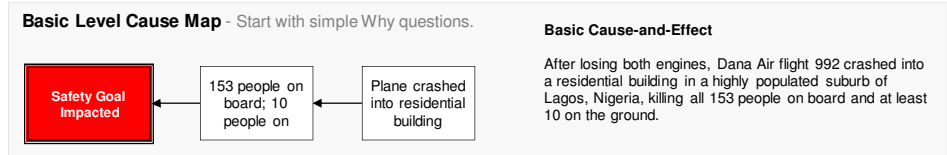


# 1 Problem

<b>What</b>	Problem(s)	Airplane crash into crowded suburb
<b>When</b>	Date	June 3, 2012
	Time	3:43 p.m.
	Different, unusual, unique	Both engines lost power, pilot declared emergency, plane 22 years old
<b>Where</b>	State, city	Lagos, Nigeria
	Facility, site	MD-83 (Dana Air Flight 992)
	Task being performed	Final approach to airport
<b>Impact to the Goals</b>		
	<b>Safety</b>	All 153 people on plane killed
		At least 10 people on ground killed
	<b>Environmental</b>	?
	<b>Customer Service</b>	Owner license suspended
	<b>Production-Schedule</b>	Owner license suspended
	<b>Property, Equip, MtIs</b>	Damage to plane
		Damage to residential building
	<b>Labor, Time</b>	?
	Frequency	41 airplane crashes in Nigeria in 43 years
	Annualized Cost ?	?

# 2 Analysis

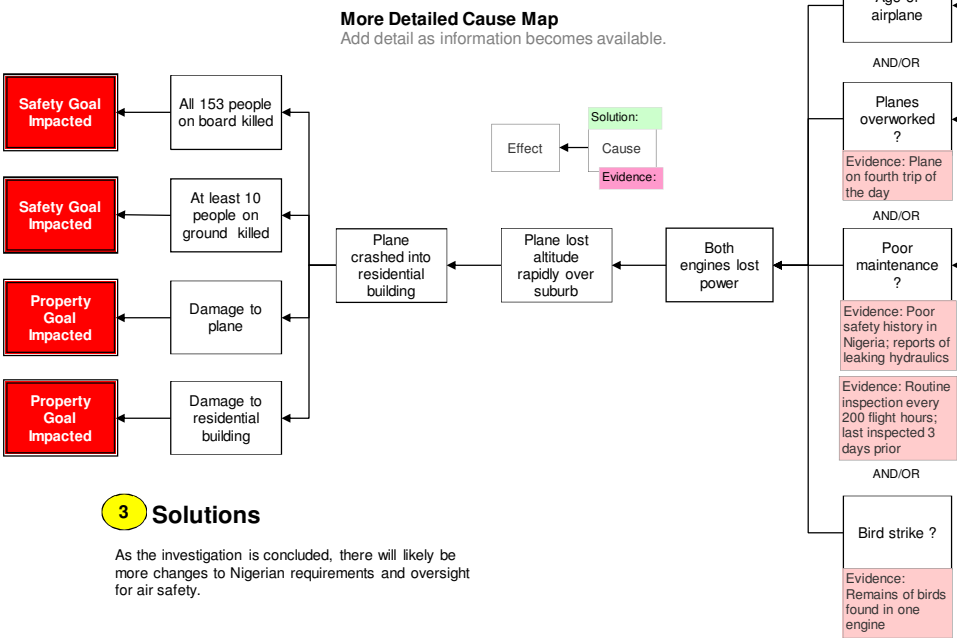


**More Detailed Cause-and-Effect**

The investigation of the plane crash is still ongoing. However, it is known that both engines of the plane lost power, causing the plane to rapidly lose altitude and crash into a highly populated area. Some of the areas being investigated that may have contributed to the crash are:

- 1) a bird strike (bird remains were found in one engine),
- 2) poor maintenance (although the plane was regularly inspected, there were also reports of leaking hydraulics and a history of poor airline safety in Nigeria, which appeared to have been remedied in recent years as indicated by the US FAA's granting of its top air-safety rating,
- 3) overworked planes, likely due to financial considerations (the plane that crashed was on its fourth trip of the day), and/or
- 4) the age of the airplane (at 22 years old, it was technically not permitted to fly in Nigeria, which bans the use of planes over 20 years old).

As more information is revealed during the investigation it can be added to the Cause Map.



# PLANE CRASH IN LAGOS

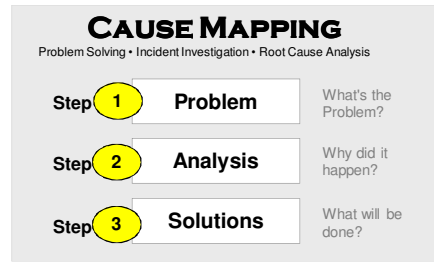
**Cause Map**

**Air Safety in Nigeria Under Fire**

A devastating air crash in Lagos, Nigeria killed all on board and at least 10 on the ground. This was the first major commercial air disaster since 2006. Safety efforts since that disaster resulted in the US FAA granting Nigerian airlines its top air-safety rating. Now concerns about air safety in Nigeria have resurfaced.

"We have suspended the entire Dana fleet. They will be grounded as long as it takes to carry out the necessary investigations into whether they are airworthy."  
Harold Demuren, head of Nigerian civil aviation body

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



# Timeline

June 3, 2012	2:13 p.m.	Dana Air Flight 992 scheduled to leave Abuja
	2:54 p.m.	Plane departs Abuja
	3:42 p.m.	Pilot declares an emergency, saying both engines failed
	3:43 p.m.	Plane crashes into residential building in Lagos
	~4:00 p.m.	Emergency workers reach site

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