A South Korean navy vessel sank on 26 March 2010. The incident was recorded as an M1.5 event at local seismic stations. We analyze three local seismic records and investigate the source properties. The S-wave amplitudes are found to be comparable to the P-wave amplitudes. Seismic waves coupled from shock waves are observed, which allows us to constrain the epicentral distance and explosional-source feature. The coupled shock waves have a dominant frequency of ~32 Hz. The shock waves and high P/S amplitude ratios suggest an underwater explosion. The spectral contents of P waves allows us to constrain the source depth in the water. Two North Korean nuclear explosion (UNE) tests were conducted in 2006 and 2009. The UNEs were well recorded by dense regional seismic networks in Korea, Japan and China. We present the observed regional waveforms. We find that the P, S and P/S ratios fluctuate significantly depending on the raypaths, causing difficulty in stable discrimination of UNEs from earthquakes. Crustal phases (Pg, Lg) are attenuated along raypaths with undulated Moho depths. On the other hand, mantle-lid phases (Pn, Sn) are strengthened along the raypaths. Strong overshooting feature is observed in P spectra. It is observed that the 2009 UNE is about 5 times larger than the 2006 UNE. We present methods to discriminate the UNEs from natural earthquakes, and discuss their limitations.