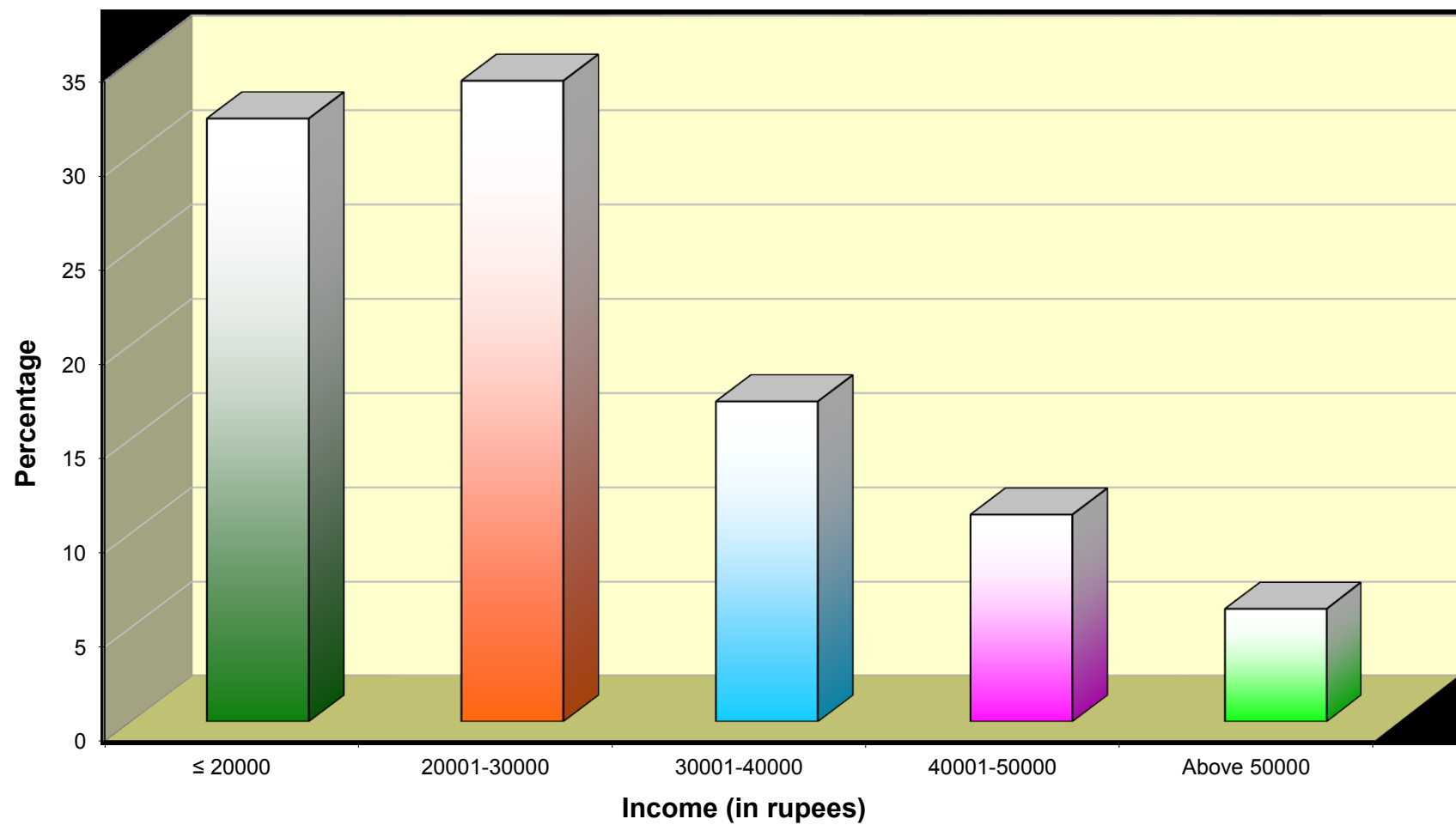
Fig 2. Annual income of farmers

4.1.6 Expenditure pattern

Table 6. Distribution of farmers based on their income expenditure pattern

Sl.No.	Category	Average expenditure (Amount in rupees)	Frequency	Percentage
1	Low	≤ 50, 000	18	18
2	Medium	50, 001-60,000	38	38
3	High	60, 001-70,000	32	32
4	Very high	Above 70,000	12	12
Total			100	100

It is observed from Table 6, that majority 70 per cent of the farmers had their household income expenditure pattern ranging from Rs.50001-70000. As compared to the annual income, the annual household expenditure of the farmers was more which forced them to borrow money for satisfying their needs, thus falling in debt trap.

A similar result was reported by Puhazhendi (1980), Unnikrishnan (1994), National Sample Survey Organisation (2005) and Mishra (2005).

Table 7. Average household income expenditure pattern of respondent farmers

Particulars	Average expenditure (Amount in Rupees)	Percentage
Food	23785.00	39.80
Cloth	2845.00	4.76
Electricity	1820.00	3.05
Conventional necessities	1227.00	2.07
Medical expenses	3226.50	5.40
Children education	6680.00	11.18
Religious & Social functions	7854.00	13.15
Taxes	3450.00	5.77
Recreation	943.50	1.58
Traveling expenses	916.80	1.53
News paper/magazines	1074.00	1.80
Service charges	1557.50	2.61
Repairs & maintenance	816.00	1.37
Luxuries	3068.00	5.13
Fuel	487.20	0.82
Total	59750.50	100.00
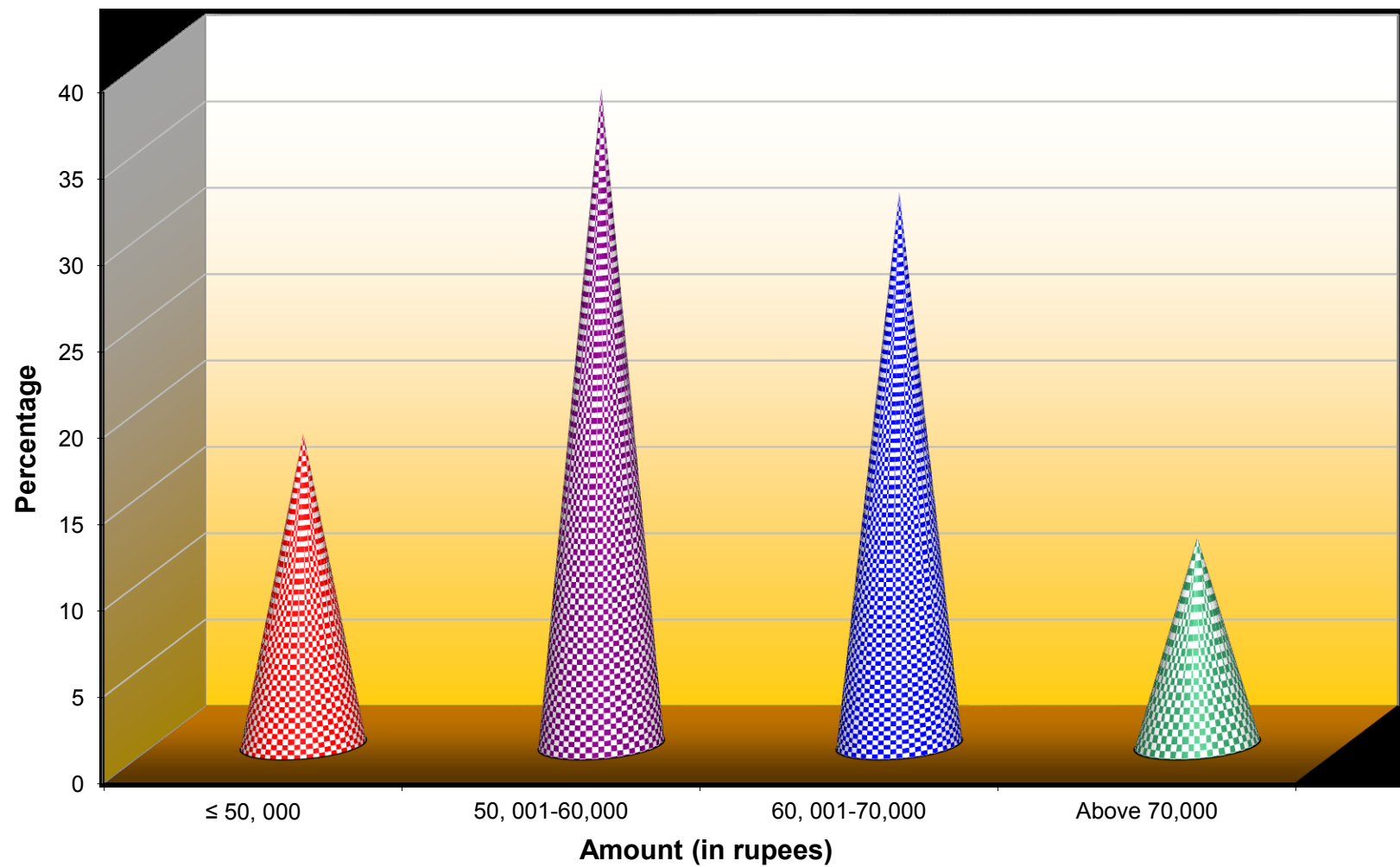
Fig 3. Income expenditure of farmers household activities

4.1.7 Extension orientation

The data in Table 8 shows that more than half (56 %) of the farmers had medium extension orientation followed by high (33 %) and low (11 %) level of extension orientation. Since most of the respondent farmers were members of rice group farming committee (Padasekhara samithi) supported by Krishi Bhavan and government, they had frequent contact with the extension officials and were participating in the activities of these organizations.

The finding was inline with the finding of Sindhu (2002), Priya (2003) and contrast to the finding of Nizamuddin (1996).

