



ICID-CIID

## International Commission on Irrigation and Drainage

**ICID Foundation Day Seminar**

### **Second Green Revolution: Role of Irrigation and Drainage**

*In Collaboration with Indian National Committee on Surface Water*  
**CENTRAL WATER COMMISSION**

24<sup>th</sup> June 2016

CWC Library Auditorium, R K Puram, New Delhi



### **Need for a Second Green Revolution has been recognized around the world and in India....**



#### **Alliance for Green Revolution in Africa**

The time has come for African farmers to wage a "uniquely African **Green Revolution**."

**UN Secretary-General Kofi Annan**



"There is an immediate need of **Green Revolution** in the country. The Green Revolution should immediately start in eastern India including Jharkhand, Bihar, eastern Uttar Pradesh, West Bengal, Odisha and Assam,"

**Prime Minister Narendra Modi**



"It is time we give importance to agriculture sector. For **the second green revolution**, we have to bring reforms in the various avenues of this sector, such as land, farming, seeds, etc.,"

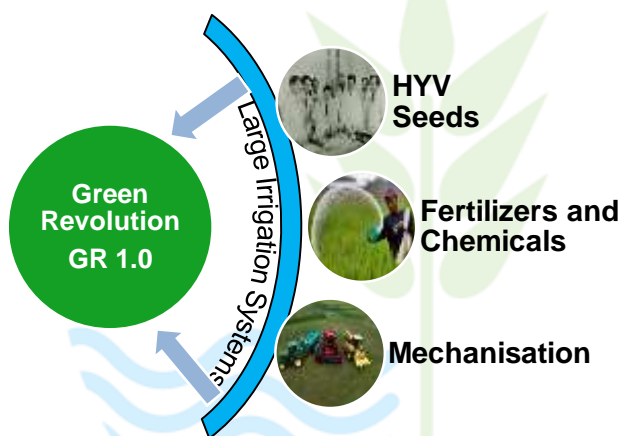
**Arvind Pangariya, Chair Niti Ayog**



ICID Foundation Day Seminar  
Second Green Revolution  
**Role of Irrigation and Drainage**



- ▣ Articulate the objectives of the Second Green Revolution;
- ▣ Understand the means of achieving these objectives;
- ▣ Identify various activities, schemes and programs that would support the objectives;
- ▣ Comprehend and articulate the role of irrigation and drainage in SGR;
- ▣ Sensitize all possible actors, sectors and stakeholders that can and have to contribute to meet the objectives of SGR.

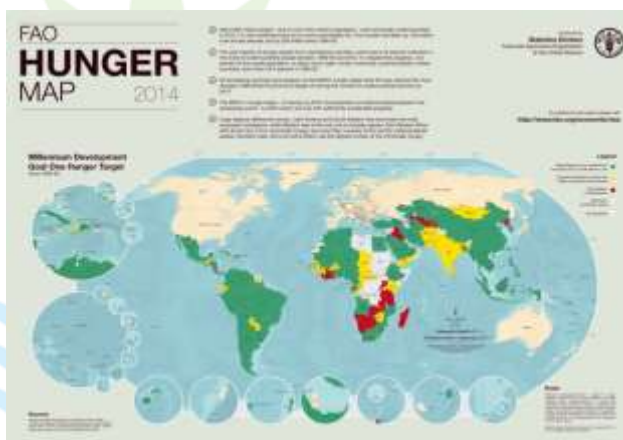


**Objective: To eradicate hunger**  
With rural development almost as a bye-product



## What did we miss in GR 1.0

- I. Policy
- II. Planning
- III. Implementation
- IV. Management
- V. Capacity



- ▣ **Basin management:** Lack of policy and implementation mechanism
- ▣ **Linkages:** Agriculture and rural policies failed to factor water as an important ingredient
- ▣ **Equity:** certain parts of the country did not receive due attention; head reach and tail reach
- ▣ **Long-term vision:** Policies had short-term goals: e.g., pricing of water and electricity

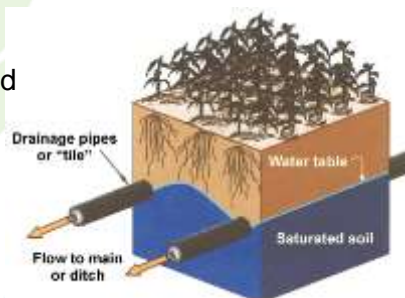
### I Policy

Planning  
Implementation  
Management  
Capacity



Policy  
**II Planning**  
 Implementation  
 Management  
 Capacity

- ▣ **Protracted planning:** Water dispute resolutions mechanism delayed planning
- ▣ **Clear objectives:** Irrigation systems largely designed for safety against droughts: only 50% of the Tungabhadra command area was designed to be irrigated
- ▣ **Crop design:** for the irrigation system without taking into account the water availability
- ▣ **Drainage:** as a preventive measure did not get the required attention

