CHAPTER II

ON DESCRIPTIONS
Introduction:

The concept of 'description' and the existence of multiple descriptions for an object is examined at two levels. At an abstract level, the existence of multiple descriptions are illustrated mainly with the help of methodological formulations of famous political economist A.K. Sen. The existence of multiple descriptions of a dam in general and Hirakud dam in particular is captured from the various evaluation reports on the dam and its effects on the displaced people. This exercise is an attempt to capture not only the concrete of a problem, but also arriving at an understanding of the problem at macro level. This would help in gaining an insight into the nature of the STATE and its policy interventions. This is also an attempt to see how a policy undergoes a change in the light of the consequences that it generates at the level of concrete. This is taken as a reference point to discuss the motion in the phenomenon both at the abstract and concrete levels of subjective as well as objective levels. The subsequent chapters attempt to grasp this complexity by examining the different dimensions and dynamics of motion with a Marxian perspective.

Description as a mental Construct:

Description can be seen as a mental construct of the subject about the object. Each subject chooses/gathers information about the object with the help of sense perceptions. The knowledge thus obtained is called perceptive knowledge. S/he classifies, codifies, synthesises and rationalizes this knowledge with the
help of the brain to construct a model of the object. Knowledge thus obtained is called rational knowledge. This mental construct is projected by the subject as a description of the object. Thus, a description about the object is a mental construct, which is a resultant of cognitive process. Different perceptions by the subject lead to different rationalizations which result in construction of different descriptions about the object. Burke, reacting to the role assigned to Philosophy by Wittgenstein as essentially a descriptive one, puts forward the problems involved as, "For any subject matter, after all, there are definitely many descriptions, and which we count as good or bad, correct or incorrect, depends, in particular part at least, on the purpose for which we undertook the description in the first place."[Burke (1982): p - 263 .

Another example of practical importance is as follows. Balmundi is one of the oustees of Upper Indravati project, who got resettled in a hamlet Dong Jharan in Koraput. How will a subject describe the object Balmundi? State government counted her as a member of the many families displaced by the project, officials in charge of rehabilitation and resettlement see her as a nuisance, voluntary organizations working in that area view her as a potential member who should be enumerated as a separate household, demographers view her as a woman and also unmarried, political organizers view her as a potential agitator who could be easily mobilized for an agitation, women's organizations consider her as a victim of oppression, of both State and patriarchy.
Sociologists study her ways of adapting in an altogether new hostile environment. For the revenue department, she is not only a defaulter but also a trespasser since she occupied a piece of forest land, contractors view her as cheap wage labour who can be cheated easily, landlord of the area sees her as a future bonded labourer. For a male, she is a female who can be sexually assaulted, and for a researcher, she is all rolled into one, for Tribal Welfare department, she is a tribal - threatened with destruction by the dam, both culturally and economically. Thus each description of Balmundi is a mental construct of the subject concerned. Amartya Kumar Sen brings out this concept of descriptions very succinctly and even tries to locate a basis of such a concept.

Sen's concept of Description:

Amartya Sen[1982], an internationally renowned philosopher economist, in his volume titled 'Choice Welfare and Measurement*, concludes his introduction with an interesting comment regarding his choice of the essays in the volume. He says, "Since quite a few different motivations have been explicitly or implicitly invoked in the rag-bag of essays reprinted in the volume, the methodological position... may be seen as unduly comforting to the author. But not, I believe, the only truthful one." [Sen (1982): p - 38]

His choice of essays, or in other words, his description and the associated concept of description opens up new frontiers for
understanding the social reality. Description of an object/phenomenon is usually considered as a simple accounting exercise - an unchallenging simple intellectual exercise - which involves mere observation and reporting as it is, or at the most, summarising in a systematic way. The description is accepted if it is observed to be true. Sen, however, proposes a different view of description, not that of just observing and reporting, but as a complex and difficult exercise involving selection. According to him, "Description can be characterised as choosing from the set of possibly true statements, a subset on the grounds of their relevance."[Sen 1982, p - 433]. He further adds, "Any conscious act of description contains some theory - usually implicit - about the relative importance of the various statements dealing with the subject matter."[Sen (1982) P - 133 ]. He calls this the choice base of description.

This conceptual process of description - of selecting a subset from a whole set based on particular relevance - changes radically the way one can observe reality. In the earlier case where the description is viewed as a simple accounting exercise, an object/phenomenon can have a unique description, at the most it may be incomplete, and cumulative addition of new facts makes it complete. Alternatively, as per Sen's description, where description is a complex process of selection, it is possible for an object to have a number of descriptions depending on the observer's selection criteria. Hence an object/phenomenon instead of having a unique description, can have a number of alternate
descriptions, each implicit with its own theory, expressed in terms of choice of the observer.

After defining description, as that of selection of a subset from a set of true statements, he proceeds to differentiate between a description that is 'good' to give and a 'good description' based on the objective behind the description. In this process, he summarily rejects the relation between truthfulness and a good description by asserting "...truth is neither a sufficient condition nor it is a necessary condition for a description to be good." [Sen 1982, p - 447]. He opines that a false description if it fulfills the objective for which it is intended, then the description can be termed as good. For this purpose, Sen even supports a deviation from the actual truth. To strengthen his point, he gives the following interesting example "Your child asks you, 'How large is China?' and you reply, *Very large, it has 900 million people.' You roust have enlightened him, but you have almost certainly made a statement that is untrue in terms of exact numbers." [Sen (1982) p - 434].

