

Data on Transboundary Inputs

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Border rivers

- Torne älv
 - Finland and Sweden
- Narva
 - Russia and Estonia

These are split by constant fractions to each country:

Torne älv

1. Average is computed of Finnish and Swedish data
2. The average is split according to:
 - 55% Sweden
 - 45% Finland

Narva

1. Estonian data is used
2. The inputs are split according to:
 - 67% Russia
 - 33% Estonia

Transboundary rivers

- Oder
 - Poland, Germany and **Czech Rep**
- Vistula
 - Poland, **Belarus** and **Ukraine**
- Neva
 - Russia and Finland
- Pregolya
 - Russia and Poland
- Nemunas
 - Lithuania and **Belarus**
- Barta, Venta and Lielupe
 - Latvia and Lithuania
- Daugava
 - Latvia, Lithuania, **Belarus** and Russia

Estimates from PLC5.5 representing 1997-2003:

From	Via	To	Border		Retention		To Baltic		Share of input	
			TN	TP	TN	TP	TN	TP	TN	TP
			tonnes	tonnes			tonnes	tonnes	(%)	(%)
From non-Contracting Parties:										
Czech	Poland	BAP	5,700	410	0.4	0.28	3,420	295	1.1	1.7
Belarus	Lithuania	BAP	13,600	914	0.54	0.53	6,256	430	2.1	2.5
Ukraine	Poland	BAP	4,124	127	0.4	0.28	2,474	91	0.8	0.5
Belarus	Poland	BAP	5,071	331	0.4	0.28	3,043	238	1.0	1.4
Total		BAP					15,193	1,055	5.1	6.1
Belarus	Latvia	GUR	8,532	1,360	0.27	0.32	6,228	925	7.9	41.4
Between Contracting Parties										
Lithuania	Latvia	BAP	5,516	158	0.39	0.58	3,365	66	1.1	0.4
Poland	Russia	BAP	4,400	320	0.30	0.37	3,080	202	1.0	1.2
Germany	Poland	BAP					2,337	101	0.8	0.6
Total		BAP					8,782	369	3.0	2.1
Lithuania	Latvia	GUR	7,185	282	0.27	0.32	5,245	192	6.7	8.6
Russia	Latvia	GUR	4,256	734	0.54	0.71	1,957	215	2.5	9.6
Total		GUR					7,202	407	9.2	18.2
Finland	Russia	GUF			0.48	0.82	5,353	49	5.2	0.7

PLC-6 Reporting data for 2014

- Oder
 - Contribution from Czech Rep.
- Vistula
 - Contribution from Belarus and Ukraine
- Neva
 - No data reported
- Pregolya
 - Contribution from Poland
- Daugava
 - Contribution from Belarus and Russia

