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Nota di contenuto	1 KEYNOTE SPEECHES ON AFRICA AND GLOBAL CARBON CYCLE -- Greenhouse gas inventory in Africa constraints and perspectives -- 2 TERRESTRIAL CARBON OBSERVATIONS IN AFRICA AND ECOSYSTEM FLUXES -- Ankasa flux tower: a new research facility for the study of the carbon cycle in a primary tropical forests in Africa -- Estimation of net ecosystem exchange at the Skukuza Flux Site, Kruger National Park, South Africa -- Vegetation dynamics in a littoral savannah in Congo -- Ground-based remote sensing of atmospheric trace gases in the tropics using FTIR-spectroscopy -- 3 SOIL AND VEGETATION: CARBON AND GREENHOUSE GAS EMISSIONS IN AFRICA -- West Africa's savannahs under change: integrated view on positive and negative effects of agriculture and land cover changes on carbon cycling and trace gas emission -- Estimates of carbon dioxide emissions from soil organic carbon for different land uses -- 4 BIOGEOCHEMICAL MODELLING -- Land cover change, biogeochemical modelling of carbon stocks, and climate change in West Africa -- Assimilation of land-

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### Sommario/riassunto

"A peer reviewed selection of articles derived from the presentations and posters showed at the Open Science Conference "Africa and Carbon Cycle", Accra, Ghana (25-27 November 2008) is presented. The Conference brought together about 100 participants from 28 nations, mainly from Africa and Europe, presenting issues related to the following sessions: i. Keynote speeches on Africa and Global Carbon Cycle; ii. Terrestrial Carbon Observations in Africa and Ecosystem fluxes; iii. Soil and Vegetation: Carbon and GHGs emissions in Africa; iv. Biogeochemical Modelling; v. Carbon sequestration and reduced emissions potentialities in Africa; vi. Demonstration projects and developing capacities in Africa A poster session was also organized especially to give visibility to African students and young researchers. Contributors belong both to the CarboAfrica consortium and other African or international initiatives. The conference focused on Africa's contribution to the global carbon cycle and climate system through an overview of the carbon related studies in sub-Saharan Africa carried out both by the project CarboAfrica and other African and international initiatives. The Conference showed the high number of initiatives currently ongoing in Africa, related to the study of all the component of the carbon cycle, from science to socio-economic issues, and considering all natural components, from soil to the atmosphere, through terrestrial ecosystems. In spite of the high number of efforts and of the important results already achieved, it was evident that there is still a strong need for continued and enhanced observations of Africa's carbon stocks and fluxes. The CarboAfrica network has been building a large partnership of relevant African and international institutions especially to meet this need. CarboAfrica will provide a future unique data set to enable a more precise assessment of Africa's carbon balance and its sensitivity to natural and anthropogenic pressures and future climate."--Summary.

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