He introduces a criteria of usefulness for judging a description to differentiate between a description that is 'good' to give and a 'good description'. According to him, a description of true statements is good to give; and a description, though false, is a good description if it fulfills the objective for which it is intended. With this concept of description, he focuses his attention on existing methodologies, specifically in economics and
identifies their limitations in terms of their concentration only on predictive and prescriptive interests as motivation for inquiry; he adds 'intellectual curiosity' to the above two as an agent for stimulating inquiry. To support this, he proposes various descriptions of China to a question "Is China a large country?" "We accept the answer Yes; it has 900 million people, basing the notion of the size of the country on the size of the population. However, China has less surface area than India, few polar bears than the Soviet Union and according to some early enthusiastic accounts - no flies at all. The case for describing China as larger than Canada, India or Soviet Union clearly rests on our greater interest in human beings than in square miles, tigers, polar bears and flies. But it is not a reflection of some greater predictive merit, nor some obvious prescriptive interest."[Sen (1982) p - 440].

He advocates strongly the intellectual curiosity concern which is non-predictive as well as non-prescriptive which plays a dominant role in human being's understanding of reality. Sen's exercise on China shows that China can have a number of descriptions, and each description has a choice basis behind it, grounds for selection may vary a great deal. It can be for purpose of predictive, prescriptive as well as for satisfying intellectual curiosity.

Dams and multiple descriptions:

In the contemporary Indian scene, the most controversial
debates take place with respect to large dams and their consequences in displacing a large number of people. Narmada Sagar transformed into a burning issue, both political as well as social, which generated powerful agitations both for and against the dam. World Bank was forced to intervene and impose conditionalities for a successful rehabilitation, non-compliance of which will result in stoppage of funds for the dam construction. People continue to agitate, the state visualises the agitation as a problem of law and order, the debates continue. In such a context, a look at the existing alternative descriptions about the dam will be of much help. An attempt is made to capture the various descriptions about dams in general and Hirakud dam in particular with the help of various evaluation reports/studies. The descriptions are however only illustrative and not exhaustive.

Hirakud dam is an earthen cum concrete dam, famous as the largest earthen dam of the world, located at Hirakud, eight miles from Sambalpur town in Orissa State on the river Mahanadi. The unique character of this dam is that the foundation stone was laid in March 1946 in pre-independence India and was carried forward into Independent India when a second foundation laying took place in April 1918 and was inaugurated by the then Prime Minister Nehru. Thus Hirakud dam was the first major planned capital investment project attempted by the Indian state, in the footsteps of Tennessey Valley project in America, to activate the Indian economy.
The three coastal districts of Orissa-Puri, Cuttack and Balasore - were regular victims of either devastating floods due to heavy rains or to wide-spread famines due to insufficient rainfall. Sri Visweswarayya, the famous Chief Engineer from Karnataka, on the request of Orissa Government, after the devastating floods in 1937, visualised flood control by construction of water reservoirs. He stressed the multi-purpose nature of such reservoirs as follows, as quoted by Sovani and Rath[1960] "If a reservoir is constructed, it may prove useful in several other ways as well for extending irrigation, generating electric power etc.. Once flood come under effective control, the whole area may be transformed into a prosperous region." [Sovani and Rath (1960):p - 1] For Chief Engineer Visweswaryya,

**Hirakud** dam is primarily a flood control device but will benefit in other ways also.

The first official document regarding the Hirakud dam project titled "The Mahanadi Valley development, Hirakud dam Project, June 1947" described in detail, the schemes and estimates relating to the project. The report opines that irrigation can be provided in Sambalpur to 1.1 million acres of land, flood protection to delta regions at a relatively small cost, power can be developed to the extent of 350,000 KW, regulated release of water can improve navigability of Mahanadi. The total cost is estimated as 47.81 crores and flood control is only Rs 6.11 crores. Thus the dam's primacy of flood control aspect is expanded to a four fold objective of the project. Thus,
Dam, a multipurpose project, bestows benefits in four fields

However, the revised estimates report on the Dam 1952, included some modifications in the original scheme and hence the costs went up from Rs 17.81 crores to Rs 80.90 crores, which again raised to Rs 100.02 crores by Majumdar Committee, a committee to review the estimates. Thus not only costs went up, but benefits also changed.

First stage of dam was completed in 1957, and the then Prime Minister inaugurated it on January 1957. All the reports visualise dam as a heavy capital investment which will bestow multiple benefits, a concept shared by politicians as well as academicians. One such first major evaluation of the benefits of dam was attempted by academicians Sovani and Rath[1960], Their report starts with a foreword by D.R.Gadgil "The survey was directed towards assessing, as comprehensively as possible, benefits that are likely to accrue to the State from the construction of the Dam, and related works on the Mahanadi at Hirakud."[Sovani and Rath (1960):p-III].

The report planned to estimate systematically the projections of future cropping patterns, the agricultural production after irrigation; the extent of flood control and benefits that accrue from effective flood control; generation of electric power and economic development that may follow and finally calculate the cost benefit analysis in the lines evaluated and practised in United States to assess the profitability and
financial returns of the project, and also estimate the total income of the area affected by the Hirakud irrigation with the help of projections of future cropping patterns.

