

# Narmada Project and Rural Agriculture (Production and Yield) (In a reference of Rural Farmers of Detroj and Rampura Villeges)

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**Abstract :** *On a Universal level India is considered as Prime agricultural Country. In Indian economy 70 percentage people of total population as a direct or indirect are depended on agriculture for their livelihood. So there is a unique informant of agriculture in economical department on an India. Although in present time we cannot free agriculture from slavery of nature. Today the most of the area of cultivating of India in a reference of agriculture is depended on a rain.*

*The main dependence of a development of agriculture is on the source of water. But in India the ratio of water in un Controlled therefore there is not development of an agriculture as per requirement. In words of Gandhiji The India Lives in a Villages may be prosper and viable. In a modern time in ratio of an economical development to meet additional expected goal. It is necessary to make prosper to agriculture. For it agricultural land in enough ratio water should be provide, to provide irrigation facilities and by built dam and Canals on ponds and lakes by filling and should be provide water in agricultural land 50 more than one crop can be taken in a season.*

**Keywords :** *Water, Irrigation, Economy, Development, Agriculture, Rural, Farmer, Farm Production, yield, Saving, Employment.*

## 1. INTRODUCTION :

As we have seen, there is a unique important of agriculture in India. But in case of incensement in a demand of agricultural production the ratio of production can be farmed very law. For it many elements are responsible. In which the main reason is in adequate facilities of irrigation. It is not possible to increase of an agricultural land but the facilities of irrigation can be increased as two or three crops can be taken in cultivating. In a ordinary terminology irrigation means to water trees or plants. But is an economical terminology irrigation means "Carry out to water by fosse and Canals" In an ancient time to we see on the Indian history that in India in the time of Dhannandan the Construction of Canals mentioned can be found. In a rule of Moury Sudarshan pond was built in Junagadh. In Patan Sahastraling Pond, Step-well were sources for irrigation of river kaveri English men have seen 1600 Years old Reservoir, In addition to this best wide and 1000 feet long dams were built an Kaveri river, Generally in South India by Canals irrigation was done.

In Indian economy the development of agriculture is the most solution to abolish poverty, employment, and unemployment, for the development of other filed, to increase production in agriculture. But the main dependent of base in development of agriculture irrigation facility.

### 1.1 Narmada Project :-

Rivers are traditionally considered as Mother in India. Narmada River is also seen as this type of belief by people Narmada river is life depended for Gujarat. It flows from mountain rang Girnar of Madhya Pradesh which is 1057 meter high from the surface of a Sea. It is 1312 km long. Narmada river passes from three states Madhya Pradesh, Maharashtra and Gujarat and fading in Arabian sea near Khambhat bay near Bharuch district.

Narmada Dam like a dream is constructed by deputy prime minister and day-dreamer Sardar Vallabhbhai Patel of free India. So word's second number Dam is named as Sardar sarovar Dam Project named after him. It is Situated on 530 feet height from Sea-surface in Gurudeshwar taluka of Narmada district near navagaam. Before freedom in 1946 high profile son of Gujarat and an Ironman of India Sardar Valabbhai Patel has thought to fulfill dream of Narmada project with joining of the time middle time government. The Semi nomadically proposal of Narmada Project was done in 1959.

The stone laying event was performed by that time prime minister Jawaharlal Naheru of Narmada Dam on 5 April-1961 on October-1969 the formation of tribunal and on 17 December-1979 the last Judgment of tribunal have come. In April-1987 the Construction of concrete Gravity dam was started. on 25<sup>th</sup> June-1987 environmental permission has been given to this project on 5<sup>th</sup> October-1988 6406 crore rupees grant has been dispatched by planning commission.

In 1998-99 court has permitted to sardar sarovar dam project and its height is raised till 85 meter. on 18<sup>th</sup> October-2000 supreme court has permitted this height of dam by stage wise. In 2001 90 meter, In July-2002 95 meter, In July-2003 100 meter, on December-2006 121.92 meter dam height is permitted. On June-12-2013 on the condition to keep doors of dam open complete height permission is also given on 8<sup>th</sup> July-2016 54,773 Crore reformed budget has been permitted on 17 June-2017 the door of main gate was closed till today in the construction of Sardar Sarovar dam project about 44,000 crore and 16,000 crore expected expenses has been done on bend and inertest. 18 lacks hector land of Rajasthan will get irrigation benefit. About 10 lacks Farmers will be benefitted in agriculture every year and its value will be 8700 crore every year one million electricity units will be generated by water electricity year with no harm to environment and total disporting capacity of electricity board is 1450 megawatt.

