CHAPTER-7

Summary, Conclusion & Recommendations

7.1 SUMMARY

1. A brief review of literature relevant to the subject has been reviewed.
2. A perusal description of meteorological data of Shekhawati region of Rajasthan points towards a successive deterioration of the climate in this region.
3. A description of methodology followed for carrying out the present study has been given.
4. Ethnoveterinary observation on the study area shows the certain plants play an important role in the remedies of the animal & human health. The flower buds of *Prospis cineraria*, *Calligonum polygonoides*, are taken by local children with great interest. The tubers of *Ceropegia bulbosa* and *Cyperus routndus* are roasted and eaten.
5. Among the important fodder grasses are *Apluda mutica*, *Cenchurus biflorus*, *Dactyloctenium aegyptium*, *Desmostachya bipinnata*, *Digitaria adscendes* and *Eragrostis tremula*.
6. *Acacia nilotica* is popular for its gum, which has many uses ranging from domestic purpose to medicine. Its use depends upon grade which is function of purity. Processing of these grades is carried out on small scale by conventional methods due to which its full potential is not utilized. Therefore, it requires novel techniques to utilize its full potential and to put a small scale industry which can provide better routes for economic growth of region.
7. *Abrus precatorius*, *Albezia leebeck*, *Aerva lanata*, *Aegle marmelos*, *Achyranthus aspera*, *Boswellia serrata*, *Calligonum polygonodes*, *Butea monosperma*, *Cassia fistula*, *Delonix elata*, *Ephedra ciliate*, *Euphorbia fusiformis* and *Prosopis cineraria* are used to specify opthalomological and gastro intestinal ailments.
Achyranthes aspara, Indigofera cordifolia, Alangium salvifolium and Tinospora cordifoliao are used for various liver disorder.

Mucilaginous water extract of Pedalium murex and Tribulus terrestris are used for treating impotency.

The decoction of the fruits of Memordica charantia cure the sugar disease, the leaf extract of Achyranthus aspera is used to treat cough, and pods of Tamarindus indica are useful against fever which is caused on account of sun-stroke.

Pharmaceutical science, microbiology, bioinformatics and drug industries developed research programme on the basis of ethnoveterinary medicines who also applied for human being for example Rwandan cattle raisers used a preparation made from neorautanenia mitis to treat mange, a disease caused by mites that burrow under the animal’s skin. Scientists found that this plant contained an ointment for human beings as an alternative providing low cost alternative to imported drugs.

Mostly plants easily available here and easily accessible and thus provide a cheaper treatment as compared to western drug.

Generally I say that some important plants play an important role for both human and animals for example Albizia leebeck can provide remedies of conjunctivitis, Helicteres isora helpful in diarrhoea, Alangium salviform helpful in remedies of malaria, Ricinus communis cure in constipation.

Some important plant parts are useful as ethnovetinary medicine but high dose of some certain plants are poisonous and fatal. for example Abrus precatorius, Melia azedarach, Jatropha gossypifolia, Butea monosperma etc.

From the present study it is concluded that for acute, life threatening infection and epidemics, modern medicine such as antibiotics will remain the first choice. But for common and chronic conditions like skin disease, worms, wounds diarrhoea etc. ethnovetinary medicines can be an alternative or complement to modern treatment.

7.2 CONCLUSION:-
The vegetation of the study area is known for the main feature i.e shrubby vegetation and having more peculiarities which are vegetation is thorny and medicinal. The rain in this area is erratic but vegetation burgeons during the rainy season specially. Some species are ephemeral as they stay for a short duration. This area is not affluent in term of vegetation as less number of trees and plants are exuberant due to environmental peculiarities. The water retaining and absorbing capacity of sand is very weak. The irregular rainfall, the extreme variation in temperature and the relative humidity are also unsuitable condition that ravages the vegetation. The vegetation is being destroyed by the peoples for their household purpose as they use it for cooking food in place of other fuels and making the house for animals as well as for themselves.

A large number of people living in desolate area of Shekhawati region depend upon the natural resources. They fulfill their lot of requirements from the plants. Plants play a significant role to sustain the life on the earth. It is known to us wherever vegetation is sparsely existed there is less population. In another words, we can say the vegetation is directly proportional to the living being. The existence of good plants is imperative for all living beings. There is one most important use is that medicines are prepared from the medicinal plants. If we go toward the yore, when existing human livestock health care system was not prevalent then peoples were depend totally on some utilitarian plants for preparing the medicines.

Initially the acquaintance of medicinal and salubrious plants was done to get the medicines from them as medicines are required for the treatment of disease. It could be carried out by conducting the experiments on the products of plants.

