

## STOP Sexual Attack using Decision Networks

To understand the domain please read the “[Steps TO Prevent Sexual Assault.pdf](#)” in the same folder. I have added a single decision node to the previous network namely “**Country**”. The list of countries I have are: -

- Philippines
- Saudi Arabia
- Unites States
- Sweden
- South Africa

Since there are some nodes which have no relationship to the country, like “Victim Offender Relationship” cannot be determined based on the country. Similarly basic behaviors and alcohol consumption too. Some countries have high alcohol consumption but that is highly individualistic. So I have not added connections from “country” decision node to:

- Time of the day
- Alcohol Victim
- Alcohol Offender
- Sexual Assault
- Victim-Offender relationship
- Stalking
- Previous offense by the offender
- Family problems
- Offender background
- Aggressiveness of the offender
- Death of Victim.

The nodes which have different values for the each of the value of the country are:

- Weak punishment after offense
- Low patrolling
- Victim Gender (new node added).
- Assault Location
- Party Setting

**Weak Punishment after Offense:** - In some countries the rate of conviction is really good, e.g. Saudi Arabia, and for other countries it is really bad, e.g. Sweden and Phillipines. In Saudi Arabia if an offender is guilty of rape and proven then most of the times he/she is given a death sentence. In countries like Sweden many offenders are not brought to justice and are rarely convicted.

Previous_Offense_by_Offender	Country	True	False
Yes	Phillipines	95	5
Yes	South Africa	90	10
Yes	Sweden	95	5
Yes	Saudi	0	100
Yes	USA	80	20
No	Phillipines	0	100
No	South Africa	0	100
No	Sweden	0	100
No	Saudi	0	100
No	USA	0	100

**Low Patrolling:** - In countries like South Africa and Sweden the police patrolling is again very low. And in countries like USA and Sweden, it is fairly good.

Country	True	False
Phillipines	85	15
South Africa	95	5
Sweden	95	5
Saudi	10	90
USA	20	80

**Victim Gender:** - In countries like Philippines, there are unusually high number of sexual attacks on men. Immigrant male population is particularly targeted. And in some countries like Saudi Arabia, it is equally balanced. In USA there are very less accounts of men getting sexually assaulted.

Country	Male	Female
Phillipines	85	15
South Africa	10	90
Sweden	5	95
Saudi	50	50
USA	15	85

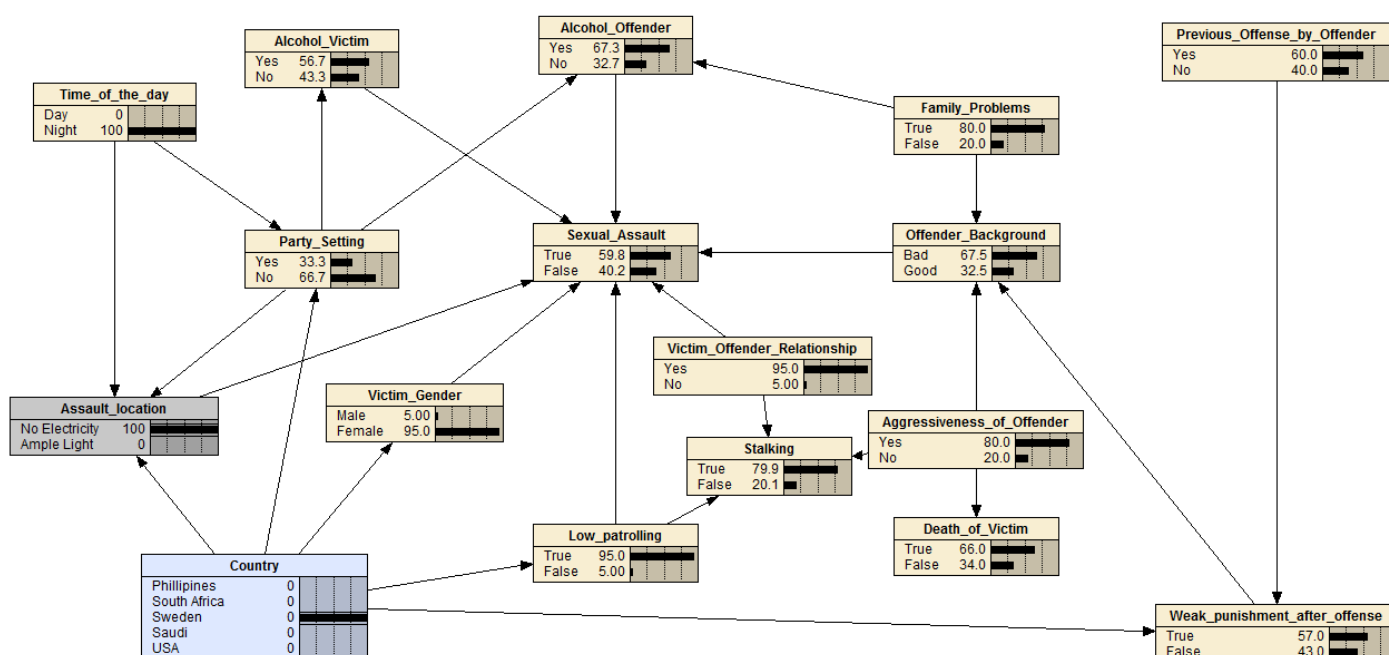
**Assault Location:** - In countries like Philippines and South Africa, there are a lot of power cuts. And in some countries like USA, the power cuts is very unlikely.