There are 9490 villages out of more than 18,000 villages and 173 cities of Gujarat means 65% population of the state the supply of drinking water will be also calculated. Due to encouragement to Animal Husbandry in rural areas new 10 lacks employment may be also available. Bharuch city which has around 4 lacks population and 30,000 Hector land of 210 villages of its around will be protected against flood. Due to Narmada Project to retrain desert area and increscent in salinity of land will be succeeded for which to stop migration in cities from villages is succeeded.

### 1.2 Narmada Project and Rural Agriculture :-

Present research study is done in a connation of rural Farmers in a reference of effects (Production and Income) occurred on rural agriculture of Narmada project. In present study facilities of irrigation by Narmada Canals to rural farmers are got or not ? Is there any incensement in an agriculture to them from Narmada Project? Is there any notable incensement in their income? Is enough water supply to them from Narmada Project will necessary for these types of question.

### 2. OBJECTIVE OF RESEARCH STUDY :

In the present research study enough water areas by irrigation to rural areas by Narmada Project is got and how benefits is got to rural farmers by this project it is necessary to know about its objective.

1. It will be checked if enough water supply to agriculture is got by Narmada Project.
2. It will be Checked if there is any incensement in the production of agriculture by this project.
3. It will be checked if always water will be get or not by Narmada Project.
4. It will be study about any increment in farmers income is got or not ?
5. It will be studies it there is development in villages by irrigation of Narmada project is done or not ?

### 2.1 Hypotheses of Research Study :-

The hypotheses are more important for research study. An estimate is put with center by this present study and conclusions and suggestions are presented based on its observation that is proved important for future research.

1. It can be found increment in production of an agriculture on rural field by Narmada Project.
2. It can be found increment in income of rural farmers by Narmada project.
3. It can be found law ratio of saving in rural farmers.
4. It can be found law ratio of education in rural farmers.
5. It can be found lack of information of agricultural government project in rural farmers.

### 3. RESEARCH METHOD :

The information is collected based on Primary and subsidiary information in this research study. In which in primary information is collected by questionnaire with face-to face visit of rural farmers of Detroj and Rampura Talukas where as subsidiary information is collected by means of magazines, Newspaper, references and internet during research study.

### 3.1 Model (Sample) Selection :-

Present study is done on Detroj and Rampura talukas of Ahmedabad district total 50 farmers from rural farmers farming by Narmada canals passing by rural areas of Detroj and Rampura talukas by proper demonstrative method are selected the conclusions and suggestions are presented by analysis of collected information collecting information by face-to-face visit in form of questionnaire primary information from selected farmers. That will be guide for future research.

#### Classification of Information

|    |   |               |               |               |                   |
|----|---|---------------|---------------|---------------|-------------------|
| 1. | Details of age ratio in respondents farmers | 15 to 30 Year | 31 to 40 Year | 41 to 50 Year | more than 51 Year |
|    |   | 8%            | 26%           | 40%           | 26%               |
| 2. | A Ratio of marital status in respondent     | Married       |               | Unmarried     |                   |

