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Synopsis (Video Research Project – Just Energy Transition in Bundelkhand, M.P.)

This video research project, conducted under the Just Energy Transition Fellowship, explores the impact of solar-powered irrigation in two villages of Datia district in Bundelkhand, a drought-prone region in Madhya Pradesh, India. Agriculture here heavily depends on rainfall. In Kakraua village, out of 200 households, only 15 have installed solar pumps. In contrast, Chirouli village has around 35 pumps in operation. While farmers are seeing clear benefits—reduced reliance on erratic electricity and lower power costs—there is growing concern over the reckless use of water. Solar pumps have enabled widespread cultivation of water-intensive crops like paddy, raising alarms among environmental experts and aware farmers about shifts in crop cycles in this water-scarce region.

The research highlights that solar energy is bringing positive changes to rural agriculture. However, concerns remain about over-extraction of groundwater. Farmers express the need for micro-irrigation technologies alongside solar pumps to improve water efficiency—suggesting that one-third the water could suffice for similar productivity. Many are open to crop diversification if the government ensures fair prices and reliable market access.

The study concludes that while solar irrigation supports India's net-zero 2070 goals, integrating renewable energy with sustainable agricultural practices—like micro-irrigation and crop diversification—is essential. This project captures farmers' voices, aspirations, and the policy gaps that need attention for a truly just energy transition.