

An ethical and inclusive method of using Natural Resources

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It is a fact that India has got sufficient resources to cater the needs of the people. The greed and mismanagement of resources creates artificial scarcity and further deprives the access, share and rights of the people. The process of liberalization, privatization and globalization (LPG) and population explosion lead to higher demand for the natural resources. The rate of growth in natural resources like land, water and minerals is insignificant compared to its demand. The stages of management of natural resources includes mapping, assessment, documentation, creation of value, allocation, exploitation, monitoring & evaluation and reach to the consumers. The lapses in these stages lead to an ineffective utilization with pollution to the people and environment. All these lead for mismatched development with poor sustainability and quality which further lead to conflicts and hazards & disasters. The recently occurred disaster in the Himalayan region of Uttarakhand is one such experience with warning to all the stakeholders. At present mismanagement of natural resources over the geography has created conflicts among the stakeholders and is widely

published in the media.

It is widely recognized that a comprehensive approach is to be adopted if sustainability is to be achieved in natural resource management". This may involve simultaneous thrust on the following three main components:

- Institution building as well as capacity building,
- Management of natural resources besides development of the resource, and
- Diversification and intensification of rainfed farming systems.

The process of management of natural resources as per the emphasis laid in Eleventh Five Year Plan is going on with an effective strategies and interventions including its monitoring and evaluation with the use of available technologies. In spite of its best efforts, still there exist some gaps between the plan and grass root realities with complex vulnerability for the people as well as to the environment which are mostly due to several

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challenges like:

- ➔ Poor participation of the PAPs and other community stakeholders,
- ➔ Deviation from the need based strategies, approaches & interventions,
- ➔ Poor Resettlement & Rehabilitation compensation for the loss of social & cultural traditions, livelihoods and in accessibility for basic services & needs,
- ➔ Poor monitoring and evaluation strategies and follow up action for ratification,
- ➔ Ineffective measures to check the pollution and other consequences on the health of people & environment,
- ➔ Poor process of handling grievances and
- ➔ Related conflicts lead to escalation in budget and delays..

The general view of the natural resources and its development including its causes & consequences are shown in Fig. 1.

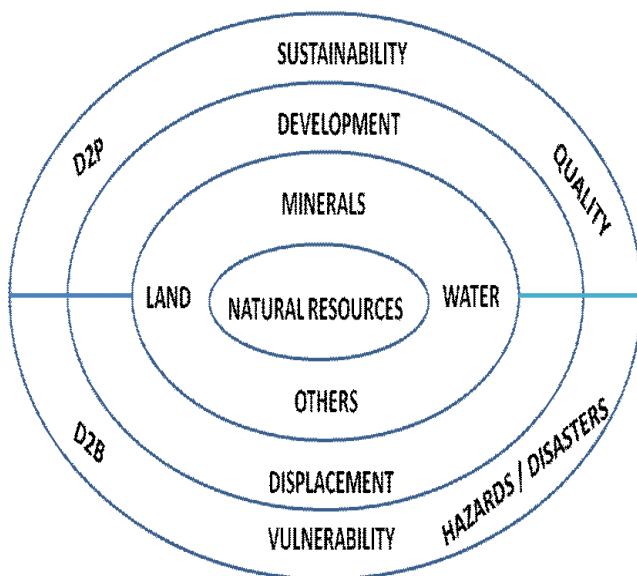


Fig. 1. Natural resources based development.

The explanation of cause and consequences of development are briefly mentioned below:

- ◆ Among the natural resources, water, minerals and land gains priority.
- ◆ The process of Development causes displacement of the people as well as the habitants.
- ◆ Poor resettlement & rehabilitation compensation and ineffective service delivery systems results for non-participation including opposition from the PAPs and other affected groups.
- ◆ This further results in depressions, conflicts, violence, poor access, and affects the health of the people with reduced quality of life.
- ◆ Need based development with participatory strategies & interventions tuning to the concept of Development to People (D2P) leads for sustainability with quality including the surrounding environment.
- ◆ The other concept of Development to Business (D2B) leads for vulnerability and further to hazards and disasters.
- ◆ The need of the hour is optimization of the development Vs the displacement which minimizes the vulnerability for hazards & disasters and further improves sustainability and quality.

