



## Geofizički odsjek

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## O B A V I J E S T

Dana **5.12.2011. (ponedjeljak!)** u **12<sup>45</sup> sati** održat će se u okviru seminara i kolokvija na Geofizičkom odsjeku PMF-a sljedeće izlaganje:

### **Prof. dr. Sue Walker**

*(University of the Free State, Department of Soil, Crop and Climate Sciences,  
Bloemfontein, South Africa):*

### **Adaptation to Climate Variability in Southern African Farming Systems**

**ABSTRACT:** Much of Southern Africa is semi-arid where the evaporative demand is many times larger than the rainfall received, meaning there is always a scarcity of water for crop production and livestock watering. Rainfall is often convective and highly variable in both space and time, so special coping strategies are needed. So smallholder farmers need to prepare to cope with increased variability. A useful climate product is the seasonal forecast which gives a probable outlook of rainfall and temperatures, expected over the forthcoming three month period. However, such a product is not easy to use unless there are practical alternatives to choose from to reduce the risks in the farming systems. Adaptive interventions consist of a variety of measures that should reduce the vulnerability of natural and human systems to the predicted climate change, having the potential to reduce adverse impacts, as well as enhancing the beneficial impacts. However, adaptations incur costs, to farmers, governments and societies or communities and may not be able to prevent damages occurring at many inter-linking scales. A range of interventions are possible in any farming system, but they usually all hinge on the feasibility of alternatives in weather sensitive decisions at several levels – strategic for long-term planning, tactical for seasonal period planning, or operational for day to day activities. Examples of strategic alternatives are seeking new crops to match the expected climate or development of large scale new dams for irrigation, etc. Tactical interventions are where farmers make a deliberate decision to change some farming methods, like choice of tillage method or in-field rain water harvesting. Operational level is where a farmer chooses alternative actions like a planting date to match cultivar length and onset of first rains, b using weather forecasts (10- or 14-day). In Southern Africa, alternatives include different cropping patterns or planting dates, and use of a participatory Agrometeorological extension services to introduce alternatives to communities. Farmers need to know how to use climate forecasts to select from options available, to develop sustainable farming systems. These different management practices also need to be tested for local acceptability as an intervention under a more variable climate. Many of the farmers' livelihoods are threatened due to low soil fertility and low crop production, so there is a desire to change. Therefore it is vital that a group of multidisciplinary intermediaries can work together with farmers to use the available climate and Agrometeorological information to develop viable alternative interventions for their farming systems.

Pozivaju se studenti, apsolventi i svi zainteresirani da prisustvuju predavanju, koje će se održati u predavaoni br. 2 Geofizičkog odsjeka PMF-a, Horvatovac 95, Zagreb.