

Table 1 - Data for contemporary budget, 1980-1990:

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 th century); Stern and Kaufmann, 1998	See table 4 (+GFED, G Van der Werf +optimization)
Wetlands (drained?)	Matthews and Fung, 1987 Circumpolar wetlands: Wania et al., 2004; Wania et al., 2010 (diss.)	See table 4 +optimization
Fossil	CDIAC, Marland et al., 2008	See table 4 +optimization
Coal mines/gas	CDIAC, Marland et al., 2008; Stern and Kaufmann, 1998	See table 4 +optimization
Rice	<1961: C Granier; N Ramankutty; JF Soussana; B Dorim; Stern and Kaufmann, 1998 >1961: FAO; Stern and Kaufmann, 1998	See table 4 +optimization
Livestock/ruminants	<1961: C Granier ; N Ramankutty; JF Soussana; B Dorim; Stern and Kaufmann, 1998 >1961: FAO, CGAR	See table 4 +optimization
Geologic	Etiopie and Klusman, 2002	See table 4; Etiopie and Klusman, 2002
Termites		See table 4
Oceans		See table 4
Hydrates		See table 4