

Localizing the Sustainable Development Goals of the Rajamadam Coastal Panchayat of the Pattukkottai Block, Thanjavur District

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Abstract: Sustainable development goals (SDG) are universal agenda to make the world a better place to live. There are 17 goals and each goal have its own indicators. These SDGs were agreed by 193 countries in the world. The 193 countries are having its own unique characteristics, thus fixing the same indicators for all the goals may not help in achieving what is expected. Therefore, each country is expected to frame their goals regarding to their respective contexts. This is called as localization of the SDGs. In this study, 59 samples were assessed on eight goals of SDGs along with the indicators of Human Development report. From these indicators it was found that 26% of the families are extremely poor and 37% of the families are above the poverty. Health and concern regarding to the health is also poor, 66% of the families are having at least one person addicted to alcohol. Only 29% of the families are having good health practices. All the students (random sample) were in low BMI which shows malnutrition. Only those who have education could perform very well and were able to get out of the glitch of poverty. The education provided is also in bad shape. Out of 50 respondent families, 30% of children are dropouts. Only 29% of the families are having good access to clean water and sanitation. All the other families are having shared water pipes and they are not having toilet, 22% of the families are not having proper electricity from the recognized provider. In this context, in a coastal area, owning a fishing boat defines people as rich. The Gini coefficient showed the result of 0.43 indicating the fact that there is huge gap between the highest income earning people and marginalized people. The capacity of the community to withstand disasters is the key for overcoming or reducing the impact. The recovery rate of this coastal community is low and only 5% of the families from the selected samples could recover at faster rate. The community's readiness to face disaster has increased drastically after the incidence of Gaja Cyclone.

Index Terms: Localizing Sustainable Development Goals, SDG, HDR, Human Development Report, Disaster Management, Gaja Cyclone.

I. INTRODUCTION (HEADING 1)

Sustainable Development Goals (SDG) are the indent of the United Nations to bring prosperity to the nations worldwide. To achieve this greater goal, inclusive and participatory good governance is needed. It can be achieved only when the citizens are aware about the global agenda for 2030. In the Human Development Report (HDR), SDGs were the parameter used to measure standard of living, health and education. The same has been considered for this study. The objectives of this study include 1. To assess the status of the Sustainable Development Goals in Rajamadam Coastal Village panchayat in Pattukkottai Block of Thanjavur District. 2. To assess the disaster readiness, recovery and resilience of the Rajamadam Coastal Village panchayat. 3. To propose SDG agenda 2030 for the Rajamadam Coastal Village Panchayat.

II. LITERATURE REVIEW

As per the KILA (Kerala Institute of Local Administration) and the concept of development can be stated that, it is about improvement of **economic and social condition** of people and places which is linked to addressing the poverty, education, health, employment, infrastructure facilities and basic amenities like housing, drinking water and sanitation. This development will consider equity and enhancing the human abilities.

Localization of the global plans is one of the crucial part to implement the global plans in a particular area and to achieve the targeted goals. There is a growing awareness, recognition and acknowledgment from the international development communities and the national government, the local sphere are the potential authorities to contextualize the inclusive Sustainable development within their respective localities.

Peter Jones and Daphne Comfort (2019) did study on Characteristics of the United Nation Sustainable Development Goals and their importance at the local level, and they reviewed that how SDG are being addressed in within the UK. Then at the end of the study they come up with lot of solutions and way forward. The solutions and way forward are Local governments are policy makers, catalysts of change and the level of government best-placed to link the global goals with local communities.

In Human Development Report of Thanjavur – 2017, to assess the Multi-Dimensional Poverty they took three dimensions. They are Health, Education and Standard of Living. According to them if a block was performing well in these three dimensions then that block will have good ranking in the Multi – Dimensional poverty. Through this assessment, The Pattukkottai block which is in Thanjavur where the study was conducted got 2nd position in HDI. This means that, Pattukkottai block was the second best performing block with good education to the students, good health of the community and Better standard of living.

Building Disaster Resilient Community in Multi-hazard East Delhi which was done by KHANNA NINA, a researcher. In his study it was found that

$$\text{“Vulnerability} \times \text{Hazards} - \text{Capacity} = \text{Disaster”}$$

World Health Organization is also defining this Disaster as "Any occurrence that causes damage, ecological disruption, loss of human life, deterioration of health and health services, on a scale sufficient to warrant an extraordinary response from outside the affected community or area".

