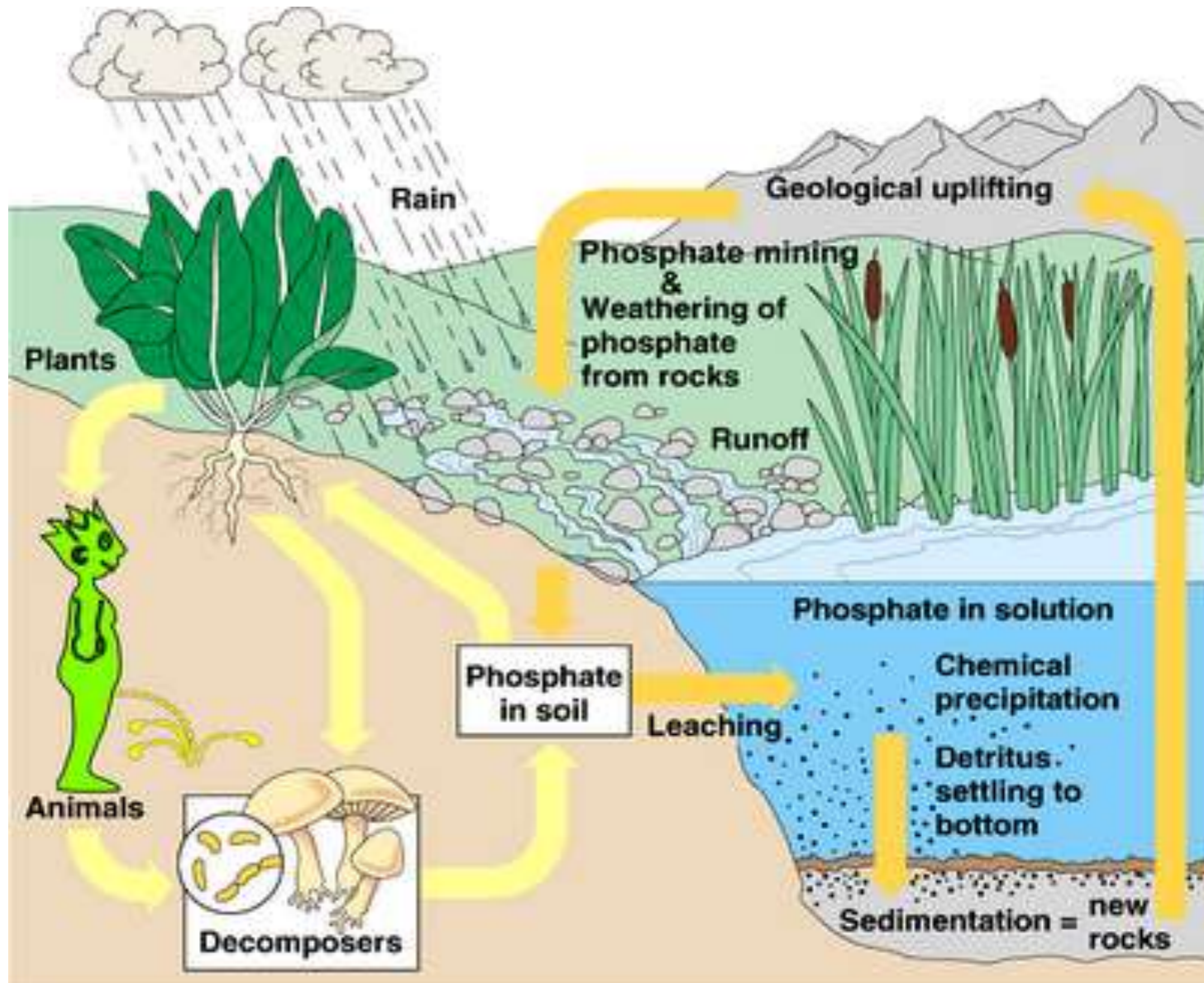
