Situation Report:

Impact of Floods in China on Global Supply Chains

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Prewave

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Executive Summary

Severe flooding struck central and southern China in the last week of June 2025, triggering the first Red Alerts of the year across six provinces.

The disaster, caused by an early monsoon combined with tropical weather systems, has created significant disruptions to upstream supply chains. Mining, raw materials, and intermediate goods production are immediately affected.

While major coastal manufacturing hubs remain largely unaffected, the floods have exposed critical vulnerabilities in China's interior regions, which supply essential materials for global industries.

The most severe impacts are concentrated in southwestern China, where "once-in-50-year flood levels" have inundated towns in Guizhou. Floodwaters raced downstream into Guangxi.

Infrastructure damage includes the collapse of a major highway bridge on the G76 expressway and widespread power outages affecting industrial operations. With further heavy rain forecast, supply chain disruptions are expected to persist for several weeks.

1. Geographic Scope and Severity

The flooding spans a vast area: from China's southwestern mountains to central river valleys, with varying degrees of impact across regions. Chinese authorities have issued Red Alerts across Anhui, Henan, Hubei, Hunan, Guizhou, and the Guangxi region, marking this as one of the most geographically extensive flood events in recent years.

Most Severely Impacted Regions:

- **Guizhou Province (Ground Zero)**
  - Cities, including Rongjiang and Congjiang, overwhelmed by flash floods
  - River flows spiked to 80× normal rates
  - 300,000-population city half-underwater at flood peak
  - Infrastructure "seriously damaged, resulting in traffic obstruction, communications blackouts"
  - At least 6 fatalities reported, 80,000+ evacuated

- **Guangxi Region**
  - Floodwaters from Guizhou surged downstream via Liu River
  - Meilin township: water crested 4 meters above safe levels
  - Rural townships submerged, agricultural areas devastated

- **Hunan Province**
  - Experiencing largest floods since 1998 along Lishui River
  - Tens of thousands evacuated
  - Southern regions hit hardest by extreme rainfall

2. Critical Infrastructure Damage

The floods have inflicted widespread damage on transportation networks and utilities, creating cascading effects throughout supply chains. Infrastructure disruption is particularly acute in mountainous regions, where landslides compound flood damage.

Transportation Network Status:

Infrastructure Type	Impact Level	Key Disruptions
Highways	SEVERE	• G76/Xiarong Expressway bridge collapse (major Sichuan-coast route) • Multiple mountain roads blocked by landslides • Urban streets transformed into canals
Railways	MODERATE	• Regional rail service suspensions • Landslide risks in mountain corridors • Potential slowdowns on Land-Sea Corridor railway
Ports	MODERATE	• Temporary closures during typhoon (Zhanjiang, Beibu Gulf ports) • River shipping suspended on high water • Yangtze navigation difficult due to fast currents
Airports	LIMITED	• Flight cancellations at regional airports • Air cargo capacity temporarily reduced

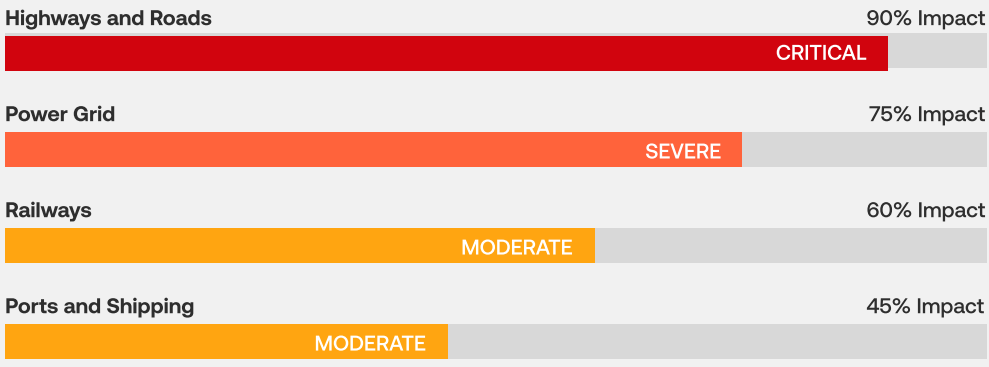
Power and Communications:

- **Zhaoqing, Guangdong:** Complete power grid shutdown on June 25
- **Guizhou counties:** Widespread communications blackouts
- **Industrial zones:** Intermittent outages forcing production halts
- **Recovery efforts:** Underway but hampered by continued rain risk

Severe flooding disrupts critical upstream production of minerals and materials:

80x	6	40%	80K+
river flow rate	provinces affected	China's phosphate	evacuated

Infrastructure Damage Assessment:



3. Industrial Impact Analysis

The floods have dealt a particularly severe blow to upstream industries, with ripple effects expected throughout global supply chains. The concentration of mining and raw materials production in affected regions creates specific vulnerabilities for multiple sectors.