III. STUDY AREA AND METHODOLOGY

This was conducted in Rajamadam Panchayat, Pattukottai block, Thanjavur District of Tamil Nadu. Thanjavur is a district which is having agriculture as a predominant livelihood and followed by the fishing and other sectors. This district consists of 8 Taluks, 805 villages and 34 towns (Source: www.censusindia2011.com). This District earned a very good nick name “Rice bowl of Tamil Nadu” since it was the largest producer of paddy compared to the other district. It was surrounded by Tiruchirapalli and Ariyalur district in the north and Pudukottai district in the west, Thiruvarur district in the east and south by the Bay of Bengal. Regarding to the coastal, Thanjavur District is having 45.1 KM of coast line stretch.

According to the Census 2011, Pattukottai block was the largest among the all other blocks and this is having 56 villages. The sub-district code of the pattukkottai block is 05816. The total population of this block is 396,236 and it comprises of both rural and urban (source: www.villageinfo.in).

Study Period : 12th may, 2019 – 15th june 2019

Sampling :State, District, block and Village are selected purposively. A sample size of 59 is selected by Cluster random sampling.

The data was imported to the excel and the indicators in the study are given code evenly. Then the data has been analyzed, results were taken for the study.

IV. RESULTS AND DISCUSSIONS

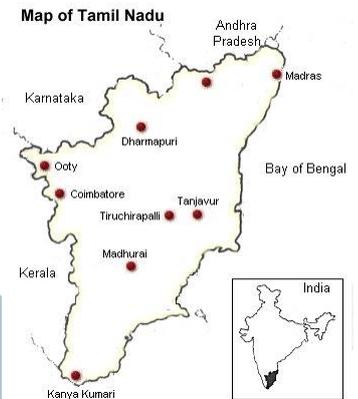
According to UNDP “The Sustainable Development Goals (SDGs) otherwise known as the global goals, are a universal call to action to end poverty, protect the planet and ensure that all the people enjoy peace and prosperity.” For achieving this goal, all the goals of the SDGs should be localized to panchayat level to get the better results.

End poverty in all its forms

One of the measures to find the intensity of the poverty and to find the inter-block variations in the poverty is Multi-dimensional poverty. This multi-dimensional poverty (MDP) considers three major segments to consider the poverty of the block/district. These same indicators have been taken for assessing the households of Rajamadam panchayat.

Dimensions	Indicators	Positive / Negative
Standard of Living	No. of households having LPG as cooking Fuel	Positive
	Access to toilet	Positive
	For how many House a single water connection available	Negative
	Having Electricity Connection	Positive
	Access to Pucca House	Positive
	Having basic Household assets	Positive
Health	Intake of vegetables a day	Positive
	Alcohol intake of any one person in the family	Negative
	Three times intake of food a day	Positive
Education	Higher Educational Qualification in a family of age above 18	Positive

After assessing these indicators from 59 samples, it was found that 26% of the families are extremely poor and only 37% are above the poverty.



Map 1: Map of Tamil Nadu showing Thanjavur District

Ensure Healthy Lives and Promote Well-being for all at all ages

For Health, three times food a day, no alcohol intake of any one of the persons in the family and Vegetable intake has been taken as the indicators. Through this the health of the family has been assessed. Only 29% of the family are having good health practices. Out of those 29% of families only 12% are taking three times food a day with vegetables daily and without alcohol consumption in the family. Out of 59 families, 66% of the families at least one person of the family is having the habit of taking alcohol.

