Press Release **September 22, 2008**

ORISSA FLOOD DISASTER COULD HAVE BEEN AVOIDED: WRONG OPERATION OF HIRAKUD DAM RESPONSIBLE

The wrong operation of Hirakud Dam is majorly responsible for the current flood disaster in Mahanadi basin in Orissa. Ever since Aug 1, 2008, when the rule curve for current year came into operation, the Hirakud dam operators have kept the water level at the Hirakud Dam way above the rule curve recommended for the dam in 1988. Had the dam operated in a way to keep the level below the recommended level, the current flood disaster could have been avoided, it impact hugely reduced.

The water flow in Mahanadi river at Mundali barrage in the Mahanadi Delta (at 1400 hours on 190908) was 14.6 lakh cusecs (cubic feet per second), which increased (1200 hrs on 200908) to 15.81 lakh cusecs and (1200 hrs on 210908) 12.99 lakh cusecs (see: http://www.dowrorissa.gov.in/FLOOD/DailyFloodBulletin.htm), all way above the safe limit of 10 lakh cusec, as recommended by the August 2007 report (see: http://www.dowrorissa.gov.in/NEWS/Hirakud%20HLC/HirakudHLC.htm) of "the High Level Committee to Study Various Aspects of Water Usage for Hirakud Reservoir", appointed by the Government of Orissa. Out of the 14.6 lakh cusecs flowing in Mahanadi on 190908, over 4.62 lakh cusecs is released by Hirakud dam. And by 1200 hours on 200908, the releases from the Hirakud dam were increased to shockingly high 7.91 lakh cusecs. Next day on Sept 21 at 1200 hrs, the releases from Hirakud was still high at 5.72 lakh cusecs. If Hirakud Dam had not released the water when the downstream areas were experiencing heavy rainfall, the amount the flow at Mundali barrage would have remained within the safe limit of 10 lakh cusecs as recommended by the High Level Hirakud Committee (HLHC), and there would have been none or at least a hugely reduced flood disaster.

The Hirakud dam operators were forced to release over 4.62 lakh cusecs on 19 Sept, 7.91 lakh cusecs on 20 Sept and 5.72 lakh cusecs on 21 Sept, because the water level at Hirakud dam has already reached the Full Reservoir Level of 630 feet on Sept 18, 2008, which should have been reached that level twelve days later on Sept 30, 2008. And the water level at Hirakud has reached the full level so fast because the operators had consistently kept the water level very high, way above the recommended level, right from Aug 1, 2008.

For example, on Aug 1, 2008, the recommended water level at Hirakud dam was 590 feet (this is the dead storage level of Hirakud dam), but the actual water level on that date was already way high at 607.5 feet. On Aug 13, 2008, the water level was 618.5 feet, against the recommended level of 606 feet. On Sept 10, 2008, the water level was 627 feet, just three feet below the full level, when the recommended level was 623 feet.

Hirakud dam is one of the few dams of India where flood control cushion has been provided in its storage capacity. The idea is that the flood cushion portion of the storage should not be filled right till the end of the monsoon, which is in the first week of Oct. By filling up the reservoir to full capacity before the end of monsoon, the dam operators have destroyed the flood control role of the Hirakud dam and thus brought an avoidable flood disaster on the poor people of coastal Orissa districts. This disaster could have been avoided or hugely reduced, had they operated the dam keeping in mind the flood cushion role of the reservoir. In fact, similar incidents had happened in 1982 and 2002 and it seems no lessons have been learnt from those disasters, says well known flood expert Dinesh K Mishra of *Barh Mukti Abhiyan*.

Need for reassessment In fact, considering that a significant portion of the live storage capacity of Hirakud has already been silted up, there is need for a review of the 1988 rule curve of the Hirakud dam operation (currently supposed to be followed), so that the reduced live storage capacity is reflected and the levels are appropriated adjusted for the various dates. Here it may be noted that when the Hirakud dam was commissioned, the dam filling was supposed to start only on Sept 1, as against Aug 1, as per the rule curve adopted in 1988. It is clear from the experience of this year, as well as the experience of earlier years after 1988, that the 1988 rule curve needs a review as it is leading to greater flood disasters.

Consequences Look at the contours of the disastrous consequences of the flood disaster: According to Engineer in Chief, Water Resources Department of Orissa, this is the worst floods in Orissa since 1982. 20 lakh people of 2960 villages in 110 blocks and 870 gram panchayats in 17 districts including Kendrapara, Jagatsinghpur, Puri & Cuttack have been affected, 1.8 lakh people are evacuated, hundreds are killed, embankments have breached at 61 places. Over 15 lakh ha of cropped land is submerged, destroying all the crops on those lands.

Dubious Data of CWC Here it may be added that the Central Water Commission (CWC) of the Government of India has been using completely outdated figures of reservoir capacities. For example, for Hirakud, while the HLHC has said that the live storage capacity of Hirakud in 2007 was down to 4.647 Billion Cubic Meters (BCM) (down from 5.818 BCM at the time of start up in 1957), CWC's reservoir storage website (http://www.cwc.gov.in/Reservoir_level.htm) says the Hirakud's live storage capacity is 5.378 BCM. It is also shocking to note that CWC's flood forecast site for the first time (during the current phase) mentioned the Mahanadi floods only on September 19, 2008, *after* the news was already out in the media. What is the value of such forecasts of CWC?

Will those responsible be held accountable? The Orissa government needs to answer to the people of Orissa and the nation, why this shocking manmade disaster was allowed to happen and what it would do to ensure that those who are responsible for the wrong operation of the Hirakud dam are held accountable?

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