



## **Commentary**

In modern India, the priority on economic and commercial profits overshadows the idea of sustainable growth balancing economy and environment. Modern India is trying to exploit mindlessly every source of resource without thinking of Mother Nature and age-old rich biodiversity built long before the human arrived on the mother earth.

In India, the fate of Aravalli range, one of the oldest features on the earth, is facing the existential crisis. Even series of legal interventions could not safeguard the Aravalli and its rich ecology before mining, urbanisation and luxurious lifestyle. Businesses in connivance with the officials of different State Govt find many ways to bypass the apex court rulings. Interestingly Article 48A of the Indian Constitution directs the State to protect and improve the environment as well as safeguard

## ***Plundering of Aravallis***

forests and wildlife to conserve, maintain biodiversity and ecological balance in compliance with the 1972 Stockholm Conference.

The Article 51A entrusted the duty of protection and improvement of natural environment with the citizens of the country. In *M.C. Mehta v. Union of India* case (1988), the Supreme Court trusted on Article 51A to strengthen the environmental protection.

In number of legal cases Indian States do not comply with none of Article 48A and Article 51A.

Recent Supreme Court ruling on Aravalli and its stay order has created a furore among the experts, activists and environmentalists and put the future of Aravalli hills and range in more problem.

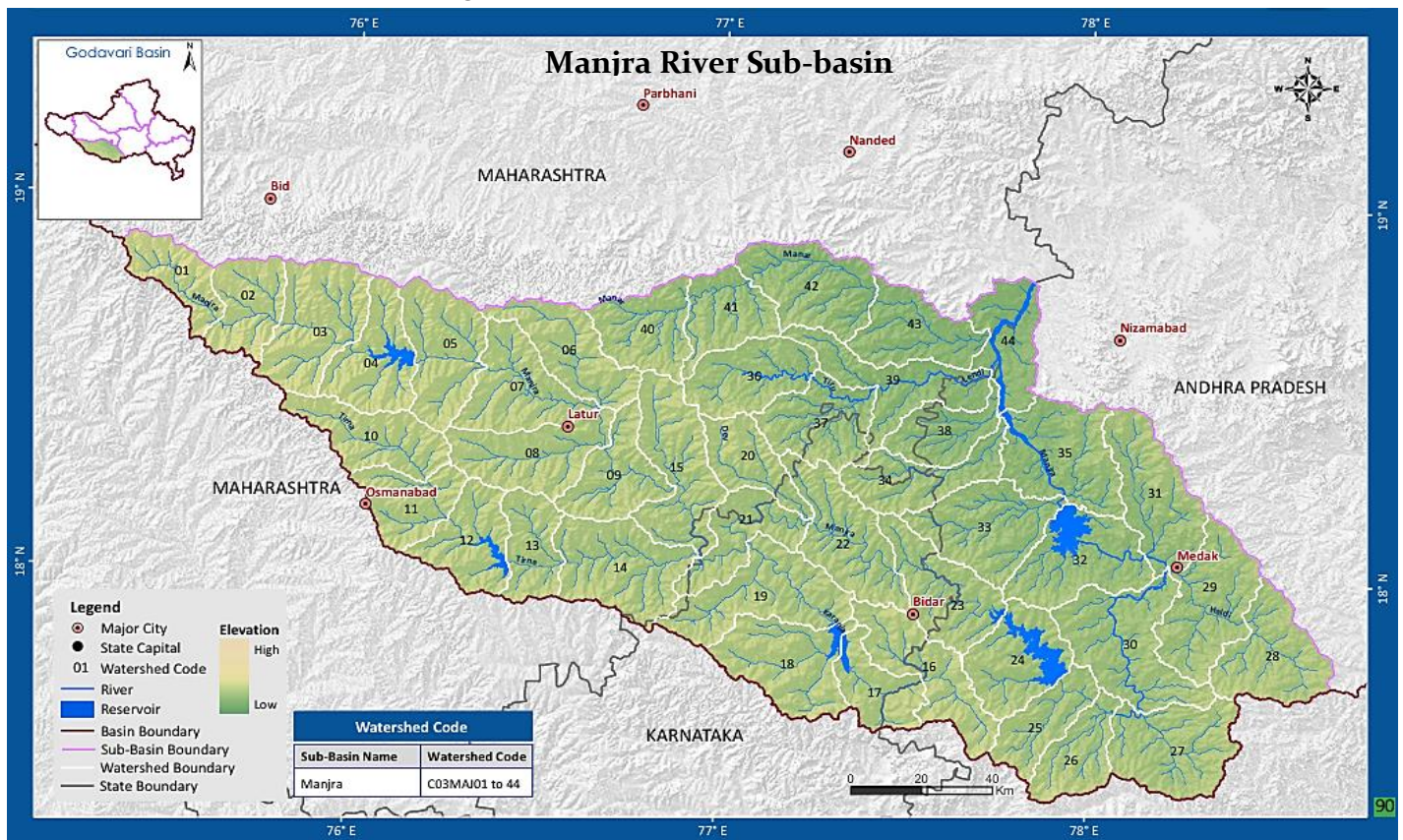
Is there any way out to curb this unlimited desire to exploit resources for mining, urbanisation and consumption?



