

Supplementary Table S3 Improved N inputs from N fertilizer replacement by 80% manure recycling, balanced N fertilization and integrated soil-crop system management in China

Type of N inputs	Total flux in 2018 (Tg N yr ⁻¹)	N flux by improved management (Tg N yr ⁻¹)		
		80% manure recycling	Balanced N fertilization	Integrated approaches
N fertilizer	28.6 (22.9–34.3)	24.4 (21.2–31.8)	16.3 (14.2–20.3)	13.0 (9.2–13.7)
N manure	12.3 (9.8–14.7)	12.3 (9.8–14.7)	12.3 (9.8–14.7)	12.3 (9.8–14.7)
• Recycled	5.6 (4.5–6.7)	9.8 (8.8–11.2)	9.8 (8.8–11.2)	9.8 (8.8–11.2)
• Not recycled	6.7 (5.3–8.0)	2.5 (2.1–3.1)	2.5 (2.1–3.1)	2.5 (2.1–3.1)
N environment	7.1 (6.2–9.4)	6.8 (6.2–8.4)	6.3 (5.1–7.5)	5.8 (5.0–7.0)
• N fixation	0.6 (0.4–0.9)	0.6 (0.4–0.9)	0.6 (0.4–0.9)	0.6 (0.4–0.9)
• N _r deposition	6.2 (5.0–7.5)	5.9 (4.5–7.0)	5.4 (4.5–6.2)	4.9 (3.9–5.8)
• N irrigation	0.3 (0.1–0.5)	0.3 (0.1–0.5)	0.3 (0.1–0.5)	0.3 (0.1–0.5)
Total N input	48.0 (39.0–58.5)	43.5 (38.3–52.5)	34.9 (31.6–37.8)	31.1 (23.6–35.4)