During the past two decades, scientists have paid more attention to the volcanic emissions of CO₂ and its contribution to the global C budget. The estimate medians and author-preferred estimates of these studies showed a restricted range of 150-270 million metric tons of CO₂ per year. In spite of scientists have long recognized the importance of diffuse CO₂ emission from volcanoes, this degassing process have not been considered by the authors on previous estimates. Recently, estimates of global CO₂ emissions from volcanic lakes – mostly diffuse degassing – had been recently considered about 117 ± 19 Mt yr⁻¹, and an average of 94 ± 17 Mt yr⁻¹ could be considered as an estimated value for the global deep-seated CO₂ emission from volcanic lakes (Pérez et al., 2011, Geology). Excluding the global CO₂ emission from volcanic lakes as a net source of CO₂ to the atmosphere, estimates of the global diffuse CO₂ emission has been also considered ~ 600 Mt yr⁻¹ after evaluating 220 diffuse CO₂ degassing surveys performed in 68 different volcanic systems from 20 different countries and volcanic regions during the last 15 years. The estimated value for the global diffuse deep-seated CO₂ emission from subaerial volcanism is ~ 380 Mt yr⁻¹. These results provide new insights on the global CO₂ emission from subaerial volcanism which could be ~ 950 Mt yr⁻¹ of which 750 Mt yr⁻¹ are considered deep-seated CO₂; therefore, a significant update (almost 3 times the actual accepted value) of the global CO₂ emission from subaerial volcanism.