



IMPACT OF HEAVY RAINS AND FLOODS ON ARACANUT GROWERS

A - Sociological Study

With special reference to Mudigere taluk in Chikmagalure District

Devananda R.¹ & GD Narayana², Ph. D.

¹Research Scholar, Department of PG studies and research sociology, Bharthiar University, Coimbatore, Tamilnadu.

²Research supervisor, MA.

Abstract

Climate means interactions between atmosphere (Air), Hydrosphere (Water), Cryosphere (Ice and Permafrost), Biosphere (living things), and Lithosphere (Earth's crust and upper mantle). This results for daily weather and long term averages of weather. Climate change means the climate system receives all its energy from the sun, a small amount of energy from earth's interior parts. The climate system gives off energy to outer space. The balance between the incoming and outgoing energy and the passage of energy through climate system determines earth's energy. When the incoming energy is greater than the outgoing energy the climate will become warm. If the outgoing energy is more than the incoming, energy the earth will experience cooling effect. In Karnataka, state Areca nut is a main commercial crop in practice. It was earlier grown in malenadu regions, coastal regions, and side of sahyadri mountain regions. But in now a day's Areca nut is growing in table lands (Bayalu Seemae) also. For Areca nut crop sandy soil, red soil, jambbe ittige soil, meccal soil is suitable. Areca nut crop needs more rain and water whenever is needed. It is sustainable to hot climate also. The life time of Areca nut tree is about 50 to 60 years. From the time of Mahabharata, Ramayana and till today Areca nut is growing and utilizing by the human kind in India. There are evidences for the Areca nut crop in the past history. In Mudigere Taluk Aracanut is growing in 2599 hectares, total Aracanut yielding is 2780 tones, the average yield per hectare is 1.07 tones only. In recent days due to heavy rains and floods by the rivers of Hemavathi and Bhadra thousands of farmers lost their valuable Aracanut gardens, horticulture crops gardens and food crops fields also. Hundreds of families lost their home also. The most affected villages in Mudigere taluk will come under the purview of Baaluru hobli, mainly the villages are Maalemane, Muttinakonda, Alekhanhoratti and neighboring villages. This is due to human intervention on environment, development of new buildings, roads, infrastructures in eco sensitive areas. Recently temperature is rising day by day and climate is also changing due to global warming. In this study we are studying impact of heavy rains and floods in the above mentioned area.

Bibliography:

An introduction of sociology by Vidya Bhushan, D.R. Sachdeva.

Medical Sociology by M. Thamilarasan.

Environmental Studies by Arun K Tripathi.

Websites, journals, Newspapers and TV channels.

Key words: Global warming, climate change, heavy rains, floods, and soil erosions.



Scholarly Research Journal's is licensed Based on a work at www.srjis.com

Introduction:

Climate means interactions between atmosphere (Air), Hydrosphere (Water), Cryosphere (Ice and Permafrost), Biosphere (living things), and Lithosphere (Earth's crust and upper mantle). This results for daily weather and long term averages of weather.

Climate change means the climate system receives all its energy from the sun, a small amount of energy from earth's interior parts. The climate system gives off energy to outer space. The balance between the incoming and outgoing energy and the passage of energy through climate system determines earth's energy. When the incoming energy is greater than the outgoing energy the climate will become warm. If the outgoing energy is more than the incoming energy the earth will experience cooling effect.

There is a collective non-Governmental working organization engaged in the issues of climate change. It is an international organization providing importance to border environmental movement it is also a type of social movement itself given its scope, strength and activities.

In this rainy season 16 revenue districts received heavy rains more than average rainfall. Specially Mudigere taluk in Chikkamagalore districts received heavy rains from 1st June to 31st August 2019 received Approximately 225 inches (5715mm) rainfall. This is very abnormal and dangerous to agricultural and horticultural crops.

In Karnataka state Areca nut is a main commercial crop in practice. It was earlier grown in malanadu regions, coastal regions, and side of sahyadri mountain regions. But in now a day's Areca nut is growing in table lands (Bayalu Seemae) also. For Areca nut crop sandy soil, red soil, jambbe ittige soil, meccal soil is suitable. Areca nut crop needs more rain and water whenever is needed. It is sustainable to hot climate also. The life time of Areca nut tree is about 50 to 60 years. From the time of Mahabharata, Ramayana and till today Areca nut is growing and utilizing by the human kind in India. There are evidences for the Areca nut crop in the past history.