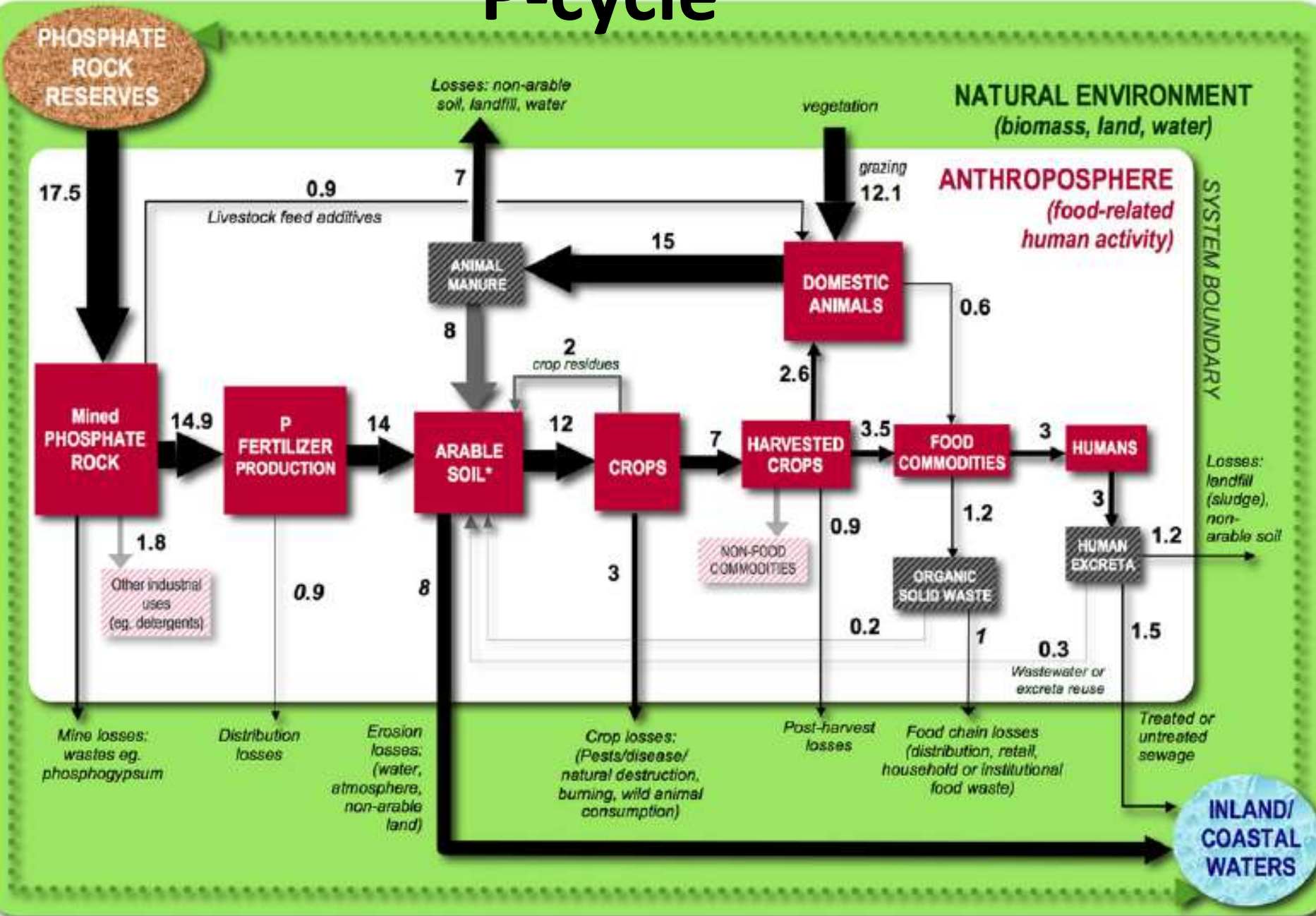