After careful examination of all types of benefits, they analysed the changes in cropping pattern, increase in agricultural production, crop yield per acre of various crops, increase in employment in return of man days and converted all these benefits into money form. The costs are calculated in terms of cost of construction, then cost benefit analysis is assessed. The following are the aggregate figures. For both irrigation and power together,

\[
\begin{align*}
\text{Total benefits (B)} &= 4,480.56 \\
\text{Total costs (C)} &= 3,863.40 \\
\text{Total B/C} &= 1.15
\end{align*}
\]

The report concludes "If the Hirakud project is considered as a whole i.e., irrigation and power together, it is seen to be economic whether we take into account only primary or total benefits, and whether we take 10% or the other lower rates of interest suggested by the project authorities for our calculations."[Sovani and Rath (1960) P - 211].

However, a major lacunae in the report is its complete silence about the people to be displaced due to the formation of the reservoir even though Majumdar Committee recommended. Neither the agitation of the displaced people nor the environmental destruction, nor the costs involved in rehabilitating the people,
nor the environmental conservation gets included in the costs of the project. Contrastingly, one finds a mention in terms of benefits, though very nebulous in nature, as "Besides agriculture, the dam will also affect favourably or adversely forests and their produce, grass land, fish and wild life, and the balancing of both sides in these respects will also have to be done to estimate the benefits from them." [Sovani and Rath (1960) p - 17].

Another example of the authors' foresight in calculating benefits, in its intricacies can be understood in the following comment - "As the water level of the Hirakud reservoir falls every year in the winter and summer months, the shore lands from which water recedes becomes available for the cultivation of fodder and other crops of short duration. The production will have to be added on the benefits side." [Sovani and Rath (1960) p-163].

In the process of rounding off this catalogue of benefits, authors mention in anticipation "We may mention the beauty spot created by the Hirakud dam and the reservoir, perhaps it may become an attractive spot to tourists. The benefits resulting from this cannot be estimated, even vaguely, at this stage, "but mention of it they certainly have to make." [Sovani and Rath (1960): p-163].

The report draws a heavy curtain on the prolonged agitation of the people and the costs associated with the problems of law and order maintenance, the loss to the displaced people and the costs to the government in giving compensation. All such costs
never became costs of the project in the comprehension of the authors. As per authors' mental construct -

Dam, is a source of multiple benefits to the State

In their mental construct, the authors are, however, silent about the costs to be incurred by the State in providing compensation and rehabilitation package to the affected people; or the costs to be borne by the affected people because of loss of their property as well as their lifestyles.

Bureau of Statistics and Economics, Government of Orissa, undertook an agro-economic survey in the villages of Command area of Hirakud dam to assess the benefits of Hirakud irrigation. The basic objective of the study, as visualised by the economic adviser in his technical note is "to cover the entire irrigated area of the Hirakud dam in order to assess the net effect on the economy as a result of availability of water in terms of growth of prosperity over a period of time." [Bureau,1968, p - 2]. Behind this objective, there exists an implicit description of the dam as a project which facilitates benefits in irrigation. Though dam is a multi purpose project which brings benefits in four spheres, the present report is concerned only with benefits in irrigation for reasons unspecified.

The Bureau planned their survey with an implicit primary assumption that all changes occurring in the region can be interpreted as benefits, resulting due to irrigation which bring
in prosperity to the region, and their schedules were designed to collect data on changes in land utilisation pattern, cropping pattern, yield rates of different crops, money income derived from agriculture, capital formation and changes in values of the land. An elaborate survey was conducted in 13 blocks and captured the following changes as a consequence of irrigation. As per the summary, the value of land and also the demand for land increased.

* The sale and purchase of land became a continuous process making the land market active.
* The price of all kinds of land increased. Barcha-bari, the most fertile lands, has a cost of Rs. 4500 per acre, which registered a 145% rise.
* The number of crops such as ground-nut, sugar cane, new variety of potato are cultivated in Rabi season also.
* The use of fertilisers and manures increased
* The yield per acre increased.
* New credit institutions such as government sponsored organisations came into existence with cultivators preferring cash loans.
* Importance of money lenders decreased.

Thus changes brought in agricultural production are visualised and interpreted as benefits, and the Bureau recorded each and every change brought into the region with the introduction of irrigation.

What the Bureau could not comprehend is that all changes
brought in by irrigation can not be termed as benefits. A particular change brought in the economy can bring in benefits to specific households but may turn out to be not a benefit but a loss to some other household. For example, let us consider the changes brought about in 'Credit' market with the introduction of government sponsored organisations, which give loans in cash form to the cultivators who can provide security against their landed property. The report also noted that large households are taking advantage of government credit. Small holders are not in a position to take this advantage. They are at a disadvantage because of their repaying capacity in the same cash form is severely limited. Since the importance of money lender decreased with the introduction of government sponsored credit organisations, the source of credit for the small holders gets slowly wiped out. Thus this particular change - introduction of government credit institutions and which wiped out the local money lenders - will turn out to be not a benefit but loss to small households.

Same is the case with the change - increase in land market activity - with the advent of irrigation in the region. A cultivator has to invest initially for land reclamation, improvement of land, bunding, levelling etc. which may become a heavy burden for small land holders. Cultivator requires cash to make the land suitable for irrigation and a small land holder in due course of time, sometimes has to part with the land due to heavy burden of debt he has to incur for incorporating the suitable changes. The parting of land also sends a signal that
the land market is active. This change, a result of irrigation, cannot be classified as benefit. However, the report visualises all changes, which are a result of irrigation into a broad category of benefits. Hence in their opinion,

*Irrigation, a consequence of the dam, brings in many changes, all beneficial to the economy.*

The benefits in the spheres other than Agriculture or the losses to the displaced people could not find a place in the bureau's mental construct.