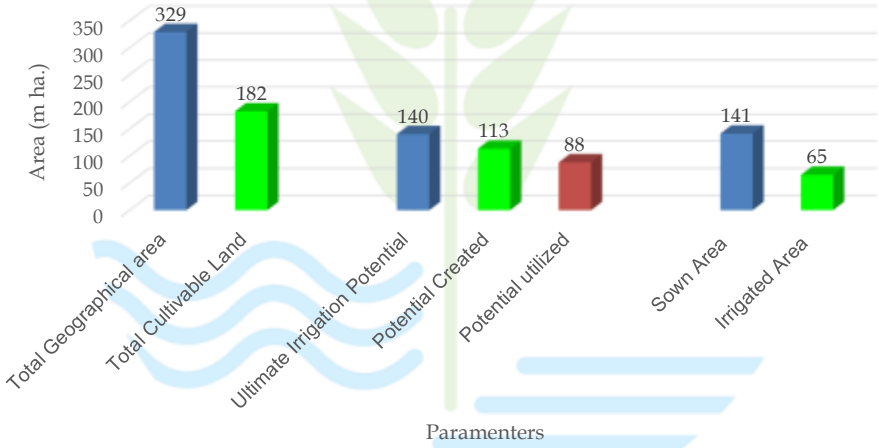


Policy  
 Planning  
**III Implementation**  
 Management  
 Capacity

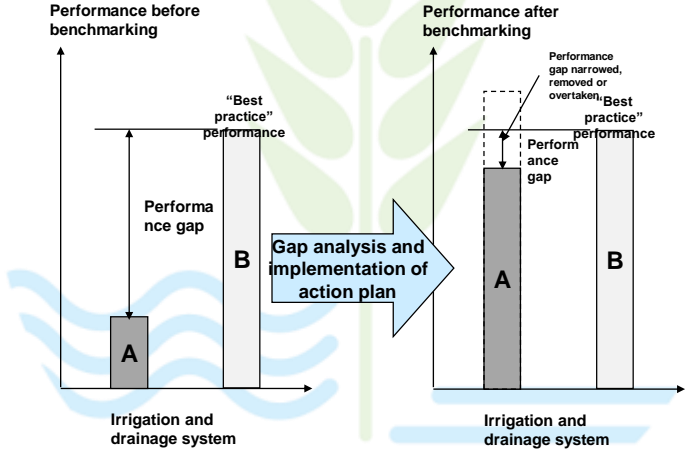
- ▣ **Timely completion of projects:** thin spreading of resources
- ▣ **Gap between IPC and IPU**
- ▣ **Monitoring of safeguards** recommended by planning commission while approving the projects
- ▣ **Collection of irrigation fee**
- ▣ **Water Use Efficiency:** Performance indicators (Bench marking) of LIS was not readily adopted



# Irrigation Development



# Benchmarking – A way forward to improving performance



Policy  
 Planning  
 Implementation  
**IV Management**  
 Capacity

- ▣ **Wastage of water:** Farm level approaches to optimize water use did not get implemented
- ▣ **Maintenance:** of irrigation systems did not get required funding
- ▣ **No measuring of the water supplied**
- ▣ **Indiscipline:** in ayacut resulting in inequity between upstream and down stream users
- ▣ **Participation of stakeholders** in the management of LIS - initiated very late and has not been effective
- ▣ **No drought monitoring and warning:** followed by contingency plans



Agriculture cannot be made solely dependent on rains as it amounts to gambling with the nature.

- Kautilya's Arthshastra, 371 BC

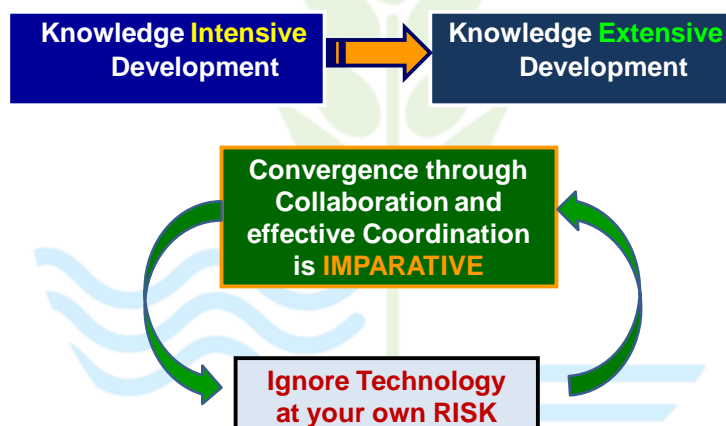


- ▣ **Support to farmers:** for participation in managing irrigation systems
- ▣ **Irrigation as a Service:** Irrigation Institutions were not service oriented
- ▣ **Cadre management:** of irrigation departments and their capacity to adapt to new challenges remains limited
- ▣ **Social skills:** Irrigation managers lacked negotiation and dispute resolution skills
- ▣ **Effective WALMIs:** could not serve their designed purpose

Policy  
Planning  
Implementation  
Management  
V Capacity



## Key message



**WELCOME**  
to



**Mission:** Enhance the science based discourse in policy making and field implementation in **Agriculture Water Management** in India

