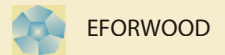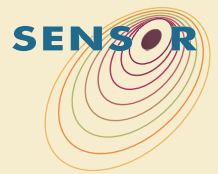# Impact Assessment of Land Use Changes

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# Sensor TTC – The La Plata River Basin Application: Policy cases, main land use change drivers and Case Studies

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Sensor TTC Mercosur activities were launched in workshops held in Rio de Janeiro and Florianópolis in August 2007. The La Plata River basin (LPB) is the analysed region in the realm of Mercosur. This area was selected because the majority of Mercosur countries are part of it, is has been subjected to significant processes of land use change, and the Mercosur TTC partners have been actively involved in research activities related to these processes. Two major policy cases will be used in the development of the SIAT prototype, to be constructed by SENSOR TTC: biofuel crop expansions (mainly sugarcane) and the forestry sector development. The former is more relevant to the Brazilian territory, due to environmental restrictions for the expansion of this crop in other parts of the LPB. The latter involves Uruguai, Argentina and the South of Brazil, which will enable a sound testing of the feasibility of adoption of the SENSOR framework by Mercosur countries. Major land use change drivers for each of these cases were identified as: a) climate change; b) transport, infrastructure, and energy availability; c) Oil/gas price; d) world demand; and e) R&D. The policy cases will very likely consist of the following policy variables: a) investments in technological development (R&D); b) incentives for production of the respective goods (waiving of taxes); c) international policy (export situation depend on WTO measures; a quantitative measure could be the commercial barriers/taxes established at the EU and the USA, in the case of ethanol); d) restrictive environmental measures for production (quantitative measure could be the thresholds for allowing sugarcane production, for eg.); e) investments on infrastructure and logistics; f) energy policy (% of renewable energy, for eg.).

Keywords: Ethanol, Sugarcane, Forestry, Mercosur