



2013-IPR-H-20-000-1915

**Development of meta models for
integration into the CAPRI modelling
framework**

<p>Position for:</p> <p>CATEGORY 20</p>	<p>The Monitoring Agricultural Resources (MARS) Unit supports the management and control of the Common Agriculture Policy (CAP) including standard control methods of area based subsidies, compliance with environmental policies, crop yield forecasts and modelling impacts of climate change. A specific project works within the policy framework for integrating environmental concerns into agricultural policy.</p> <p>The CAPRI model estimates fluxes of greenhouse gases and reactive nitrogen from agricultural systems in Europe using simple methodologies (such as IPCC) at the regional (NUTS2 scale) or downscaled at high resolution (CAPRI spatial layer). Additionally, fluxes of reactive nitrogen are estimated at the scale of "Homogeneous Spatial Mapping Units" with meta-models that have been calibrated on a set of DNDC-simulations.</p> <p>The objective of this research post is to:</p> <ul style="list-style-type: none"> * Develop revised crop-specific regional meta-models, based on a Random Forest algorithm. * Update the meta-models on the basis of a new data set of DNDC simulations. * Review literature for availability of data sets to generalise the meta-modelling approach in CAPRI. <p>Qualifications:</p> <p>The ideal candidate should have a university degree giving access to doctoral studies in the field of agricultural statistics, econometrics, geo-ecology or related fields.</p> <p>Good knowledge of English is required. Previous publications and work related to modelling should be highlighted.</p>
<p>Institute Unit Action</p>	<p>Institute for Environment and Sustainability Monitoring Agricultural Resources AGRIENV</p> <p>Further information: Further information: http://agrienv.jrc.it</p>
<p>Indicative duration</p> <p>Preferred starting date</p>	<p>36 months</p> <p>ASAP</p>

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