Health vs Education

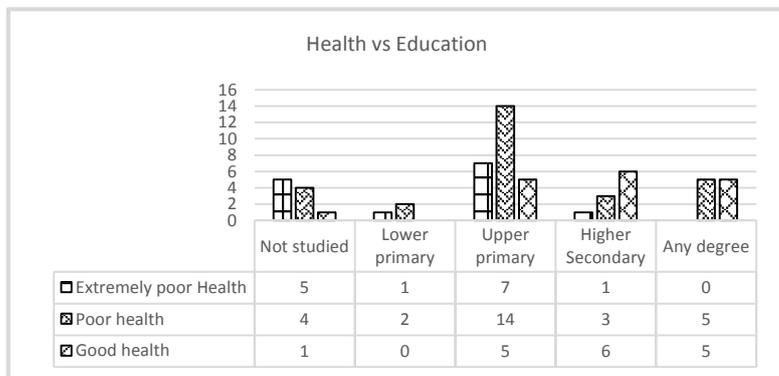


Figure 2: Health Vs Education

Ensure Inclusive Equitable and Quality Education and Promote Lifelong Learning Opportunities for All

Literacy – Age Group	Literacy Rate (%)
Age Group 18 and above	46.7%
Age Group 18 to 30	93.3%
Age Group 30 and above	19.48%

Table 1: Literacy rate - order by Age

This table shows that there is drift in the literacy rate from old age people to the new generation. But this drift is not in the expected pace. From the 50 samples, 30% dropouts' children can be seen which will directly or indirectly affect the poverty of the families. This is clearly reflected on the children attendance in the school. Only 67% of the boys and 74% of the girls were present and the remaining students were absent regularly. This clearly shows that the children are engaged in the livelihood of the father in fishing.

In this, Education of the higher educated person in the family is taken as the criteria for the education and their multi-dimensional poverty is compared. There are no families in the degree holder with low performing in the multi-dimensional poverty, this shows that the Education is playing a vital role in determining the poverty of the families.

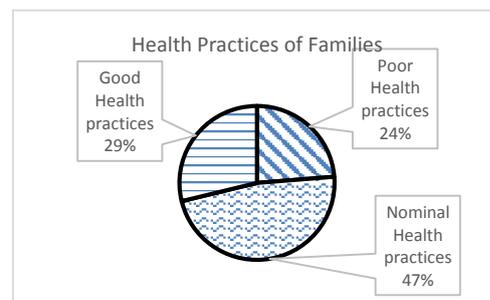


Figure 1: Health Practices of Families

Education is playing a major role in deciding the health practices of the families. From the bar graph, it was easily observable that in the educated family the extreme poor health practices are not seen. BMI of the students are taken (21 samples). All 100% of the students are below the normal level which shows that they are malnourished. Even in the underweight students, they were falling into different BMI. It ranges from 11 to 15. There is lot of improvement needed to enrich the child health.