Peoples are depending upon the animals for the various purposes. Some communities are keeping livestock for their survival and it becomes their duty to preserve them from the effect of any disease and to ensure their good health. They conducted the research with the help of available resources for the same. It has been noticed that maximum peoples in the exiting scenario rely on the herbal/ medicinal plants and on traditional methods for their health care as well as of plants. The products of herbal are being sold in the market. Some practitioners are active in the villages for
the treatment of animal disease with the help of herbal plants. Practitioners have to accumulate the knowledge of herbal plants. They have to undergo the comprehensive study of plants to steep the knowledge.

Actually, the domestication of animals in old era entailed the ethno veterinary. When peoples started to feed and breed the animals. They faced the outbreak of diseases among their livestock and peoples were resource less to contrive for their health care. They have been constrained to try local plants available in their surrounding and they got achievements. There are some traditional techniques are also in prevalence for the diseases of animals. The peoples having the full credibility on the ethno veterinary in rural areas as modern health care is inaccessible and expensive there. Ethno veterinary medicines compromise the use of medicinal plants, surgical techniques and management practices to meet with disease of animals.

The storage of the knowledge is solely depended on the collective memory of just few entrusted persons within communities for it just not for common knowledge of everybody. The knowledge is believed to be collectively owned by ancestors and kept under custody of living old men and women, depending upon community, ethnicity, sex, age and caste etc. there is a danger however, this method of vesting knowledge in human custodians can be undermined by mortality, thereby losing important information to the future generation.

Ethnoveterinary information is in danger of extinction because of the current rapid changes in communities all over the world. In fact, many communities now days use a mix of local and modern practice. Promoting the conservation and use of ethnoveterinary does not mean downgrading or ignoring the values of modern medicine and attempting to replace one with the other. However, it does not mean recognizing that both types have their strength and limitations. In some instances, they complement each other, in others, locally practices will be the better choice, and again in others modern practices should be recommended.

The indigenous animal health care practices mitigate the inadequacy in modern veterinary infrastructure, ensure resource conservation and save expenditure through
minimal or least investment. Therefore, it is imperative to maintain bio-resource so that these practices are also continued. Ethnoveterinary medicinal plants listed here are locally available and easily accessible and thus provide a cheaper treatment as compared to western drugs. The only limitation is the seasonal availability of certain plants, for which peoples have acquired different ways to preserve them for off season uses. Most common way of preserving is sun-drying.

Ethnoveterinary medicines can provide an opportunity of new drug research for human use also. For example, Rwandan community, which is specially known for cattle breeding, used a preparation made from Neorautanenia mitis to treat and manage a disease caused by mites that burrow under the animal’s skin. Scientists found that this plant contained an ingredient that kills the mites. They were able to make an ointment for human beings as an alternative providing low cost alternative to imported drugs. Therefore, the plants here plants may be clinically tested for their possible use in human medicine also. From present study it was concluded that for acute, life threatening infections and epidemics, modern medicine such as antibiotics will remain the first choice. But for common and chronic conditions like skin disease, worms, wounds, diarrhea etc. Ethnoveterinary medicines can be an alternative for complement to modern treatments especially because some antibiotics and other drugs have been overused, stimulating resistance among micro-organisms and leaving dangerous residues in meat, milk and groundwater. The use both modern and local remedies and management practices is conducive for problems like ticks and trypanosomiasis where neither modern nor ethnoveterinary medicine can provide a satisfactory solution.

7.3 Recommendations:-

1 Improvement in the system of protection and regeneration of natural forest area. Amelioration of threatened and endangered plant species because mostly plant species are valuable for human beings as well as animals.
2. Implementation of conservation technique to expand/increase plant coverage outside or inside the forest areas, agricultural farms & beeds.

3. Potential for conservation of all the plant species observed/recorded in the study area.

1. People participation for conservation of plant diversity.
2. Take more care in preservation/conservation of rare, endangered and threatened plant species.
3. Involving farmers, medicinemen & medicinewomen, tribes, NGOs, traditional healers and other stakeholders to improve medicine production.
4. Herbal Park, medicinal agriculture system developed by farmers as an alternative source of traditional agriculture system.
5. Systematic documentation of existing traditional knowledge of plant resources.
6. Strategy to utilize the indigenous traditional knowledge for betterment of life.
7. Addition of most useful plant species of study area.
8. Take quick measures/actions for the conservation of very rare and rare species of this area.

At the end, I must claim that the data contained in this research work are of great value as being first-hand and reliable as well as collected scientifically and systematically and will be useful to traditional healers, taxonomists, botanists, environmentalist, pharmaceutical companies and other users of study area of Rajasthan in general and of Shekhawati in particular.