|     |   |                            |                                      |   |                                      |
|-----|---|----------------------------|--------------------------------------|---|--------------------------------------|
|     | farmers   | <b>90%</b>                 |                                      | <b>10%</b>  |                                      |
| 3.  | A Ratio of education in respondent farmers  | illiterate                 | Primary                              | Secondary   | Higher (College)                     |
|     |   | -                          | 32%                                  | 50%   | 18%                                  |
| 4.  | A Ratio of time concerned with agriculture in respondent farmers                                      | 1 to 3 Year                | 4 to 5 Year                          | 6 to 8 Year   | more than 9 year                     |
|     |   | 8%                         | 16%                                  | 22%   | 54%                                  |
| 5.  | A Ratio of land in respondents farmers  | 1 to 3 Vigha               | 4 to 6 Vigha                         | 7 to 9 Vigha  | more than 10 Vigha                   |
|     |   | 36%                        | 38%                                  | 22%   | 4%                                   |
| 6.  | A ratio of farming work on land in respondent farmers   | 1 to 2 Vigha               | 3 to 5 Vigha                         | 6 to 8 Vigha  | more than 9 Vigha                    |
|     |   | 22%                        | 40%                                  | 28%   | 10%                                  |
| 7.  | A ratio of Land owner/rent in respondents farmers   | Own land                   |                                      | Rent land   |                                      |
|     |   | 78%                        |                                      | 22%   |                                      |
| 8.  | A ratio of farming work in which season it is done  | In winter                  | In summer                            | In monsoon  | every year                           |
|     |   | 4%                         | -                                    | -   | 96%                                  |
| 9.  | The details of benefit of canal of Narmada project for farming taken by respondents farmers           | Yes                        |                                      | No  |                                      |
|     |   | 90%                        |                                      | 10%   |                                      |
| 10. | The details of irrigation done by Narmada canal (duration)  | from 6 months              | 1 to 2 year                          | 3 to 4 year   | 5 to 6 year                          |
|     |   | 2.1%                       | 18.8%                                | 39.6%   | 39.6%                                |
| 11. | The details of receiving water in adequate ratio by Narmada project                                   | Yes                        |                                      | No  |                                      |
|     |   | 96%                        |                                      | 4%  |                                      |
| 12. | The details of reason of not receiving water by Narmada project canal                                 | Due to in adequate rain    | Due to technical fault               | Due to disturbance in canal                         | Due to Government decision           |
|     |   | 25%                        |                                      | 12.5%   | 58.5%                                |
| 13. | The details of increasement in income farming production of Narmada poject                            | Yes                        |                                      | No  |                                      |
|     |   | 98%                        |                                      | 2%  |                                      |
| 14. | The details of incresement in income of respondents farmers   | Yes                        |                                      | No  |                                      |
|     |   | 100%                       |                                      | -   |                                      |
| 15. | The Ratio of annual income in respondents farmers   | 50,000 to 1 lakh           | 2 lakh to 4 lakh                     | 5 lakh to 8 lakh                                    | more than 9 lakh                     |
|     |   | 56%                        | 36%                                  | 6%  | 2%                                   |
| 16. | The ratio of saving in respondents farmers  | Yes                        |                                      | No  |                                      |
|     |   | 94%                        |                                      | 6%  |                                      |
| 17. | The ratio of saving source in respondent farmers  | In Bank                    | In Post                              | In Co-operative company                             | In home                              |
|     |   | 72.3%                      | 6.4%                                 | 2.1%  | 19.1%                                |
| 18. | The ratio of electric pump to pull water in respondents farmers                                       | Yes                        |                                      | No  |                                      |
|     |   | 100%                       |                                      | -   |                                      |
| 19. | The ratio of annual electricity in respondents farmers  | 5000 to 7000               | 8000 to 10000                        | 11000 to 15000                                      | more than 15000                      |
|     |   | 21.4%                      | 31%                                  | 35.7%   | 11.9%                                |
| 20. | The ratio of proper price got to respondents farmers  | Yes                        |                                      | No  |                                      |
|     |   | 26%                        |                                      | 74%   |                                      |
| 21. | The ratio of reason of not getting proper price to respondents farmers                                | loose policy of government | the dominance of mediation           | spoilage in productive things                       | shortage of proper market management |
|     |   | 11.1%                      | 26.7%                                | 6.7%  | 55.6%                                |
| 22. | The ratio of knowledge of agricultural government project in respondents farmers                      | Yes                        |                                      | No  |                                      |
|     |   | 82%                        |                                      | 18%   |                                      |
| 23. | The ratio of knowledge of agricultural government project in respondent project in respondent farmers | Project of backing price   | Pradhanmantri fasal Bima yoj.        | Kisan tranportation yoj.                            | Soul project/ other                  |
|     |   | 21%                        | 17%                                  | 24%   | 38%                                  |
| 24. | The details of reason of lack of knowledge of agriculture government project in respondents farmers   | lack of literacy           | Inadequate information about project | lack of information of project in government office | other reason                         |
|     |   | 5.3%                       | 10.5%                                | 21.1%   | 63.2%                                |
| 25. | The ratio of loss to crop of agriculture due to disturbance of canal for more rain during monsoon     | Yes                        |                                      | No  |                                      |
|     |   | 31.9%                      |                                      | 68.1%   |                                      |
| 26. | The ratio of economical help got from   | Yes                        |                                      | No  |                                      |

