The CzeCOS Network

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The Global Change Research Institute of the Czech Academy of Sciences (CzechGlobe) have established a well-equipped network of ecosystem stations, with modern instrumentation for eco-physiological, plant physiological and micrometeorological studies, and estimation of GHG emissions. The network of stations (CzeCOS) covers the main terrestrial ecosystems of the Czech Republic (young and old coniferous forest, deciduous forest, mixed floodplain forest, grassland, wetland and cropland). The ecosystem stations are equipped with eddy covariance systems, soil and stem chamber systems for CO_2 efflux and instruments for making micrometeorological measurements. The network enables detailed research to be conducted on topics such as: the carbon balance of different ecosystems, energy balance closure, the impact of current climate conditions on production and ecosystem disturbances during extreme weather conditions (drought, floods, winter storms, etc.) at regional, national and international scales. As a part of global networks (Fluxnet, ANAEe, ICOS), CzeCOS participates in evaluating and predicting environmental change and helps in the proposal of mitigation measures. Another important issue studied at some of the CzeCOS sites is the use of the eddy covariance method in sloping terrain in order to improve eddy covariance data processing for sites in this kind of terrain. Here we show specific results from the sites and outline the importance of the regional/national network for improving our knowledge about the exchange of matter and energy fluxes at different ecosystems.