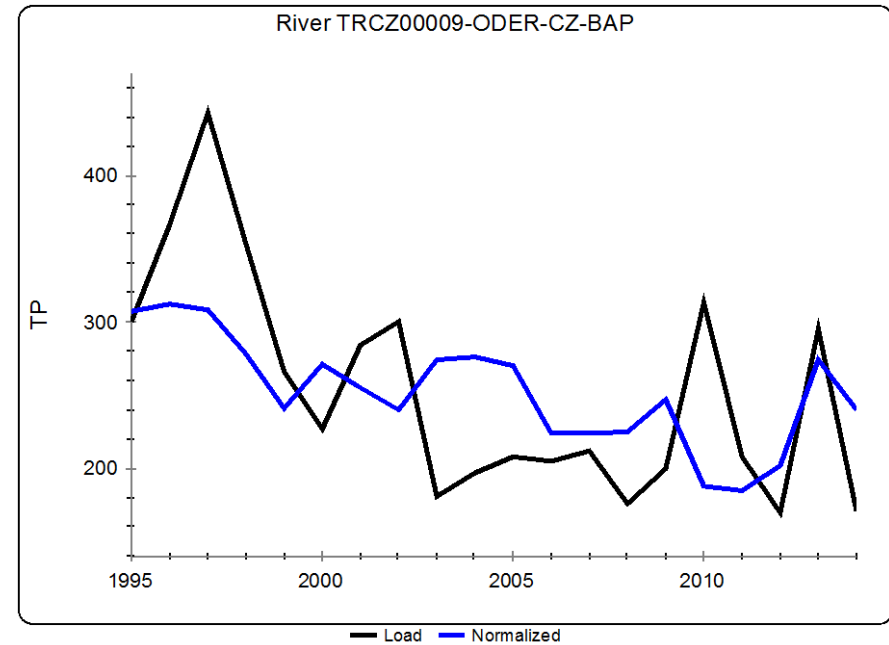
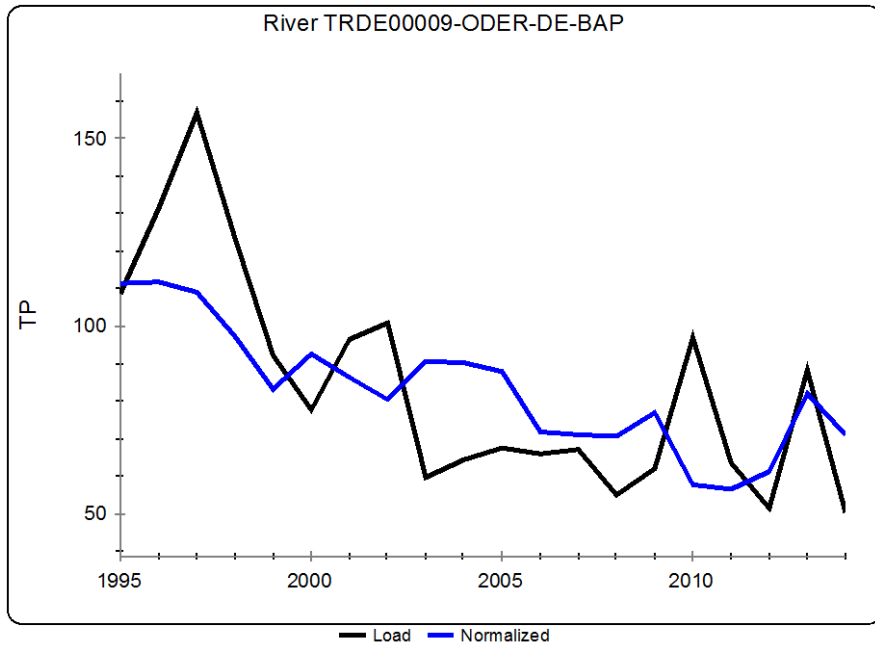
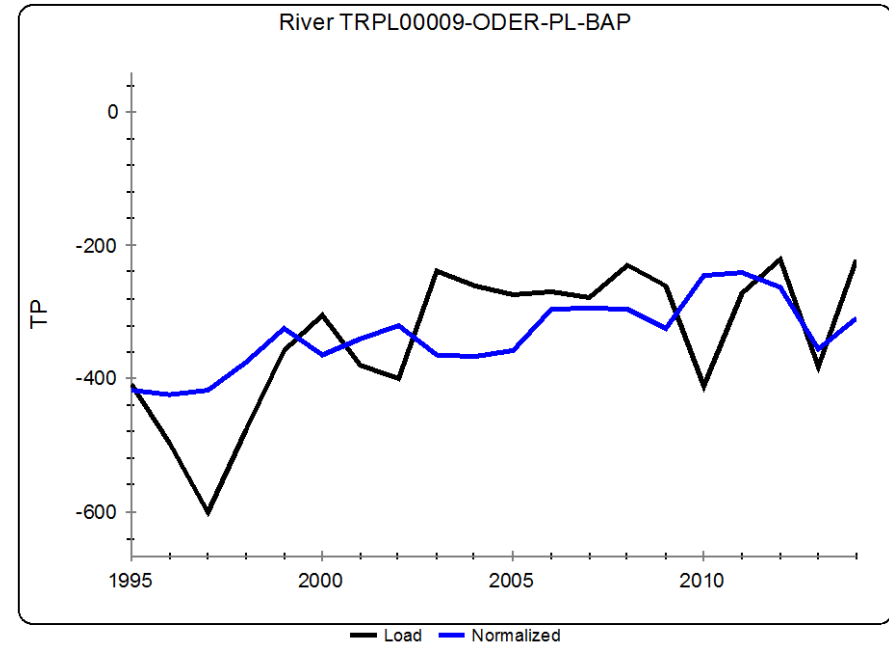
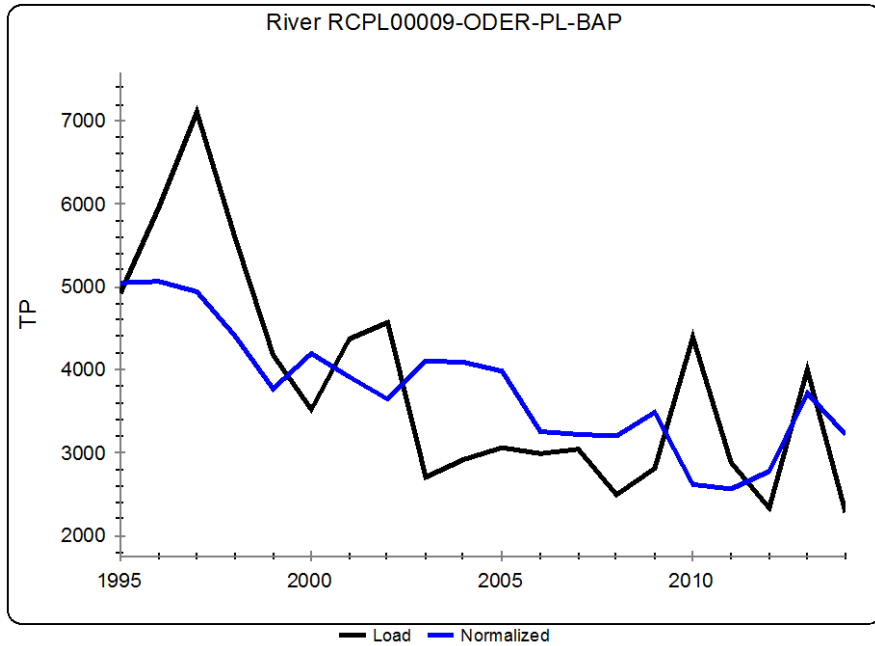
For rivers with data reported 2014 (Oder* , Vistula, Pregolya, Daugava**)