|     |  |                             |                              |                                  |                                |
|-----|--|-----------------------------|------------------------------|----------------------------------|--------------------------------|
|     | government to respondent farmers   | 47.8%                       |                              | 52.2%                            |                                |
| 27. | The ratio of reason of low ratio of farming productive though facilities of irrigation           | shortage of chemical manure | shortage of excellent seeds  | shortage of pesticides medicines | Shortage of mechanical devices |
|     |  | 25%                         | 36%                          | 22%                              | 17%                            |
| 28. | Views of farmers respondents about the increasement of agriculture in Gujarat of Narmada project | Yes                         |                              | No                               |                                |
|     |  | 100%                        |                              | -                                |                                |
| 29. | Views about improvement in economical situation in rural farmers of Gujarat of Narmada project   | Yes                         |                              | No                               |                                |
|     |  | 100%                        |                              | -                                |                                |
| 30. | Views of the biggest and important situation of rural farmers of Gujarat of Narmada project.     | Increment in income         | Improvement in life standard | Social dignitaries               | Other reasons                  |
|     |  | 28                          | 38%                          | 16%                              | 18%                            |
| 31. | The agriculture in Gujarat is increased by Narmada project                                       | Yes                         |                              | No                               |                                |
|     |  | 100%                        |                              | -                                |                                |

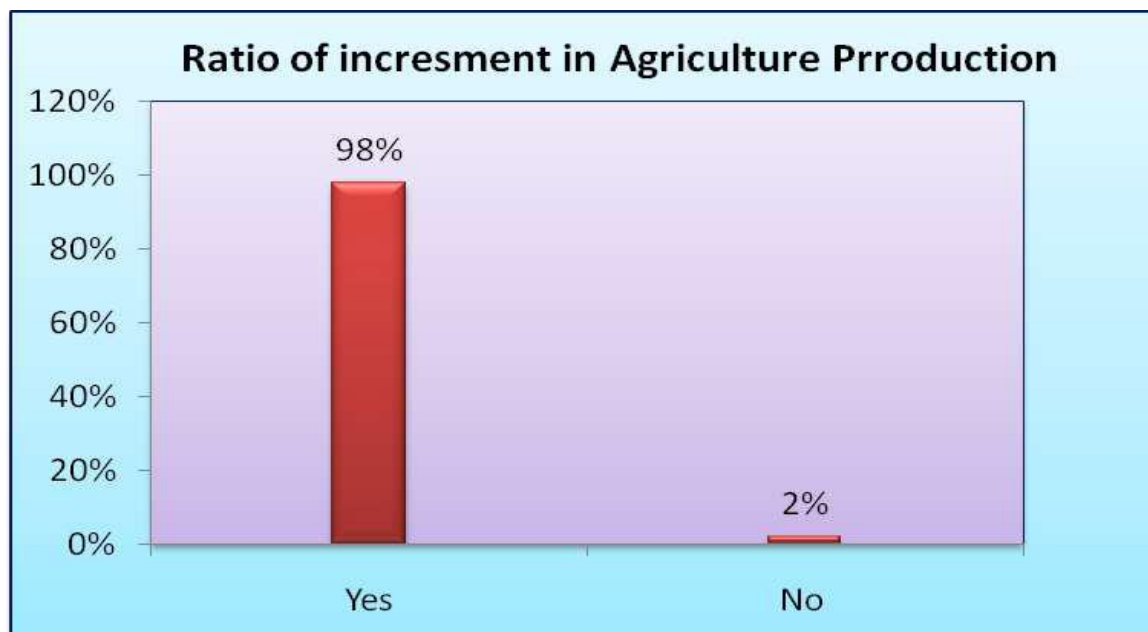
**4. Analysis of Information (Pre imagination observing) :**

During this research study the observation of pre imagination based on analysis of primary information got by it.