People of the Hirakud region were waiting for the promised benefits coupled with a complete transformation of their lives, their regions as well as the nation, where it will be 'all milk and honey' with increased production in agriculture, introduction of variety of commercial crops like sugarcane and groundnuts, increase in industries and plenty of employment opportunities. They were gradually awakened to the hard facts of reality where life for the displaced people, displaced due to the formation of a huge reservoir in the course of dam construction, turned miserable. The magnitude of displacement came to the forefront after nearly four decades of the dam construction. It was estimated that Hirakud dam submerges 217 villages, life styles of one lakh of population will be adversely affected and 1.7 lakh acres of agricultural lands get submerged. People, apprehensive about the future, became restless and started agitating against, not only this dam, but any developmental projects such as Balco, Nalco and Baliapal Project.
In such a context, Tripathy and Nanda revisited the rehabilitation colonies to assess their condition in 1987. Tripathy and Nanda[1987] focused their attention on the large scale displacement of people, an inevitable consequence of construction of major dams as a tool of modernisation of post colonial economy. They started with the theory behind the development experience of West as that of a modernisation programme consisting of a two step simultaneous switch-over process, one step being the displacement of traditional socio-economic structures namely 'displacement of feudalism' and the second step being that of formation of modern socio-economic structures namely 're-integration into capitalism'. In the above switch over process Capitalism played a lead role, using modernisation as a tool to reorganise the society in two steps.

Authors then analyse Capitalism in its imperialist phase where colonial structures became a part of capitalist development giving rise to, non-correspondence between the specific and general interests of capitalism. In such a situation, capital resorts to all types of compromises. With such an alignment, modernisation in terms of large dams, "will displace the people physically, but not from the feudalism, without re-integrating them." In such a colonial environment, authors opined, modernisation could successfully complete only the displacement aspect but failed in the second aspect of re-integration. Hence, dam as a form of modernisation could not resolve the contradiction between Feudalism and Capitalism and hence it became an incomplete
solution for the re-organisation of the society. Capital, in the form of a dam, could not become a motive force for development.

As a consequence of such incomplete attempts by capital, large scale displacement by either a large dam or heavy industry - generates two opposite points of view, one justifying the large scale displacement for the broad interests of society which rationalises the sacrifices to be done by the displaced people, the other typified as displaced people's point of view, which opposes such large scale displacements and questions the very assumptions about the necessity, neutrality of modernisation and put forward alternatives to dam.

Armed with such a "hi-fi" theory, the authors proceed to examine conditions of displaced people and "the nature of changes in these rehabilitation colonies over the last thirty years." They also examined the history of agitation against the dam in order to capture their point of view regarding the dam. Their survey found that, out of one lakh people displaced, only 10.86% of the displaced people utilised the facility of rehabilitation colonies provided by the government and even those 10% could not be settled. Their survey arrived at the following conclusions. "At an aggregate level of all the settlement camps, one notices the decline in the economic, social and political status of majority of sample households drawn from the displaced people."[Tripathy and Nanda, 1987, p-10] They conclude that "Poor peasant and agricultural labour sections were affected badly where as a small section of middle and richer sections of old society are keeping
intact the old life styles and also strengthening it."
[Tripathy and Nanda, 1987, p-10]

In terms of compensation, they found that "the feudals remained the major beneficiaries in the process." [Tripathy and Nanda, 1987, p-33] Consequently, the displacement resulted in physical displacement, but not from the traditional social structures. From the point of view of the capital, dam construction served its specific interests in introducing industrialisation. To that extent, it presented itself as a part of that development process which failed to offer re-integration frame-work. Thus according to authors' description:

\textit{Dam, in the specific context of India, resulted as an incomplete solution to the contradiction between capitalism and feudalism.}

The drawback of this construct is that it has pushed behind the curtain all the numerous benefits that have to accrue to the people downstream and to the State.

During 1980's, environment movements all over the world felt that huge developmental projects are hazardous to environment and they demanded a development, especially in the developing countries, which is ecologically friendly as well as people friendly. As a consequence, clearance by Ministry of environment became essential for any project; and the knowledge about the effects of projects on environment gained primacy. Armed with such an environment consciousness, Abbasi[1991] tried to examine
the environmental impact of man-made developmental projects.

Prof. Abbasi observed that the Indian planners and executives viewed the large dams and the reservoirs as a panacea of all nation's ills which is supposed to provide nuclei for the vigorous growth of a nascent nation. After a period of time, in addition to the benefits that accrue due to a dam, the adverse effects also become visible. This situation, Abbasi summarised as "Four decades later, we find that something, which had not been foreseen, has gone wrong. That something is environmental dimension." [Abbasi (1991) : p -1] This unforeseen and unwanted after effects of dam construction such as dislocation of people in the reservoir area, water logging in command area, depletion of forest cover, health hazards, land slides, induced earthquakes, siltation ...... affected the environment adversely. Abbasi attempted to gather and summarise the information on environmental impact of water resources projects in Krishna, Mahanadi and Godavari river basins. For this purpose he defines environment as "the aggregate, at any given time, of all physical, chemical, biological, social and temporal factors liable to have a direct or indirect effect, immediately or at some future time, on living creatures and human activity." [Abbasi (1991) : p - 6]

The survey explored 75 aspects of environmental impacts covering reservoir catchment area, feeder streams impounded water and down stream. The entire gamut of physical, chemical, biological and socio-economic impacts were covered. Of all the aspects surveyed, they found that the only aspect for which
qualitative information was available is water logging, for the other 74 aspects, information was sparse and rarely quantitative.