In Mudigere Taluk Aracanut is growing in 2599 hectares, total Aracanut yielding is 2780 tones, the average yield per hectare is 1.07 tones only. In recent days due to heavy rains and floods by the rivers of Hemavathi and Bhadra thousands of farmers lost their valuable Aracanut gardens, horticulture crops gardens and food crops fields also. Hundreds of families lost their home also. The most affected villages in Mudigere taluk will come under the purview of Baaluru hobli, mainly the villages are Malemane, Muttinakonda, Alekhanhoratti

and neighboring villages. These villages are highly affected by the Hemavathi and Bhadra Rivers overflow water.

This is due to human intervention on environment, development of new buildings, roads, infrastructures in eco sensitive areas. Recently temperature is rising day by day and climate is also changing due to global warming. In this study we are studying impact of heavy rains and floods in the above mentioned area.

The obstacles posed by Aracanut are numerous. Aracanut has given more obstacles than happiness to the Aracanut growers in past, present and in future also. Aracanut is a traditional and holy crop which has more importance in the life of human beings. Aracanut is an essential item for human beings in Hindu religion from birth day to death day. Areca nut has got medicinal values and nutri-ceutical properties which will help the human health as stated in Ayurveda history. The Areca nut is found to be useful for major ailments as under Leucoderma, leprosy, gonorrhoea, urinary problems, scabies, cough, fits, stomach worms, anemia, obesity, as a stimulant, appetizer, expelling gas and phlegm, strengthening the gums, teeth and cleanse, deodorizes mouth and bad odor, dysentery, diarrhoea, heart burn, urinary stones, in controlling diabetes, excessive passing of flatulent, colic, hyper acidity, gastric ulcer, nasal ulcers, nasal ulcers promotion of menstrual flow, to check the pyrosis of pregnancy in women, improvement of memory in Alzheimer patients. The details are given in report of the department of agricultural economics (2012).

Aracanut leaves are using in manufacturing of bio-degradable plates, bowls, cup's and others for diner purpose. Areca nut leaves are using to manufacture. Food stocks for cows and other animals which helps in milk industry. Areca nut facing a cut-thought lobby from tobacco industry, liquor industry, gutka industry and multinational companies also in recent days.

Objectives of the study:

- To assess the damages for Aracanut growers.
- To know the immediate requirements of diseased Aracanut growers in flood affected areas (Study area).

Hypothesis:

- The damages for Aracanut growers is huge (damages are beyond imagination).
- The Aracanut grower's future is in Doldrums.

Statement Clarification:

In this rainy season Mudigere taluk received approximately 225 inches rainfall (5715 mm). The most affected villages are Malemane, Muttinakonda, Halekhanhoratti and other villages in Balur and Gonibeedu revenue Hoblis. In these villages there were approximately one thousand (1000) Acre's of Aracanut gardens. Now for heavy rains they lost approximately 250 acres of Aracanut gardens. Aracanut is a long term horticultural crop it takes nearly 10 years to grow and yield. Affected Aracanut growers lost their valuable Aracanut gardens and they are in distressed condition.

Methodology:

In this, we used simple random sampling method on selected 10 diseased Aracanut growers, and used primary and secondary sources to collect the data with structural development perspective.

Sources of Information:

1. Primary source: To collect the primary information we used prepared questioner with some questions on development perspective and we collected data from 10 diseased respondents through telephone.
2. Secondary sources: We have collected information from articles, journals, libraries, News papers and websites.

Theoretical perspective:

We used structural functional theoretical perspective for this study.

Topographical futures of the study area:



Mudigere is located at 13.13°N 75.63°E. It has an average elevation of 915 meters (3001 feet). It is a sleepy little town surrounded by coffee plantations. Also the famous temple Bettada Byraweshwara near Mekanagadde which is 25 km from Mudigere is one of the best tourist place in Chikmagalure, and also the College of Horticulture, which offers professional

degree in Horticulture and Master's degree in Horticultural sciences (a sub-campus of the University of Horticultural Sciences, Bagalkot) is situated in Mudigere. As per the Census India 2011, Mudigere Taluk has 31,934 households, population of 1,28,134 of which 63,102 are males and 65,032 are females. The population of children between age 0-6 is 11,986 which is 9.35% of total population. The mains horticultural crops are Coffee, Tea, pepper, Aracanut. The main food crop is paddy, ginger and other crops.

Table No 1: Personal profile of the Respondents.

