System Performance Under 2 Decision Mechanisms

⇒ In order to make an educated guess on the effectiveness of the 2 Decision Mechanisms, let's identify the similarities, differences & drawbacks, benefits of the 2 systems.

Similarities

- Relatively fair distribution of resources
- 7 day distribution time
- All the farms are irrigated atleast once a month (which is often enough for some crops)

Differences (Task 2 perspective)

- Each farmer gets water on every 7th day
- Water is no longer free
- Farmers need to take a greater part in the calculations & decision making process.

The system in task 2 is more suited to serving educated farmers who are able to grasp the mathematics & economics behind the decisions while the system in task 1 is better for the average farmer in Pakistan who is not yet skilled enough to run a cost-benefit analysis using modern financial models.

Every famer in Task 2 gets the choice to control his yield. Water is no longer a variable for him. With access to rain forecast and the ability to get as much water as he requires, he is able to maximize his profits by balancing yield with cost of water per unit. This eventually runs farmers from Task 1's system out of busines as a social consequence rendering Task 1's system totally obsolete.

Task 1's system, however, provides great affordability to smaller / newer farms who can not bear the cost of weekly irrigation water payments. Sure, they may lose yield & subsequent profits but their base costs for running the farm are lower.

∴ We can see how price of water affects choice of system, type of crop (plant crops requiring less water), finance management and farm size (proportional to size of reservoir ideally for system in Task 1)
Both systems have their benefits & drawbacks. A deeper study would assist in assessing what an ideal distribution of systems in Pakistan should be.