## Godavari River (Part – 11 cntd.) Manjra River Sub-basin

The Manjra River basin, also spelled Manjeera, Manjara, or Manjira, is one of the important sub-basins of the Godavari River system in peninsular India. It is a major left-bank tributary of the Godavari and extends across the states of Maharashtra, Karnataka, and Telangana. The river

streams that gradually merge and descend into broader valleys. As the river flows into the middle basin, it traverses the semi-arid plains of the Marathwada region, an area characterized by low rainfall, drought-prone conditions, and extensive dryland agriculture. In the lower basin, especially around districts such as Nizamabad, Sangareddy, and Medak in Telangana, the terrain becomes relatively flatter and more fertile with patches of alluvial plains near the confluence with the



originates in the Balaghat Hills of Maharashtra and flows southeastward for about 823 km before joining the Godavari near Basara in Telangana. The total drainage basin of the river covers approximately 30,844 square kilometres, making it one of the significant hydrological regions in the Deccan Plateau. The basin has varied physical features across its course. In the upper basin the terrain is dominated by the hilly landscape of the Balaghat Hills, where the river begins as small

Godavari. Climatically the basin is predominantly semi-arid, receiving an average annual rainfall ranging from about 882 mm to 1097 mm. Most of this rainfall occurs during the southwest monsoon season between June and October, making agriculture and water availability in the basin highly dependent on monsoon variability.

The soils of the Manjra basin are diverse and play a major role in determining agricultural patterns across the region. Black cotton soil is widely



distributed in parts of Maharashtra and northern Karnataka and is well known for its high moisture retention capacity, making it suitable for crops such as cotton, jowar, and sugarcane. In the Telangana portion of the basin, particularly in districts such as Medak and Sangareddy, red sandy soils are common and support crops like groundnut, pulses, and millets. Alluvial soils occur in the lower Manjra basin near the confluence with the Godavari River, where they support intensive cultivation of paddy, vegetables, and horticultural crops. In certain upland and hilly areas, lateritic soils are also found; these are relatively less fertile unless improved through soil management practices.

**Source:**

- *International Indian Water Shed Altus Govt of Indian*
- *Journal of Advanced Multidisciplinary Research, Anthropogenic Interventions and Consequences in Manjra River by Dr. Mahadeo Shridhar Jadhav.*
- *Combating Drought with a Haphazard Measure /*
- *Assessment and spatial mapping of soil fertility status in rice-growing soils of Manjeera command area, by Banoth Pavani, Sukruth Kumar T, Pavan Chandra Reddy K, Mahadevappa SG.*
- *vajiramandravi.com*
- *https://kirtankar.com/*

## **Special Feature**

### **‘The Aravallis: India’s Ancient Guardian at Risk’ (in cont. of 1st Part, December 2025 issue)**

The destruction through mining activities in Aravalli’s – legal or illegal - were continued in all four Aravalli states (Gujarat, Rajasthan, Delhi and Haryana) despite the number of public campaigns and opinions formed in the eighties. There are series of Supreme Court rulings to stop violation of eco-sensitive environment of the Aravalli range.

