

## **Biofuels: An Emerging Hazard for Water Resources**

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### **ABSTRACT**

Biofuels, especially ethanol, have emerged as the most recent threat to sustainable water resources management. Although there is some concern about the direct effect of ethanol production on water demand, this effect is small compared to the expected indirect impact on irrigation demand. As grain prices increase in response to growing demand for ethanol, the value of water in irrigation can be expected to double and perhaps triple, at least temporarily. This will increase the incentive for further irrigation development and increase the cost of reducing irrigation in areas that are already fully appropriated. Ethanol production will also substantially increase the production of distiller grains which when fed to cattle as a substitute for corn results in a substantial increase in the phosphorous content of manure. If ethanol production increases substantially and cattle production becomes sufficiently concentrated in those areas where the distillers grains are being produced, phosphorous will become a much more serious water quality problem. These and other related consequences suggest a pressing need for policies to address the water resource management implications of the burgeoning biofuels industry.

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