

**Water logging**

**Waterlogging** is a condition of land in which the soil profile is saturated with water either temporarily or permanently. The water table rises to an extent that the soil pores in the crop root zone are saturated resulting in restriction of the normal circulation of air.

### Irrigation

Over irrigation

Inadequate drainage

Poor irrigation management

Obstruction of natural drainage

Land locked patches having no outlets

### Effects on crops

**Delayed cultivation operations** - tillage and ploughing are adversely by excess water in the soil

**Aquatic weeds** – Water loving wild plants grow profusely and compete with the crops

**Diseased crops** - cause physiological disease to crops - Decay of roots,

**Loss of cash crops** - Cash crops desired to be grown cannot be cultivated and restricted to few crops

**Low yields** - Maturity period of crops is reduced resulting in low yields.

# Categories of waterlogging

## Causes

Natural, e.g. natural swamps and valley bottoms

Human induced waterlogging - through agricultural and other activities

## Permanence

Temporary - whereby waterlogging lasts a few days to several months

Permanent waterlogging - which occurs throughout the year.

## Source of water

Rainfed - mostly source of excess water is direct rainfall

Irrigated agriculture - waterlogging caused by water supplied for irrigation

## Located on

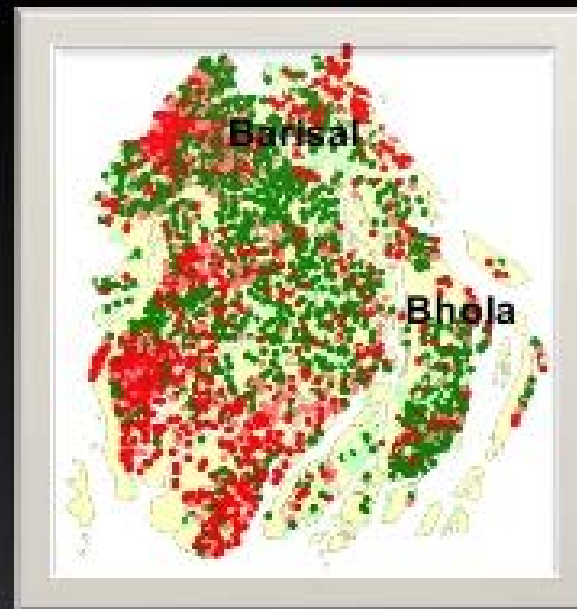
Agricultural lands - including cultivated lands

Other utility lands - built up areas, urban areas

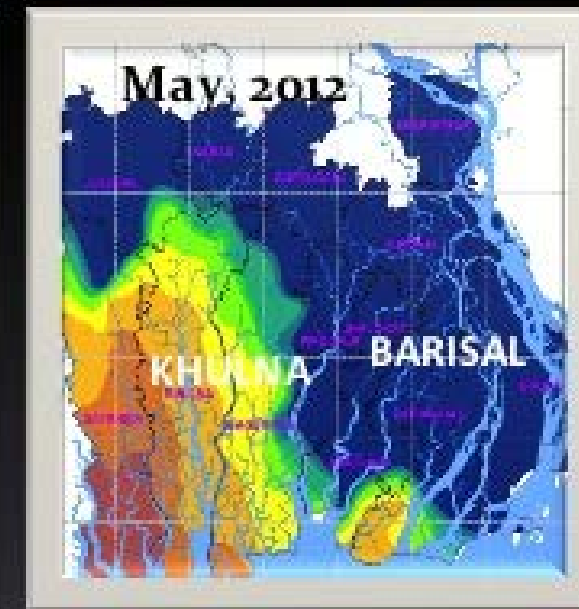
**Drought - Boro**



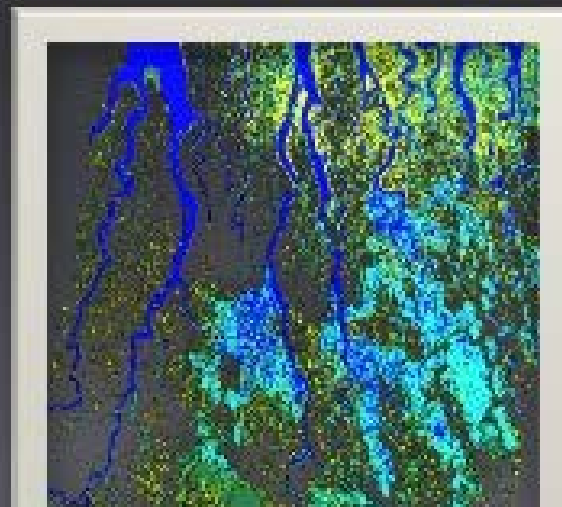
**Soil Salinity**



**Water Salinity**



**Water logging**



**Status of Zn in Soil**



### **Multiple Stresses**

Flash Floods + Drought  
Soil/Water salinity + drought  
Salinity + drought + Zn  
Flash Floods + Stagnant Flood

**Thank you**