Mining and Raw Materials Sector

China's interior provinces affected by flooding are crucial sources of industrial minerals and materials. Production disruptions in these regions have immediate global implications:

Critical Material Disruptions:

- **Phosphate Rock:** Guizhou produces 40%+ of China's phosphate (44% of national reserves)
- **Battery Materials:** One-third of China's new EVs rely on Guizhou's battery-grade phosphate
- **Non-ferrous Metals:**
  - Antimony (Hunan - world's largest source)
  - Manganese (Guangxi/Hunan - crucial for steel and batteries)
  - Bauxite (Guizhou - 28% of national reserves)
  - Lead, zinc, tungsten, tin (multiple affected provinces)

Manufacturing and Assembly Impact

While major coastal export hubs avoided direct flooding, upstream disruptions create production challenges:

Immediate Production Halts:

- Small/medium enterprises in flood zones shut down completely
- Zhaoqing manufacturers lost extended power, halting auto parts and electronics production
- Rongjiang business districts under 3 meters of water

Secondary Effects on Major Centers:

- Just-in-time supply chains experiencing component shortages
- Assembly plants tapping buffer inventories
- Production scheduling adjustments across multiple sectors

4. Sector-Specific Vulnerabilities

Electric Vehicle and Battery Supply Chain

The flood's impact on China's EV supply chain deserves particular attention given the concentration of battery material production in affected regions:

Major Players Affected:

- **BYD:** EV assembly plant and battery material operations in Guizhou
- **CATL:** Battery material processing facilities dependent on local phosphate
- **Geely Auto:** Assembly line in Guizhou likely offline

Supply Chain Implications:

- Lithium iron phosphate (LFP) cathode material deliveries disrupted
- Potential global battery supply constraints
- Price fluctuations expected for battery-grade materials

Automotive Manufacturing

Multiple automotive production centers face varying degrees of disruption:

Location	Major Plants	Status
Chongqing	Changan-Ford JV, Changan Auto	Production pauses likely due to local flooding
Wuhan	Dongfeng-Honda, GM Buick, PSA	Monitoring Yangtze levels, precautionary measures
Guangxi (Liuzhou)	SAIC-GM-Wuling	Indirect impacts from parts supply delays

Chemical and Fertilizer Production

The flooding has significantly impacted China's chemical sector, particularly phosphate-based production:

- Major phosphate fertilizer plants in Guizhou (Wengfu Group) and Hubei (Yihua Group) facing disruptions
- DAP/MAP fertilizer supply constraints expected for summer crop cycles
- Potential for increased imports to meet domestic agricultural demand

Critical Materials at Risk

Material	Primary use	Share of production	Risk level
Phosphate	EV batteries, Fertilizers	40% of China’s output	CRITICAL
Antimony	Flame retardants, Batteries	World’s largest source	CRITICAL
Manganese	Steel production, Batteries	Major global supplier	HIGH
Bauxite	Aluminum production	28% of national reserves	HIGH
Coal	Energy, Coking	Significant regional source	MODERATE

Most Affected Regions

Guizhou

- Ground zero of flooding
- 300,000-person city submerged
- 40% of China’s phosphate

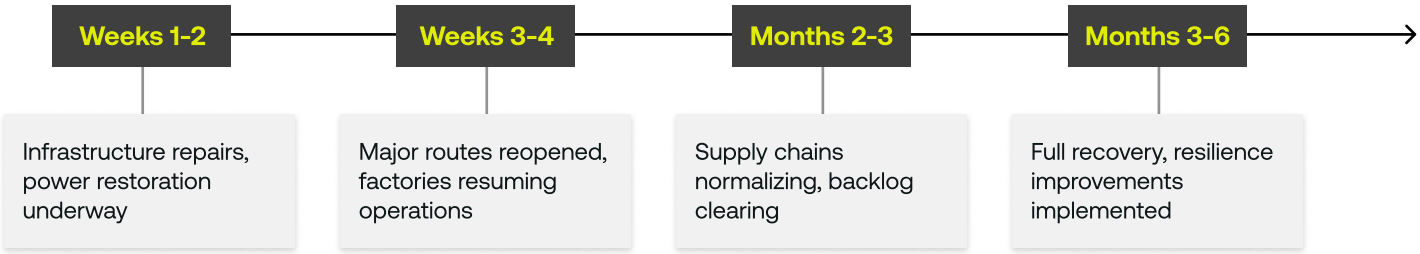
Guangxi

- Townships 4m underwater
- Manganese mining hub
- Sugar production disrupted

Hubei

- Wuhan od Red Alert
- Auto manufacturing base
- Yangtze River rising

Recovery Timeline



5. Supply Chain Resilience and Outlook

Short-Term Regional Projections (1-6 weeks):

- **Weeks 1-2:** Continued infrastructure repairs, gradual power restoration
- **Weeks 3-6:** Most major routes reopened, factory operations resuming
- **Logistics:** Expect rerouting costs and 15-30% longer transit times
- **Inventory:** Companies with <2 weeks buffer stock face production risks

Conclusion

The late June 2025 China floods represent a significant but manageable supply chain disruption that particularly impacts upstream material flows. While the immediate crisis is regionally contained, the event underscores growing climate vulnerabilities in global supply networks. Companies with robust contingency plans and diversified supplier bases will navigate this disruption more effectively than those with concentrated dependencies.

As extreme weather events become "more frequent and unpredictable," this flood serves as a critical reminder that supply chain resilience, especially in upstream operations, must be a strategic priority.

The floods may recede within weeks, but the need to build climate-adapted supply chains will only intensify.