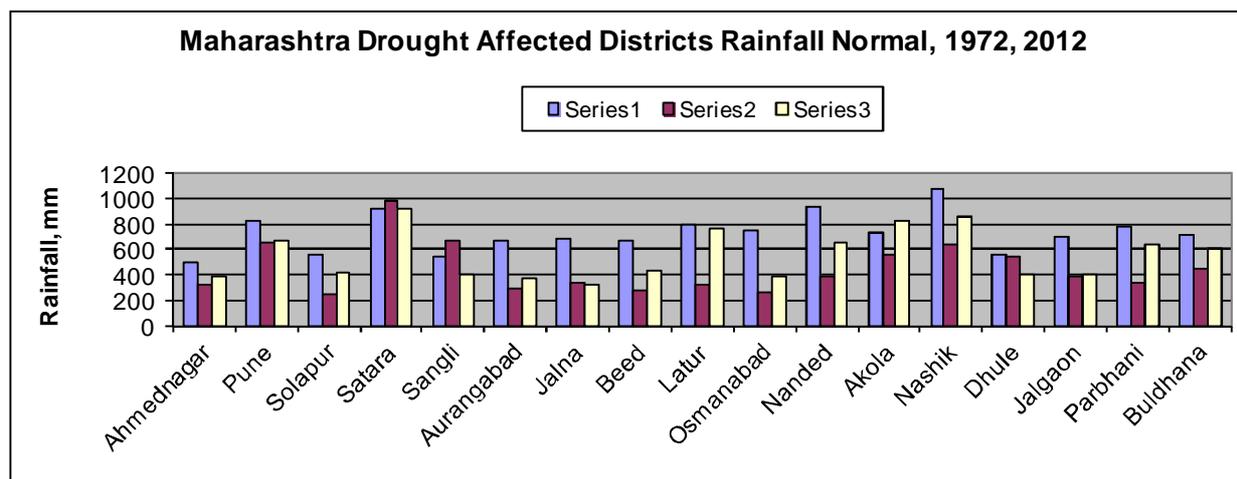


How is 2012-13 Maharashtra Drought worse than the one in 1972?

Maharashtra is facing one of the worst droughts this year. Union Agriculture Minister Sharad Pawar as well as Chief Minister Prithviraj Chavan have said that this year's drought is worse drought than the one in 1972, which was termed as a 'famine'. Maharashtra has the highest number of large dams in the country and is now claimed to be suffering the worst drought in four decades or more.

Chart 1 District-wise Normal, 1972 and 2012 rainfall for the 16 drought affected districts of Maharashtra



However, an analysis of the rainfall figures and the monthly rainfall pattern in 1972 and 2012 with respect to the normal rainfall pattern in seventeen drought affected districts shows (see chart above) a different picture. It is clear that only in case of two districts (Sangli and Dhule) is the 2012 rainfall substantially lower than 1972. In two other districts (Jalna and Satara) the rainfall in 2012 is lower than that in 1972, but difference is less than 7% in both cases. **In remaining thirteen districts, the monsoon rainfall in 2012 was more than that in 1972.**

Thus from a Meteorological and agricultural point of view, this year's drought cannot be called worse than that in 1972. It is possible that hydrologically, this year's drought may prove to be worse than 1972 for some districts. The blame for this lies entirely on wrong decisions about building unviable and undesirable large dams, wrong cropping patterns, diversion of water for non priority uses, neglect of local water systems and unaccountable water management by the Maharashtra government, MWRRA (Maharashtra Water Resources Regulatory Authority, set up in 2005 under a World Bank funded programme) as well as the Union Government.

Let us look at the figures of the rainfall of 1972 and 2012. Detailed figures (see Table 1 in detailed blog at: <http://sandrp.wordpress.com/>) shows monthly normal and actual rainfall for 1972 and 2012 for the months of June to October and their total for the seventeen districts¹ mentioned as drought affected. When the monthly rainfall of 1972 and 2012 shows more than 50% deficit² from normal, it is marked in red background for 1972 and in red numbers for 2012.