The overall status of Hirakud dam is as follows. The Hirakud reservoir appears to have catalysed deforestation in areas surrounding excessive silting which will decrease the life of the dam to 77 years from 111 years, heavy silting resulted in climatic imbalance, decrease of rainfall in some areas, increase in humidity failure in controlling floods are some of the results the survey highlights [Abbasi (1991) : p - 123].

After gathering all the details of environmental impact of water resource projects, the author recommended "Attempts should be made to sponsor 'total impact assessment studies' that could provide accurate answers to the raging controversies relating to the dam based projects."[Abbasi (1991) p - 123] Therefore, to Abbasi,

Dam construction results in substantial environmental backlash which becomes visible only with a time lag.

In Abbasi's mental construct, neither the beneficial aspects of the dam nor the backlash of dam construction on the lives of people could find a place.

Around 1990's, modernisation cum liberalisation path followed by the state resulted in the introduction of a variety of new technologies so that Indian society can be taken into 21st century as a powerful and strong country. This modern technology,
which is expected to **transform the society and push it to a higher level of development**, in reality, seems to be strengthening the tradition. In such a situation, the attention again is focused on sub-altern people, their movements and their life styles and their culture. Baboo[1992] attempts to capture the effects of modern technology on social transformation, especially of Hirakud dam and the consequent social costs,

He accepts the fact that technological innovations, no doubt, has revolutionised the life of humanity during the last three hundred years. It resulted in a number of material gains which affected the economy, but it also resulted in destruction of total life of large population as well. Author specifically tries to understand the construction of large dams which are supposed to bring in multiple benefits, and the social costs associated with it. In the domain of benefits, Baboo finds that they fell far below the expected benefits, such as increase in food production is not proportional to the investment and the increase in areas ravaged by flood. Even with this ill effects, the dam construction is continuing. He identifies the co-existence, in the society at the same time, of four perspectives regarding the dam construction.

1. Government proposes the dam construction, sometimes in unsuitable areas, primarily for achieving political ends, with bureaucracy toeing the same line for their own benefits.

2. Scientists and environmentalists are more objective who go strictly by the feasibility criteria.
3. People of the Catchment area oppose the dam because of their unwillingness to start life afresh and uncertain.

4. People of command area support the dam because of anticipated agricultural prosperity.

Baboo proposes to capture the social dimension of the Hirakud dam project. For this, he documents the history of agitation, dam construction process and finally condition of displaced people in their resettlement colonies, and their method of adjustment to this technological onslaught. With the help of the survey, he spoke on the ill effects on displaced people thus, "It was observed that the 'oustees' have not been rehabilitated properly as yet, and are still in the process of shifting from one locality to other."[Baboo(1991):p-145]

Speaking about the benefits of the dam, he says, "It has failed in its major objectives like electricity, irrigation, flood control and enhanced agricultural production."[Baboo(1991):p-149]

However, Baboo felt that the government wanted really to solve the problems of floods and drought and develop Orissa, but the social costs were least attended to for various reasons, and Modernisation, in practical terms, resulted in distorted development. Commenting on the reasons for adopting a capitalist path of development, he said, "They prefer such giant multi purpose projects not because of any genuine desire to develop the lot of the bulk of the down-trodden but to serve the interest of the capitalist class which helps them in coming back to power

He advised that the mad rush for big dams should be stopped at the earliest and search for alternatives such as small dams which are eco-friendly and people friendly to be intensified. In his mental construct,

*Large dams, of which social costs are enormous, serve the interests of capitalist class and should be abandoned.*

Upper Indravati Multi-purpose river water project, launched in Koraput/Kalahandi districts of Orissa in 1978, resulted in displacement of 5000 families in the initial phase. State offered certain rehabilitation package, but this could not match with the expectations of displaced people, a fact which became evident when people refused to move into rehabilitation colonies such as Sasahandi established by the Government. The reasons, according to the report by Agragamee, are: "Some of the villagers went to Sasahandi but were thoroughly dissatisfied as the place is unsuitable for cultivation, forest is not nearby, and drinking water is not available." [Aragamee(1990):p-39].

This forced the government to reassess the magnitude of displacement problems as well as their rehabilitation package. Agragamee, a voluntary organisation, was entrusted with this responsibility of conducting a baseline socio-economic survey and prepare a new rehabilitation package, keeping in view the expectations of the affected people. The report identified the
major problem as "Dam construction is highly scientific and technical method and is done with meticulous precision, planning, detailing the minutest aspects of the material and men involved in the process. But when it comes to reconstructing the economic life of the people who are losing their established patterns of life, such meticulousness sometimes is not possible but most of the time, it is not attempted, while a wave of sympathy exists for the displaced persons, the sympathy does not get transferred into action for preparing an implementable plan" [Agragamee(1990):p-55].