SL NO	Personal profile of the Respondents				
1	Age	18-28	29-39	40-50	51+
		02	03	03	02
2	Gender	Male			Female
		08			02
3	Caste	SC	ST	OBC	Others
		01	01	08	-
4	Religion	Hindu	Christian		Muslim
		10	-		-
5	Education	Illiterates	Primary education	Secondary education	Higher education
		00	06	03	01
6	Yearly Income	Up to 25,000	25,001 to 50,000	50,001 to 1,00,000	1,00,001+above
		02	03	05	-
7	Marriage	Married	Bachelor	Widow	
		09	01	-	
8	Family	Joint	Nuclear		
		-	10		
9	Areca nut plantation in acres	0-2	02-05		
		06	04		

In demographic information age, gender, education qualification, , marital status, income size type of family etc, are various information's are followings

- **Age:** Age is the important factor at the time of interview because if the respondents are below 18 years ago they will be considered as minors. They are not eligible into any contract according to *Indian contract act-1872*.
- **Gender:** We interviewed 80% of the male respondents. 20% of the female respondents.
- **Cast:** At the time of research in India, cast plays an important role even though India is secular state. We interviewed 10% SC, 10% ST, 80% OBC.

- **Religion:** India is the motherland of several religions. Even though it is a secular, state all the statistics are collected on the basis of religion like Hindu, Muslim, Christian, Jains, Parasis, Buddhists, siks and so on. We interviewed 100% Hindus.
- **Education:** Education plays an important role in India. Due to several governmental and non-governmental (NGO`s) intuitional efforts. Majority of the respondents are literates. In the interview 60% as the primary education, 30% Secondary education and 10% higher education.
- **Yearly income:** 20% of our respondents have approximately 25,000 yearly income, 30% of our respondents have approximately 50,000 yearly income and 50% of the respondents have approximately 50,000 and above Yearly income.
- **Marriage:** 90% of our respondents are married, 10% unmarried.
- **Family:** 100% of our respondents are Nuclear families.
- **Areca nut plants in acres:** 60% of our respondents are growing Areca nut in 0 to 2 acres, 40% of our respondents are growing Areca nut in 2 to 5 acres.

Thematic Analysis of Data:

The data collected by using all the research methods, and others sources are analyzed by essential statistical techniques by using analysis of data research report. The data was collected on structural development perspective.

SI No	Problems of diseased Aracanut growers	Yes	No
01	Do you opine this year have you received heavy rains never before	100%	-
02	Do you opine Government helped well in time	90%	10%
03	Do you opine Aracanut crop is your Bread and butter	100%	-
04	Do you need new lands from Government	100%	-
05	Do you want to grow Aracanut crop once again	60%	40%
06	Do you need compensation in terms of cash for present losses	100%	-
07	Do you opine publics helped you at the time of heavy rains and folds	100%	-
08	Do you opine NDRF team saved your life	100%	-
09	Do you opine you are well treated in relief camps	100%	-
10	Do you opine over human intervention on environment is root cause for this disaster	80%	20%
11	Do you opine use of heavy earth movers and machines in your surrounding area for development work is a cause for disaster	80%	20%
12	Do you opine deforestation is the cause for this disaster	90%	10%
13	Do you opine can you lead your life without Aracanut plantation	10%	90%
14	Do you opine the diseased persons need medical counseling	80%	20%
15	Do you feel there is a need of new houses for diseased Aracanut growers?	100%	-

Do you opine this year have you received heavy rains never before: 100% of the respondents opine that they received 225 inches (5715 mm) of rainfall from 1st June 2019 to 31st August 2019. This is the data provided by the department of Meteorology, Bangalore.

- 1) **Do you opine Government helped well in time:** 90% of the respondents opine that chikkamagalore district administration Assisted rain and floods effected people well in time by opening relief camps, shifting diseased persons from the place of disaster to safety places. 10% of the respondents opine that the Government personnel came late.
- 2) **Do you opine Aracanut crop is your Bread and butter:** 100% of the respondents opine Aracanut crop was their Bread and butter. It was the main commercial crops they were growing. According to data supplied by department of horticulture Chikkamagalore. Aracanut crop is growing in 2599 hectares area in Mudigere taluk, the total Aracanut production is 2780 tonnes, the yield per hectare is 1.07 tonnes. The present market of Aracanut price is RS 3,50,000 per ton (35,000 per quintal).