It is clear from these figure that, number of districts that faced more than 50% deficit in monthly rainfall was eight in June, None in July, three in August: Aurangabad, Jalna and Osmanabad (these three districts also experienced over 50% deficit in June), Only Jalna in September and Dhule and

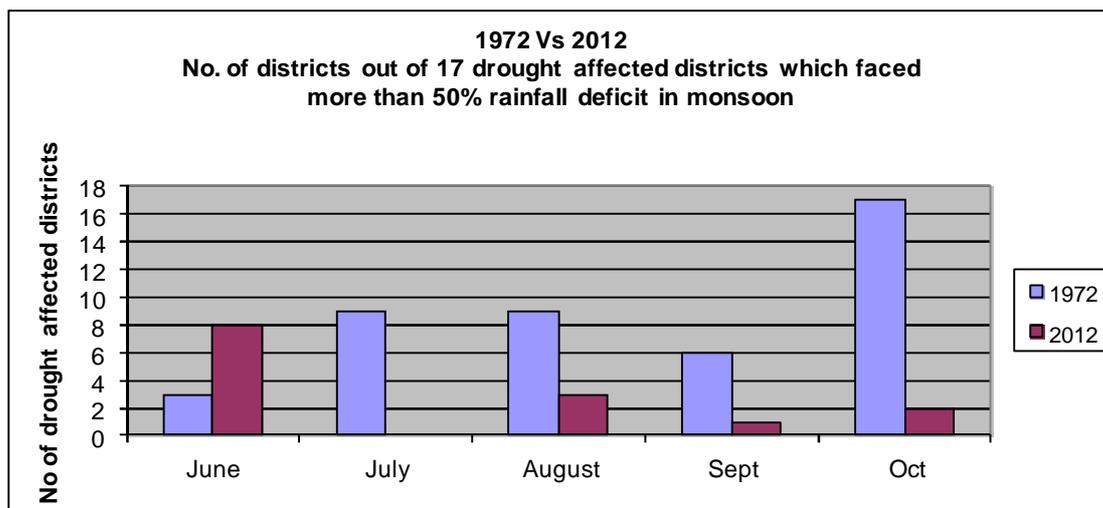
¹ Ahmednagar, Pune, Solapur, Sangli, Satara, Aurangabad, Beed, Jalna, Latur, Osmanabad, Nanded, Akola, Parbhani, Buldhana, Nashik, Dhule and Jalgaon

² It may be noted here that India Meteorological office calls rainfall deficient when deficit is 20-60% and scanty when deficit is more than 60%. We have used the figure for 50% just for comparison here.

Jalgaon in October 2012 It seems from this comparison that Aurangabad, Jalna and Osmanabad were some of the worst drought affected districts this year, which is indeed the case.

In comparison, the number of districts that faced more than 50% deficit in monthly rainfall in 1972 were: 3 in June, 9 in July, 9 in August, 6 in September and all 17 in October 1972. This comparison between 1972 and 2012 for the number of districts facing over 50% deficit in monsoon months clearly tells us that the 1972 rainfall was much lower than the 2012 rainfall for every month with the sole exception of June. See chart 2 for this comparison of no of districts with over 50% deficit among drought prone districts of Maharashtra in 1972 and 2012 monsoon.

Chart 2 Comparison of no of districts with over 50% deficit in 1972 and 2012 monsoon



While comparing the 1972 and 2012-13 droughts, it must be kept in mind that rainfall in 1971, the year before the 1972 drought was also low. In comparison, rainfall in Maharashtra was above average in 2011 & most of the dams were full. Maharashtra Economic Survey for 2011-12 notes, "Total rainfall in the State during 2011 was 102.3 per cent of the normal rainfall." The state agriculture commissioner had stated in 2011: "The good distribution of rain has resulted in good quality of crops. The above average rainfall has filled up nearly all dams, which will help replenish the soil in the run-up to the rabi season."³

In addition, Maharashtra has by far the largest number of Big Dam in India, most of which were absent in 1972. In 40 years since 1972, Maharashtra has built a very large number of big dams, ostensibly to help these drought prone areas. For example, Aurangabad has Jayakwadi project (completed in 1976), Beed has Mazalagaon Project (Jayakwadi Stage II), Jalna has Upper Dudhna and Lower Dudhna projects. Osmanabad depends partly on Ujani Dam, partly on schemes in Krishna basin, Solapur completely depends on Ujani. Live storage of most of the dams in drought affected districts is either 0 or near zero today. All these projects and increased groundwater use facilities in 2012 should actually be able to reduce the impact of rainfall deficit in 2012, which is lower than the deficit of 1972. But the situation is actually the worse in 2012 compared to 1972, claims the Chief Minister and the Union Agriculture Minister. So what are the reasons for this? For one, area under sugarcane in Maharashtra was 167 000 ha in 1970-71, going up to 1022 000 ha in 2011-12 (Maharashtra Economic Survey 2012-13).