Table 8. Distribution of farmers based on their extension orientation

Sl.No.	Category	Score range	Frequency	Percentage
1.	Low	0-9	11	11
2.	Medium	10-18	56	56
3.	High	19-27	33	33
Total			100	100

4.1.8 Mass media exposure

Table 9. Distribution of farmers based on their frequency of exposure to mass media

Sl.No	Media	Frequency		
		Regularly	Occasionally	Never
1	Newspaper	77 (77)	18 (18)	5 (5)
2	TV	81 (81)	12 (12)	7 (7)
3	Radio	46 (46)	16 (16)	38 (38)
4	Farm magazines	19 (19)	23 (23)	58 (58)
5	Books	4 (4)	15 (15)	81 (81)
6	Others (specify)	0	0	0

Figures in parentheses indicate percentage
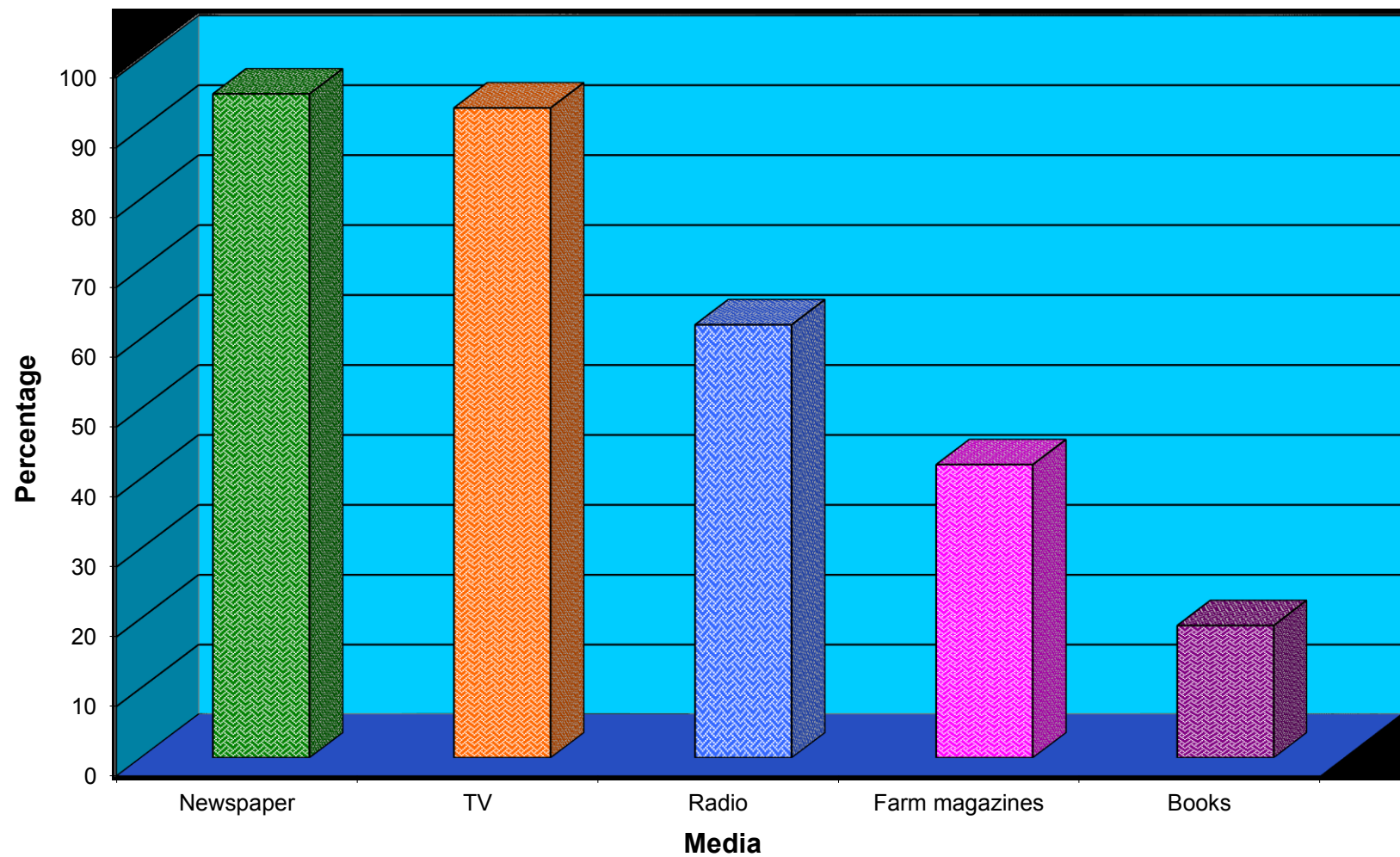
Fig. 4 Massmedia exposure of the farmers

A perusal of Table 9 shows a clear picture of mass media utilized by the farmers. Majority 95 per cent of the farmers were utilizing newspaper for getting farm information in which, 77 per cent of them use it regularly and 18 per cent use occasionally. As all the farmers are educated and also news paper is a low cost available media for all, it might be used by most of the farmers. With regard to TV (93 percent) of the farmers utilized for farm information in which, 81 percent of them are regular viewers and 12 per cent view occasionally. Almost all the farmers have TV of their own and hence this might be the reason for using it regularly by them. Radio was used by 62 per cent of the farmers in which 46 per cent of them listen regularly for farm information and 16 per cent occasionally. Other media like farm magazines and books were utilized by only 42 and 19 per cent of the farmers respectively.

Table 10. Distribution of farmers based on their exposure to various mass media sources.

Sl.No.	Mass media sources	Frequency	Percentage
1	Newspaper+TV+Radio+Magazines+Books	12	12
2	Newspaper +TV+ Radio+ Magazines	15	15
3	Newspaper +TV +Magazines +Books	0	0
4	Newspaper+ TV+ Radio +Books	0	0
5	Newspaper +Radio+ Magazines+ Books	0	0
6	TV+ Radio+ Magazines+ Books	0	0
7	Newspaper+ TV+ Radio	30	30
8	Newspaper+ TV+ Magazines	10	10
9	Newspaper+ TV +Books	0	0
10	TV+ Radio+ Magazines	5	5
11	Radio+ Magazines+ Books	0	0
12	Newspaper+ Magazines+ Books	0	0
13	TV+ Magazines+ Books	0	0
14	TV+ Radio+ Books	0	0
15	Newspaper+ Radio+ Books	0	0
16	Newspaper +TV	21	21

17	Newspaper + Radio	0	0
18	Newspaper +Magazines	0	0
19	Newspaper+ Books	7	7
20	TV+ Radio	0	0
21	TV+ Magazines	0	0
22	TV +Books	0	0
23	Radio+ Magazines	0	0
24	Radio +Books	0	0
25	Magazines+ Books	0	0
26	Newspaper alone	0	0
27	TV alone	0	0
28	Radio alone	0	0
29	Farm magazines alone	0	0
30	Books alone	0	0
	Total	100	100

From Table 10, it is observed that overall 45 percent of the farmers' utilized three mass media sources followed by 12 percent using two media, 15 per cent using four media and only 12 per cent of the total respondents are using five mass media sources for getting agriculture information. The result also reveals that majority 30 per cent of the farmers had exposure to newspaper, TV and radio, while 21 per cent of them use only TV and Newspaper and 15 per cent of farmer use newspaper, TV, radio and farm magazines for seeking agriculture information. As most of the farmers had TV in their home and are regular users of TV and also regularly read newspaper none of them depend only on a single mass media source for agriculture information.

4.1.9 Social participation

It is clear from Table 11 that majority of the farmers 61 per cent had medium level of social participation followed by high level 27 per cent and low level 9 per cent of social participation. The high literacy rate and extension orientation observed might have contributed to the

overall high level of social participation among the respondents. The result is similar to the finding of Sasankan (2004).

Table 11. Distribution of farmers based on their social participation

Sl.No.	Category	Score range	Frequency	Percentage
1.	Low	0-6	9	9
2.	Medium	7-12	64	64
3.	High	13-18	27	27
Total			100	100

4.1.10 Political orientation

Table 12. Distribution of farmers based on their political orientation.

Sl.No.	Category	Score range	Frequency	Percentage
1	Low	≤ 3	21	21
2	High	> 3	79	79
Total			100	100

From Table 12, we can note that majority of the farmers 79 per cent had high level of political orientation and 21 per cent of them had low level of political orientation. The result reveals that most of the farmers were very much interested in politics and felt that their fundamental right would be protected only through politics. As majority of the farmers had high social participation they might have realized the importance of politics for the development of each individual in the society. A similar finding was obtained by Geetha (2002).

4.1.11 Economic motivation

Table 13. Distribution of farmers based on their level of economic motivation

Sl.No.	Category	Score range	Frequency	Percentage
1	Low	6-14	3	3
2	Medium	15-22	33	33
3	High	23-30	64	64
Total			100	100

It is clear from Table 13 that majority 64 per cent of the farmers had high economic motivation followed by 33 percent medium and only three per cent had low economic motivation. Economic motivation is an important motive for a person to perform more effectively to improve his economic performance. Hence these farmers strive hard in all possible ways to raise their income but they fail in the present agricultural scenario. Thus they are depressed more become under stress. The finding was inline with the results of Thomas (1998), Prasidha (2006) and Geetha (2007) and contrast with finding of Sriram (1996).

4.1.12 Level of aspiration

Table 14 reveals that majority 64 per cent of the farmers were having low level of aspiration while 42 per cent having high level of aspiration. This might be because of the low profit of farmers from agriculture, lack of non-farm opportunities and the present vagaries faced by them in the context of liberalization, which are beyond their control. Thus they are quite uncertain about their future and they have only limited tendencies to set forth future goals and levels of achievements with low confidence. It is a negative sign for future agriculture.

Table 14. Distribution of farmers based on their level of aspiration.

Sl.No.	Category	Score range	Frequency	Percentage
1	Low	≤ 7	64	64
2	High	>7	36	36
Total			100	100

4.1.13 Management orientation

It is observed from Table 15 that majority of the respondents (66 %) had high level of management orientation followed by medium level (44%), whereas no farmer was found in the category of low management

orientation. It implies that majority of the farmers had more experience and knowledge on planning, production and marketing of crops. This is well supported by the higher literacy, increased mass media exposure and high extension agency contact of the farmer respondents.

Table 15. Distribution of farmers based on their management orientation.

Sl.No.	Category	Score range	Frequency	Percentage
1.	Low	0-6	0	0
2.	Medium	7-12	44	44
3	High	13-18	66	66
Total			100	100

4.2   Survival stress of farmers

It is observed from Table 16 that majority (55%) of the respondents were having very high level of survival stress followed by 28 per cent having high survival stress. Only 10 per cent of the farmers had moderate survival stress, whereas seven per cent were with low survival stress. It is to be noted that none of the farmers were with very low level of stress.