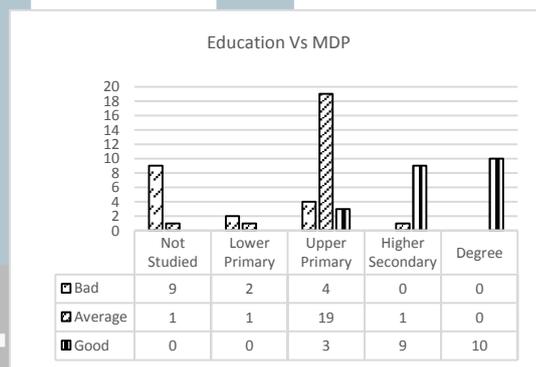


Figure 3: Education vs MDP

Achieve Gender Equality and empower all women and girls

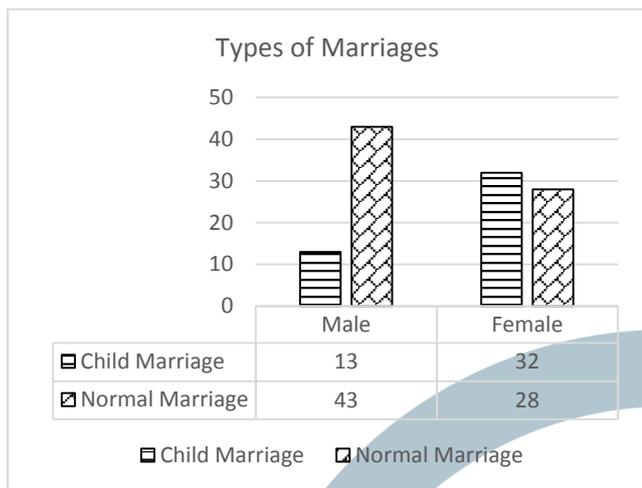


Figure 5: Types of Marriages

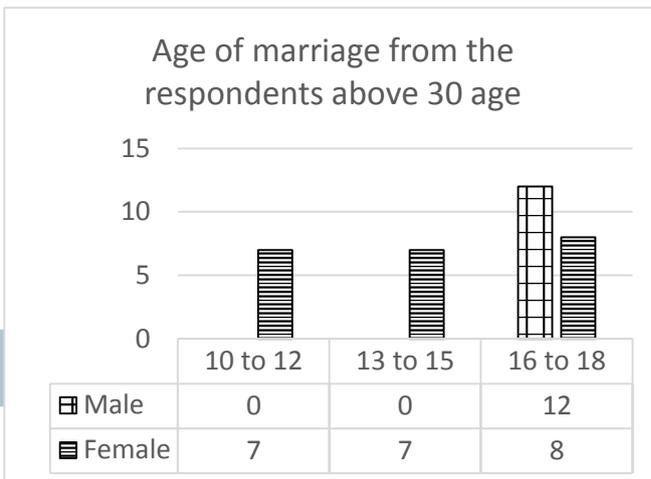
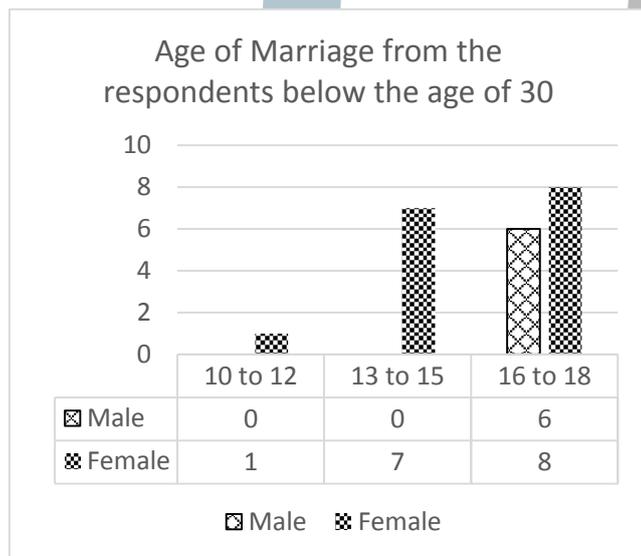


Figure 4: Age of marriage from the respondents above 30 age

From the samples, Child marriage is seen more in the Female which is counted around 28%. Males those who are undergoing the child marriage are 11%. The remaining 61% of the members have married at the age above 18. From this samples it was found that, in total 34 samples (100%), 7 (21%) of the female are married at their age of 10 to 12 and other 21% of the female married at the age of 13 to 15 and the remaining 58% are married at the age of 16 to 18. Before, the males are started to getting married at the age of 16 to 18.



Even after lot of awareness, in the recent times still the early child marriages are occurring in this village. From the total samples of 22 persons (100%), around 5% of the population of female are getting married on the age of 10 to 12, and around 32% of the population consists of female are getting married at the age of 13 to 15. And the remaining percentage of the population from the sample are getting married at the age of 16 to 18.

Figure 6: Age of marriage from the respondents below the age of 30

To assess the importance given to the female in the family from the samples has been assessed. The indicators which are taken for assessing the gender equality are who is taking the financial decision in the family, who will take the financial decision in the family? Who will do the household work? Who will go for the income earning activity? Who will handle the income and expenditure of the family? In this case only men are doing or only women are doing are given less importance than the both are doing the activity. According to those indicators only 17% of the family are good in gender equality which conveying that only 17% of the family where women is contributing towards the development of the family.