- **It can be found increment in production of agriculture of rural field by Narmada project.**

It can be found notable in production of an agriculture of farmer of rural area of Gujarat by Narmada project of Gujarat government during this present research study. from which 48 (98%) farmers total so farmers respondents have accepted that there is a notable increment in their farm production by this project. So it can be said that there is a notable increment in Narmada project.

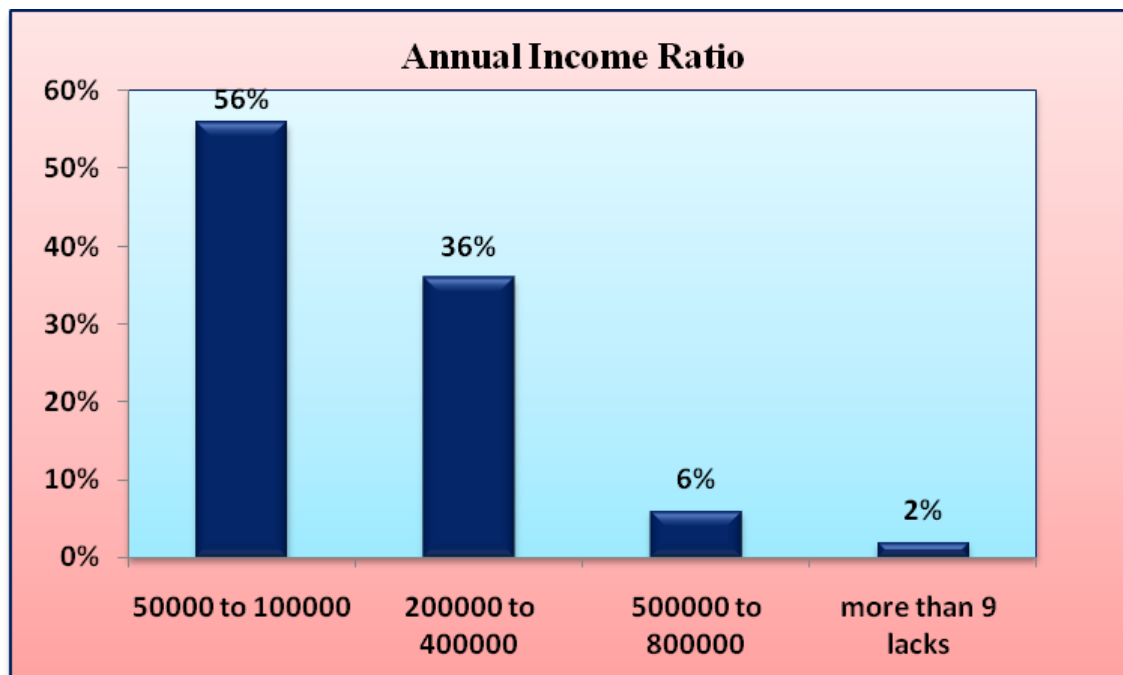
Graph. 1.



- **It can be seen increment in income of rural farmer by Narmada Project.**

It can be found notable increment in income of farmers of rural areas of Gujarat during present research study. During research study total 50 rural farmers have accepted that there is increment in their income of agriculture by getting water supply by Narmada irrigation project. From which 56% farmers from farmers who are getting in annual income get income till 1 lacks annually, 36% farmers annual 4 lacks, 6% farmers annual 8 lacks and 2% farmers annual more than 9 lacks income have got. So, It can be said that there is a notable increment in income of farmer of rural with agriculture due to Narmada Project.

