

# Bsc participant

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These approaches can be implemented through the following methods, analytical, participatory, regulatory, protected area, systems approach, socio-cultural approaches and economic approaches. Command and control regulations- It's an approach where political authorities mandate people, by enacting a law, to bring about a behavior and use an enforcement machinery to get people to obey the law. It's an environmental management strategy where the government or responsible authorities sets standards to protect and manage the natural resources. This technique covers the regulatory and protected areas approaches.

In Zombie the regulations involve the bylaws, legislative, reserved or protected areas and bio monitoring. The government of Zombie construct national parks like Generous National park, sanctuaries, Safari areas, recreational areas, botanical gardens/ reserves, state forests. The maintenance of biodiversity, natural resources and associated cultural resources. This approach worked well in Zombie as this was evidenced by the creation of many national and recreational parks though it resulted in some negative impacts to the communities where these projects were done.

Some of the problems were location of communities, poaching of the resources by the nearby communities for example the recent issue where 20 elephants were killed in Kari. The approach of protected areas in town is appearing not to be considered when different developments are taking place in Zombie. A good example when the city council of Chitchatting gave residential stands on wetland areas of Zinged 4. Another good example it's the construction of the new shopping mall that is along Hare-Bylaws road, that place was reserved by the city fathers of Hare as a wetland.

This shows that the approach of protected areas in towns is not considered. This evidences the conflicts between economic development and conservation of resources using this approach. Another challenge faced by Zimbabwe from these protected areas is land, some of these areas require very large pieces of land, and for example the Gonarezhou National Park is approximately 5000 km, and this is a very large piece of land that can be used for other economic uses. But on the other hand these areas can serve as income generation to the country through eco-tourism.

Another approach involves the regulatory policies and pieces of legislation. On legislation various acts have been put in place to date for the management of natural resources in Zimbabwe. Some of the acts and policies are Forest, Minerals, Wildlife, Environmental management Acts. Some of the Acts are; Native husbandry Act (1951), National Parks & Wildlife Act (1975), National Parks & Wildlife Amendment Act (1984), Communal Land Act (1982) and the Water Act (1976).

Described below are some of the Acts; The Zimbabwe Environmental Management Act (2004) provides for the sustainable management of natural resources and protection of the environment; the prevention of pollution and environmental degradation. The Act also provides for the preparation of a National Environmental Plan and other plans for the protection of the environment. The implementing agency of the Act is the Environmental Management Agency and Ministry of Environment and Natural Resources Management. The primary strategy embodied in the Act is decentralization.

The Environmental Management Act is now the supreme environmental Law in Zimbabwe. Another act is the Forest Act of 1954, the management of woodland and forest products is embodied in the Forest Act and the Communal Land Forest Produce Act. The Forest Act (1954) provides for management of wood resources throughout Zimbabwe although its focus is state forests and on private land. The main management strategy in both acts is to establish conditions under which forest produce can be used and to determine and regulate the extent of that use.

Both Acts rely on the crystallization of activities in order to protect and regenerate forest produce. The Forest Act creates forest officers who have general police powers of seizure and arrest. Designated officers or forest officers under the communal Land Forest Produce Act do not have power of arrest. These arrests may only be made by forest officers in Communal Areas where the charge is for an offense under the Forest Act (Camaraderie, 2000). Parks and wildlife Act (1975), the Act is administered exploitation of plants, trees and wildlife.

Camaraderie (2000) argues that the Act seeks to protect indigenous plant life and prohibits its sale without a permit. However it allows plants to be harvested by the owner or occupier of land for use in the home of occupier. It further allows harvesting indigenous plants where the area is needed for cultivation and construction. All the regulatory legislation described above was enacted using the top- down approach. The masses were not consulted so as to incorporate their knowledge in the conservation of the resources hence the defilement.

If participatory approaches had been used, indigenous knowledge could have been harnessed into the statutory acts. Although Acts mentioned above are vital to the country, they are failing to curb depletion of forest resources.

