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A review of approaches to monitoring smoke from vegetation fires for public health

Monitoring the level of pollution generated by both planned and unplanned vegetation fires is a fundamental requirement for assessing human health impacts, informing public health actions, and ensuring that regulatory requirements are met. The issue is of growing importance because of the increasing use of 'prescribed burning'. In this paper, we review biomass smoke monitoring practices in Australia and North America, and discuss implications.



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22 **D. Doley and L. Rossato**

Mineral particles and vegetation: Modelled effects of dust on photosynthesis in plant canopies

Deposition of mining, quarry and road dust on vegetation canopies has been observed to inhibit plant growth when dust burdens exceed 7 g m⁻² but there is little quantitative information on the effects of dust deposition at typical rates for industrial or agricultural environments. Acceptable dust burdens may vary between species and their positions in the plant community. It is possible to estimate the likely effects of dust deposition on vegetation and thereby the environmental risks associated with proposed dust-generating activities.

27 **New Transport SIG**

28 **M. O'Connell, M. Gaudin and L. Kirk**

The Clean Heat Project: Improving air quality and energy efficiency outcomes for the Canterbury region

The Clean Heat Project (CHP) in Canterbury, New Zealand, has the objective of reducing winter air pollution and improving household energy efficiency. Through the CHP, the regional council, Environment Canterbury (ECan), assists homeowners, who use old, inefficient and polluting solid fuel home heaters, to change to low-emission forms of heating and to improve household energy efficiency by upgrading the insulation of their homes. This paper discusses primarily the processes, challenges and outcomes of the Clean Heat Project; and secondly, the links to central government air quality and energy (efficiency) policy and initiatives.

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OUR COVER

A typical street view in Christchurch, New Zealand, on a cold winter evening, under clear skies and low wind speeds. The atmosphere is dominated by heavy haze, from smoke emitted by residential wood burners. Aside from diminished visibility and reduced aesthetics, the fine particles create a potential health problem. The Clean Heat Project provides incentives to reduce the use of wood heaters and replace these with clean energy. See article by O'Connell *et al.* page 28.



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