Time_of_the_day	Party_Setting	Country	No Electricity	Ample Light
Day	Yes	Phillipines	0	100
Day	Yes	South Africa	0	100
Day	Yes	Sweden	0	100
Day	Yes	Saudi	0	100
Day	Yes	USA	0	100
Day	No	Phillipines	0	100
Day	No	South Africa	0	100
Day	No	Sweden	0	100
Day	No	Saudi	0	100
Day	No	USA	0	100
Night	Yes	Phillipines	90	10
Night	Yes	South Africa	85	15
Night	Yes	Sweden	10	90
Night	Yes	Saudi	10	90
Night	Yes	USA	5	95
Night	No	Phillipines	80	20
Night	No	South Africa	75	25
Night	No	Sweden	20	80
Night	No	Saudi	20	80
Night	No	USA	15	85

**Party Setting:** - In developed countries like USA and Sweden there are comparatively more parties than conservative and orthodox countries like Saudi Arabia.

Time_of_the_day	Country	Yes	No
Day	Phillipines	90	10
Day	South Africa	50	50
Day	Sweden	50	50
Day	Saudi	5	95
Day	USA	40	60
Night	Phillipines	60	40
Night	South Africa	50	50
Night	Sweden	50	50
Night	Saudi	0	100
Night	USA	70	30

### Decision Network: -



When assault location value as “No Electricity” is kept constant. We see that countries like Sweden, South Africa and USA have high number of sexual assaults, than countries like Saudi Arabia (because of strict punishment after any such offense).

Over the years the sexual attacks has increased in Sweden and very few offenders are convicted. In the year 2009, there were 30,000 estimated rape cases of which only 13% (around 3500) were reported of which only 216 people were convicted.

In countries like USA there are a still high number of rape cases each year but because of good patrolling the cases have not increased at a staggering rate like it has in Sweden. The rate per 100,000 population in Sweden has increased from 25 to 63.5 in 7 years, while it decreased from 32.3 to 27.3 in USA.

Rape at the national level, number of police-recorded offenses<sup>[304]</sup>

Country/territory	Total count								Rate per 100,000 population							
	2003	2004	2005	2006	2007	2008	2009	2010	2003	2004	2005	2006	2007	2008	2009	2010
United States of America	93883	95089	94347	94472	92999	90750	89241	84767	32.2	32.3	31.8	31.5	30.6	29.8	29.0	27.3
South Africa		69117	68076	65201	63818	70514	68332	66196		148.4	145.2	137.6	133.4	144.8	138.5	132.4
Mexico		13650	13550	13894	14199	14078	14850	14993		13.0	12.7	12.9	13.0	12.7	13.3	13.2
Germany	8766	8831	8133	8118	7511	7292	7314	7724	10.6	10.7	9.9	9.8	9.1	8.8	8.9	9.4
Australia						6382	6343	6378						29.7	29.0	28.6
Sweden	2235	2261	3787	4208	4749	5446	5937	5960	25.0	25.2	41.9	46.3	51.8	59.0	63.8	63.5

**References: -**

[https://en.wikipedia.org/wiki/Rape\\_in\\_Sweden](https://en.wikipedia.org/wiki/Rape_in_Sweden)

<http://www.independent.co.uk/news/world/europe/sweden-and-denmark-have-highest-number-of-sexual-assaults-in-europe-a6800901.html>

[https://en.wikipedia.org/wiki/Rape\\_statistics](https://en.wikipedia.org/wiki/Rape_statistics)

<http://katehon.com/389-top-10-countries-with-highest-rape-crime.html>