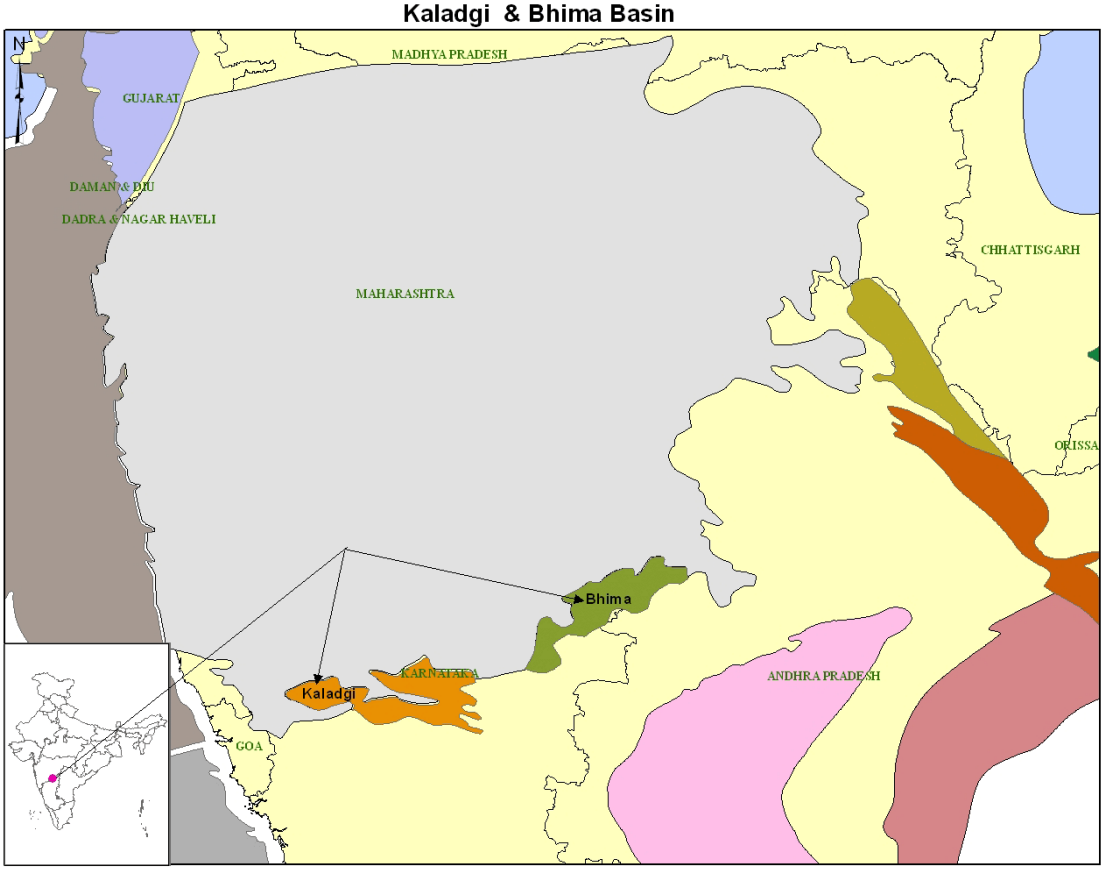
Bhima Basin :.

Kaladgi & Bhima Basin



The NE trending irregularly sinous Bhima basin (Fig.5.22) consisting dominantly of limestone covers an area of 5200 sq. km and is situated to the northwest of Cuddapah basin and northeast of Kaladgi basin. It overlies the granitic basement of Eastern Dharwar craton with a profound unconformity and has faulted contacts at many places. Deccan Trap overlies Bhima basin in the north. The sediments have an aggregate thickness of about 270 m. The basin is well known for its large reserves of limestone and the newly discovered uranium occurance near Gogi.

Pioneering work in the basin was done in the eighteen seventies by w. King and R. Bruce Foote, which was followed by the work of A.M. Heron and C. Mahadevan in 1949. The basin has been studied in recent years by N.V.B.S. Dutt in 1975 and S.M. Mathur in 1977. Janardhana Rao at al. (1975), Mishra et al. (1987) and Kale and Peshwa (1995) provide recent summary of the basin. The lithostratigraphy of the Bhima Group is given in table below.

Bhima Group	Andola Subgroup (30-70 m)	Harwal Shale (5-10 m) Katamdevarahalli Limestone (10-40 m) Halkal Formation (15-20 m)
	Disconformity	

	Sedam Subgroup (65-215 m)	Shahabad Limestone (45-130 m) Rabanpalli Formation (20-85 m)

Lithostratigraphy of the Bhima Basin

Kaladgi Basin :.

Kaladgi basin (Fig 5.21) is an E-W trending irregular basin underlain by the basement granitoids (Penninsular Gneiss and Dharwar Batholith) of the Dharwar craton in the south and east and overlain by the Deccan Trap in the north. The basin covers an area of 8300 sq. km is made of an older Kaladgi sequence and younger Badami sequence occurring is separate sub-basinal areas, like the older Cuddapah and younger Kurnool sequences in Cuddapah basin. Unlike the other Purana basins, Kaladgi basin is not marginally deformed, as it is not spatially associated either with mobile belt or with terrane boundaries.

Instead, the deformation is concentrated in the centre of the basin with the periphery remaining unaffected. The basin consists of three quartzite-shale-limestone cycles with an aggregate thickness of 4500 m. Kaladgi basin hosts vast resources of limestone and dolomite, as well as building and ornamental stones, besides minor iron ore.

Bruce Foote (1876) systematically mapped the basin and divided the sediments into Lower and Upper Kaladgi 'series'. M.N. Vishawanathiah in 1968 found that the 'sandstone and shale' unit of the Lower Kaladgi 'series' was a flat-lying unit laid with a marked angular unconformity on the underlying, folded Kaladgi sediments. He therefore proposed (Vishwanathiah, 1979) that the lower sequence be called the Kaladgi and upper the Badami, which was followed by Chandrasekhara Gowda (1981). Symposium volumes (Krishnan, 1964; Viswanathiah, 1979) describe various aspects of the Kaladgi basin. Jayaprakash et al (1987) provide a geological overview of the Kaladgi-Badami basin. The stratigraphy of the basin is presented in table below.

	Badami Group (285)	Katageri Limestone (150) Kerur Arenite (135)	Limestone, shale Conglomerate, arenite, shale
Angular Unconformity			
Intrusives, Quartz veins, pegmatites, dolerite dykes			

BAGALKOT GROUP	Simikeri Subgroup (1150)	Hosakatti Argillite (700) Arlikatti Dolomite (130) Niralkeri Breccia (40) Kundargi Quartzite (280)	Argillite Dolomite, hematite bed Chert breccia Conglomerate, quartzite,argillite
	Lokapur Subgroup (2750)	Yadahalli Argillite (60) Muddapur Dolomite (565) Chikshellikeri Limestone (800) Yargatti Argillite (720)	Argillite Dolomite, limestone, argillite Limestone, shale Argillite, dolomite Chert breccia
		Mahakut Breccia (130) Saundatti Quartzite (475)	Conglomerate, quartzite, shale
Nonconformity and Angular Conformity			
Gneisses/Granites and Schist Belts of Dharwar craton			