



Catastrophic Analysis and Environmental Impact Assessment of Barvi Dam

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ABSTRACT

This is an idea of learning and understanding the effects and results of constructing a Dam in the path of any existing natural water resource. This format already consists of most of the possible harms created by a man-made structure, we are focusing on the harms mostly becomes the benefits are already very well known. Further renowned researchers like Bhaise Sanjay Devides, Sir Soderbaum, Sir Snow, Sir Michael Webber, and Sir Snow etc. did magnificent jobs in considering drawbacks and partly made efforts for the betterment of the rehabilitated society. Their hard work for making the lives of the rehabilitated societies full of harmony again was the main reason why they have a special mention and respect. Our topic further has the following important points.

The EA process found the major benefits of the project and the sponsors to be followed:

- 1. EIA reduces the actual cost and time of project implementation so as to have a better efficiency.*
- 2. EIA methods can make cost-saving modifications in the project design thus they can help in the project designing of the project as to have a better clearance of the entitled work.*
- 3. Increases project acceptance and thus, guides in a proper manner for the future better understanding of the project.*
- 4. He processes making should not harmful the surrounding area and environment because of this process is avoid the variation between lows and regulation as well as it avoids the impact.*
- 5. Improves project performance so that the further carried out work is to be done on the past basis or the assumptions which are to be taken in proper order so as to have a better evaluation work.*
- 6. Avoids treatment/clean costs which in turn helps us to make the project environmentally clean.*

Keyword: *Catastrophic Analysis, Environmental Engineering, Geo-Environmental Engineering.*

1. INTRODUCTION

EIA is the environmental impact assessment. This is a process of assessment of the impacts on the dam on which study is to be done in a linear manner. Hence the process of assessing the impact which can be controlled and can be managed to increase the environmental life of the dam. This will help the surrounding being to take full use of the dam. EIA focuses the problems which been aroused due to the impact and hence helps in shoving those problems. There are basic purposes of EIA which can play important role in the development of that particular area.

There are three basic core values of EIA:

- Integrity Utility
- Sustainability

The catastrophic analysis is the physical analysis of the dam. It deals with the testing of surrounding as well as the surface of the dam internally and externally. The analysis which is to be done under the catastrophic analysis are followed:

Water quality monitoring. i.e. environment.

Land environment.

- Mineral deposits. Geology.
- Terrestrial ecology.
- Status of flora and fauna. Drinking water supply.

The above analysis is to be done under the catastrophic analysis.

“Study of method of environmental impact assessment of dams”

We have studied some important environmental impact assessment methods. These methods along with their advantages are given below:

2. IMPACT IDENTIFICATION

This is a method of identification of the key impacts. The important impacts due to the smoke emission, consumption of water, discharge of effluents is to be identified. These identifications can be done by further five methods is to be followed: -

A. AD HOC method

It is used to plot probability distributions. This method is totally based on the expert advice. In this method, the impact can be done by direct judging giving polls by the expert. This method is used when the limits are less.

Advantages

- The time required for identification of impacts is less.
- Large impacts can be directly analysed on the guess basis.
- For the identification of the impacts, expert guidance can result in finding the short term and long-term impacts.

B. Checklist Method

In this method, the potential environmental impact is to be listed in a proper manner. Checklists are to be made to cross verify the impacts.

Advantages

- Nature of the impacts can be easily identified by listing.
- This method of impacts identification is very simple and easy to understand.
- This method helps in good site selection.

C. Network Tree Method

This method uses the matrix approach for finding out the primary as well as the second impacts. This impact is to be shown in the tree type format co relating the action and impacts.

Advantages

- Network tree method shows the link between the project actions to the environmental impacts.
- This method is more useful in finding out the secondary impacts which may bring changes in the result.
- This direct and indirect impacts can be identified easily.

D. Overlays Method

Overlays method rely on the set of maps if some project areas where the actual impacts are to be studied. Hence the studying the impacts there by using the maps this can be done by his system.

Advantages

This is a new method of identification method. His method is very easy to understand and use. Various software's can be used to find the impacts.

3. IMPACT PREDICTION

This is a method of determining the potential impacts is done there is a need for the prediction of the impact. It requires which activity of the project will cause what impacts.

Methods of Impact Prediction:

- Estimated professional judgment.
- Why using mathematical models. Physical model and experiment.

Advantages:

- This prediction helps in find the impacts of the project activity.
- This also helps in finding out the magnitude and extent of the impact.

4. IMPACT EVALUATION

The process of evaluation of the impacts that have been identified and hence determining the impacts that affect the project. Hence evaluation turns into a major step of impact solving. This evaluation helps in finding the magnitude order and extent of the impact.

Advantages

- This helps in determining the actual impacts on the project areas.
- The extent and value of the impact can be easily determined.

5. CONCLUSION

Catastrophic analysis and environmental impact assessment serve the purpose of finding out the various physical characteristics and impacts that have taken place during the construction and the operational phase of the dam. Thus, helps in finding out the high orders as well as low orders impacts.

Hence these given methods which are used for finding out the impacts. It shows how merely the surrounding is affected by the impacts. Hence various controls measures can be taken as well as EMP can be made to prepare for reducing the impacts.

6. SCOPE OF WORK

The scope of this project is for evacuating the adverse and the beneficial effects of development projects based on all the physical factors as well as the environmental factor.

Hence the further impacts can be reduced there by analysing the current impacts. These impacts can be controlled by taking the proper EMP for the development of the project.

7. PURPOSE OF WORK

Following are some purpose of EIA:

To facilitate decision making

Before giving the final statement, this helps to make a proper decision that results in some innovative dam.

To aid in the formation of development

- As the studies made on the impacts as the major problems, this brings the development of the society. Hence looking deep into the impacts which can be treated to modify the project and eliminates the problems which will increase the future life of the dam.
- To be an instrument for the sustainable development EIA helps in maintaining the overall quality life as well as helps in maintaining continuous access to natural resources and avoiding lasting environmental damages.

8. REFERENCES

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