

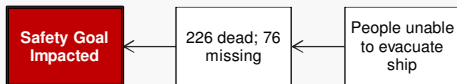
1 Problem

What	Problem(s)	Ferry capsizes, ineffective evacuation
When	Date	April 16, 2014
	Time	8:55 AM
	Different, unusual, unique	More than three times recommended cargo; faults identified in ship's steering system two weeks prior; life rafts wouldn't open
Where	Facility, site	Off Byungpoong, South Korea
	Unit, area, equipment	Ferry Sewol
	Task being performed	Routine trip
Impact to the Goals		
Safety		226 dead (bodies recovered) 76 missing (presumed dead)
Compliance		Legal action against crew, company
Property/ Equipment		Loss of ship
Labor/ Time		Rescue & recovery efforts
	Frequency	31,000 people a year die of accidents in South Korea

2 Analysis

Basic Level Cause Map - Start with simple Why questions.

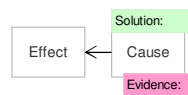
Basic Cause-and-Effect



Most of the deaths resulted from drowning. Passengers became trapped in the ferry prior to the evacuation order, which was issued thirty minutes after the first distress call. During this time, the ship had listed to a point that

More Detailed Cause Map

Add detail as information becomes available.



HUNDREDS DIE WHEN FERRY CAPSIZES

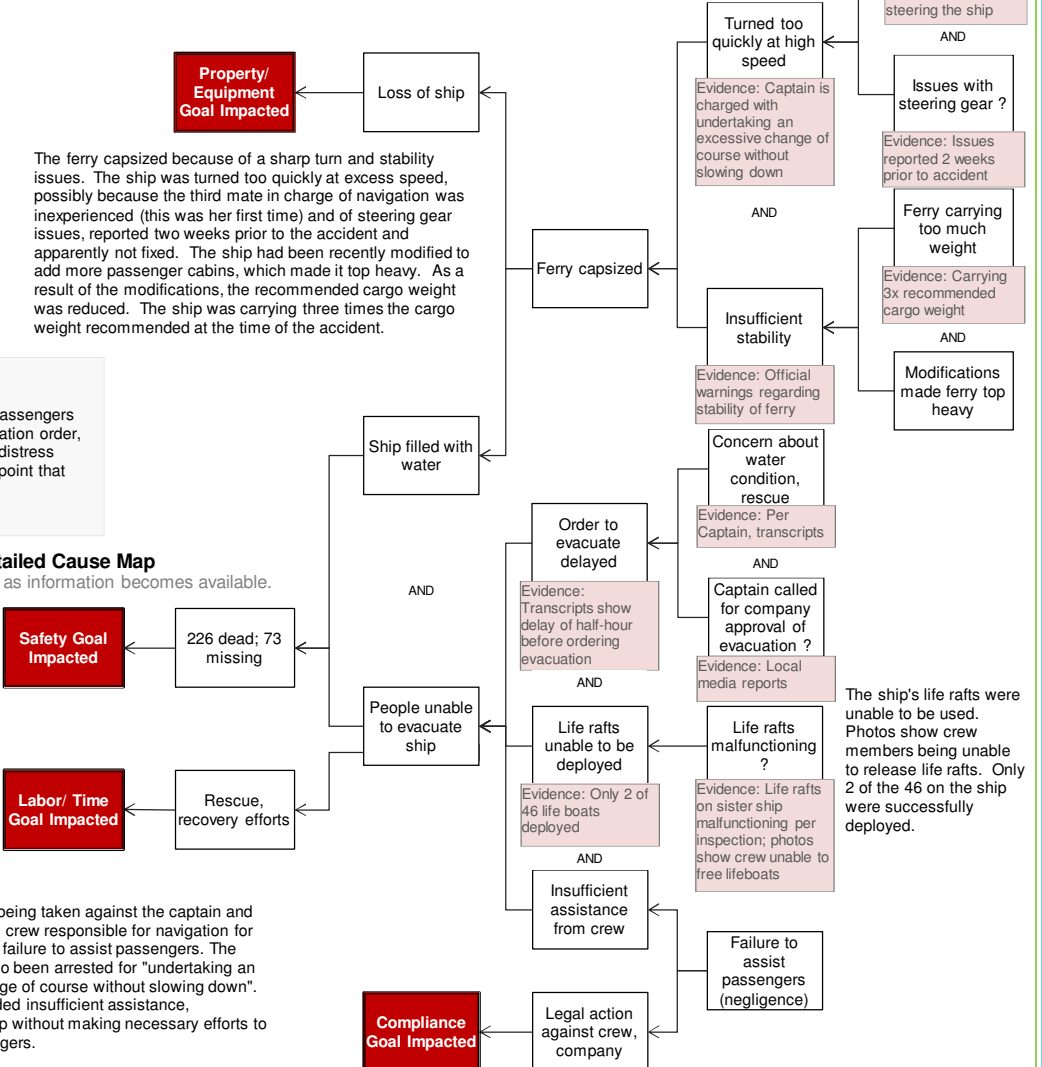
Captain & crew charged with failure to assist passengers

The nation of South Korea was devastated after a ferry capsized off Byungpoong. While the ferry tipped over quickly, the evacuation orders came slowly. The combination resulted in over 300 being trapped within the ship and killed. The Captain and much of the crew were able to escape.

"I think this is more like a man-made disaster."

- Lee Jong-eui, whose nephew is among the missing

Cause Map



Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

Step 1	Problem	What's the Problem?
Step 2	Analysis	Why did it happen?
Step 3	Solutions	What will be done?

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Legal action is being taken against the captain and members of the crew responsible for navigation for negligence and failure to assist passengers. The Captain has also been arrested for "undertaking an excessive change of course without slowing down". The crew provided insufficient assistance, abandoning ship without making necessary efforts to free the passengers.