

Acrocomia spp is a native palm tree in Latin America which produces rich oil-bearing and drupaceous fruits traditionally used as food and fodder. *Acrocomia* fruits are composed on a dry matter basis by epicarp (17%), mesocarp (40%), endocarp (32%) and kernel (11%), although there are variations among species and biophysical conditions. Given the high yield of *Acrocomia* fruits and oil content, ca. 20 Mg ha⁻¹ fresh fruits and up to 3.3 Mg ha⁻¹ of kernel and pulp oils and further use of the rest of the fruit, *Acrocomia* is considered as a raw material of great interest in the bioeconomy. By processing, oil is extracted from pulp and kernel (lipids 45-60% and 61-68% dry matter respectively), husk, seed shell and pressed cakes as by-products. *Acrocomia* oils have industrial applications in pharmaceutical, cosmetics and food sector and is seen promisingly for biodiesel production. Pulp flour can be obtained and used as food input. Residuals like husk and shell can be used as solid fuels and potentially as activated carbon and charcoal. Kernel and pulp cake have important properties for animal feed. Further applications are being progressively studied, as well as agronomic aspects, cultivation, breeding and crop management. Paraguay, an agriculture-based country located in the Neotropics, is a natural habitat of *Acrocomia*. This wildy growing palm gained economic importance by mid of the 20th century with the emergence industrial facilities for oil extraction. It is considered as an alternative crop to diversify income source for peasant family farms. They still represent the highest share of farms in Paraguay and increasingly face multiple socio-economic challenges associated to agribusiness activities. Using the approach of biomass value webs as a multidimensional and holistic framework, this research aims to analyze the existing *Acrocomia* value chains in Paraguay, identifying opportunities and constraints for further upgrading. Complementary a bottom-up initiative in the region of San Pedro del Parana (Dep. of Itapúa) was studied. As a strategy for local value addition, small-scale (pre-) processing of *Acrocomia* fruits was analyzed and modelled, integrated to an outgrower scheme for the development of inclusive and pro-poor biobased value chains.