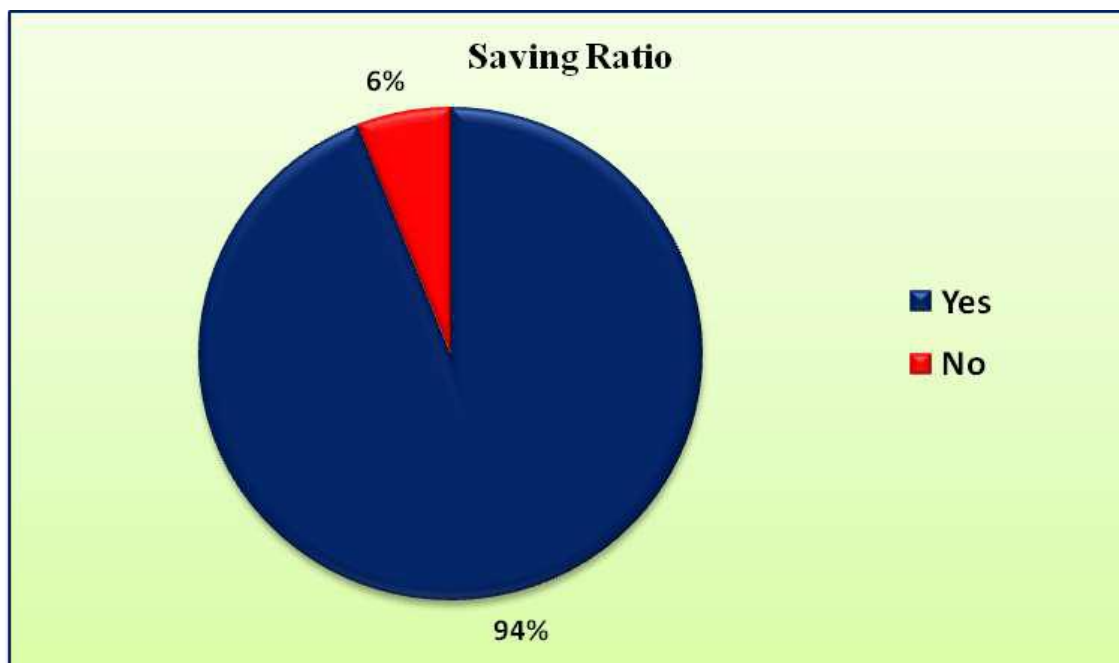
Graph. 2.



- **It can be found low ratio of saving in rural farmers.**

It can be checked ratio of saving on income of farmers in rural areas on Gujarat by Narmada irrigation project of Gujarat government during this research study. In which most of 94% farmers out of total 50 rural farmers respondents have found to saving only 5% farmers have found not to saving. In which 72.3% in bank, 6.4% farmers in Post, 2.1% farmers in Co-operative organization and 19.1% farmers in home most of savings. In above pre-imagination the ratio of information got pre-imagination due to more ratio of information.

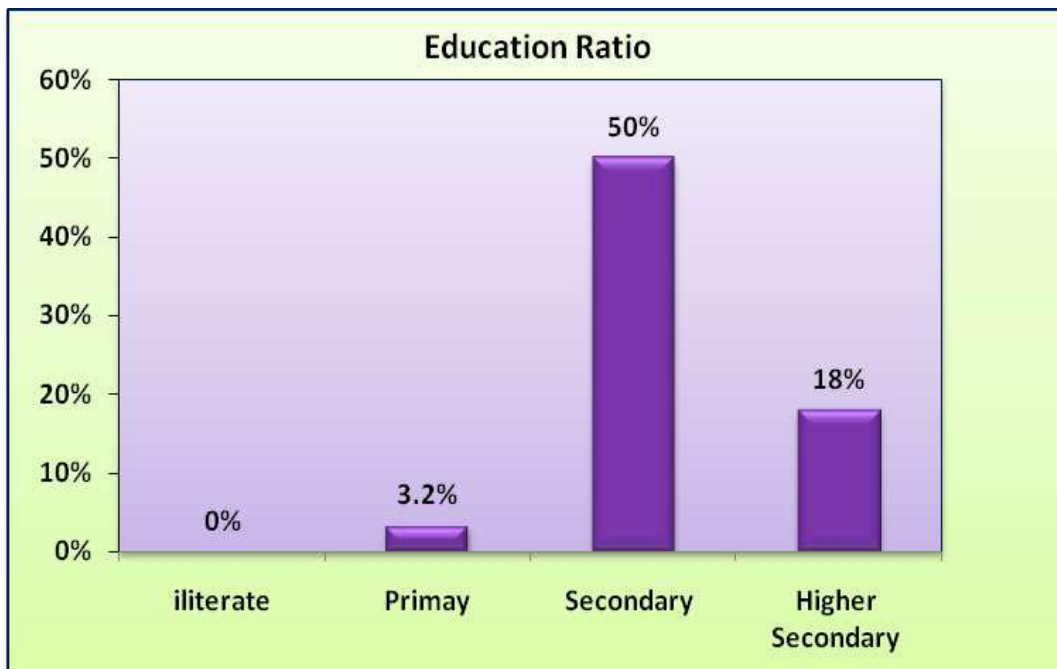
Graph. 3.