They identified the broad trends and contours of the problems in their interim report, and in the final report furnished the details of the process. The report visualises the difficulties regarding the study of such a rehabilitation process as follows: "To study anything in motion is methodologically a difficult task, the problem becomes further difficult when one has to study social groups that are forced to move under conditions of uncertainty; and without much of organisation." [Agragamee(1991):p-10].

The report tries to study the lacunae in the policy itself, in the way the R.R committee were bogged down with legalities regarding the 'physical property' that needs to be compensated for. The report suggests "The compensation though need to be in the context of land acquisition act in terms of physical property, the approach for rehabilitation need to be in terms of compensation for life patterns, which include in addition to property the human effort, the human knowledge and the culture
that went into the context."[Aragamee(1991):p-56].

The report, in addition, pinpoints the discrimination practices towards small holding families and women. A demarcation line was drawn keeping a landholding of four acres, where the compensation rates are different on both sides of this line, thus introducing an element of discrimination between the displaced families as well between the different phases. Regarding women, the committee in the latest rehabilitation policy defines a son, who is more than 18 years of age, as a separate family, whether married or not. Report commented in this situation, "A similar treatment is not given to the daughters of the family." [Aragamee(1991):p-56]. Thus the report felt that there is a built-in inequality in this formulation of the policy itself in terms of class as well as gender.

It documented the changes occurred in the lives of the people in the new resettlement colonies when compared to their old life styles. In addition, it specially tries to comprehend the displaced people's point of view by tracking them from their old submerged village to new resettlement colony, with a special reference to women and children. The people migrated in different directions without any organisation or help from Government. In the absence of such assistance, their migration become shock migrations, which compelled the individuals to migrate to different places; their main consideration being the certainty their property gives them or the community life, friends and relatives can offer. In such a situation, "These shock migrations

Individuals settled in different types of clusters individual settlements, new settlement or became an appendage to an already existing settlement, the formation of which increases pressure on the surrounding villages, which can be visualised in terms of frenzied land transactions. The report felt that out of all these clusters, "New clusters has maintained its level of self employment, it has added a bit to wage labour." [Agragamee(1990):p-55].

The report documented the condition of the displaced families in all details and puts the blame completely on the government when it opined, "Lack of initiative from the government spelt disaster on displaced families and a valuable opportunity to resettle these families at a higher level of economic well being was lost." [Agragamee(1990):p-55].

The report has the following observations to make regarding women. In tribal society, women perform multiple roles by which she occupies a centre-stage in the tribal economy and accordingly she has a different status in society, different than that of a Brahmin women. This is the situation which possibly explains the existence of equal sharing of compensation among sons and daughters in a family. In such a context, the introduction of modernisation in the forms of dams which operates, in general, on patriarchial norms, has become a disaster, because, "Modernisation
has become a one shot affair without any continuity and without any proper planning." [Aragamee(1991);p-30]. None of the women were taken into confidence in any discussion making matters, even in those decisions such as selection of homestead land and agricultural lands, which increase their work load and decrease their employment opportunities. In this process of displacement and resettlement, women's role and status was considerably reduced and they lost the social security of the joint family for marriages and other purposes. It represents a situation where, "Tradition is broken down without modernised institutions replacing them." [Aragamee(1991):p-58].

Moreover, the compensation and rehabilitation when it operates through patriarchial property concept, "Women get recognised only after the husband's death or when she is disabled or when the husband divorces her " [Aragamee(1991):p-60]. An active working woman thus can not get recognition. This one shot affair of modernisation reduced the role as well as status of women. In such a situation, "Women are likely to be sandwiched between negative aspects of tradition and those of modernisation." [Aragamee(1991);p-60].

Thus, in their mental picture,

*Dam, a highly scientific and technical productive force, failed in practice to change the property relations suitably and restructure the economic life of people.*

Unlike the other studies relating to dams where the primacy is given to the dam and its benefits/effects on the
The article categorises the economy of the region as use based natural economy, with low level of technology associated with low level of division of labour, low level of infra-structural facilities, villages with almost cent percent illiteracy. Further, the integration of this region with the rest of the economy is minimal where the imports are limited to salt, kerosene and clothes and exports in addition to rice are Niger, an oil seed of commercial value and the unlimited forest products. There are variety of state interventions into the region such as forest laws, land settlement laws and excise laws to which the local people respond some times by giving bribe and sometimes resisting them creating tensions. The above interventions are followed by a moneylender/trader and "this element only help in the process of disintegrating the system further than integrating the region with the main economy."

In such an economy, women become centre of the economy and the house management depends solely on the creativity of women. Starting from house construction and maintainence, production and maintainence of the family, including exchange of goods in the market, women play a dominant role. Women project themselves as a
collective (except cooking in their houses), and they share a community life.