Table 16. Distribution of farmers based on their survival stress

Sl.No.	Category	Range	Respondents (n=100)	
			Frequency	Percentage
1.	Above 80	Very high	55	55
2.	65-80	High	28	28
3.	50-65	Moderate	10	10
4	36-50	Low stress	7	7
5	Below 35	Very low	0	0
Total			100	100

(Mean = 77.71)

1.   The result indicates that most of the farmers were under high survival stress probably for want of livelihood security. In general, farmers face a multiple risk factors in farming, like high input cost, unavailability of inputs, lack of appropriate technology, credit related risks, labours problem, low price for the produce, and uncertain crop loss etc. which contribute to their high level of stress. Because of low income, they are unable to

meet their demands for domestic consumption, family obligations, social responsibilities etc. So they are forced to borrow money from different sources at high interest rates which they found it unable to repay by them and hence they are still pushed economically backward. Due to trade liberalization which adversely affects the crop price beyond their control and absence of non-farm income they are under more survival stress for their livelihood security. Farmers, who lack emotional intelligence and socially isolated, at this stage become more vulnerable and may commit suicide.

There are four dimensions in assessing the survival stress. They are physical complaints, negative affective reactions, negative cognitive behaviour and negative overt behaviour. The study revealed that among these four dimensions negative affective reactions such as mood swing, irritability, feeling helplessness, short tempered, worry about future, poor health, responsibilities, aggressiveness etc. exhibited and contributed more towards the survival stress. Followed by negative cognitive behaviour, are negative overt behaviour and physical complaints. The analysis of the sub components of each dimensions and its mean score with respect to its level of presence are detailed in the Table 17 below.

Table 17. Mean score obtained by the respondents for the subcomponents of dimension of stress

Sl.No.	Dimensions	Mean score
(A)	**Physical complaints**	
1	Sleep disturbance	1.19
2	Giddiness	1.15
3	Difficulty in falling asleep	1.11
4	Excessive sweating	1.09
5	Fatigue	1.03
6	Poor appetite	0.92
7	Get backache	0.92
8	Head ache	0.87
9	Joints pain	0.78
10	Neck and shoulder pain	0.69
11	Inability to withstand loud noise	0.66

12	Nausea	0.66
13	Everyday health problems one or the other	0.13
	Total	**11.7**

Sl.No.	Dimensions	Mean score
(B)	**Negative affective reaction**	
1	Loss of interest and enjoyment	1.40
2	Worry about future	1.33
3	Feeling helplessness	1.26
4	Mood swing / low mood	1.22
5	Worry on shouldering more responsibilities	1.14
6	Worry about my past	1.09
7	Irritability	1.06
8	Short temperament	1.01
9	Easy provocation	0.90
10	Worry for illness	0.88
11	Feeling that others are too demanding	0.78
12	Afraid of breaking down	0.72
13	Aggressiveness	0.61
	Total	**13.48**

Sl.No.	Dimensions	Mean score
(C)	**Negative cognitive behaviour**	
1	Getting disturbed in thoughts	1.34
2	Feeling that one cannot cope with sudden changes around him	1.24
3	Thinking that one is overtaking himself	1.16
4	Thinking that life is a mess	1.12
5	Thinking that future is dark	1.11
6	Finding it difficult to be attentive	0.98
7	Forgetting things	0.97
8	Getting distracted very easily	0.94
9	Feeling that one is blank	0.91
10	Feeling that one is preoccupied	0.89
11	Inability to think clearly	0.78
12	Taking long time to decide	0.58
	Total	**12.02**

Sl.No.	Dimensions	Mean score
(D)	**Negative overt behaviour**	
1	Striving hard to achieve more and more	1.79
2	Shouting at others for even small matters	1.43
3	Not paying attention to what one eats	1.22
4	Strained posture	1.13
5	Arguing a lot	1.09
6	One throws things around	1.01
7	Thinking that one is not bothered about his appearance	0.94
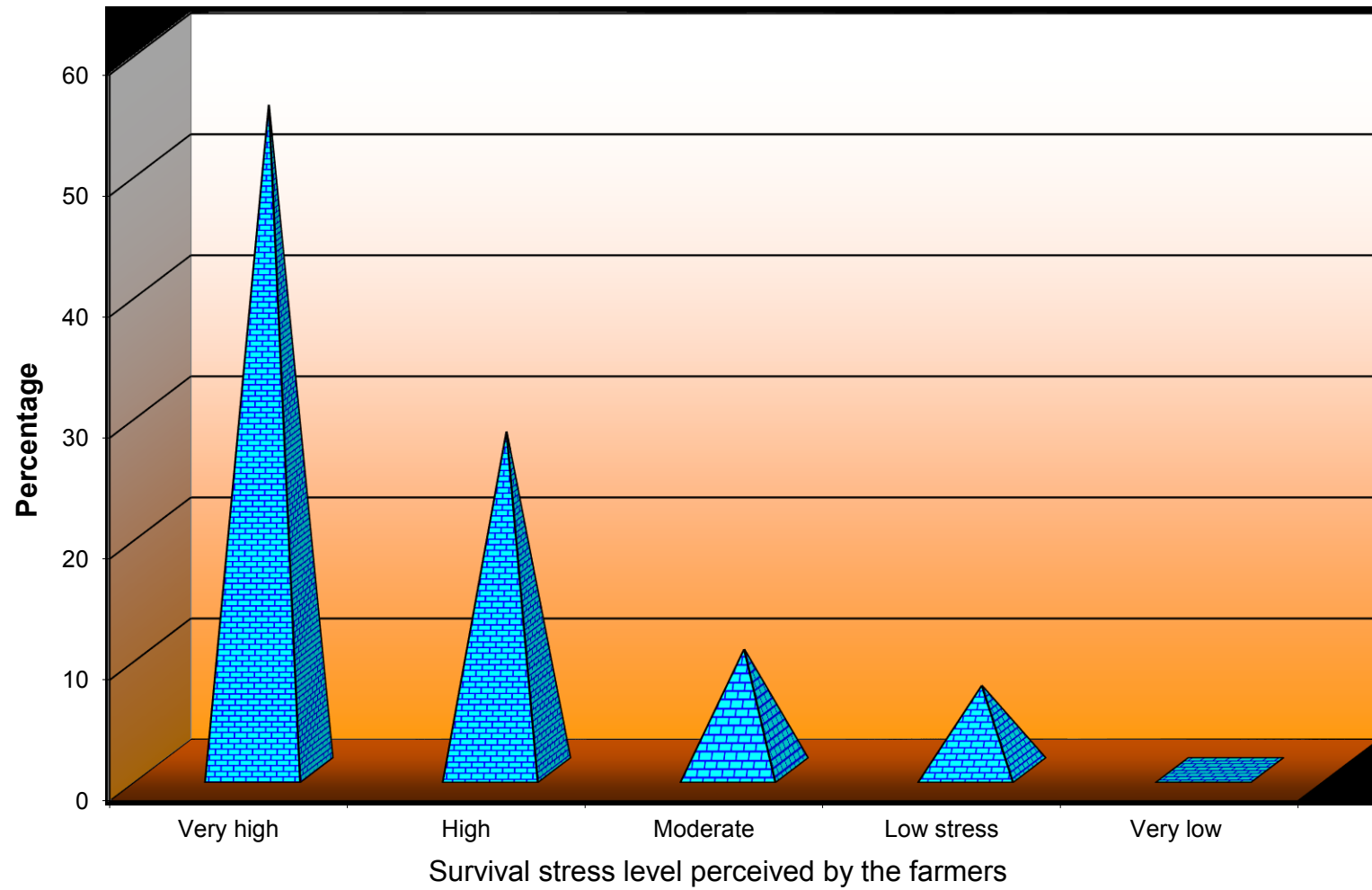
Fig 5. Survival stress of the farmers

8	Leaving things incomplete	0.89
9	Lack of time for walk/ jog	0.66
10	Lack of time for relaxation	0.63
11	Very little time to be with family member	0.53
12	Not speaking much to anyone in the family	0.54
	Total	**11.86**

4.3 Factors influencing the survival stress of farmers

It is observed from Table 18, that the economic factors like low farm income, high input and labour cost, increase in indebtedness, non-availability of credits and lack of non-farm employment contributed more to the high level of survival stress among the farmers. The personality factors like feeling of fear, loneliness, depression, helplessness, irritation, worrying about past/ present/ future and lack of sufficient time for one's own interest etc stands second in contributing to survival stress to farmers. This was followed by family factors like health problem of the family members, education of children, and death of close relatives, social isolation, and disputes with friends and relatives etc. The fourth set of factors viz. technological factors include lack of latest farm machineries, irrigation facilities, machinery breakdown, pest and disease incidence etc. At last, the environmental factors like failure of monsoon, poor soil fertility; uncertainness climatic change etc. also contributed to some extent in generating survival stress of farmers. Though these factors are ranked separately to know the main reason for survival stress, they are intertwined inextricably influencing the survival stress of farmers.Similar findings were found by many researchers like Jnanadevan and Prakash (1993), Subramanian et al (1997), Konda Reddy (2004) and Mishra (2006).