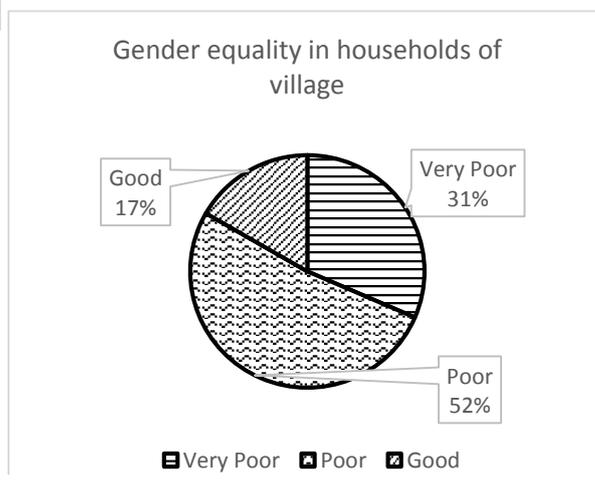


Figure 7: Gender Equality in the households

Ensure Availability and Sustainable Management of Water and Sanitation for All

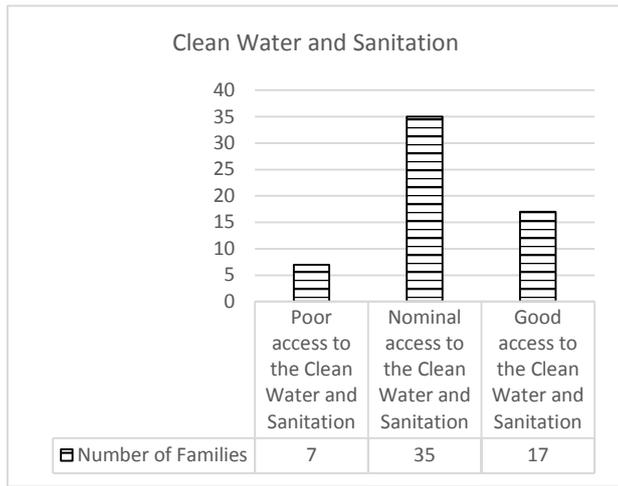


Figure 8: Clean water and Sanitation

The indicators for assessing this goal are “How many days once the corporation water is coming? how many houses sharing one corporation pipe? And how many people have toilets?” and this has been used to assess each family regarding the clean water and sanitation.

From 59 samples, it was found that 7 families (11%) of the families are having Poor access to the clean water and sanitation and 35 families (59%) of the families are having nominal access to clean water and sanitation and remaining are having good access to the clean water and sanitation. This shows that the water scarcity is one of the major issues that need to be addressed. Lack of toilet facilities is also an important factor which need to be addressed, if that was not addressed then it may have bad impact on the health of the children and the whole community will suffer.

Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All

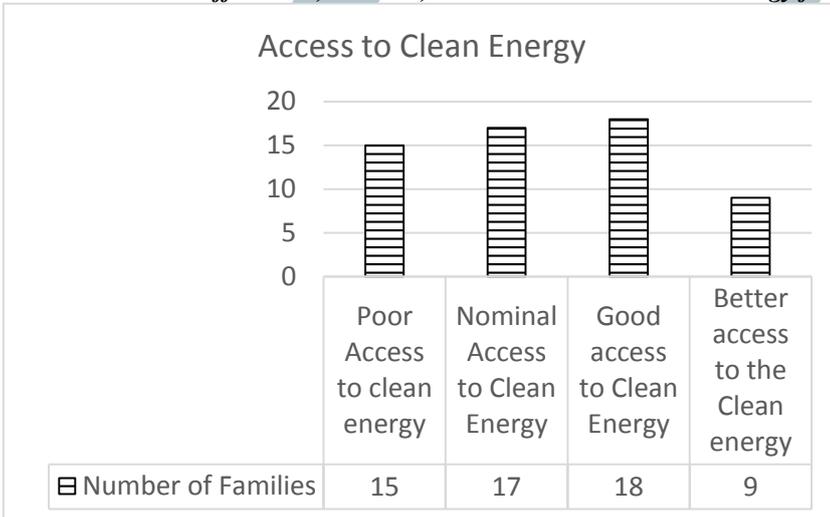


Figure 9: Access to Clean energy

From the 59 samples, it was found that there were 15 (25%) families which are having poor access to the clean energy. Those are not having the proper electricity connection in their houses and some of them are living only with the solar light which was given as the relief materials after the cyclone strikes. And there are 17 families (29%) which are having nominal access to clean energy, and they are slightly improved than the families who are having very poor access to clean energy, but not very difference. The families those who are having better access to clean energy, those families are performing well in the standard of living.

Decent Work and Economic Growth

Lorenz curve is a graphical representation of the inequality in the specific area. The area in the gap between the straight line and the parabolic curve is the expression of the inequality. It will be expressed in the quantitative by Gini index. From the samples, it was found that the Gini index is 0.43. This shows that the income inequality is high in this coastal context. This also states that the income and asset will be accumulated at one side of the community where the other side of the community will strive to live with the limited resources.