The paper then identifies the implications of such a women centric economy and women collective on the form of property that exists and the associated status of women. Unlike the exchange value economy where owning a natural resource, such as land, is having a property which can be sold or purchased. In a use based economy, the access to such a natural resource can be termed as property and in that sense women in this region have property which gives them a collective togetherness. The second implication of female at the centre of the economy is that it gives women special status in the family which is reflected in their age of marriage, customs of marriage which are quite different in a commodity world. Thus a daughter in a tribal community is a valuable asset before marriage as well as after marriage and parental family respects the girls and does not look at her as a burden. Into such an economy, the State intervened strongly with a plea to develop the region. It started constructing Upper Indravati Project and the formation of the reservoir submerges 20,000 people from 3825 families in both the districts, where 50% population belong to tribal communities such as Paraja and Kandh. The changes in status of women which this State intervention brings in has been visualised in two phases - that of submergence and rehabilitation where in the first phase a compensation is paid to the family for the lands and houses they loose because of the dam, and the second phase a rehabilitation assistance is given to the family to resettle and start their lives afresh in the new
situation. The paper proceeds step by step in both the phases to show how patriarchy takes advantage of State intervention to push women from centre of the economy with high status in the family to back stage of the economy and a low status in the homes, Thus,

*Dam, a powerful intervention by the State for developing the region, in fact, strengthen patriarchy and submerged women,*

Fernandes[1992], armed with the methodological premise that development projects bring in development, analysed eleven representative cases of dams, factories, sanctuaries and others - in Orissa to assess the 'situation of development induced displacement/loss of land and the state of rehabilitation.' In the process, identified two major problems-absence of a serious data base and absence of a comprehensive rehabilitation policy in the whole exercise of development, displacement and rehabilitation process. To fulfill the "need to find a more reliable data base by extrapolating the present estimates and recalculating the numbers involved" [Fernadas(1992) :p-2]; considered all the particulars of dam such as its height and its relation to quantum of displacement, industrial establishments and their capacity to displace, kind of mines and their potential to displace including miscellaneous schemes via roads, railways, Universities, government offices etc. opined "Estimates from displacement from 1951 to 1990, extrapolating from existing case studies and official data, range from 185 to 300 lakhs."[Fernadas(1992):p-161].

Displaced population is categorised into what is called
Socio-economic status (SES) class based on their 'differential access to services, to asset ownership and to income according to the basis of four inequality viz., economic class, social status, habitat and sex'[Fernadas(1992):p-60]. Based on this categorisation, the sample family is given a score and the total sample is grouped into five classes, and the bottom two, namely lower lower-class(LLC) and lower class(LC), indicate low income, lack of access to service and somewhat low level of asset ownership—account 60% of respondent families, who are the most affected. He came to the conclusion "While the situation of both the tribals and dalits has deteriorated, the former are worse off than the latter."[Fernandes(1992):p-1643. However, the condition of women follows a deterioration path only, whether they are within their environment or they move out of their environment. He says, "In either case the situation of women deteriorates more than that of men." [Fernandes(1992):p-165].

Portraying the unsatisfactory condition of rehabilitation colonies as there exists no comprehensive rehabilitation policy, he further comments that traditional concepts of displacement and rehabilitation are inadequate and stresses the need for a good rehabilitation policy. He also proposes a different cost-benefit analysis. He analysed the present lacunae in cost-benefit analysis, took the Bargi dam example and quoted from Paranjpe[1990] that, "Apart from cost overruns, according to one estimate, time overrun reduces benefits to the proportion of 1:1. If the cost escalation going beyond inflation is added to it, the real benefit be below 1:1.[Fernandes(1992):p-173]. This makes the
project economically non-viable. Finally he proposes for a search for alternative development techniques - an environment friendly, people friendly projects as a solution to the "national development whose benefits are to reach all the segments of society. This, he maintains is possible only when all are involved in this search and poverty alleviation becomes a national challenge." [Fernandes(1992):p-179]. For him

"Dam, as a development project, has a serious consequence which marginalises the already weaker sections from the mainstream social and economic and cultural life of nation."

Nath and Agarwal(1987) view the agitation against the dam as an alternative description of the dam. They tried to work out the dynamics of agitation in terms of existence of conflicting interests in the society, with the help of a case study of village affected by the Rengali dam, a multi-purpose project on Bramhani river in Western Orissa. With the announcement of the dam in 1970, the affected people agitated which lasted for almost a decade. The agitation came to an end when state used the military force to suppress it. In the author's perspective, agitation represents the struggle between conflicting interests, between capitalists and feudals at a broader level, and between landowning feudal lords and land less peasants at local level. The resolution of conflict in the form of construction of the dam served the interests of the capitalist class. But rehabilitation programmes resulted in strengthening and re-establishing the old feudal hierarchy in the new resettled colonies. In their mental image,
Agitation, synchronous with dam, demands an alternative development strategies.

B.B.Vohra[1985], Chairman advisory board on energy, proposes an alternative water policy "since major and medium irrigation seems to have become unbearably costly as veil as ecologically hazardous." [Vohra(1985): p-7]. He even suggests that state government should get over the near obsession of creating additional irrigation potential through big projects "as these have been found to be economically unviable, environmentally hazardous, difficult to manage and very slow to complete and yield results."[Vohra(1985):p-12].

Hiralal[1985], describing the historic Gadchiroli agitation 1984, visualised the dam as not a development agent but as a destructive agent, destroying the forests in the name of development.

Tata Institute of Social Sciences[1993], who were involved as monitoring and evaluating agency of rehabilitation of Sardar Sarovar dam opined that Dam, a project symbolising development, has caused deprivation of people, who lived beyond development strategies for centuries.

Not only objects like dam but a phenomenon like development also has a number of descriptions. This concept of alternative descriptions about development was visualised by Morgan, Power and Wieigel[1993], in terms of the existence of six strategic pathways
to move from 'point A' (generally the status quo) to a definable 'point B' (typically understood in terms of improved state of affairs or a progressive vision of development).

The six strategic pathways are strategies focussed on:
1. The creation of global issue regimes.
2. More developed countries as initiators of change.
3. Less developed countries as initiators of change.
1. Creation of alternative institutions.
5. Resolution of international conflict.