Table 18. Factors influencing the survival stress of farmers

Sl.No.	Factors	Mean score of each factor
(A)	**Personality factors**	
1	Loneliness proneness	3.81
2	Feeling helpless	3.27
3	Feeling depressed	3.11
4	Fearful / Worry nature	3.04

5	2. Lack of self confidence and risk taking ability	2.54
6	High irritability	2.49
	Total	**18.06**
(B)	**Family factors**	
1	Sister's / Daughter's marriage and its expenditure	3.37
2	Disputes with relatives and friends	3.10
3	Social isolation of family	2.89
4	Educational expenditure	2.69
5	Health problem of family members and its expenditure	2.52
6	Death of close family members	2.37
	Total	**16.94**
(C)	**Economic factors**	
1	Scarcity of labour and high wage	4.14
2	Low farm income	3.89
3	Lack of regular off farm employment	3.86
4	Increased in debt	3.61
5	High input cost	3.54
6	Non-availability of credit in time	3.41
	Total	**22.65**
(D)	**Technological factors**	
1	Lack of farm machineries	3.24
2	Inadequate information and technology on farming	2.76
3	Non-availability of improved variety of seeds & inputs	2.64
4	Lack of PP equipments and skilled labour	2.32
5	Lack of post harvest facilities for value addition and diversification	2.11
6	Inadequate irrigation facilities	1.97
	Total	**15.04**
(E)	**Environmental factors**	
1	Heavy rain / floods	2.99
2	Pest & disease incidence in crops	2.91
3	Poor soil fertility / soil erosion	2.37
4	Cyclone / heavy wind	2.30
5	Severe drought	1.93
6	Inadequate monsoon	1.82
	Total	**14.32**

Table 19. Ranking of the dimensions regarding the factors influencing the survival stress based their total mean score

Sl.No.	Dimensional factors	Mean score obtained by farmers	Rank
1	Economic factor	22.65	I
2	Personality factor	18.06	II
3	Family factor	16.94	III
4	Technological factor	15.04	IV
5	Environmental factor	14.32	V

It is observed from Table 19 that economic factors contributed more than other factors in creating the survival stress in the farmer. Due to scarcity of labour, the demand for agricultural labour increases, results in escalation of labour cost. Similarly, the input cost also increased. Poor farmers who cannot spend more money on high labour cost and input cost will be forced to avail credit. The difficulty in getting credit from institutional sources like banks due to cumbersome procedures make them dependent on private money lenders. Similarly in the absence of money they cannot perform agricultural operation on time. Some farmers who are not eligible in getting new loans seek help from money lenders, friends and relatives thinking that they would be able to repay it with the income they get after the crop is harvested. But the poor returns after harvest restrain them from repaying the credit. This is how they get indebted and as they have no money needed for the next crop, they are again forced to borrow. Since they do not have other non-farm employment, they cannot get any additional income for household livelihood expenditure. Consequent to this, the farmer gets psychologically depressed, morale impaired, self esteem lost and in turn leading to undergo severe survival stress which can become pathological and may lead to suicide.

Every individual is different from other individuals with respect to personality factors. Personality factors like fearful or worrisome nature, loneliness proneness, extent of depression, extent of irritability, feeling of helplessness, self confidence level and risk taking ability of an individual decide the severity of the survival stress in an individual.

A farmer as a head of family has to perform several duties and obligations. He has to involve in family matters like health problems of family, social requirements in connection with death of family members and relatives, education of children, responsibilities in connection with marriage of female family members, social isolation of family due to different reasons, and disputes with relatives and friends etc, culminate in generating and snowballing survival stress where in income is the important determinant in regulating the stress level.

The nature and extent of technological factors like inadequate information and technology on farming, inadequate irrigation facilities, non-availability of seeds and inputs, lack of plant protection equipments and skilled labour and lack of post harvest facilities for value addition and product diversifications also play an important role in creating the survival stress of farmers. The manipulation of these factors favourably to farmers can mitigate the stress level of farmers, there by improving the psychological health of farmers. This finding was supported by finding of Naidu and Sivashankar (2005) and Kumar and Rao (2002).

Though it is beyond the control of poor farmer, environmental factors also contribute to some extent in generating survival stress. Heavy rain or flood during harvesting and marketing time leads to heavy loss in yield. Similarly due to pest and disease incidence, poor soil fertility and lodging due to heavy wind may lead to poor yield of crops. As mentioned earlier, though the environmental factors are beyond the

control of farmers, its effects on agriculture can be reduced through appropriate technological and social interventions.

Table 20. Ranking of the most important factors influencing the survival stress of farmers.

Sl.No	Factors	Dimension of the factors	Mean score	Rank
1	Scarcity of labour and high wage	Economic	4.14	I
2	Low farm income	Economic	3.89	II
3	Lack of regular off farm employment	Economic	3.86	III
4	Loneliness proneness	Personality	3.81	IV
5	Increased in debt	Economic	3.61	V
6	High input cost	Economic	3.54	VI
7	Non-availability of credit in time	Economic	3.41	VII
8	Sister's / Daughter's marriage and its expenditure	Family	3.37	VIII
9	Feeling helpless	Personality	3.27	IX
10	Lack of farm machineries	Technology	3.24	X
11	Feeling depressed	Personality	3.11	XI
12	Disputes with relatives and friends	Family	3.10	XII
13	Fearful / Worry nature	Personality	3.04	XIII
14	Heavy rain / floods	Environment	2.99	XIV
15	Pest & disease incidence in crops	Environment	2.91	XV

4.4 Relationship between profile characteristics and extent of survival stress of farmers

A perusal of Table 21 revealed that area under cultivation (-0.232), annual income (-0.539), risk orientation (-0.414) and management orientation (-0.289) had negative and significant relationship with the extent of survival stress of the farmers, whereas economic motivation (0.472) and extent of indebtedness (0.642) showed positive relationship.
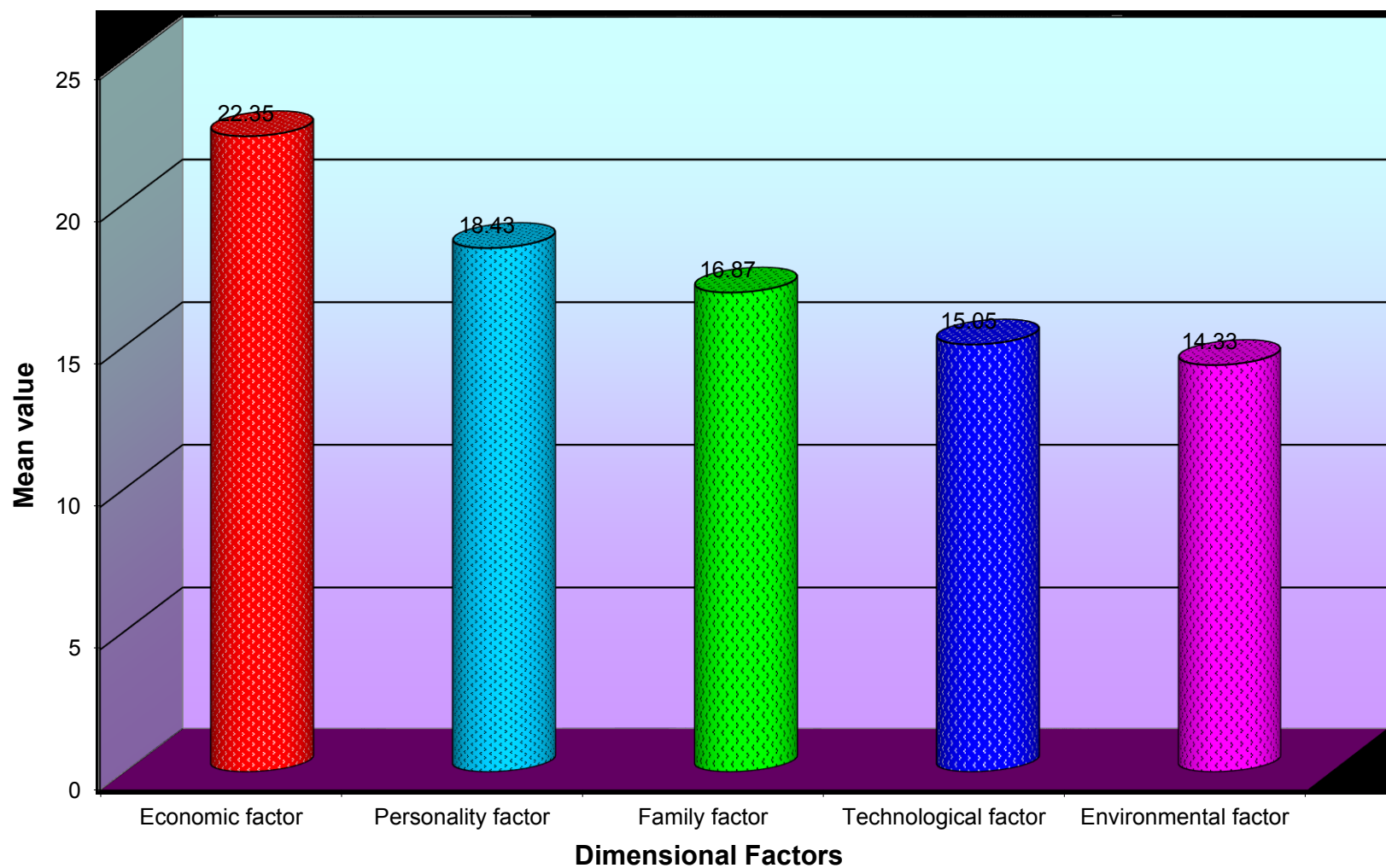
Fig 6. Dimensional factors contributing to the survival stress of the farmers

Large area under cultivation results in more returns from farming while small farm size yields less. Farm machineries like tractor, combined harvester etc. for compensating the high labour demand can be used only in large areas. Small farmers are not able to diversify on dairy, poultry, integrated farming system etc. and can get only low farm credit from banks. This might be the reason for negative correlation of area under cultivation with extent of survival stress. Similarly when the annual income is low, the stress level of farmers may increase. When the annual income is low due to low farm income and non-farm employment, he is unable to meet his demands for domestic consumptions, social obligations like education of children, daughter or sister's marriage, medical expenses of family members etc. Thus he become under more survival stress. Similar finding was obtained by Mishra (2005), Singh and Singh (2005) and Naidu and Sivasankar (2007).

In general farmers have to face more risk with the uncertain climatic changes, credits, costs of inputs, labour demand, marketing etc for higher profit. Thus he should be able to manage these risks by proper production and marketing plan. Hence when a farmer is not having high risk orientation and management orientation he becomes more vulnerable to high stress. Similar finding was identified as constraints for farmers distress and suicide by Desphpande (2002), Menon (2001), Mishra (2006).

Positive and significant relationship was observed in the case of extent of indebtedness and survival stress. Because of low family income, farmer is not able to meet his demands and thus he approaches money lenders or other formal sources for high interest rate and accumulate more debts beyond his repayment capacity and its possible consequences lead to more survival stress.

