

**Table 2 - Data for contemporary budget, 1990-2006:**

Component	Historical reconstructions/ inventories	Inversions
Growth rate	Atmospheric data NOAA-ESRL	
Global OH	Model results (e.g., Prinn et al., 1995; Krol et al., 1998; Bousquet et al., 2005)	See table 4 +optimization
Global fires	Mouillot et al., 2006 (20 <sup>th</sup> century), Chen and Prinn, 2006 (biomass burning); Stern and Kaufmann, 1998; Fung et al., 1991 (biomass burning)	See table 4 (+GFED, G Van der Werf +optimization)
Wetlands (drained?)	Matthews and Fung, 1987 & 1992; Ringeval et al., 2010; Chen and Prinn, 2006; EPA 1993; Kaplan 2002; Fung et al., 1991	See table 4 +optimization
Fossil	CDIAC, Marland et al., 2008	See table 4 +optimization
Coal mines/gas	CDIAC, Marland et al., 2008; Chen and Prinn, 2006; Stern and Kaufmann, 1998; Fung et al., 1991	See table 4 +optimization
Rice	<1961: C Granier; N Ramankutty; JF Soussana; B Dorim; Chen and Prinn, 2006; Stern and Kaufmann, 1998  >1961: FAO, EPA 1993; Fung et al., 1991	See table 4 +optimization
Livestock/ruminants	<1961: C Granier ; N Ramankutty; Soussana et al., 2007; B Dorim  >1961: FAO; Fung et al., 1991, CGAR	See table 4 +optimization
Geologic	Etiopie and Klusman, 2002	See table 4; Etiopie and Klusman, 2002
Termites	Chen and Prinn, 2006; Fung et al., 1991	See table 4 +optimization
Oceans		See table 4 +optimization
Hydrates	EPA 1993, Fung et al., 1991	See table 4 +optimization