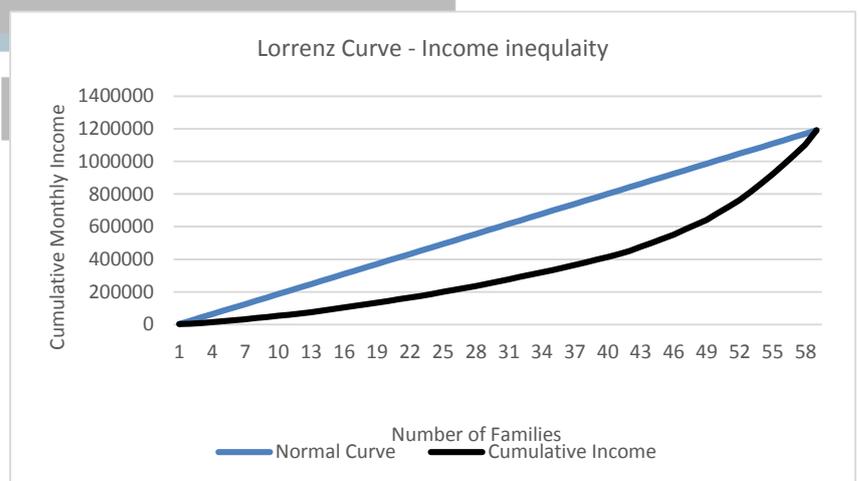


Figure 10: Lorenz Curve

Disaster

Recovery

There are only 3 families (5%) of the total households are good in the recovery process after the Gaja Cyclone. There are 62% of the total households are nominal in recovery and the remaining all are in poor in recovering themselves during the cyclone.

Readiness

They had the knowledge of what are all the safety measures have to be taken when the disaster arrives and this was taught to the community by the Fire service and Police. The indicators are worked out for the disaster readiness, they are “Responses of families about their action plan, if the disaster announcement came now?”, “Knowledge about the disaster safety building?”, “Experiences on the kinds of the disaster”, “When he went to disaster safety building either before the disaster or after the disaster?”. In this the assessment was to evaluate the readiness/willingness to go for the disaster safety building during the announcement of any disaster.

From the samples of the 59 (100%), (51) 86% of the families are express their answers that they will go for the safety building and there are 7 (12%) of the families are expressing that they will either go to the safety building or somewhere to their relative’s home to manage the situation, one family (2%) is express that they will stay in the house, because their house is concrete and it was good in the condition. But their family may be losing the valuable information during the time of the disaster and they may be not receiving the relief materials at the start when compared to others.

After analyzing all the other indicators from the samples, it was found that, 27% of the families very less prepared for the disaster and around 51% of the families are comparatively less prepared to receive the impact of the disaster and remaining 22% of the families prepared well to receive the impact of the disaster.

Resilience

Resilience is the capacity to get back to the normal situation after the cyclone strikes. Indicators to assess the Resilience of the households are “How much they spent to revive back”, “Losses that a family incur in terms of economy”, “How much months to revive back to the same situation?”, “The insurance they have to reduce the risk”. The other stakeholders built 20 houses in Nadiyambal puram which comes under the study area of Rajamadam panchayat. Through that from my samples it was found that 41% of the families are less resilient and 46% of the families are next to the less resilient. The remaining only 13% are having good resilience.

Plan for 2030 to Improve on SDG

1. End Poverty: In 2030, 26% of the extremely poor will be improved to either Poor or moved out of poverty.
2. Ensure Healthy Lives: By 2030, 71% of the families which are poor in health practices will be reduced into 0%.

By 2030, There should be no Malnourishment in children

3. Quality Education: Education is one of the important factor which is driving the family towards the development and away from the poverty. Dropout was 30% from the samples and Male is 20% and Female is 10%. Total attendance of the school students on a random basis is 70% and HM stated that they have to do the false attendance to graduate the students to the next level. By 2030, The dropout has to be reduced into zero by conducting awareness camps and bridge courses.

By 2030, 20% of the dropout will be reduced to 5% or 0%. It should be achieved with the better quality of education.