Fig 7 . Most important factors influencing the survival stress of the farmers
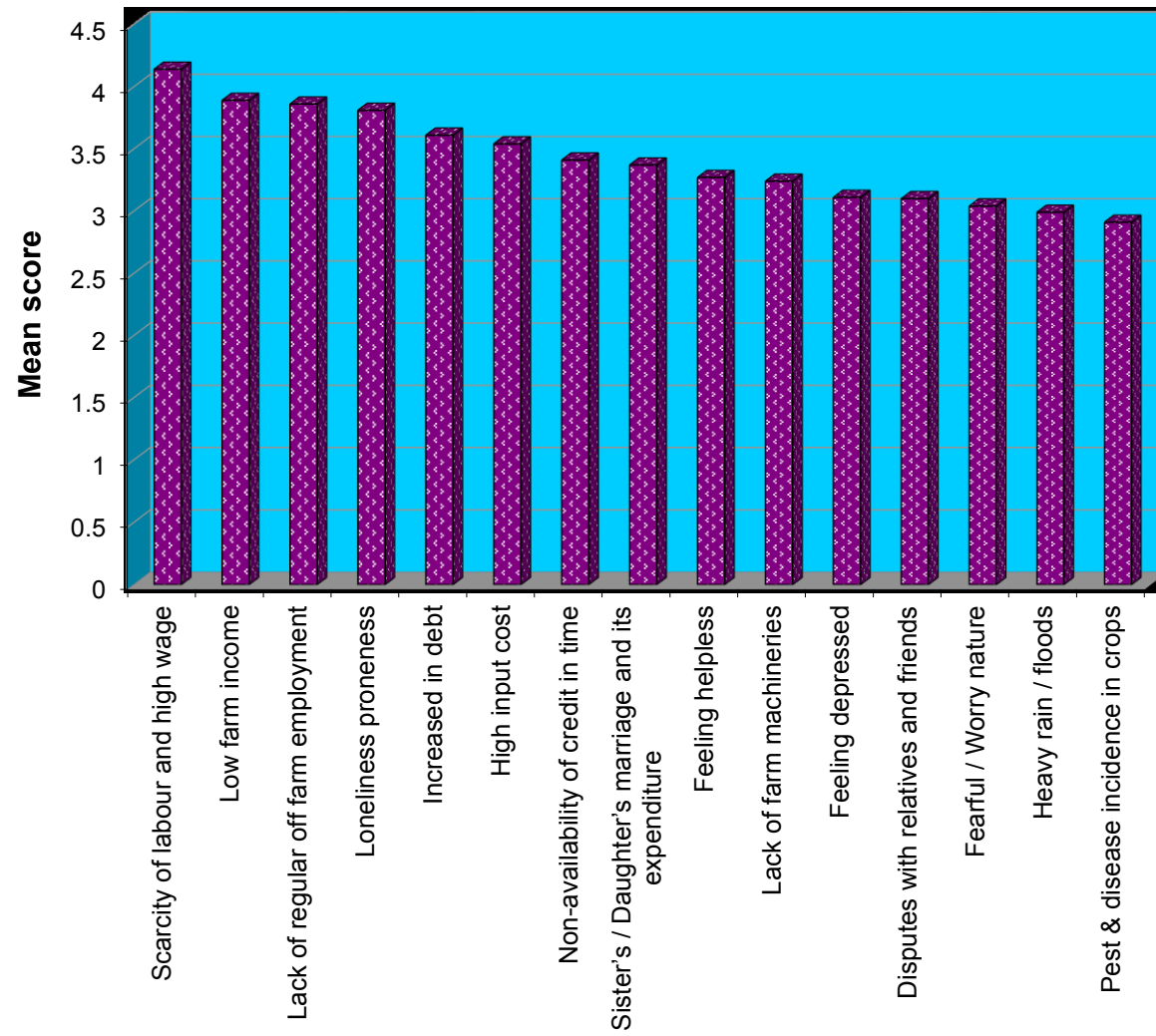
Table 21. Correlation between profile characteristic and extent of survival stress of farmers

(n=100)

Sl.No.	Profile characteristics	Correlation Coefficient
1	Age	0.140
2	Educational status	-0.052
3	Area under cultivation	-0.232*
4	Family size	-0.009
5	Annual income	-0.539**
6	Mass media exposure	-0.123
7	Social participation	0.077
8	Extension orientation	0.064
9	Level of aspiration	-0.172
10	Economic motivation	0.472**
11	Risk orientation	-0.414**
12	Management orientation	-0.289**
13	Political orientation	-0.070
14	House hold expenditure	0.100
15	Extent of indebtedness	0.642**

** - Correlation is significant at 0.01 level (2-tailed)
* - Correlation is significant at 0.05 level (2-tailed)

Farmers having high economic motivation strived hard to get maximum profit by taking more risks and doing experiments by growing different crops or starting agribusiness etc. But they might have failed to get it in the present agrarian crisis. This may be the reason for positive significant relationship of economic motivation with extent of survival stress.

4.5   Extent of indebtedness

It is observed from Table 22 that majority 89 per cent of the respondents were indebted and only 11 percent of them were free form debts. Of the indebted which 29 per cent of the farmers have an indebted amount ranging from Rs.50001-75000, followed by 24 per cent with a range of Rs.25001-50000, 18 per cent with Rs.75001-1 lakh, 10 per cent with less than Rs.25000 and 8 per cent with 1-2 lakhs. Farmers for getting money to meet their domestic consumption, to meet their social obligations and also for purchasing agricultural inputs they approach all possible sources of credit but could not repay them due to poor returns from farming and thus fall into high level of indebtedness. On an average the outstanding debt for a farm family is Rs.49470.71 which is more than half (53.74%) of the total average borrowed amount and twice the annual income of majority (83 %) of the farmers. The result found is similar to the finding of Shreyas (2006).

Table 22. Distribution of farmers based on their extent of indebtedness

Sl.No.	Category	Respondents (n=100)	
		Frequency	Percentage
1.	No debts	11	11
2.	≤ 25000	10	10
3.	25001-50000	24	24
4.	50001-75000	29	29
5	75001-1 lakh	18	18
6	1 – 2 lakhs	8	8
7	Above 2 lakhs	0	0
	Total	100	100

4.5.1   Source of credit

Table 23. Source of credit availed by the indebted farmers

Sl.No.	Source of credit	No.of farmers	Percentage
(A)	*Institutional source*		
	Cooperatives	42	42
	Commercial banks	34	34
	Total	**76**	**76**
(B)	*Non-institutional source*		
	Friends and relatives	13	13
	Total	**13**	**13**
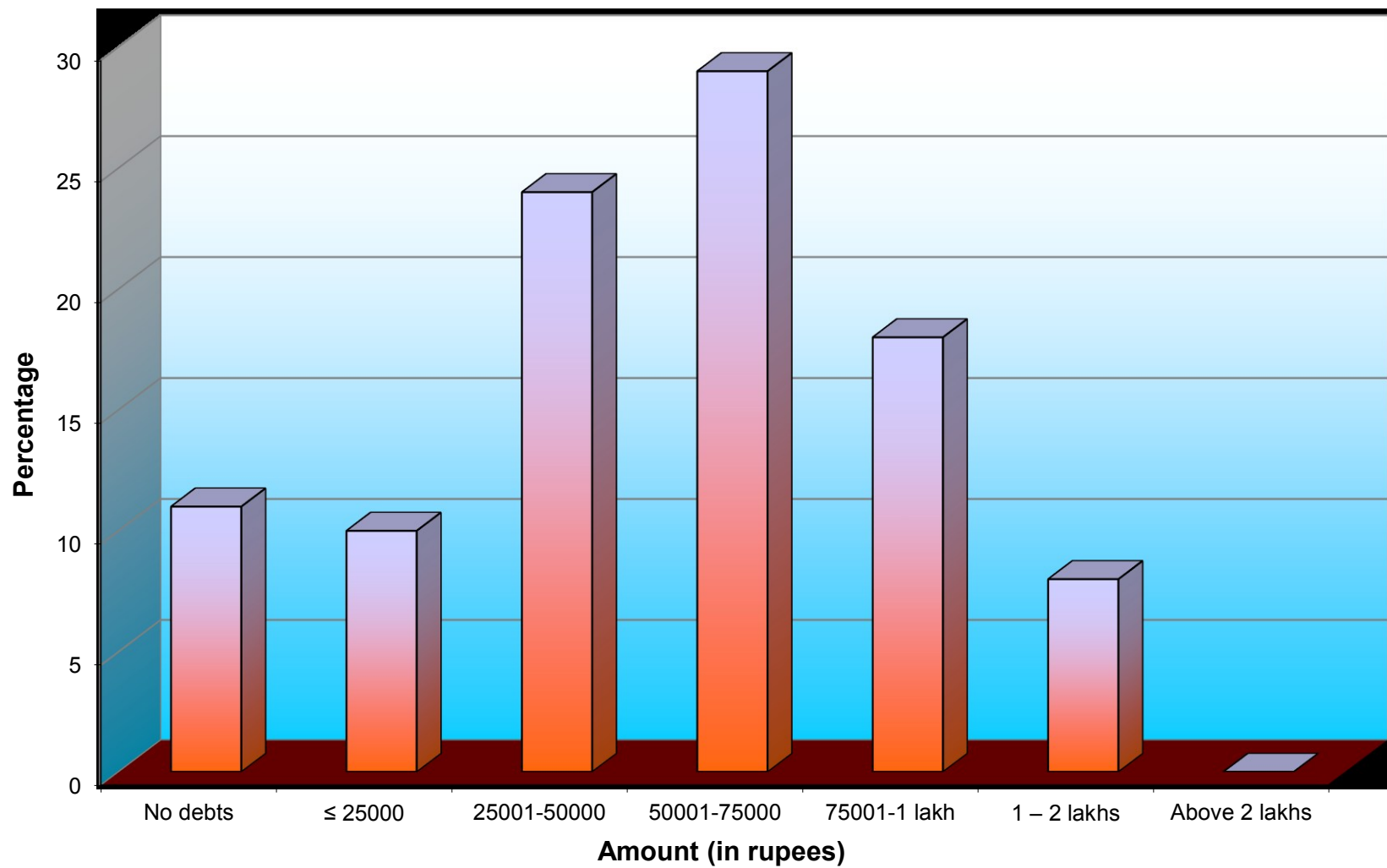
Fig.8 Extent of indebtedness by the farmers
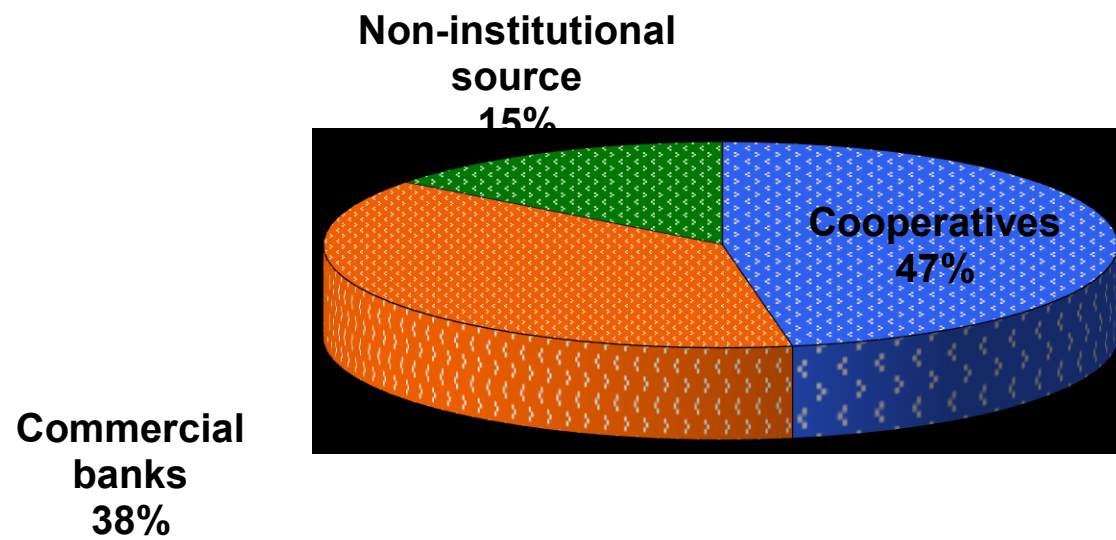
Fig 9. Source of credit for the farmers