- **It can be found low ratio of education in rural farmers.**

In present research, It can be found that the ratio of education in farmers of rural area in Gujarat has been seen very low by Narmada irrigation project of Gujarat government one may notice on ratio of education of farmers based on information got in research study out of total 50 rural farmer respondents only 18% farmers have got education till higher secondary where as 32% farmers till primary and 50% farmers till secondary education has got. Thus, It can be said based on the study that It can be found low ratio of education average in rural farmers.

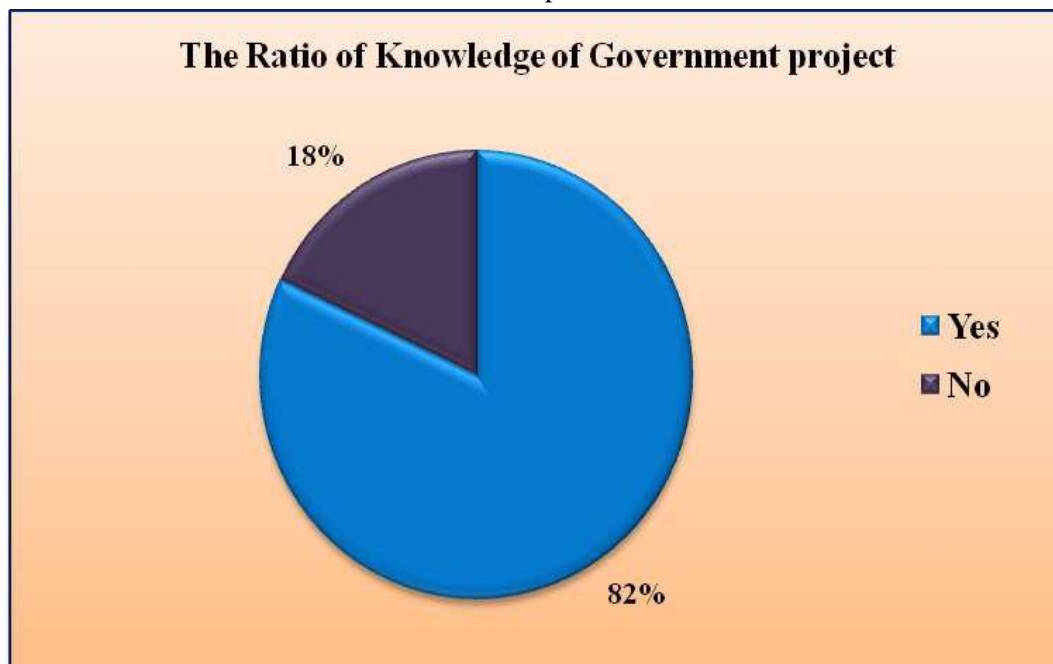
Graph. 4.



- **It can be found lack information og agricultural governments projects in rural farmers.**

It can be found that there is a lack of agricultural project in farmers of rural areas of Gujarat from Narmada irrigation project of Gujarat government during research study. Most of the rural farmers have no any information about agricultural projects. 82% rural farmer respondents out of total 50 rural respondents have knowledge about government project based on primary information received during research study. Whereas 18% farmers have not any information about it. The reason found for it that lack of literacy and knowledge about project are the main reason of it.

Graph. 5.



### 5. Conclusions of Research Study :

One may notice on received conclusion based on analysis of primary information of farmers of rural areas of Gujarat by Narmada irrigation project of Gujarat government during this present research study.