But poor institutional lacunae and also the intention to ignore the verdicts of the apex court always encouraged the illegal miners and construction activities.

### **Chronological sequence of legal fights**

In 1985, petition by the environment lawyer M.C. Mehta against the Union Government, Haryana Government, Central and State Pollution Control Board and 65 companies of stone crushing near Delhi – the Supreme Court asked the Haryana Government to stop the work and relocate the industry.

In 1991, Tarun Bharat Sangh led by the ‘Waterman’ Dr. Rajinder Singh petition in the Supreme Court to prohibit massive mining activities in the protected area of “Sariska Tiger National Park” -the Supreme Court put a ban on illegal mining in the protected area setting an example to stop mining in all protected areas across the country.

In 1992, 7<sup>th</sup> May, the Ministry of Environment Forest and Climate Change (MoEFFCC) issued “The Aravalli Notification” – no new activity without the permission from MoEFFCC.

In 1996, Supreme Court banned mining within 2km to 5km radius of Badhkhal Lake without prior permission from Central and State Pollution Control Board.

In 1996, the Supreme Court in its Godavarman order (WP 202/96) known as “the Forest Case in India” - a significant ruling for Government of India and all the States to protect forest land of Nilgiri and prohibiting mining in Kudremukh and Aravallis, imposition of levy ‘Present Value’ for the use of forest land for non-forest activities, the CAMPA (Compensatory Afforestation Fund) and permission from the Supreme Court to start any commercial activity and to identify all classes of forest lands irrespective of ownership .

So, these forest types encompass notified forests, deemed forests, Sec 4 & 5 notified Punjab Land



Preservation Act (PLPA), 1900 of Haryana and “gair mumkin pahar” in Haryana, Rajasthan and Gujarat in Aravallis. In Haryana and Rajasthan, uncultivable hills or mountains not suitable for agriculture characterised with rocky topography but identified as forests in Indian Revenue records are referred to as “Gair mumkin pahar”. The Godavarman ruling also directed to identify all types of degraded forests which are abundant in Aravallis.

In *Vellore Citizens Welfare Forum v Union of India and others* 1996, the apex court placed the “**precautionary principle**” as a key preventive component for expediting environmental governance.

In 2002, Supreme Court’s landmark decision on Aravalli range to protect the Aravalli mountain range banning mining activities unless cleared by the MoEFCC and stringent actions against the mining mafias in Haryana and Rajasthan.

In 2009, the Supreme Court banned all mining activities throughout Aravallis.

In 2009, a study by Narpat Singh Rathore, former Head, Dept. of Geography, Mohanlal Sukhadia University, Udaipur, identified 12 gaps in 93 km stretch of the Aravallis analysing remote sensing data (10 years interval) of 1972-75, 1982-84, 1994-96 and 2005-07 years from Ajmer to Jhunjhunu district of Rajasthan and northern most hills of Mahendragarh district of Haryana. According to the report, Dungarpur-Banswar gap on the Aravalli range, Upper Banganga Valley, Magra Area, Girwa-Gogunda tract, Jaisamand Lake area, Daragarh-Banara-Maja-Dariba area, Abu-Sirohi and Chappan hills of South Aravalli are “extremely vulnerable”. This study also reflected the shortened length of rainy season over years with less number of rainy days with lessening importance of Aravallis as a structural control to influence weather and rain pattern.

In 2010, the term “precautionary principle” was adopted by the National Green Tribunal (NGT), in Section 20 of the NGT Act, 2010.