Moreover, Solapur, Pune, Ahmednagar, Sangli, Satara, Osmanabad, Beed, Latur, Nashik, Jalna, Parbhani and Aurangabad, all drought prone and drought affected districts are major sugar producing centres of the State. They collectively produce 79.5% of sugar produced in Maharashtra.

³ http://envis.maharashtra.gov.in/envis_data/?q=monsoon_update_jul11_nws

According to Maharashtra Economic Survey for 2012-13, "As on 31st December, 2012, out of the total sugar production in the country, the share of State was 35.3 per cent". So the drought prone districts of Maharashtra produce more than a quarter of India's sugar!

As one travelled during March 2013 in some of the drought affected districts like Pune, Solapur, Ahmednagar and Nashik one saw unending fields of sugarcane on both sides of the road. Many of these fields were planted after August 2012 when it was known that Maharashtra would be facing a drought this year. In fact, the Sugar Dairy 2013 brought out by the Vasantdada Sugar Institute actually says that 20 more sugar factories have been sanctioned in Solapur district, out of which 5 are in Madha. Solapur is facing immense hardships due to drought and situation in Madha is worse. But sugar industries owned by politicians are still being sanctioned. There is no attempt by anyone in the Maharashtra govt or administration to curb either planting of sugarcane and other water intensive crops or to curb any of the water intensive activities like running of sugar and wine factories in the drought affected districts. The builders continue to advertise sale of houses attached with swimming pools in drought affected areas. Maharashtra continues to divert millions of cubic meters of water everyday, *out of* the Krishna and Bheema basin, to the Konkan area with average rainfall of over 3000 mm through Tata and Koyna Hydropower dams. In almost all areas, the poor and the cattle are facing the water shortage. However, it seems those who had the money and power continued to get as much water as they needed, for whatever purpose they want it for. Not surprisingly, an NDTV programme on March 29, 2013 accused NCP leaders of stealing water in times of drought⁴.

Amazingly, the Maharashtra Economic Survey for 2012-13, published after March 19, 2013⁵ does not mention that the state is suffering from drought, leave aside giving details of the drought prone areas. It says that during 2012 monsoon, Maharashtra suffered rainfall deficit of 9.7% and that 10 districts and 136 talukas had deficit over 25%. And Yet the survey reported that water availability situation was *alarming* in Aurangabad, Jalna, Beed, Osmanabad, Nanded, Ahmednagar, Nashik, Jalgaon Pune, Satara, Sangli, Solapur and Buldhana (13 districts).

MWRRRA and the state machinery have entirely failed in managing water levels at Jayakwadi & Ujani dams and releases from the upstream dam releases. There has been no serious attempt at controlling area under sugarcane and sugarcane crushing in the drought areas or controlling unauthorised sugarcane cultivation around Ujani backwaters, or unauthorised lifts from upstream of many dams like Nandur Madhyameshwar and through canal systems Majalgaon Project or lifting of water from the river beds for sugarcane or curbing other non essential water intensive activities. In fact all efforts have been towards increasing the area under sugarcane and other water intensive activities in the drought prone areas. In affidavit in the High Court, Maharashtra government said on March 28, 2013 that MWRRRA effectively does not exist! All of its posts: Chairperson and three expert members have been vacant, despite the former Chair-person writing about it to the WRD Minister.

40 years after Maharashtra's worst drought of 1972, the state seem to be in worse situation this year, despite spending lakhs of crores on irrigation projects and despite putting in place numerous institutions and authorities to manage water. While 1972 drought could be called a natural calamity, 2012-13 drought is a disaster of water management accompanied by corruption, extremely water intensive cropping pattern unsuitable for the drought prone areas, pushed by the government and the politicians, top heavy institutions without local participation or transparency, absence of responsive disaster management system and absence of a long term view to manage drought.

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⁴ <http://www.ndtv.com/video/player/news/maharashtra-drought-sugar-barons-from-sharad-pawar-s-party-stealing-water/269732>

⁵ http://mahades.maharashtra.gov.in/files/publication/esm_2012-13_eng.pdf