- If we notice sex ratio of respondents during this present research study 70% open category, 24% OBC, 4% SC and 2% ST caste's people have found to reside in rural areas.
- If we notice on age ratio of respondents during present research study, It can be found more ratio of farmers who have more than 50 years of age in rural farmers where as 26% farmers who have 31 to 40 years of age and 26% ratio of farmers who have more than 1 years of age.
- If we notice on marital status in respondents it can be found that 90% respondents are married and 10% are unmarried based on present research study.
- More than 9 years of age farmers out of most of 54% rural farmers have concerned with agriculture where as 16% till 5 years, 22% till 6 to 8 year and only till 1 to 3 year farmers who have remained in agriculture ratio found 8% in present research study.
- If we notice on the ratio of land ownership in rural farmers during present research study 78% farmers have their own land where as 22% farmers have not their own land 36% farmers have 1 to 3 Vigha land, 38% farmers have 4 to 6 vigha land, 22% farmers have 7 to 9 vigha land and the ratio of farmers who have more than 10 vigha land found 4%. Thus ,it can be said that most of the rural farmers have more ratio of land of their own.
- 40% farmers in farmers doing farming work in rural farmers are doing farming on 3 to 5 vigha land on present research study. 26% farmers are farming on 6 to 8 vigha land and 10% farmers have found to farm on more than 9 vigha land where as 10% farmers have found to farm more than 9 vigha land. whereas 10% farmers who are farming on 1 to 2 vigha land just as they are concerned with every time agricultural.
- 90% farmers from rural farmers have not used Narmada canal (Naher) for irrigation during present research study. whereas 10% farmers are not using canals for irrigation. Thus, It can be said that most of the rural farmers are using canals of Narmada project of Gujarat government for irrigation.
- Most of 39.6% farmers from rural farmers are receiving water from Narmada canal for more than 5 years by present research study. But due to disturbing in canals occasionally and improver decisions of government same times they are not getting adequate water supply. That can be said project management limitation.
- 90% rural farmers are using electric Pump for receiving water from canals on reason of it they use vast range of electricity. In which 35.7% farmers have accepted that they have annually 15000 expenses of electricity , whereas 11.9% farmers have to pay annually more than 15000 electricity expenses on reason of it the ratio of expenses have found more in a comparison income because it is not possible to bring water without electricity water Pump Thus, they have to bear electricity expenses.
- 74% farmers have accepted that they do not get proper rate of productive things in agriculture in present research study. And reasons of it 55.6% farmers believe that due to lack of market management they do not get proper rate. Whereas 26.7% farmers have reasoned for dominance of made raptorial in market. And according to 11.1% farmers due to improper policy of government. they do not get proper rate of productive thing.
- 18% farmers from rural farmers who have not any information about agricultural projects of government in present research study. Whereas 82% farmers have knowledge agricultural projects of government.
- 52.2% farmers have informed that during monsoon distribution in canal due to drought they have not received any economical help from government on harm to agricultural.

## 6. Suggestions of Research Study :

The future suggestion are necessary received based on suggestions of analysis of information received from rural farmers by present study it can be proved useful for future research.

1. There should be increased ratio of education in rural farmers so that they can use technological projects of government in agriculture. For it they should be provide proper training and guidance.
2. There should be increased productivity in agriculture of rural farmers for pesticide medicines, excellent seeds, and chemical manure etc. They should be given information about it and increase their use in agriculture so that they can get proper production.
3. There should be increased in ratio of supply of water during Narmada Canal so that farmers can get proper supply of water at the time of crop.
4. There should be made strong fence around the canal so that at time of any accident there is any disturbance in canal, it's water may be stopped going to the farm so they can get protection from any harm.
5. The rural farmer should be provide information about irrigation and agricultural projects of government so that they can get benefit of that projects.
6. There should be one farmer assistance center at every village from where should be solve all queries about farmers and they should get proper guidance.

7. The rural farmers should be provided financing service and for it there should be formed co-operative finance organization in village.
8. There should be done tries about economical assistance from government to farmers at the time of natural disaster so that they can give once more speed to agriculture.
9. There should be formed buying-selling commission things to rural farmers where farmers can get proper rate.
10. There should arrangement for supply of water to every time to farmers during Narmada canal so that they can improve their life standard by getting good income from every time agriculture.

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