

suburbs is the practice followed by most corporations due to the high costs involved in waste processing and conversion of wastes into beneficial products. This is leading to the contamination of surface and groundwaters due to the action of circulating rainwater. Microbiological and heavy metal pollution of water resources has led to the increased use of bottled mineral water.

All these point towards the deteriorating quality of living in our urban areas. If the present land use pattern is allowed to continue, it will spell doom for the geo-environment as well as humanity. Formulation of a land use policy for the urban areas in order to check further damage is the need of the hour. The proposed policy should include the following provisions:

- Classification of urban areas based on their degree of development and stopping forthwith all types of construction activities in critical areas;
- Prohibiting all such activities that change topography of land, especially large scale earth-removal;
- Identification of stream protection zone covering effective stream channel and its flood plains and preserving their natural features and

- Classification of solid wastes for effective disposal of contaminants.

What should be done?

Geoscience awareness is a *sine qua non* for town planners and municipal authorities in regulating urban land use. Building codes of cities are more violated than adhered to and they need a thorough revision and effective implementation. Over-developed land areas should be identified by carrying capacity studies where further development of any sort should be halted.

Mass awareness about the urban environment and its management is more important than mere legislative action. Public should be made aware of land-water misuse in cities and ways to check them. Environment education should be imparted in schools, colleges and offices. Non-Governmental Organisations (NGO's) should play a key role in this.

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BOUGUER ANOMALIES OVER THE CONTINENTS AND OCEANS

I would like to supplement the note of M. Kesavamani on Bouguer anomalies in the Journal (Jour. Geol. Soc. India, v.58, no.5, pp.466-467), which is a bit confusing in the terminology used. The note refers to terms like the *normal gravity anomaly* and *vertical gradient of gravity* as observed anomaly. The author did not explain the differences in the conflicting versions by Dobrin (1976) and William Lorie and Ervin (1997), which form the basis of his write-up.

Bouguer anomalies over the continents, oceans, mountains and ocean depths have been explained theoretically as well as through modelling by many in a satisfactory fashion, in the published literature. The term 'mass excess' has been used in the Theory of Isostasy and has been described and explained through two different well-known hypotheses. Gravity anomalies, namely Bouguer, Free air and Isostatic are derived following well established procedures taking into account the limitations in terms of regional and local scales conveniently. For details one may consult Jakosky (1940), Raoul Vsyk (1956), Heiskanen and Veneing Meinesz (1958), Sazhina (1971), Fowler (1993), Richard J. Blackey (1996), Milos Picle (1973), Wolfgang

Torge (1989), William Lorie (1997), Milton B. Dobrin (1976) and many more publications.

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