

# **CHAPTER SIX:**

## **CONCLUSION & RECOMMENDATIONS**

### **6.1. CONCLUSION:**

The primary purpose of the system is to satisfy customer requirements and since the proper functioning and longevity of the system are found to be essential requisites for continued satisfaction, hence it is necessary that both demand and supply side considerations are appropriately included in the planning and analysis.

A methodology widely utilized in quantifying the benefit of power delivery service reliability is to estimate the customer reliability indices associated with power supply interruptions by collecting data from load dispatch center & using G.I.S. & MATLAB softwares for calculations.

The data recording have to be made systematic and rationalized meaning that all individual component failure data, localized fault data, it's consider the duration of fault 1:45 hr, the number of customers interrupted according of customers' distribution along the line which are dividing to sections by sectionalizing devices, the total number of customer served is 240,781customers in Khartoum North area. The reasons for outage have to be detailed and precise.

The result from the overall project is interpreted below; From (Um Dawanban & El Faki Hashim) radial feeders it is being observed that the situation of inserting the sectionalizing devices in the lines gives the better results in terms of improvement of SAIFI & SAIDI.

It is very important to place the sectionalizing switches at strategic locations however; it may not be practically true since the location of such switches should be near the motorable roads and the availability of other communication facilities. If it

is located at such points, it will facilitate to sectionalize the faulty sections faster and to make the supply available to the unfaulty ones.

The best placed of sectionalizers in the line feeders are in the feeder T-OFFs branches.

Using of distribution feeder automation make the operation process easier & faster than working without automation during fault appearing.

## **6.2. RECOMMENDATIONS:**

1. SEDC should concentrate more in using of auto reclosers & sectionalizers devices & connect it with the control centers to reduce the line trippings.
2. SEDC should care with reliability concept and compute the reliability indices even if we are far from the international standards.
3. SEDC should start in the DISTRIBUTION RADIAL FEEDER AUTOMATION project which is the first step of SMART NETWORK project.
4. Using the FAULT PASSAG INDICATOR in radial distribution feedrs to reduce the time of fault locating.