Table 24 Over due credit amount of the indebted farmers

Sl.No	Details of loan	Cooperatives (Average Amount in Rupees)	Percentage	Commercial banks (Average amount in Rupees)	Percentage	Non-institutional (Average amount in Rupees)	Percentage	Total (Avg. amount in Rupees)	Percentage
1	Borrowed	40692.27	100.00	30917.08	100.00	20430.50	100.00	92039.85	100.00
2	Repaid	14437.62	35.48	20498.02	66.30	7633.5	37.37	42569.14	46.26
3	Balance	26254.65	64.52	10419.06	33.70	12797.0	62.63	49470.71	53.74

It is apparent from the Table 23 that majority 76 per cent of the farmers depend on institutional credit sources in which 42 per cent of them had borrowed from cooperatives and 34 per cent from commercial banks. Only 13 per cent of the farmers had borrowed money from non-institutional sources. The other 11 per cent to the total respondent farmers had no debt. A similar finding was reported by National Sample Survey Orgnisation (2006), Vaidyanathan (2006) and Jeromi (2007).

From Table 24 it is found that 44.20 per cent of the average total loan amount of the indebted respondents was borrowed from Co-operatives followed by 33.6 per cent from commercial banks (SBT and South Indian Bank) and only 22.2 per cent from private money lenders. The result reveals that majority of the farmers depended on formal sources for credits rather than the money lenders.

4.5.2 Credit utilization pattern

The data from Table 25 reveals that only 36.8 per cent of the total loan amount was utilized for agricultural purposes whereas majority 63.2 per cent of the loan amount was utilized for non-agricultural purposes like children's education, social and religious functions, house construction etc. Thus they invested lesser amount in agriculture and used the same for non-productive purposes; thereby they earned less and couldn't repay the debt amount. The finding was supported by the finding of Birdar and Jayasheela (2000) and Mishra (2006).

Table 25. Credit utilization pattern of the total borrowed money by the farmers.

	Total credit Amount	Credit utilized for agricultural purpose	Credit utilized for non-agricultural purpose
Amount	92039.85	33870.66	58169.19
Percentage	100	36.8	63.2

4.5 Relationship between profile characteristics of the farmers and their extent of indebtedness.

On reviewing Table 26 we could observe that the profile characteristic of farmers such as age (0.258), family size (0.207), household expenditure pattern (0.389) and extent of survival stress (0.645) showed positive significant relationship with extent of indebtedness while annual income (-0.422), mass media exposure (-0.258), economic motivation (-0.300), risk orientation(-0.349) and management orientation (-0.265) showed negatively significant relationship.

As age increases, the expenses would also increased especially the expenses for the education of the children, health maintenance etc. Then the farmer might have availed more loans to meet such purposes. This could be the reason for the positive significant relationship of age with extent of indebtedness. Based on the family size the household expenditure also varies. The more the number of members in the family, the more will be expenditure of the family, and hence there is positive significant correlation of family size with extent of indebtedness.

When the household expenditure exceeds the annual income of the family, the farmers are forced to borrow money from formal or informal sources and thus fall into the 'debt trap". When the bank officers and money lenders force them for repayment, they find themselves helpless and irritated and feel more stressed. Thus the expenditure pattern and extent of survival stress have positive significant relationship with the extent of indebtedness. A similar finding was found by Dandekar et al. (2005), Meeta and Rajivlochan (2005), Jeromi (2006) and Mishra (2006).

Regarding the variables, annual income, it is quite natural that as the income decreases the extent of indebtedness increases. When the annual income of the family is more, they can repay the debts, if any or even can sustain without availing loans. Similarly when the mass media exposure is high, the farmers will get timely information about the

current market scenario and can do farming accordingly. More over, they will have the seriousness of utilizing the loans for the purposes for which it is taken and repaying the loan in time. All these might have resulted in the negative significant relationship.

High economic motivation, risk orientation and management orientations are required for a farmer to motivate him to perform effectively for high returns and to manage the situation accordingly for better performance in agriculture, and hence there is negative significant relationship of these variables with extent of indebtedness. The finding was supported by Reddy (2005).

Table 26. Correlation between profile characteristic and extent of indebtedness of farmers.

(n=100)

Sl.No.	Profile characteristics	Correlation Coefficient
1	Age	0.258**
2	Educational status	-0.172 NS
3	Area under cultivation	0.123 NS
4	Family size	0.207*
5	Annual income	-0.422**
6	Mass media exposure	-0.258**
7	Social participation	0.024 NS
8	Extension orientation	0.026 NS
9	Level of aspiration	-0.125 NS
10	Economic motivation	-0.300**
11	Risk orientation	-0.349**
12	Management orientation	-0.265**
13	Political orientation	0.017 NS
14	House hold expenditure pattern	0.389**
15	Extent of Survival stress	0.642**

** - Correlation is significant at 0.01 level (2-tailed)
* - Correlation is significant at 0.05 level (2-tailed)

The other variables viz. area under cultivation, social participation, extension orientation and political orientation showed positive trend which is not significant, while educational status and level of aspiration showed negatively non-significant relationship. In short, the variables are such as age, family size, expenditure pattern, extent of survival stress, annual income, Mass media exposure, economic motivation, risk orientation and management orientation are linked with each other in the extent of indebtedness of the farmers.

4.6 Perception of farmers on governmental interventions

It is seen from Table 27 that majority of the farmers are having high perception on the governmental interventions on agrarian crisis. Interest free loans, 'Padashekara Samithi' rice group farming, loan waivers scheme, subsides on inputs are identified as very useful schemes by the farmers. Most of them felt cattle distribution scheme and crop insurance scheme were not beneficial for their development in agriculture. Farmers feel it difficult to pay the insurance money for every month due to low income. This may be the reason for low perception on crop insurance scheme. Political parties may influence the cattle distribution to farmers and might have felt it not useful.

Table 27. Distribution of farmers based on their perception on governmental intervention.

Sl.No.	Governmental interventions	Perception of farmers	Frequency	Percentage
1.	Interest free loans for crops	Very useful Useful Not useful	82 16 0	82 16 0
2.	Employment through NREGA	Very useful Useful Not useful	67 17 16	67 17 16
3	Padashekara samithi for rice group farming	Very useful Useful Not useful	85 10 5	85 10 5

4	Cattle distribution to poor farmers	Very useful	33	33
		Useful	22	22
		Not useful	44	44
5	Loan waivers scheme	Very useful	86	86
		Useful	9	9
		Not useful	5	5
6	Crop insurance loan scheme	Very useful	5	5
		Useful	28	28
		Not useful	38	38
7	Subsides on farm inputs	Very useful	74	74
		Useful	17	17
		Not useful	9	9

4.7   Suggestions to resolve survival stress and indebtedness

The current trend in Indian agricultural sector faces serious crisis which can be averted by policy interventions. Hence there is a real need for the policy makers and administrators to take a holistic view for developing agriculture in our country. Some suggestions are put forth based on the researcher's observation during the study and also by the researcher's interaction with the respondents, social scientists and agricultural experts.

1. Farmers counseling centre for monitoring the farmers social, economic and psychological distress on a regular and routine basis and to provide social, psychological or spiritual face to face counseling need to be evolved. Tele psychological treatment using video-conferencing to avert farmers' suicides could be done.

2. Research and Development schemes should be intensified and scheduled programmes should be organized for developing the leadership quality, management ability, marketing orientation etc.

among the farmers and to organize themselves for ensuring their rights for protection for their development.

3. Enhancing post harvest technology for widening the scope for value addition and product diversification.

4. Encouraging co-operative farming among the farmers by pooling their small holdings to make it a large size as a whole for increasing the farm returns by sharing the high input cost, use of farm machineries for labour scarcity and for easy marketing which are difficult for an individual small farmer.

5. Minimum support price for all agricultural commodities, money lending act and minimum wage act should be announced.

6. There should be strict supervision by formal institutions to prevent the diversion use of loans given for agriculture purpose.

7. Money invested for agricultural purposes for a hectare of land is much more than the credit available for it from formal credit sources. Thus these credit gaps need to be revised.

8. A risk mitigation fund can be generated to finance the three different insurance schemes-crop, credit and income. This fund should have contribution from the government, and can also be drawn from the Rural Infrastructure Development Fund (RIDF).

9. The government should help the farm families by providing employment to a member of the family or help in setting up of a small business.

10. Provide direct inputs to farmers instead of cash subsidies for inputs, so that the misuse of subsidies by farmers can be prevented.

11. Increase the efficiency of agricultural extension activities. This includes spreading knowledge about improved ways of cultivation, including responsible use of appropriate type of seeds, fertilizers, pesticides etc., checking the quality of farm inputs and reliable professional advice during times of trouble, like when a sowing fails or the crop is infested with pests or the land is affected by a drought or excess rainfall.

