

Pennar (Somasila) – Palar – Cauvery (Grand Anicut) link project

Salient features

1.	Name of the project	Pennar (Somasila) – Palar – Cauvery (Grand anicut) link Project
2.	Purpose	Diversion of 8565 Mm ³ of combined Mahanadi and Godavari surplus waters brought into the Somasila reservoir by Srisaïlam –Pennar & (ii) Nagarjunasagar – Somasila links to meet the irrigation domestic requirements of enroute basins further transfer to water short Cauvery, Vaigai and Gundar basins.
3.	Quantum of diversion	8565 Mm ³
4.	En route irrigation (Utilisation)	
i)	Total annual irrigation	491200 ha (3048 Mm ³)
5.	Somasila dam	
i)	State	Andhra Pradesh
ii)	District	Nellore
iii)	River	Pennar
iv)	Catchment area	50492.5 km ²
v)	Full reservoir level	100.58 m
vi)	Minimum draw down level	82.30 m
vii)	Gross storage at FRL	2208 Mm ³
viii)	Live storage at FRL	1994 Mm ³
ix)	Reservoir submergence	212.28 km ²
6.	Grand Anicut	
i)	State	Tamil Nadu
ii)	District	Thanjavur
iii)	River	Cauvery
iv)	Catchment area	70129 km ²
v)	Sill level of surplus vents	57.70 m
vi)	Sill level of Head regulators	56.16 m
vii)	Pond level	59.22 m
7.	Head Regulator	(i) 5 Bays of 3.0 m x 7.50 m each

		(ii) Discharge capacity 603.33 Cumec	
8.	Link Canal		
i)	Hydraulic particulars	Design discharge 'cumec'	Bed width x Depth of link canal m x m
a)	At off take	603.33	72.40 x 6.0
b)	At tail end	351.02	39.55 x 6.0
ii)	Bed slope	1 in 20000	
iii)	Length of canal	529.190 km	
iv)	FSL at Off take	95.420 m	
v)	FSL at tail end	60.859 m	
vi)	Type	Lined canal, trapezoidal section with bottom corners rounded	
vii)	Side slope	Varies from 0.25:1 to 1.5:1	
9.	Estimated Cost	Rs. 6769 crore	
10.	B.C. ratio		
i)	Annual benefits	Rs. 1642 crore	
ii)	Annual cost based on apportioned	Rs. 417 crore	
iii)	B.C. ratio	3.93	
iv)	Internal Rate of Return (ILR)	19.24%	