N$_2$O productions in a groundwater contaminated by nitrogen compounds were often investigated in the agricultural land. However, there are a few studies about that in urban groundwater. N$_2$O productions in the urban groundwater may be important as a N$_2$O emission pathway in the case that groundwater is used as daily life water and heavily extracted. We investigated denitrification and its influence on N$_2$O production and consumption processes in a groundwater contaminated by nitrogen compounds at Kathmandu Valley, Nepal. Groundwater samples were collected from 36 shallow tube wells and dug wells (2.8-21 m) in Aug. 2009 and Aug. 2010. We collected the samples in a glass vials at plastic bucket filled with the groundwater to prevent gas exchange between groundwater and air. HgCl$_2$ was injected to sample to decrease microbe activity in the sample. Nitrogen and oxygen isotopes of nitrous oxide and nitrate data and dissolved N$_2$ data showed N$_2$O in the groundwater at Kathmandu valley was produced by denitrification or denitrification and nitrification. Moreover, dissolved N$_2$ data showed N$_2$O was strongly reduced to N$_2$ by denitrification. N$_2$O production, consumption and consequent N$_2$O concentration was considered to be mainly regulated by NO$_3$- pool size. As the one of this reason, denitrification can easily occur in the groundwater at Kathmandu valley because of high DOC and low DO concentrations.