SUMMARY

5. SUMMARY

Agriculture in India, at present is facing a serious crisis consequent to globalization, international agreements, domestic government policies and a number of other reasons which are mostly beyond the control and reach of farmers. Farmers, especially the rice farmers are becoming increasingly dependent on the market forces, which continue to be hostile to them with regard price of rice. Though rice farming is not merely a profitable agricultural activity at present, it still remains as a very important farming system in Kerala, as it is deeply ingrained in the culture; traditions and psyche of Malayalees especially rice farmers. In the present situation, the rice farmers are being faced with a number of problems especially the escalating cost of agricultural inputs, difficulties in marketing, and difficulty in carrying out the agricultural operations on time due to scarcity of labour, high wage rates etc. As a result, the farmers who solely depend on rice farming failed to meet their livelihood requirements which pushed them into the vicious circle of debt trap. The culture and value system of farmer and their inability to meet the increasing livelihood requirements generate varying degrees of anxiety and survival stress among farmers and those who could not with stand this survival stress committed suicides. The situation thus needs a clear understanding and delineation of factors leading to the survival stress of farmers, so as to design a development strategy to resolve this most serious human rights issue. Keeping all these in view, the present investigation was undertaken with the major objectives of assessing the extent of survival stress for livelihood security being experienced by the farmers and delineating the factors leading to survival stress. An examination of the extent of indebtedness, the profile characteristics of the farmers and their perception on governmental interventions in resolving the agrarian crisis was also envisaged.

The study was conducted in Nalleppily Panchayat of Palakkad District. A sample of 100 farmers was selected randomly from three

villages constituting the Panchayat viz. Nalleppily, Chittur and Tekaedesam. Priority was given to rice farmers as it is a rice predominant area.

Detailed review of literature, discussions with experts and scientists in agricultural extension and pilot study were relied upon for the selection of variables. Extent of survival stress and extent of indebtedness of farmers were selected as the dependent variables for the study. The profile characteristics of the respondents were the independent variables. The data were collected using pre tested and structured interview schedule. The statistical tools used were frequency, simple percentage analysis and correlation analysis.

The salient findings are summarized below:

1. The frequency distribution of the profile characteristics of the respondents revealed that 59 per cent of them belonged to old age group.

2. Regarding the educational status, no farmers were found to be illiterate and majority of them had higher secondary school education.

3. Forty per cent of the respondents had more than 4 members in their families and most of them lived in joint families.

4. Nearly half (47 %) of the farmers were having 2.5-5 acres (1-2ha) of land under cultivation, which is more than the average landholding size (0.27 ha) in Kerala.

5. Regarding the annual income, nearly two-third (66 %) of the respondents earn less than Rs.30000, in which 32 per cent of them earned Rs.20000 as household income, which is below the poverty line.

6. Nearly (38%) of the respondents had household expenditure ranging from Rs.50001-60000 which was much more than the annual income of many farmers.

7. The average annual expenditure of the respondents was found to be Rs.59750.50 in which 39.8 per cent was spent on food and the rest on non-food items. More money was spent on children's education, social obligations and medical expenses of the family members.

8. Majority (56 %) of the respondents belonged to medium category level of extension orientation and most of them had regular contact with the Krishi Bhavan.

9. Nearly half (45%) of the respondents were utilizing three mass media sources for getting agricultural information. About three-fouth of them were regular users of Newspapers, TV and Radio and felt that they were the more credible sources for information.

10. More than 60 per cent of the respondents had higher level of economic motivation and strived hard for their development.

11. Regarding social participation 64 per cent of the respondents belonged to medium category level of participation.

12. Majority (79%) of the respondents had very high level of political orientation thinking that their development would occur only through political interventions.

13. More than 60 per cent of the respondents were having low level of aspiration, which indicates a negative sign for the agriculture prospects of the State.

14. No farmer was found to have low level of management orientation and majority (66 %) of them had high management orientation which includes planning, production and marketing of agriculture produce.

15. The major finding of the study regarding the extent of survival stress of the respondents revealed that more than half (55 %) of them were under very high survival stress level and no farmer was found belonging to very low stress level. Most of them had

negative affective reaction symptoms as the prime effect due to their survival stress.

16. Regarding the factors influencing this survival stress the economic factors were found to be the major contributor followed by family factors, personality factors and technological factors. To some extent environmental factors also generate survival stress to the respondents.

17. The correlation between the profile characteristic and extent of survival stress of respondents revealed that area under cultivation, annual income, risk orientation and management orientation showed a negative and significant relationship whereas economic motivation and extent of indebtedness showed a positive and significant relationship. All the other variables viz. age, educational status, family size, mass media exposure, social participation, extension orientation, level of aspiration, political orientation, and expenditure pattern showed no significant relationship with the extent of survival stress.

18. Regarding indebtedness 29 per cent of the respondents owed indebted amount ranging from Rs.50001-75000. Only 11 per cent of the total respondents were free from debt.

19. The average outstanding debt for a farm family is Rs. 49,470 which was twice the annual income of 83 percent of the respondents.

20. It was found that 76 per cent of the indebted respondents had borrowed money from institutional sources like co-operatives and commercial banks. Only 13 per cent of them were depended on non-institutional source like money lenders, friends and relatives.

21. Study on credit utilization pattern revealed that more than 60 per cent of the total loans taken were utilized for non-agricultural

purposes like children's education, social and religious functions, house construction etc.

22. Results of the correlation studies between the profile characters and the extent of indebtedness of respondents revealed that age, family size, expenditure pattern and extent of survival stress showed a positive and significant relationship whereas annual income, mass media exposure, economic motivation, risk orientation and management orientation showed negative and significant relationship. All the other variables like education status, area under cultivation, social participation, extension orientation, level of aspiration and political orientation showed no significant relationship with extent of indebtedness of the respondents.

23. Regarding perception of farmers on governmental interventions for resolving the agrarian crisis, interest free loan, 'Padashekara samithi' based rice group farming, loan waiving scheme and subsides for inputs were perceived to be more useful. The crop insurance scheme and cattle distribution scheme were perceived to be not much useful by the farmers.

Suggestions for resolving the survival stress and indebtedness

1. Establishing farmers counseling centers for face to face interaction and counseling of farmers or tele-psychological treatment using video-conferencing to dissuade the farmers from committing suicide.

2. Research and Development schemes should be intensified and scheduled programmes should be organized for developing the leadership quality, management ability, marketing orientation etc. among the farmers and to organize themselves for ensuring their rights for protection for their development.

3. Enhancing post harvest technology for widening the scope for value addition and product diversification.

4. Revising the credit gap and strict supervision for credit utilization by the farmers.

5. Minimum support price for all agricultural commodities, money lending act and minimum wage act should be announced.

6. Non-farm employment opportunities should be provided by the government to raise the income of the farmers' family.

7. A risk mitigation fund can be generated to finance the three different insurance schemes-crop, credit and income. This fund should have contribution from the government, and can also be drawn from the Rural Infrastructure Development Fund (RIDF).

Plate 2. Rice field in Nalleppily Panchayat

Plate 3. Interviewing the farmer for the study

Plate 4. An indebted and high survival stressed farmer

Plate 5. Farmers maintaining fisheries for additional income

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APPENDICES

APPENDIX

INTERVIEW SCHEDULE

**Survival stress for the livelihood security of farmers in Palakkad Dist:
The case of Nalleppilly Panchayat.**

<u>Section-1</u>

DATE:

1. **Name**   :

2. **Address**   :

3. **Age**   :

4. **Educational status**   :

5. **Area under cultivation** :

        (a) Area owned :
        (b) Cultivated   :
        (c) Leased in   :
        (d) Leased out   :

6. **Crops grown:**

Sl. No	Crops	Area

7. **Family size**   :

8. **Major crops grown over year since you started cultivation**

Year	Crops grown
1970-80	
1981-90	
1991-2000	
2000-2005	
After 2005	

9. **Annual Income (Rupees):**

10. Mass media exposure

Please indicate which are the following mass media you use for getting farm information.

Sl. No.	Mass media	Yes	No
1	Radio		
2	Newspaper		
3	Television		
4	Farm magazine		
5	Bulletins		
6	Books		
7	Others, specify		

Sl. No.	Mass media	Frequency of exposure		
		Regularly	Occasionally	Never
1	Radio			
2	Newspaper			
3	Television			
4	Farm magazine			
5	Bulletins			
6	Books			
7	Others, specify			

11. Social participation:

Please indicate whether you are a member or office bearer in any of the following organization. If so, indicate the frequency of the participation.

Sl. No.	Organization	Nature of participation			Frequency of participation in meetings		
		No membership	Membership	Office bearer	Never	Sometimes	Regularly
1	Panchayat						
2	Co-operative society						
3	Farmer's club						
4	Youth club						
5	Socio-cultural organization						
6	Any other (specify)						

12. Extension Orientation:

Please indicate your response in the appropriate alternatives by putting a tick mark (✓)

a. *Extension contact*

Sl. No.	Extension personnel	Frequency of exposure		
		Regularly	Occasionally	Never
1	Agricultural scientist			
2	Agricultural Officer			
3	Agricultural Assistant			
4	Others, specify			

b. *Extension participation*

Sl. No.	Activities	Frequency of participation		
		Regularly	Occasionally	Never
1	Study tours			
2	Seminars			
3	Exhibition			
4	Group farming meetings			
5	Demonstrations			
6	Farmer's day			
7	Others, specify			

13. Level of aspiration:

Please check (√) at appropriate choice as your aspiration

Sl.No	Items	Yes	No
1	Earn higher income		
2	Develop agricultural land		
3	Get a good job		
4	To start a small enterprise other than agriculture		
5	To run a petty shop		
6	Others		

14. Economic motivation:

Please indicate your response in the appropriate alternative by putting a tick mark (✓) SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree

Sl.No.	Statements	SA	A	UD	DA	SDA
1	A farmer should work towards higher yields & economic profit.					
2	The most successful farmer is one who makes more profit.					
3	A farmer should try any new farming ideas which may help him to earn more money.					
4	A farmer should grow more food crops for home consumption and to increase monetary profits.					
5	It is difficult for the farmer's children to make good start unless he provides them with economic assistants.					
6	A farmer must earn his living but the most important thing in life cannot be identified in economic returns.					

15.   Risk Orientation:

Please indicate your response in the appropriate alternative by putting a tick mark (✓) SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree.