But illegal mining has been continuing sometimes more than the legal mining. In 2017, the Comptroller and Auditor General of India (CAG) reported cases of 4072 illegal mining with excavations of 9.8 million tonnes of minerals between 2011-12 and 2016-17.

In 2018, based on 2008-2010 satellite image analysis and ground verification, the Supreme Court-appointed **Central Empowered Committee (CEC)** reported that 25% of the Aravalli range in Rajasthan since 1967-68 has been wiped out with above 10,300 ha became vulnerable in the non-lease area in 15 districts which possess 80% of Aravallis. According to the CEC report, in Alwar district of Rajasthan, out of 128 hillocks as evident in the Survey of India Topo Sheet Map of 1967-78., 31 hillocks totally vanished on ground.

The CEC Committee recommended the Rajasthan Government to instantly stop all illegal mining and identify and strict dealing against law breakers. But the experts and environmentalists are highly sceptical about the poor application of laws in reality.

Meanwhile, in 2018 Rajiv Gandhi Institute for Contemporary Studies (RGICS) reported reduction of forest classes from 10,462 sq.km between 1972 and 1975 to 6116 sq km in 1981-84 in the Aravalli districts of Rajasthan. So the rate of degradation can be understood easily.

In Haryana, 5 Aravalli districts namely, Mewat, Faridabad, Gurugram and Rewari are worst affected by mining, due to severe scarcity of ground water in Harchandpur of Gurugram termite epidemics set off. This finally changed the cropping pattern growing more water demanding crops like mustard etc. leading to more groundwater depletion.





### *Minning in Aravallis*

In 2018, the Supreme Court ordered total demolition Kant Enclave residential complex in Faridabad covering around 424.84 acres of forest land of Aravallis.

On February 27, 2019, the Haryana Government amended the 119 years old Punjab Land Preservation Act 1900 was enacted for “conservation of sub-soil water” and “prevention of erosion” with removal of the title of “restricted areas” from many hills of Aravallis. This bill is to utilize more than 20,000 acres of the forest land also legalising the illegal mining, constructions in the Aravallis.

On March 1, 2019, acted upon several protests by environmental activist groups in Gurugram and Faridabad the Supreme Court stayed the implementation of the amendment.

As per July 21, 2022 Supreme Court ruling, Haryana Government has razed unauthorised buildings in

an area of 261 acres lying in Section 4 of the PLPA land in four villages in Faridabad. With the help of modern technology more unauthorised structures are identified.

The Supreme Court in its July 21, 2022 verdict said that the lands safeguarded by the Section 4 of PLPA have every protection as per the section 2 of the Forest Conservation Act 1980 and cannot be used for non-forest activities without the prior permission of the Central Government with effect from October 25, 1980.

### **Finding a Uniform Definition of the Aravalli Hills and Ranges**

In May 2024, the Central Government directed by the apex court to search of a Uniform Definition of the Aravalli hills and Range, set up a Committee formed with the Joint Secretary of MoEFCC and all



the Secretaries of the Forest Department of all Aravalli States, Officials from Forest Survey of India (FSI), Geological Survey of India (GSI) and members of Supreme Court appointed experts of Central Empowered Committee (CEC).

The Committee measured the minimum, maximum and average elevation of all landforms identified as Aravallis in all 34 districts of four States from the mean sea level. The Committee also worked on Slope analysis.

To fix an average elevation to define Aravallis, the Committee encountered a lot of variations in these districts due to “considerable internal variation in terrain, coupled with the presence of similar topographic features in adjoining non-Aravalli areas too”. The Committee again said “Therefore elevation parameter as a sole criterion cannot suffice the purpose as taking the average elevation for defining Aravalli hills and Ranges will lead to inclusion and exclusion error for selection in four States”. However, no uniform definition was conceded by the Committee.

