PREPARATION OF STRATEGIC PLANS FOR RESOURCE MANAGEMENT

The resource deficit estimates made with spatial disaggregation gives an idea about the water shortages; sector-wise and locality-wise. This in turn will help district level administration to prepare area specific strategic plans to focus available resources for development. In the present study an analysis of population growth and corresponding increase in food grains requirement has been assessed both at divisional level and mandal level as well. With this, the water demand for domestic and agricultural use has been estimated. Based on these estimates resource deficit estimates have been prepared division-wise and mandal-wise. It was found that there are extreme variations across fifty four mandals as far as resource requirement is concerned. Abnormal deficit has been observed in more than 50 percent of the mandals with more than 100 percent deficit even up to 400 percent in some cases. The overall deficit at district level in case of cereals requires appropriate plans for resource utilization and resource development with establishment of necessary services, communications and industrial network to enable sustainable growth.

5.1 Resource Utilization

Utilisation of existing resource can be adopted as one of the strategies. For example out of 2,07,697 hectares of registered ayacut under various irrigation projects, only 1,12,170 hectares was actually irrigated. The net area irrigated is still at a lower level which is 91,997 hectares which is about 44 percent of the designed capacity of the existing irrigation projects. Hence it is necessary to see that the existing capacity of irrigation projects is exploited to the maximum if not fully, to fill up the resource gap in cereals. The area required to produce 2,80,881 tonnes of paddy which is the deficit in cereals during the year 2007-08 works out to 76,181 hectares which is much below the unutilized capacity of the ayacuts under the existing irrigation projects. It is difficult to assess whether the entire 76,181 hectares under these irrigation projects can be brought under use in the absence of existing
levels of storage under these projects. A detailed analysis of hydroclimatic variables to predict the flows into all the reservoirs is required to be done for optimum utilization of water resources.

5.2 Resource Development

Resource development is another strategy for filling the gap in the production of agricultural produce and other resources like minerals. For example, about 80% of the area sown in Kurnool district is cultivated using other than irrigated water. As these areas are mostly rainfed, the crop yields are expected to be reduced due to short periods of water stress long for a couple of weeks during the crop growth period. Hence, it is necessary to take up developmental projects to provide assured irrigation to the maximum extent possible by assessing the flows into all the streams, tanks and ground water potential. In Kurnool district several irrigation projects like (i) TGP package 50 and 51 (ii) TGP Siddapuram lift irrigation scheme and (iii) G.N.S.S. project package 24 are proposed under Jalayagnam programme but all these projects are in progress and no ayacut is brought under these projects yet. The situation of cereals production may improve after these projects are completed.

5.3 Establishment of Service Network

As a part of improving the living standards of increasing population it is necessary to expand the service network like establishment of schools, colleges, medical facilities and so on while improving the life sustaining water resources simultaneously. For example, the resource requirement of preprimary and primary school teachers has already been discussed in para 4.1.3. Similar estimates can be made for medical facilities, agricultural marketing yards and so on.

5.4 Establishment of Communications Network

Out of 6546.506 km of roads i.e. 87 percent of the total road network is in rural areas but un-metalled. It is necessary to improve these roads for better communications. Other delivery systems like post offices and telephone exchanges have to be utilized fully for service delivery in rural areas. For example, the community radio sets and
television can be utilised for better communication between farmers and agricultural experts/managers in the district about usage of water and other inputs like fertilizer at optimum levels for maximum yield. The informal pressure groups like Mahilamandals can be utilized for spreading message of water conservation practices as they hold lot of influence on every household in villages and even in urban areas. They can also be utilized to spread small family norm to reduce the population growth which will enable reducing water stress.

5.5 Expansion of Industrial Network

Existing base of industries in Kurnool district is very low with only 1,745 units employing just 5,972 workers out of 15 lakhs main workers. There are only 177 agro-based industries. Thus there is ample scope for expansion of agro-based industries.