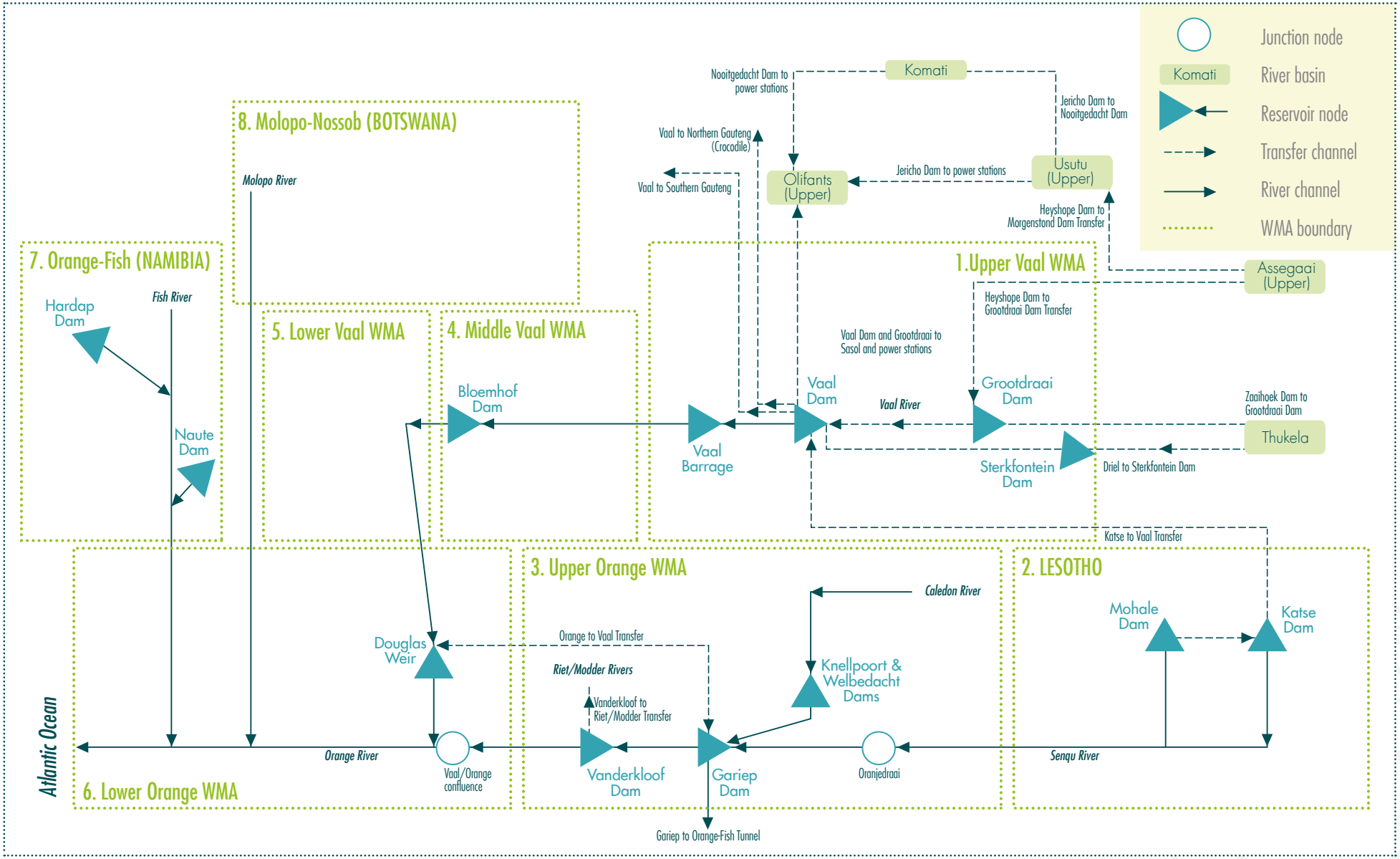INTEGRATED SCHEMATIC