SL.NO.	NAME OF THE TALUK	AREAIN HECTARES	CROPS IN TONES	YIELD/HECTARES IN TONES
01	Mudigere	2,599	2,780	1.07 tons/ hectares

- 3) **Do you need new lands from Government:** 100% of the respondents need new lands from the Government, because the old and existing Aracanut gardens have been sub merged in mud and water? It is very difficult and not viable economically to repair the old Aracanut gardens.
- 4) **Do you want to grow Aracanut crop once again:** 60% of the respondents want to grow Aracanut crop once again because it is more economically profitable then other horticulture crops. 40% of the respondents are not ready to grow Aracanut plantation because they are economically not in good position to wait up to 8 to 10 years for Aracanut crops.
- 5) **Do you need compensation in terms of cash for present losses:** 100% of the respondents need compensation in terms of cash immediately to recover from present losses, to meet the basic needs of day today life.
- 6) **Do you opine publics helped you at the time of heavy rains and folds:** 100% of the respondents opine that the publics leaved in the nearby area immediately helped us to survive and they supplied the basic needs immediately.

- 7) **Do you opine NDRF team saved your life:** 100% of the respondents opine the NDRF team (National disaster response force) arrived immediately to the affected area by the request of State Government of Karnataka and rescued us from the danger of heavy floods by risking their own life.
- 8) **Do you opine you are well treated in relief camps:** 100% of the respondents opine they are well treated in relief camps by the district administration and local voluntaries and it was new experience in life to leave with other family members in relief camps without any discrimination, actually it is a social change due to heavy rains and floods.
- 9) **Do you opine over human intervention on environment is root cause for this disaster:** 80% of the respondents opine over human intervention on environment spoiled the nature and environment. 20% of the respondents don't know the correct answer.
- 10) **Do you opine use of heavy earthmovers and machines in your surrounding area for development work is a cause for disaster:** 80% of the respondents opine use of heavy earthmovers and machines damaged the earth and environment, use of heavy machines it's not advisable in hilly areas. 20% of respondents don't know the correct answer.
- 11) **Do you opine deforestation is the cause for this disaster:** 90% of the respondents opine deforestation due to several reasons is the cause for soil erosion and mud sliding. Forest trees roots will hold the soil and it won't allow soil to soil erosion. 10% of the respondents don't know the specific answer.
- 12) **Do you opine can you lead your life without Aracanut plantation:** 10% of the respondents are confident and lead their life without Aracanut crop. They can make their life by other food crops. 90% of the respondents opine that they can't lead normal life without Aracanut crop. Because Aracanut crop was providing them the income and sense of security.
- 13) **Do you opine the diseased persons need medical counseling:** 80% of the respondents need medical counseling because they were disturbed by the losses incurred by heavy rains and floods, they are suffering from mental agony. If they are not counseled in a proper manner their mental health and self confidence may deteriorate further. 20% of the respondents do not need medical counseling because

they are mentally strong enough to withstand the mental shock caused by the heavy rains and floods.

14) **Do you feel there is a need of new houses for diseased Aracanut grower:** 100% of the respondents need new houses to be built for their residential purposes. Because their houses has been eroded in heavy floods in front of their eyes only with all valuable things and documents, now they are living in relief camps.

Findings:

- In the present situation Aracanut growers are in distress condition. They should be humanly treated. Immediate relief like basic amenities should be provided to them.
- Diseased Aracanut growers should be compensated on long term basis, the Government should provide alternative lands to grow Aracanut and to build residential houses. Banks should provide long term loans with lower interest rates which enable them to grow new Aracanut gardens.
- The District administration should provide free education to their children's up to degree level.
- The District administration should take care of environment and forest.
- The district administration should stop the human encroachment on environment.

Provement of hypothesis:

By above all studies and statistics collected by the respondents we can prove that Aracanut growers incurred heavy losses and their future is in dole drums.

Suggestion:

By this study I can suggest diseased Aracanut growers should not lose their self confidence. They should make sincere attempts to grow other alternate corps like Banana, Ginger, vegetables and other crops along with animal husbandry and other cottage industries, which can yield immediately along with Aracanut crop in new lands sanctioned by District Administration. The Governments, local bodies and voluntary organizations are doing their best to ease the burden of diseased Aracanut growers.

Conclusion:

The diseased Aracanut growers in Malemane, Muttinakonda, Halekhanhoratti and other villages in Balur and Gonibeedu revenue Hoblis are in distressed condition, so it is the duty of the individuals, local bodies and the Government to help them timely and they should be

brought into mainstream of the society. They should not feel we are orphans; they should be mentally prepared to face the new challenges posed by the heavy rains and floods.

Bibliography:

- An introduction of sociology by Vidya Bhushan, D.R. Sachdeva.
- Medical Sociology by M. Thamilarasan.
- Environmental Studies by Arun K Tripathi.
- Websites, journals, News papers and TV channels.