The SWOT of the natural resources and development helps us to understand its strengths, weaknesses / challenges, opportunities and threats. The strengths and challenges of natural resources based development are furnished below:

Strengths	Challenges	Opportunities
<p>Water:</p> <ul style="list-style-type: none"> • Better availability in terms of quantity • and quality with access • Helps to maintain sound ecosystem, • Higher agricultural production, • Improved livelihoods and employment opportunities, • Helps for the generation of hydrothermal energy, • Monitoring supports to check the floods, droughts, disasters, pollution and intrusion of sea water towards inland, • Minimizes the vulnerability & marginalization in terms of health hazards like: disability, HIV / AIDS and consequences on poverty and development and • Play key role in the people’s development. 	<p>Water:</p> <ul style="list-style-type: none"> • In-equal distribution over the geography and people leads to conflicts and disputes, • Forces for migration completely for someone and partially for others, • Affects the ecosystem and its further consequences on the environment, • Makes the lands unproductive and further leads for water logging, • Poor resettlement and rehabilitation packages, Leads for the loss of livelihoods and vulnerability for poverty and further consequences of health hazards, • Leads for heavy pumping of groundwater and further lowering of groundwater level, • Scarcity leads for pollution and • Additional burden on other towns / cities and further vulnerability for basic needs. 	<p>Water:</p> <ul style="list-style-type: none"> • Conservation, distribution and management minimize the conflicts and disputes. • It minimizes the migration with development. • Balances the ecosystem and environment. • Improves the productivity with effective use of water resources. • Need based and matching RR packages improve livelihoods of the PAPs. • This further works for poverty alleviation with better health environment. • Watershed and rainwater harvesting improves the groundwater resources and thus save time, money and energy. • It checks the pollution. • Minimizes the migration and thus works for better development.
<p>Minerals:</p> <ul style="list-style-type: none"> • Supports and feeds the wealth and energy requirements of the people and country, • Uses the local resources, • Improves opportunities for the 	<p>Minerals:</p> <ul style="list-style-type: none"> • Leads to deforestation and affects the ecosystem, • Leads to forced displacement, • Loss of land, house, employment and livelihoods, 	<p>Minerals:</p> <ul style="list-style-type: none"> • Optimization with matching programmes balances the ecosystem. • Minimizes the displacement. • Minimizes the loss with

Strengths	Challenges	Opportunities
<p>employment and livelihoods,</p> <ul style="list-style-type: none"> • Supports for the development with better availability with quality and access, • Improves the security with image and value, • Leads for opening of allied activities and business with development and • Other positive impacts of technology with connectivity 	<ul style="list-style-type: none"> • Pollution of the components of environment, • Results in abuse, conflicts and rivalry, • Exploits the local resources with business approaches, • Poor Resettlement and rehabilitation with the poor participation of the project affected people (PAPs) and other stakeholders, • Loss of access for community services and civil rights and • Other consequences of displacement and pollution. 	<p>better support systems.</p> <ul style="list-style-type: none"> • Measures minimize the pollution. • Awareness improves the relationships. • Business to people helps for the effective use of the local resources. • The participation of the PAPs and other stakeholders with matching RR packages gets support for the development. • Need based development with participation improve access. • Minimize the consequences of displacement & pollution.

In this process, youth the backbone of the nation play a significant role for managing natural resources for need based development with better sustainability and quality both for people as well as to the environment. The role of youth and the outcomes are discussed in detail under methodologies and case studies furnished below.

The need based methodologies adopted in achieving its objectives include:

- Community based assessment of the needs, demand and natural resources,
- Use of geological and geophysical prospecting tools for the mapping of the natural resources,
- Use of software for making an effective

identification, assessment and evaluation,

- Use of technologies for documentation and creation of value,
- Networking for an effective monitoring, evaluation and social auditing and
- Community based approaches with youth clubs / forums to check the process of development.