P-cycle natural flux



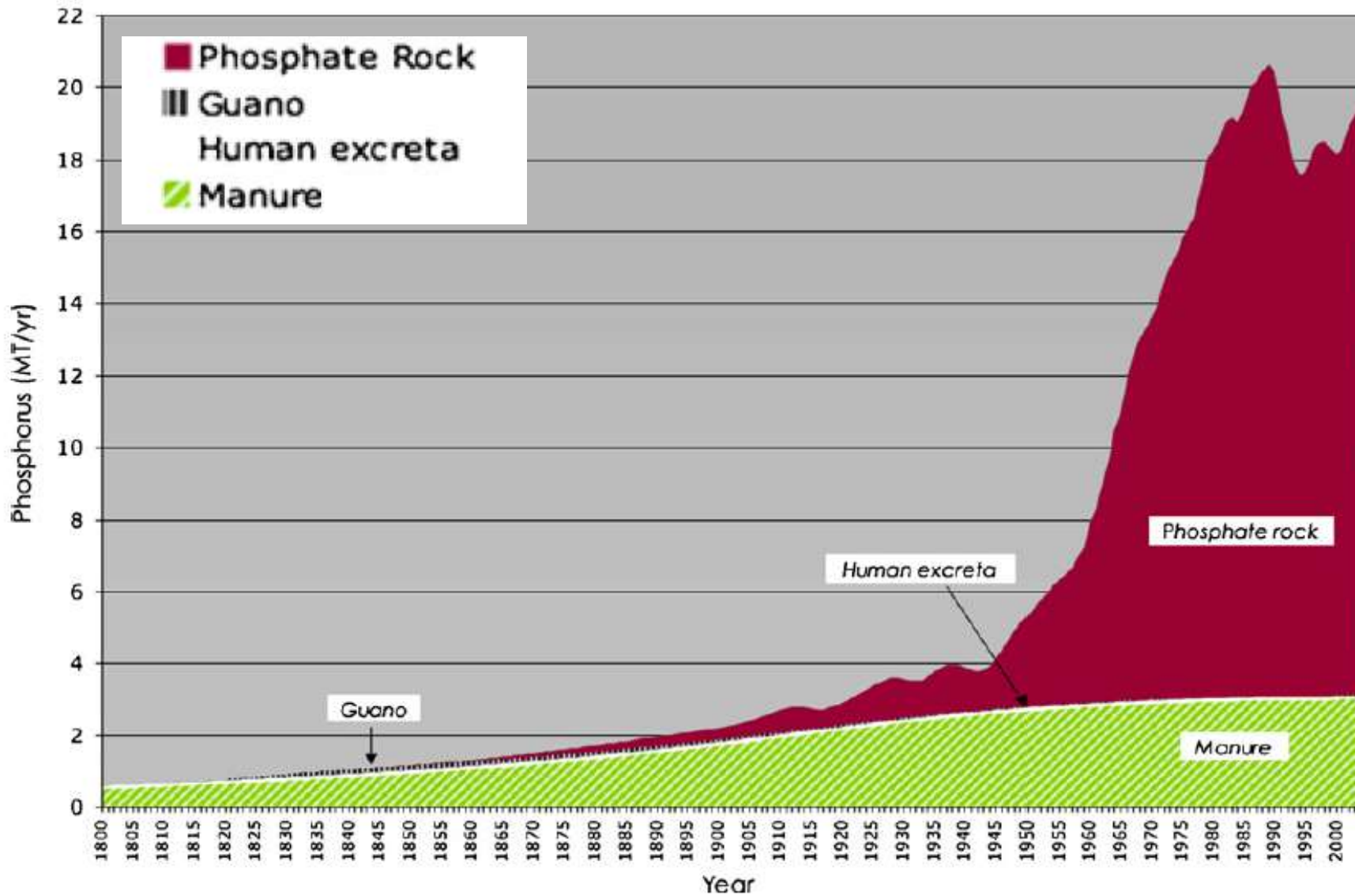
P-cycle



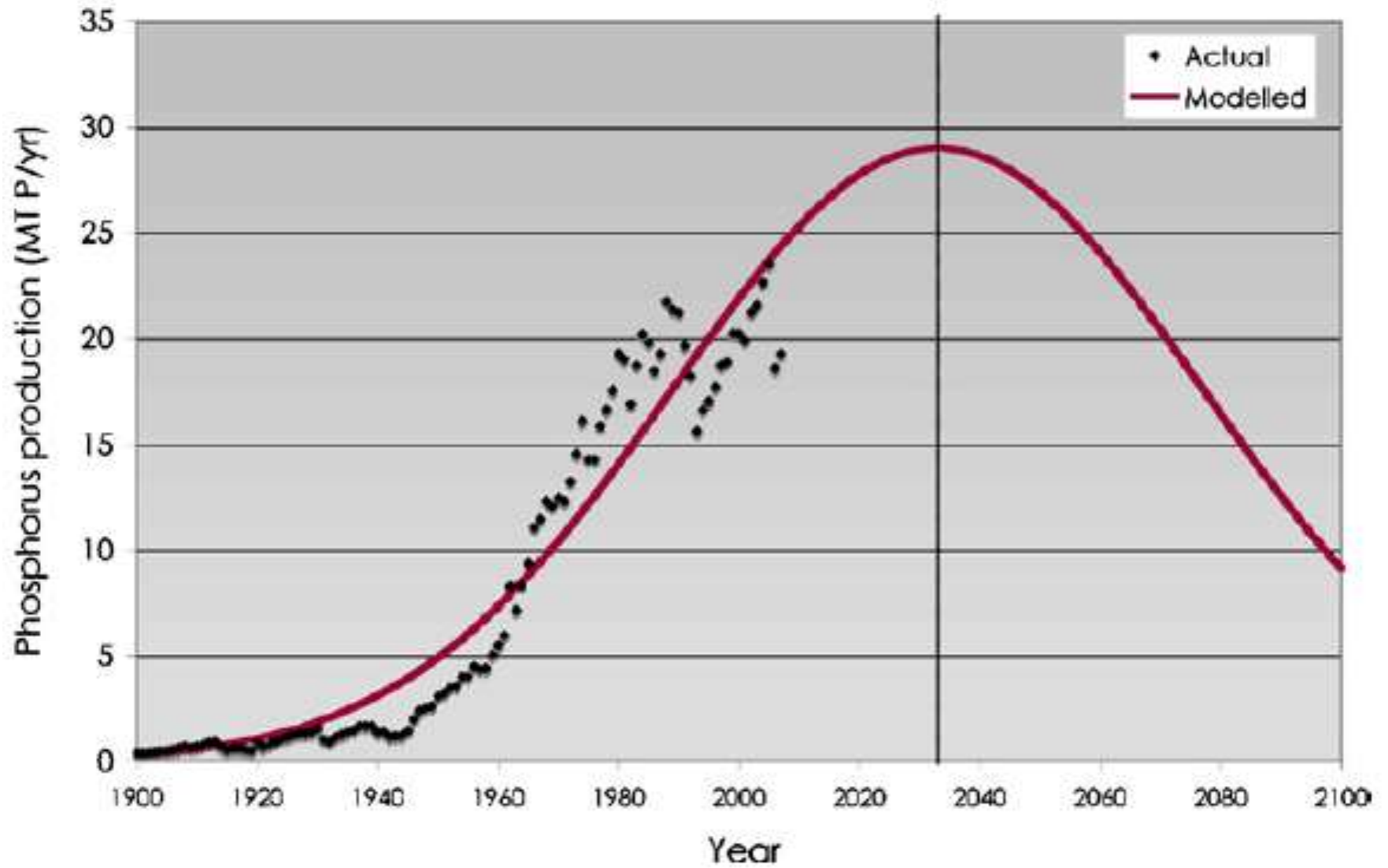
→ = Industrial P flows occurring at rate of 'days to years'
 → = Recirculated P flows from organic sources to arable land
 → = Natural biogeochemical P flows occurring at rate of 'millions of years'

P-cycle

Historical global sources of phosphorus fertilizers (1800-2000)



Peak phosphorus curve



P in the Netherlands

Table 3-1. Phosphorus in- and outflows (Mkg P) for agricultural land in the Netherlands.

	Grazing land	Arable land	Total agricultural land
Inflows			
Animal manure	52.5	11.5	64.0
Mineral fertilizers	11.7	9.3	21.0
Sugar factory lime		1.5	1.5
Composts		1.0	1.0
Sludge from waste treatment and other waste		0.8	0.8
Seeds/transplants		0.4	0.4
Total	64.2	24.3	88.5
Outflows			
Harvested grass and maize, roughages	39.1		39.1
Harvested grass/clover/lucerne, processed feeds	0.3		0.3
Harvested arable and horticultural products		14.9	14.9
Leaching losses	2.1	1.1	3.3
Total	41.6	16.0	57.6
Accumulation soil, total NL	22.7	8.3	30.9
Accumulation soil, kg P/ha	18.7	12.5	16.5