Among the globally important wetlands, the Pantanal stands out by a history of harmonious coexistence of man and environment. In the recent years, severe human impacts have developed, which are capable of disintegrating Pantanal's natural characteristics. This paper contributes a sustainable management concept considering ecological and socioeconomical demands. Intensive agricultural use of the catchments has direct effects on the floodplains of the Pantanal. An integrative catchment management is needed to reduce erosion in the tributaries and excessive sediment deposition in the alluvial fans of the rivers. A careful planning of hydropower plants is needed to maintain (a) some of the tributaries open for fish spawning migration, and (b) the natural flood pulse as the overriding ecological factor. In the Pantanal, deforestation for charcoal production and pasture enhances fragmentation of the natural habitats. The traditional human population of the Pantanal is threatened by changes in economic developments. Their knowledge to use floodplainspecific species is very important for developing sustainable use strategies. Several positive initiatives are highlighted, including the development of a green seal for Pantanal beef and the re-establishment of gallery forests along tributaries. The sustainable use of the fish resources requires a precise analysis of the stock dynamics. For the further development of the sustainable use, a classification system is provided, which can be used to specify the economic potential and conservation demands of the individual habitats.