1. Same retention as PLC5.5 is used
2. The share of each country contribution to the river input is calculated for both PLC5.5 and 2014
3. The share is linearly interpolated to each year 1995-2014
4. Input contribution is computed by multiplying with total load each year
5. Flow normalization is performed assuming that runoff at the border is proportional to that at the mouth

*German share was assumed constant due to lack of reporting

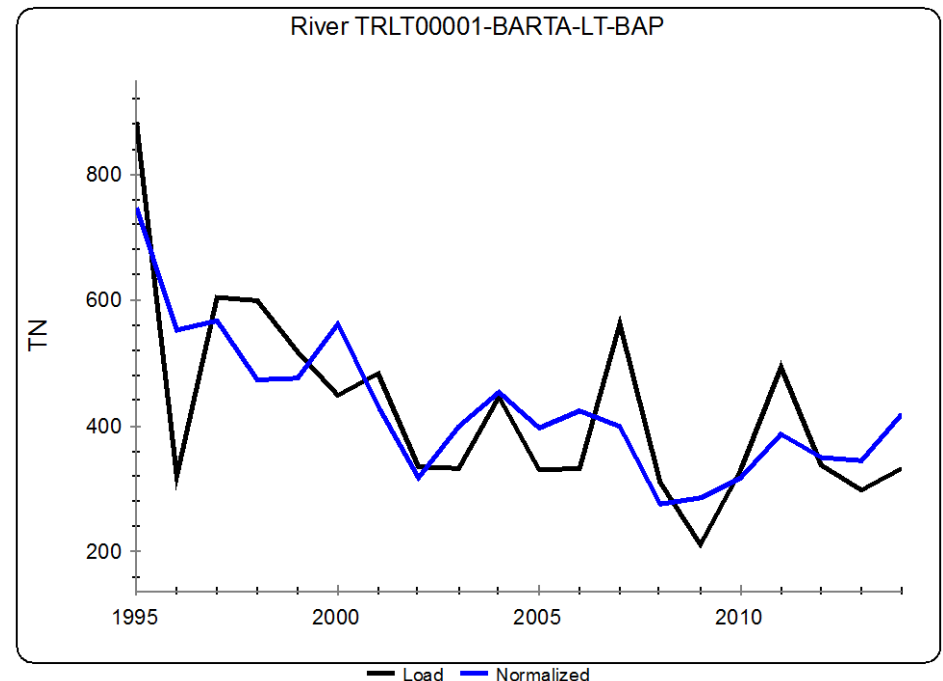
**Lithuanian part treated separately

Example Oder



Lithuania

- Lithuania has provided time-series of border loads for Barta, Venta, Lielupe and Daugava Rivers
- PLC5.5 retentions are used
- Flow normalization is performed on each time-series



One complication:

some years in the early part of the time-series the Lithuanian contribution is larger than the river load!

