

- Major Issues that we are facing for Water Management:

As water is an essential part of this incredible nature, its availability and quality often limit us from various problems that we have to consider in order for us to have an effective water management strategy. As we are moving towards the future, we have an increasing demand of the water and many Australians are concerned whether they will have the enough water resource to support their lifestyle and businesses. There is no doubt that Australians not only want to ensure that we have healthy rivers but they also expect water to be available for to support urban lifestyle as well as for agriculture in order to support their food, fiber and other necessary demands. There is no uncertainty that all who need water must ensure that it is utilized productively, it is important to quantify, oversee and plan water much better. (Cullen, 2006).

There are some key challenges and major issues, related to the effective water management strategies, these are as follows.

**1. Australia has the worldwide Inconstancy in climate and streamflow:**

Every year, Australia faces variations in rainfall patterns due to the combination of geographical structure and the dual effects of Indian and Pacific Ocean. As Australia has global inconstancy in environment and streamflow, water management system would affect from weather forecasting. It becomes very difficult in these conditions to forecast weather and prediction about future rainfall is essential for agriculture management.

**2. Water Information is still inadequate and away from the coast:**

One of the reasons which makes forecasting and water management difficult is that the water information is still inadequate, despite all the efforts and investments made by the government, we

are still unsure water availability and its quality. There are data driven models, which helps us new developments in predicting water resource.

### **3. Murray Darling Basin rivers in pressure due to management:**

As Murray Darling Basin is the biggest area where all the rivers from almost every state meets, the change in land and way in which water is used, rivers of Murray darling basin are in pressure, it sustains plants, animals, communities, agriculture and tourism. The management is very complex. Effective communication and collaboration are the only ways to solve complex problems.

### **4. Environmental change may build the event of poisonous cyanobacteria sprouts:**

Variations in climate change which results in increasing temperature and the intensity of rain every year can occur risk of eutrophication. Eutrophication is the process in which a body of water becomes very enriched with all the minerals and nutrients which cause very low growth of plant life. Factors that cause occurrence of cyanobacteria are found to be very complex and which is now reported on global scale. (University of Sydney, 2018)

### **5. Reallocation of water resources:**

Almost every Australian state has allocated most of its water resources to agriculture. This has been done in the context of self-sufficient of food resources and the history of droughts. We have to realize that this vast volume of water is unsustainable and water needs to be reallocated to other

uses like environment. We have to reallocate some of water resource from rural uses to urban resources.

As we are moving into the future, we have to make sure that we address all these key challenges to ensure that water is equally available to rural, urban areas, communities, industries. We have to make people aware about water resources and it is important for us to manage, measure and plan water resources efficiently. Water resources like Murray Darling Basin must not be kept in pressure, and water resources complexity solutions must be achieved by the negotiations. These challenges are opportunities for us to improve our environments and businesses.