Mismanagement of these forest resources is rife especially in most Communal Areas of Zombie regardless of the existence of the legal frameworks. One of the major causes of the misuse of forest products, especially trees, is arguably the fact that people are nearly ignoring traditional beliefs and indigenous knowledge systems in the sustainable management of natural resources.

Economic Instruments approach- this is natural resources management strategy that uses the concepts of economics meaning it deals with the market. By dealing with the market it means it deals with the demand and supply. This approach uses economics to manage or regulate the environment by using supply and demand to minimize the impact of the human economy on ecosystems. This approach changes the behavior of resource users through subordination of natural resources in the form of tax incentive, user charges of the resource, soft credits that enables the good management of natural resources, pollution charges to the polluter of the environment.

The method employs approaches like analytical and system approaches to achieve its natural resources management successfully. The method uses the "polluter -pays principle". The economic instruments used by this approach involve taxes or charges that are paid by the producer or firms. Since the producer is being taxed this increases prices, which provides both

opportunity and incentive for innovation; eventually the innovations are so successful that prices end up below what they were before the source shortages occurred (Aeolian Simony's rule of Ultimate Resource).

The success of this technique depends on market developments and market variations. In Zimbabwe economic benefit was identified as a major driver for sustainable natural resources management. The approach involves use of economic benefits as incentives to drive sustainable management of natural resources. Participatory approach- this involves empowering local communities to take up guardianship and stewardship over natural resources. Communities derive economic benefit by using natural resources as alternative land use.

The most common participatory programme in Zimbabwe is the Community based Natural Resources Management (CPRM). The CPRM is where existing natural resources within an area are managed as a commercial enterprise at community level in a sustainable and productive manner. It has ecological benefits, it also makes sound economic sense by maximizing on the resources that are available and reducing the reliance on external inputs. The programme started late 1980s with CAMPFIRE programme, initiated by Zimmermann Department of National Parks and Wildlife Management, the wildlife, to rural communities.

Because of its successful internationally in enabling communities to derive a sustainable livelihood from wildlife management, the programme achieved a great deal in terms of setting a stage for CPRM in Zimbabwe. The problem with the CPRM was not covering all the resources; it was mainly focused on

wildlife management. This presents a greater challenge to other resources since many Zimmermann communal areas are largely devoid of Wildlife. However to a larger extent the programmer was effective on managing natural resources in Communal areas of Zombie.

This is because the programmer sought to decentralized the management of natural resources to rural communities which gives these communities sense of ownership over the resources thereby motivating citizens to participate on managing the resources in their community. Another example of the participatory approach done in Zombie was the SAFARI MIT programmer. The participatory approach has been found to be an effective means to manage natural resources since the community its self is in charge of managing their available resources thereby creating the sense of ownership among them.

This approach is believed to bring cost-savings over mandatory policies for regulators, while encouraging individuals and communities to take holistic strategies to improve ND manage their natural resources efficiently (Khan, 2001; Lyon & Maxwell, 2004). Another approach used in Zombie is the system approach which encompasses critical view of system earth and the ecosystems approach. Ecosystem approach maintains or restores the composition, structure and function of natural and modified ecosystems for the goal of long-term sustainability.

This is an integrated approach made up of protected areas approach, CPRM and the Turnaround Natural Resource Management (TORN). TORN is a board that manages resources found on the borders of Zombie and its neighboring countries. A good example where this board work effectively it's

between the South African- Zimbabwe borders. The Turnaround approach rises after a number of factors which includes, the need to better manage shared resources; the drive for economic growth through regional integration and development, the need to foster community participation, promote peace and security and embrace the forces of globalization.

This was evidenced by the construction of the game park that stretches from Zimbabwe to South Africa for the management of wildlife and other resources found between the borders of these two countries. However, despite these envisaged benefits of Turnaround natural resource management (TABOR), there are numerous concerns arising from these initiatives ranging from community normalization, inter - community conflicts and inter - state inequity in the distribution of benefits.