4. Gender Equality: By 2030, With the proper awareness by the different stakeholders, There Should no Child marriages especially for girl child.

5. Clean water and Sanitation: By 2030, The 70% of the families which is having poor access to drinking water will be reduce into 20% or 10%. The sanitation also be improved by constructing the toilets.

6. Access to affordable, reliable, sustainable and modern energy for all: By 2030, the 85% of the families which are not having adequate household assets, should be reduced to 25% in terms of the sustainable and clean energy.

7. Decent Work and Economic Growth: By 2030, Income inequality will be reduced which will be expressed in the gini coefficient (0.43) which will be reduced to minimum level.

8. Climate Change: By 2030, there should be an effective mechanism to overcome the disaster and make the community to better resilient community towards those occurrences.

V. CONCLUSION

Sustainable development goals are a global topic and it have to be start with the lower grassroots of the local governance to achieve this greater goal. Each country, state, district have different context and fixing the goals for all the context by a singular international body is not relevant. In this study it was found that, there are lot of development interventions needed in this particular Rajamadam panchayat. Coastal panchayat with dominant population of the fishermen community have high uncertainties in their income and high tendency of intake of alcohol which make them vulnerable towards shocks in terms of the economics and health.

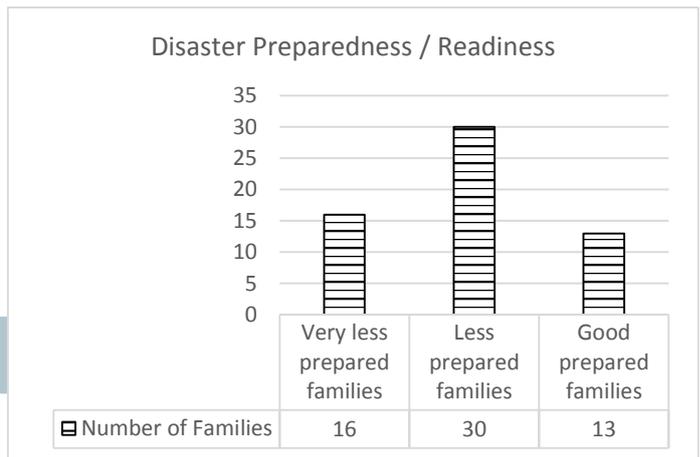


Figure 11: Disaster Readiness

Barrier to enter in this fishermen livelihood was very less, anyone can enter into this livelihood if he has good physique. It makes a gateway for the children to enter into this livelihood very easy. From the samples, 30% of the students are dropping their studies and they engage themselves in the different livelihood majorly fishing.

The Quality of education is very poor, no one is able to give answers for the simple arithmetic problems and they were not interested to go further for the test. It is showing the push factor from the school. The school's push factor and the fishing livelihood's pull factor is making the children to stop their education and getting engaged in their parent's livelihood activity. This kind of problems in the education of the family is very crucial, family with Higher education are not having any low performing in MDI, and as well as the family which no one have not studied can't achieve the good position in Multi-Dimensional poverty.

In Gender equality, this village was very poor. After giving too many awareness for the gender equality by the different stakeholders still the gender inequality was there, and there are many families in which a girl is getting married at a very low age. It is one of the difficult situations in which it is not only expressing the gender inequality, it is also a factor for the IMR and MMR etc., since the mother with that small age not having the capacity to give birth to child.

In this village, those who are good performing in the Multi-dimensional poverty are very less resilient towards the disaster, since they have lot of asset loss in their houses. But the poor performing households in the multi – dimensional poverty are not having anything to lose and they don't have anything to revive. So it makes them more resilient than the others. Those who owns boat are more vulnerable towards the disaster. Credit consumption of the coastal community are also higher and there are many people still in the holds of the money lenders.

This community is in the learning process, impacts of the disaster are very high in this coastal panchayat and they are now realizing there is a need of committee by which they can manage the risk towards the community. This step was very good. Still there are lot of milestones to go for the betterment of the community.

VI. ACKNOWLEDGMENT

I would like to extend my heartily thanks to Mr. Janakiraman for his guidance and the villagers of Rajamadam Panchayat and all the others who directly and indirectly help me to conclude this work.

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