

589. **Yadav, R.C. 1985.** Conjunctive use of lined canals and underground pipeline for water conveyance under gravity irrigation. *J. Agri. Engg. Res.*, 32:243-257.

The cost functions of water conveyance through lined open canals and underground pipelines have been developed. A simple mathematical model has been developed to determine the breakeven point for underground pipelines and open canals which considers the costs of works, materials and a derived relationship between the embankment height and the cost of construction. It was concluded that in the conditions of Northern Nigeria, underground pipelines would be more economical than open lined canals when the embankment heights exceeded values. The results of the calculations are presented graphically by way of example.