Two landmark judgements – one in Feb 19, 2024 and March 4, 2025, by the Supreme Court vide the W/P 1164/23 led by Ashok Sharma and a group of environmentalists and the former bureaucrats directed all States and Union Territories (UTs) guided by the Ministry of Environment, Forest and Climate Change (MoEFCC) are to identify all types of forests to comply with the Godavarman order of WP 202/96. In 4<sup>th</sup> March, 2025 directive, the former Chief Justice of India added these identified forests are to be mapped with the Geographic Information System (GIS) within 6 months to avoid contempt of court in compliance with the 2011 Lafarge Umiam order of the apex court (a precedent emphasising the balance between environmental protection and economic consideration).

In spite of this ruling most of the States primarily Rajasthan and Haryana are yet to identify,

delineate and digitise lands under Section 4 & 5 notified PLPA or “gair mumkin pahars”, degraded forests, wildlife corridors and eco-sensitive areas in GIS mapping. Haryana has partially digitised its Reserve Forests (RF) and Rajasthan has refrained from doing it.

Farcically, Haryana, an arid State with minimal forest cover, has considered 40% canopy cover with 5 ha forest patches to delineate forest not even following the Forest Survey of India criteria of 10% canopy with 1 ha land to demarcate a forest patch in revenue record. With this criteria Haryana has left out all classes of forests to identify– degraded, Section 4& 5 PLPA lands, “gair mumkin pahars” as forest to be easily utilised for mining and settlement expansion.

On April, 2025, the Supreme Court extended the time of compliance of its 2022 directives till July 31, 2025, to all the State Governments to submit the compliance report in the first week of August 2025 to the Central Empowered Committee (CEC) which will submit a report after scrutiny to the Supreme Court at the end of August 2025.

The Supreme Court in its 12 August Judgement was critical on the States permitting mining up to 100 m elevation leaving the middle part standing as Pillar making them more vulnerable to collapse. The apex court reprimanded the Committee for the delay to find uniform definition of the Aravalli hills.

So far, the directives and rulings by the apex court have been in favour of conservation of Aravallis.

### **Root of flawed definition**

The Committee after a lot of subsequent discussions with the State Governments found that Rajasthan is solely having an official definition to control mining in Aravallis following Richard Murphy’s landform classification of 1968 as per 2002 committee report where landforms beyond 100 m height above the local relief or bottom



contour are considered as Aravalli hills. After discussing the slope criteria and accepting the Rajasthan definition of 100 m elevation criteria to identify the Aravalli hills and Ranges the Committee submitted the “Uniform definition of Aravalli Hills and Ranges” to the Supreme Court on October 2025.

On November 20, 2025, with an appalling ruling the Supreme Court accepted the Committee’s report stating that only 100 plus metres landforms above the local relief including supporting slopes with adjoining features qualify to be designated as Aravalli Hills and the Range will comprise of two hills within 500 m distance. The apex court also directed to chalk out a Management Plan for Sustainable Mining for the Aravalli range.

The whole purpose was to create a uniform definition to clear all confusions on Aravallis. But the end result have become a boomerang to the conservation process creating a huge backlash from environmentalists, activists, researchers and citizens across the country with protests.

On December 29, 2025, amid huge opposition the Supreme Court stayed this ruling and proposed formation of a High Powered Expert Committee to reconsider the definition examining the ecological importance of the Aravalli hills and the inference of new definition on mining and environmental protection.

### **Shortfalls of November 20, 2025, ruling**

The entire process of seeking a clear, coherent and transparent workable definition of Aravalli hills and Ranges to regulate mining, construction work and urbanization backfired due to some ambiguities in the concept. The Supreme Court violated its own previous rulings and other landmark rulings like Forest Conservation Act 1980, Environmental Protection Act 1986, 1992 Aravalli Notification of MoEFCC etc. with this verdict.

Billion years old ancient Aravallis’ ecological sensitivity is difficult to be understood by elevation criterion only. Aravallis as a matured fold mountain possess many low height hills and ridges sometimes not more than 20-50 m which will be totally deprived of any legal safeguard making a road for unregulated mining and clearing leading to further immense ecological degradation.