Community Based Assessment:

Community based approach is the right one to assess the availability of natural resources in terms of quantity and quality and to understand its access for utilization for the development. In respect of water and minerals the community based assessment requires:

- Mapping of resources including location, quantity & quality,

- Knowing Need Vs Availability of resources including prioritization,
- Creating Awareness and understanding the proposed development and need of resources,
- Listing Advantages and challenges of proposed development,
- Planning possible ways of transforming the challenges as opportunities,
- Having Need and ways of retaining the socio cultural traditions and values and
- Optimization of causes and consequences of development over the people and environment.

Use of Geological and Geophysical Prospecting Tools: Mapping of natural resources like water, land and minerals with scientific approaches is the key to the wealth of our community or nation. The geological approach is based on the mapping of surface evidences lies on the surface. Collection of surface sample and its analysis helps to narrow down the anomaly of targeted zone with mineralization.

For mineral resources, geophysical prospecting tools are based on the physical properties like density, resistivity, magnetic and other properties of the mineral and its surrounding sub-surface formations. The geophysical tools with respect to the specified natural resources were listed below as:

For water resources resistivity methods including both lateral profiling and vertical profiling helps to map the subsurface in terms of number of layers with thicknesses and resistivities. Further it helps to identify the

groundwater bearing aquifers with an estimation of water both quantitatively and qualitatively in various environments.

Two case studies, one of water resources and the other of mineral resources are given here.

WATER RESOURCES:

Case Study 1: The cause and consequences of mismanagement of water resources and its assessment and mapping resulted in checking the migration and other vulnerabilities.

Mismanagement of water resources both surface and sub-surface with B2B approach of development lead to water crises along the coastal belt of India.

Water crises are common significantly along the coastal belt of India. This is due to the poor strategies of rainwater harvesting and watersheds which are expected to cater the needs both directly and by way of enhancing the groundwater potential in terms of quantity and quality. This imbalance over the time leads for the heavy pumping of groundwater by wasting time, money and energy and further intrusion of saline water towards inland. This further affects the productivity of the land & soil and vulnerability for health hazards and disasters. In this whole process, the youth is the most affected and they can play a key role in minimizing the damage and thus to move towards their development with better sustainability and quality of life.

Use of Technologies: There exist several technological tools with proven record to create need based data. The use of

geophysical both surface and bore well scanning techniques helped to map the groundwater resources in terms of depth, quantity and quality. In addition, it has also helped to map the saline water - fresh water (SW-FW) interface both laterally and vertically including the vulnerability due to salinity.

Outcome: The mapping process with the combination of geological, geophysical and hydrological tools resulted for mapping with the understanding of the water regime in terms of needs and availability including management and monitoring. The suggested measures like water harvesting, development of watersheds, process of recharge / injection to enhance the groundwater potential, construction of barriers both surface and sub-surface and process of monitoring & evaluation have resulted for minimization of water crises and to check the inland movement of SW-FW interface.

The youth along with other stakeholders through community based approaches has changed the attitude of the people towards the development and further to move towards the sustainable development with better quality of life.

Suggestions: The process of modernization lead to heavy demand for water and further resulted for poor access with vulnerability for pollution and production. In view of this, the suggested process of enhancing the water resources both at surface and sub-surface need to be continued with the active participation of the youth & other stakeholders with community based strategies and interventions.

Case Study 2 - LIGNITE MINING: The mining of fossil fuel mineral (lignite) and impact over the people and environment.

The business oriented (B2B) excavation of fossil fuel mineral lead to the displacement, resettlement and loss of productive land including livelihoods with vulnerability.

It is the fact that mining and other associated processes has to be done wherever fossil fuel occurs. The problem lies in the process of its exploitation with or without the participation of the people (PAPs) who are going to be affected either directly or indirectly along with their land, water and environment.

This process has resulted in the displacement and resettlement of the habitants, disturbed the water dynamics, loss of land including productivity and pollution to the components of the environment. This further resulted for the poor access for water and other basic needs with vulnerability for its consequences.

Use of Technologies: In addition to the geological and hydrological tools, geophysical techniques including both surface and bore well scanning tools helped to map the mineral and other related information on the sub-surface strata. In the case of open cast mining, matching data base has been generated to estimate the influence of mining both within and outside water environment.