Sl.No.	Statements	SA	A	UD	DA	SDA
1	One should cultivate different crops to overcome the failure of cultivating one or two crops					
2	One should try to make more profit facing challenges rather than doing small scale farming with very low risk					
3	One rich farmer can do large scale farming taking high risks than an average farmer					
4	If the chance for success is assured one should take any risk involved in farming					
5	One should not adopt innovative techniques before observing the experience of others					
6	Trying an innovative farming technique is beneficial even though an element of failure is involved in it.					

16. Management Orientation:

Please state agreement or disagreement to each of the statements below.

Sl. No.	Statements	Agree	Disagree
a)	*Planning orientation*		
1	Each year one should think afresh about the crop to be cultivated.		
2	One should plan about the crop every season.		
3	Before raising crop, one should plan about the inputs like seeds, fertilizers, plant protection chemicals.		
4	Before raising a crop one should work out the total cost of cultivation.		
5.	Before raising the crop it is necessary that one should discuss with experts.		
6.	Before doing cultivation, if a proper planning is done agricultural production will improve.		
b)	*Production orientation*		
1.	Proper time of planting is highly essential for better production.		
2.	A farmer can add fertilizer for his crops as per his discretion		
3.	It is beneficial to apply fertilizer for crops following soil testing results.		
4.	Weedicide should be utilized for destruction of weeds in field.		
5.	Seed rate should be decided as per the recommendations.		
6.	Irrigation facility should be provided in field, if water scarcity is there.		

c)	*Marketing orientation*		
1.	One should have proper market information for getting better price for his products.		
2.	Grading is very much essential for getting good price for the products.		
3.	Ware houses help the farmers to stock their products properly and fetch good price.		
4.	It is better to sell the products in the market without working time for enquiring about the market rate.		
5.	The inputs like seed, fertilizer etc. should be purchased from the same source from where one's relatives are purchasing.		
6.	One should decide the crop for cultivation only after enquiring about the market demand of products.		

17.   Political orientation

Sl.No	Items	Agree	Disagree
1	Recognizing power relations existing in the society is very important in resolving the problems of the society		
2	Democracy is the best political principle and philosophy for ideal governance.		
3	Individual approach will not help in solving problems		
4	Organizing people for asserting their genuine and fundamental rights is an important pre-requisite for a democratic society		
5	Political parties are inevitable and indispensable for a vibrant democratic society functioning in accordance with constitution.		
6	Sustainable progress and welfare of people can be achieved only through organized and political and social interventions		
7	Apolitical approach to social issues actually preserve the existing power relations and prevent distributive justice, social transformation and progress		
8	Political parties and other social organizations play no role in social development and therefore it is a curse to the society.		
9	Principle like freedom, equality and fraternity should be the guiding cardinal principles of a strong civil society		
10	Distributive justice makes a social system humane and modern.		

<u>Section-2</u>

18. Extent of survival stress:

Please indicate your response in the appropriate column which suits you most by putting a tick mark (✓) based on your experience.

Part-1 (Physical Complaints)

Sl no	Items	Usually	Sometimes	Never
1	I sweat a lot			
2	I get head ache			
3	I get tired easily			
4	I cannot stand loud noise			
5	I have very poor appetite			
6	I get giddiness			
7	I have disturbed sleep			
8	I have nausea			
9	I suffer from one health problem or the other every day			
10	I have difficulty in falling asleep			
11	I get back pain			
12	I get pain in my joints			
13	I get pain in my neck and shoulders.			

Part -2 (Negative affective reaction)

Sl no	Items	Usually	Sometimes	Never
1	I am in a low mood			
2	I am highly irritable			
3	I feel helpless			
4	I lose my temper easily			
5	I do not enjoy activities which I used to enjoy			
6	I am worried about my future			
7	I am worried about my poor health			
8	I find others too demanding			
9	I get provoked very easily			
10	I feel upset when I have to take up some responsibilities			
11	I worry about my past			
12	I become aggressive			
13	I am afraid that I would break down			

Part-3 (Negative cognitive behaviour)

Sl no	Items	Usually	Sometimes	Never
1	I take a long time to decide			
2	I am distracted very easily			
3	I cannot think clearly			
4	I think my future is dark			
5	I get disturbing thoughts			
6	I find it difficult to be attentive			
7	I think I am overtaking myself			
8	I keep forgetting things			
9	I cannot cope with sudden changes around me			
10	I think life is a mess			
11	I am pre occupied			
12	I become blank			

Part-4 (Negative overt behaviour)

Sl no	Items	Usually	Sometimes	Never
1	I throw things around			
2	I am not bothered about my appearance			
3	I leave things incomplete			
4	I have a strained posture			
5	I do not pay attention to what I eat			
6	I do not speak much to anyone in the family			
7	I strive hard to achieve more and more			
8	I argue a lot			
9	I have no time for exercise/walk/jog			
10	I spent very little time with family members			
11	I shout at others even for small			
12	I have no time for relaxation			

19. Factors influencing survival stress:

Please indicate your response in the appropriate alternative by putting a tick mark (✓)
SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree.

(i) Personality factors:

Sl.No.	Statements	SA	A	UD	DA	SDA
1	I feel fear					
2	I feel depressed					
3	I feel loneliness					
4	I feel helpless					
5	I am highly irritable					
6	I worried about my present and future					

(ii) Family factors:

Sl.No.	Statements	SA	A	UD	DA	SDA
1	Health problem of family members and its expenditure					
2	Death of close family members					
3	Educational expenditure					
4	Sister's / Daughter's marriage and its expenditure					
5	Social isolation of family					
6	Disputes with relatives and friends					

(iii) Economic factors:

Sl.No.	Statements	SA	A	UD	DA	SDA
1	Low farm income					
2	Scarcity of labour and high wage					
3	Increased in dept					
4	Non-availability of credit in time					
5	Lack of regular off farm employment					
6	High input cost					

(iv)   Technological factors:

Sl.No.	Statements	SA	A	UD	DA	SDA
1	Inadequate information and technology on farming					
2	Inadequate irrigation facilities					
3	Non-availability of improved variety of seeds & inputs					
4	Lack of farm machineries					
5	Lack of PP equipments and skilled labour					
6	of post harvest facilities for value addition and diversification.					

(v)   Environmental factor:

Sl.No.	Statements	SA	A	UD	DA	SDA
1	Inadequate monsoon					
2	Heavy rain / flood					
3	Severe drought					
4	Poor soil fertility / soil erosion					
5	Pest & disease incidence in crops					
6	Cyclone / heavy wind					

20.   Nature of credit:

Sl. No.	Source of credit	Credit type			Year of borrowing	Total amount	Interest rate	Amount repaid	Balance
		ST	MT	LT					
	Institutional								
1	Co-operative bank								
2	Commercial bank								
3	Co-operative credit societies								
4	Kudumbasree								
	Non-Institutional								
5	Private financial firms								
6	Money lenders								
7	Friends and relatives								
8	Others(specify)								

21.   Credit utilization pattern:

Sl.No.	Activity	Borrowing amount	Utilization amount		Percentage of total cost
	Agricultural purpose				
1	Paddy				
2	Coconut				
3	Banana				
4	Vegetables				
5	Live stocks				
6	Farm implements& machineries				
7	Others(specify)				

	Non-agricultural purpose				
1	Children education				
2	Medical treatment				
3	Family functions				
4	House construction				
5	Others(specify)				

22. Income expenditure pattern:

Sl.No.	Items	Quantity	Total expenses	
			Per month	Per year
1	Food			
2	Cloth			
4	Electricity			
5	Conventional necessities			
6	Medical expenses			
7	Education			
8	Religious / social functions			
9	Taxes			
10	Recreation			
11	Traveling expenses			
12	Newspaper, Magazine etc			
13	Service charges			
14	Repairs, Maintenance etc.			
15	Luxuries			
16	Fuel			
17	Others(specify)			

23. Perception on governmental interventions

Sl no	Governmental interventions	Very useful	Useful	Not useful
1	Interest free loans for crops			
2	Employment through NREGA			
3	Padashekara samithi for rice group farming			
4	Cattle distribution to poor farmers			
5	Loan waivers scheme			
6	Crop insurance loan scheme			
7	Subsides on farm inputs			

ABSTRACT

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The crisis in the agrarian sector due to many socio-economic, climatic and technology related factors adversely affected the farmers and they have been impoverished, dispossessed and marginalized. As a result they fail to meet even their basic livelihood requirements and hence borrow money but fail to repay due to very low income from farming. Thus these deprived farmers become helpless and undergo high level survival stress forcing them to commit suicide. So it is necessary to design a strategy for resolving this most serious human rights issue. This study entitled "Survival stress for livelihood security of farmers" was an attempt to de-construct the concept of survival stress of farmers which enabled to delineate the various dimensions of, and factors contributing to their survival stress.

The study was conducted in Nalleppily Panchayat of Palakkad District. A sample of 100 farmers was selected randomly from the three villages' viz. Nalleppily, Chittur and Teckaedesam constituted to Nalleppily Panchayat.

The study indicated that most of the farmers belonged to old age group and possessed education up to higher secondary level. Most of the farmers lived in joint families. Nearly 50 percent of the respondent farmers were marginal farmers earning less than Rs.30000 per annum and 32 percent were below the poverty line. The average annual expenditure of a farm family was Rs.59750.50 which is much higher than their annual income. Thus they are unable to meet their livelihood demands and they borrow money from all possible sources. It is found that most of the farmers depend on institutional sources rather than non-institutional sources.

The study revealed that more than 60 percent of the credit availed is utilized for non-agricultural purposes and thus they get low returns from agriculture and could not repay the loans. The average outstanding debt for a family was Rs.49470 which is twice their annual income. Hence the farmers are not able to meet their domestic consumption and social obligations and responsibilities, and become more vulnerable to survival stress.

The results of the study indicated that more than 50 percent of the farmers were under very high survival stress for their livelihood security due the reasons mentioned above. Among them the economic factors were found to be the major contributor for their survival stress followed by social factors, psychological factors and technological factors. To some extent environmental factors were also found generate survival stress for the farmers.

The study on the survival stress of the farmers on four dimensions viz, Physical complaints, Negative affective reactions, Negative overt behaviour and Negative cognitive behaviour revealed that more than 80 percent of the farmers were having high survival stress for their livelihood. Among the dimensional factors influencing survival stress, economic dimensional factor was found to be the major contributor followed by personality, family and technological dimensional factors. To some extent environment dimensional factors also generate survival stress though it is not under the control of farmers.