According to C.P. Rajendran, National Institute of Advanced Studies, Bangalore the landform classification by Richard Murphy is completely academic for integration and analysis of geology, topography and erosion variabilities and mapping, not acceptable to pursue land use control for commercial activities. So the new criterion of 100 m elevation threshold not only unfit as definition but there is no comprehensive physical height to define a hill as it depends on regional topography, gradient, local relief and environment.

This definition of Rajasthan will create havoc in Haryana with paltry forest (only 3.59%) as most of its notified forest areas are beneath 100 m elevation. So under this new definition, after losing three decades of legal protection large areas of grasslands, scrublands and ridges will be exposed to non-forest activities when a major part of forested Aravallis even if having significant role in ecology will vanish officially.

The experts also said that 500 m connectivity rule to define a Range is also very vague as this kind of criterion is not found in geomorphology of India.

Aravallis possess rich mineral reserves like silver, zinc, lead, copper found in great depth and other critical minerals like graphite, molybdenum, tin, lithium, nickel, and rare earths etc. which play very significant role in energy industry, high technology industry and national security. Besides 100 m elevation, the apex court also accepted the Committee’s suggestion of no permission to new mines except the minerals listed in the seventh schedule of the Mines and Minerals (Development



and Regulation) Act which the experts opined this recommendation as only favouring the mining agenda of the Government. According to them “critical minerals” condition is an excellent example of administrative opportunism subsiding the public anguish in front by stopping stone crushing, sand mining but behind this drill mining of minerals of high value from great depth will be allowed generously for which the ecology will be devastated.

The Committee’s recommendation of preparing Management Plan for Sustainable Mining (MPSM) to locate the suitable areas for mining in ecologically fragile as done in Saranda Wildlife sanctuary in Jharkhand also draws the worry of experts that these plans will stay on paper and the destruction activities will be heightened.

Even, the famous Indian ecologist, Madhav Gadgil had warned on the misuse of Government machinery to misinform people which was done during Nilgiri hills in 1990 to facilitate commercialization of foot hills. The Aravalli mining can also be a precedent to launch mining in other mountain ranges in India.

In its January 21, 2026 hearing, the Supreme Court bench appointed amicus curiae K Parameshwara to prepare a note on the definition of Aravalli within 4 weeks’ time. The bench also said that “forests” and “Aravallis” will be looked into separately as they have distinct concerns which need independent examination.

The actions await the submission of note by amicus curiae in the apex court.

### Conclusion

Before November 20, 2025, judgement, several legal interventions checked spread of present mining areas and starting of new mines and infrastructure projects. Scientists alert that further deterioration will bring severe calamity not only for Aravallis but also for the associated States and

entire north-western India speeding up incoming desert sand through 12 wide gaps to the fertile eastern plain, scrubland and grassland habitats, aquifer recharge, wildlife corridors.

On December 21, 2025, the Press Information Bureau, Government of India, submitted a report to lessen the worries and agitations claiming no imminent threat to ecology of Aravallis and it would be safeguarded for present and future generations balancing conservation with responsible development. The Union Minister of Environment Department claimed that the definition would protect 90% of Aravallis. In an effort by Down to Earth by superimposing 3 data layers - the SRTM (Shuttle Radar Topography Mission) elevation data layer of NASA , the 3 degree slope data layer of Forest Survey of India cited in 2010 report to constitute a hill and the 100 m elevation data layer accepted by the apex court as per November 20, 2025 it is giving another picture of reflecting nearly half of the Aravallis under future mining disasters.

The Aravallis is a single ecosystem which should be treated as a whole without disintegrating in pieces giving importance to its prominent heights only.

The existence of one of the oldest mountains of the earth is at the hand of Court.

#### Source:

- Down To Earth, 3<sup>rd</sup> Apr’2019, 25<sup>th</sup> May’2019, 30<sup>th</sup> Dec’2025 & 16<sup>th</sup> Jan’2026,
- Hindustan Times,
- NDTV,
- Zee Media Bureau,
- Internet Information on Supreme Court Rulings
- Press Information Bureau, Gov. of India

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