In an interesting story written by a progressive French author Vercor (referred to by E. V. Ilyenkov[1982]) illustrates the existence of various descriptions for a human being where an unknown species-named as 'tropi', by the author, was to be identified whether it is a human being or not. In his story, different people with different functions to perform, have* categorised the 'tropi' differently.

From the above examples, one can safely infer that the object of study - be it a physical object like a dam or a phenomenon like development or a human being - can be described not necessarily in a unique way, but in a variety of alternative ways.

Implications of multiple descriptions:

An examination of the various descriptions about the dam
reveals an interesting fact. The descriptions are not similar and complementary in nature but some of them turn out to be contradictory and conflicting as well. The existence of such multiple descriptions raises a number of questions and has serious implications for practical purposes.

1. If the Object has neither a unique description nor a permanent description, and also each description is based on true statements and hence a true construct of the object, it indicates that these descriptions are located not in a single domain but indifferent domains. The existence of number of true descriptions about an object implies that the object has a dimensionality and each description is a true construction in a particular dimension.

2. It is possible that only one aspect of the object can be studied accurately at a time, that too at the expense of accuracy in other aspects, a la Heisenberg's uncertainty principle where the distance of electron can be measured accurately at the expense of its momentum. Hence each description becomes a partial description which is very accurate, and the total picture of the object or a totality of the object is obtained by a summation of all possible accurate and partial descriptions.

This gives rise to the problem of summation i.e., what type of summation one has to perform? Is it just a simple qualitative summation, in the sense of putting all of them; in a basket? Or is it a qualitative algebraic summation, which takes into account This process of summation is similar to the proverbial story of an elephant and five blind men where all the five descriptions separately of the elephant added together to produce a true construct of an elephant.
all positive aspects separately and negative aspects separately and then get a resultant description? The main problem in performing the summation arises particularly when these descriptions are not complementary but in fact contradictory and even conflicting. For example, one construct of the dam highlights the developmental aspects of the dam as that giving a lot of benefits while some other construct focusses on destructive nature of the dam, as that of destroying the life styles of displaced people, and both these descriptions are not cumulative.

A review of the descriptions of Hirakud dam reveals that the descriptions have undergone a drastic change over a period. During the early phase of its inception in 1950's the mental construct that got generated is that the dam is a source of multiple benefits which will result in great, prosperity to the people, to the region and also to the nation. It propagated a dream of a new world where everybody will get benefits. By early 70's the expected benefits did not accrue, anticipations of people could not materialise. In addition, the promised better rehabilitation by the government turned out to be unsatisfactory and the lives of displaced people became miserable. Other problem such as destruction of environment, health hazards, waterlogging etc. came to the forefront. The State was forced to increase the compensation money and to formulate a new rehabilitation package with better opportunities for people. Thus the rosy picture of
the dam of 50's receded back and the thorny picture of dam with all its ill effects got prominence. The inference of such a changing construct of the dam is that, the dam, the object of study is in motion.

Another simple explanation for a subject to generate different descriptions, according to E.P.Thompsons language, is "To each according to its Shiboleth' which means that different subjects describe the dam differently, and in the subject's point of view, it is a true description. Other reason for the existence of number descriptions can be located in the subjects' limitations in understanding the object. Subject is not equipped properly and hence the subject initially could construct only an incomplete picture, gradually subject acquires new skills, new concepts and new methods, the subject slowly adds to the already existing picture and makes it complete. The inferences of this is that the subject over a period improves the knowledge about the object and in this process, the subject is in motion.

Summary:

Description is defined as a mental construct of the subject about the object. The subject constructs this model with the help of processes called perception and abstraction. At the abstract level, Sen characterises the description as a conscious act of choosing, and provided a base for a description. He opined that it is possible for an object to have multiple descriptions depending on the subject's selection criteria. It was also found that not only an object such as a dam, but also a phenomenon like
development and a human being as well can be described in multiple ways. The multiple descriptions of the object, for example dam, range from one extreme to the other. This descriptions are not only varied but even opposite to each other, which means, at the concrete level, they become conflicting and even contradictory to each other. The problematic of methodology is that why the subject who is describing the object is arriving at such varied and opposite descriptions? This leads us to the analysis that the subject is capable of capturing only a part of the object and not its totality. The totality seems to be located in the contradictions that the object generates. This can be tackled by analysing all the descriptions which can provide a comprehensive understanding of the phenomenon. But the problem is far more complex because of the motion which is both a cause and consequence of the phenomenon. It is here that the temporal dimension assumes importance. The question is "Is it possible to anticipate all the contradictions that the object generates at the point of initiation of the project?" The study reveals that several questions arise in the course of unfolding of the phenomenon in the concrete social context. The subject who is studying itself may change the description or method of looking at the object. Thus the descriptions of Hirakud dam bring out the motion of the object and the subject in its dimensionality. Thus, the existence of multiple descriptions to an object leads to the following inferences.

1. The object, instead of being a monolithic entity, has a dimensionality.
2. The subject, over a period of time, acquires skills, concepts and methods and in due course complete the description by which the subject can be seen to be in motion.

3. The object, over a period of time, changes and can be said to be in motion.

This raises questions such as what is the source of such multiple descriptions? Whether they are unrelated, or there is any relations between these variable descriptions and the motion of the object? Which will be discussed in the subsequent sections.