

Supplementary Table S4 N_r losses and their reductions achieved by manure recycling, plus balanced N fertilization and plus integrated approaches based on soil-crop system management in China

Type of N _r fluxes	Total N flux in 2018 (Tg N yr ⁻¹)	N loss reductions by improved management (Tg N yr ⁻¹)		
		80% manure recycling	Balanced N fertilization	Integrated approaches
NH ₃ emission	7.2 (5.8–8.7)	6.5 (6.1–7.1)	5.2 (4.6–6.9)	4.7 (3.9–5.9)
N ₂ O emission	1.0 (0.8–1.2)	0.9 (0.7–1.1)	0.7 (0.5–0.8)	0.6 (0.4–0.7)
NO _x emission	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.4 (0.3–0.5)
N leaching & runoff	6.2 (5.1–7.6)	5.7 (4.9–7.4)	4.5 (4.0–6.0)	4.0 (3.4–5.1)
Reduction in NH ₃ emission	-	0.7 (0.6–0.9)	2.0 (1.7–2.5)	2.5 (2.1–3.1)
Reduction in N ₂ O emission	-	0.1 (0.08–0.12)	0.3 (0.2–0.4)	0.4 (0.3–0.5)
Reduction in NO _x emission	-	0.1 (0.08–0.12)	0.2 (0.1–0.3)	0.2 (0.1–0.3)
Reduction in N leaching & runoff	-	0.5 (0.4–0.7)	1.7 (1.4–2.2)	2.2 (2.0–2.5)