Outcome: The use of scanning tools have helped to map the mineral, assess its quantity & quality, characteristics of the sub-surface

strata, groundwater resources in terms of depth, quantity & quality, the plan of excavation & its utilization and possible checks and measures for minimizing the challenges both to the people and environment. The active role of the youth along with other stakeholders with needs based strategies and interventions helped to optimize the development with respect to the surrounding natural resources.

Suggestions: The process of modernization and technological advancement has resulted for the higher demand for energy and other natural resources and it is the fact that we all need to travel along with this developmental with open mind for alternatives based on the renewable energy sources. The need of the hour is to continue the process of development with participative and need based strategies & interventions. The youth can play key role at all levels including conceptualization, assessment, mapping, excavation & its further utilization along with other stakeholders including development of alternative energies.

Conclusions:

The study on the youth and management of natural resources emerged for several conclusions and suggestions which include:

- It improved the level of awareness on natural resources and its occurrence,
- It helped to understand the needs and demand Vs the availability & access of natural resources,
- Technologies helped in the mapping, assessment and exploitation including

monitoring & evaluation of natural resources,

- Helped to understand the possible ways of mismanagement and consequences on development,
- Need based strategies and interventions minimized the challenges,
- Case studies have revealed that community based approaches and measures can improve the availability and access for water with check over the intrusion of SW-FW interface,
- The process of B2P with better RR packages have resulted in acceptance and participation of the PAPs and other stakeholders,
- It further helped to control the level of exploitation of water and mineral resources with better technologies and alternative sources and
- The active participation of the youth at all levels resulted in better understanding of the process of development and effective management and further sustainable development with quality of life.

Recommendations

- Conducting more awareness and advocacy programmes,
- Better use of technologies at the level of mapping, excavation and processing,
- Designing of effective community based strategies & interventions and
- Encourage students / youth for need based research study and social audit.

Assert Yourself!

Assertiveness is a key component to being an effective manager, and is particularly important when dealing with difficult employees who thrive on testing your boundaries.

In an HR training webinar titled *How To Manage Problem Employees & Difficult Supervisory Situations*, **author and management expert Glenn Shepard**, president of Glenn Shepard Seminars, lamented the fact that in many workplaces, managers who lack assertiveness have allowed their employees to spiral out of control, letting the tail wag the dog, so to speak.

Why do employees behave badly to begin with? “Because someone who is in authority is allowing them to behave that way.” Shepard observed that weak managers actually attract and/or create problem employees. “In order for you to be an effective manager, your employees do not have to respect you personally, but they do have to respect the authority of the position you hold.”

Overall, said Shepard, “the three words that have to describe you as a manager, if you’re going to be effective in managing today’s workforce: firm, fair and consistent.”

Here are some techniques you can use to become a **more assertive — and, therefore, more effective — manager:**

Set and communicate clear boundaries and expectations. Managers who fail to clearly define and consistently enforce boundaries are just asking for trouble from their employees. “Your employees are not mind readers,” Shepard emphasized. “You have got to clearly, clearly, clearly define what you expect and what you will not tolerate.” The good news, he pointed out, is that “the firmer you are and the more people realize you don’t budge, the less they will test the boundaries.”

Hold everyone accountable, even when you don’t want to. “You have an obligation to your company to do the right thing; they are paying you to make the tough decisions,” stated Shepard. You also “owe it to your good employees not to let problem employees get away with things they shouldn’t. “Although this can be particularly hard when you’re dealing with someone you like or with whom you empathize, said Shepard, “you are a manager, not Dr. Phil. Don’t get involved in personal lives.”

Don’t stomp on your employees’ rights or be disrespectful. “You don’t have to be a jerk to be assertive,” he noted. A dysfunctional, authoritarian manager will be able to get employees to comply, but not to commit. “You want people to commit because that’s how you get your employees to give more than you ask for.”

Choose your battles carefully. “A smart manager knows that it’s better to lose the battle, sometimes, in order to win the war,” Shepard observed. Choosing not to fight a battle you know you can’t win is a sign of wisdom, not weakness.

Lets Acquire, Assimilate and Share with others

Source: Internet – contributed by Dr. Jagan Mohan Reddy; drjaganmohanreddy@gmail.com