Low water levels challenges transport

Major parts of the world trade are dependent on a limited number of channels, floods and waterways. So, when the water levels decrease, it can reduce the transport capacity, increase the costs and create bottlenecks. Examples from Panama, Europe and the Amazon shows how low water levels can affect key transport arteries.

The Panama Canal: The precipitation in the catchment area is lower than expected and therefore the canal authorities have reduced their capacity from 34 daily slots on the 3 September to 32 slots from 15 September. This can augment the waiting time for ships without reservation. The drought in 2023 illustrates the consequences of a more serious water shortage: At that time the capacity got reduced from 36 to 22 daily transits.

The Rhine: Extremely low water levels in August have greatly reduced the barges' load capacity. At very low water levels at Kaub, the sailing can no longer be kept at a regular level, and few terminals have been temporarily inaccessible for barges. In periods the barges' has been sailing with around 25 percent of their normal load capacity, even when the freight prices between Rotterdam and Köln increased from €17 to €80 per tonne from mid-June to the start of August.

Danube: Extremely low water levels this summer have limited the freight shipping on the Danube River. In the beginning of August the water levels along the free-flowing Austrian sections of the Danube are approximately 60 centimeters below the long-term low-water reference level, and the navigable water depth dropped to 1.8 meters east of Vienna. On the 4 August, Austrian authorities assessed that freight transport on the Austrian section of the Danube had virtually come to a standstill.

The Amazon: Although drought conditions have not yet reached the extreme levels seen in 2023–2024, water levels are decreasing as the dry season progresses. Brazil's waterway transport authority, ANTAQ, is therefore preparing contingency measures, including cargo transshipment, temporary terminals and the use of vessels with shallower drafts, should navigation conditions deteriorate. The risk is significant: In October 2024, the Rio Negro River at Manaus fell to 12.26 metres, its lowest recorded level in 122 years.

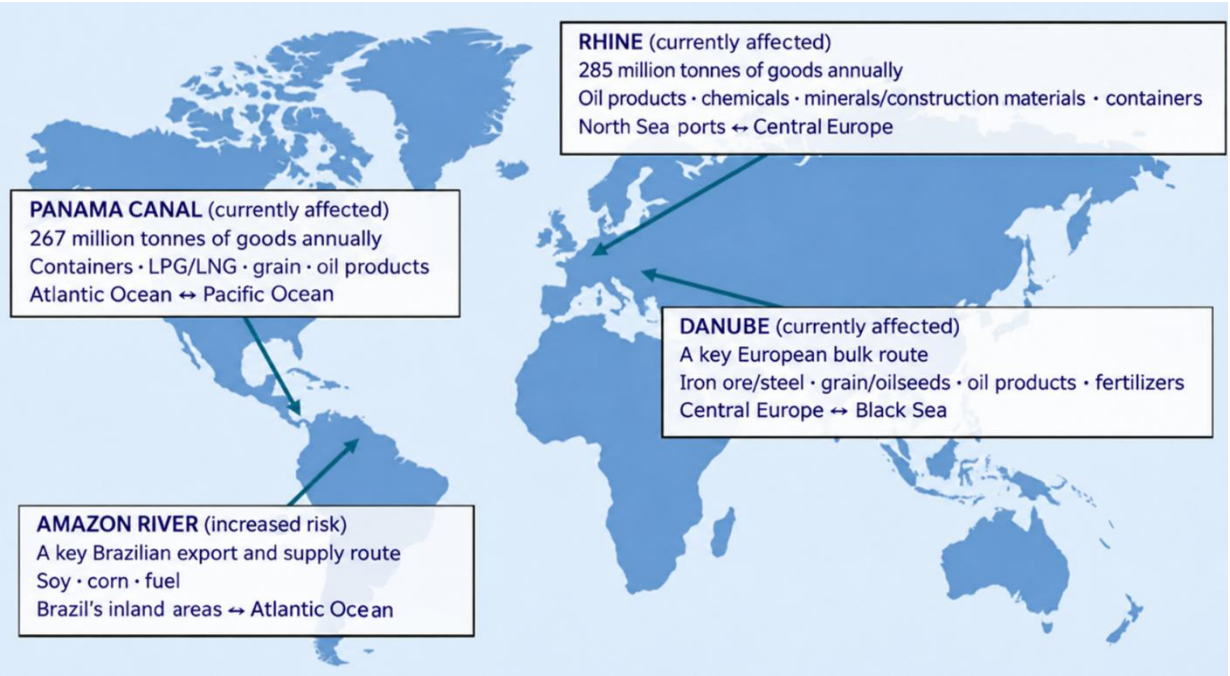


Figure: Major trade routes currently affected by low water levels. **Sources**: The analysis is primarily based on data and information from official authorities and international organisations, including the Panama Canal Authority (ACP), the German waterways authorities (WSV/ELWIS), the Central Commission for the Navigation of the Rhine (CCNR), the US Army Corps of Engineers (USACE), the USDA, and the Brazilian authorities ANTAQ and Serviço Geológico do Brasil (SGB). Information on current freight rates and commercial implications is supplemented by data from shipping companies and established maritime market intelligence providers.

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