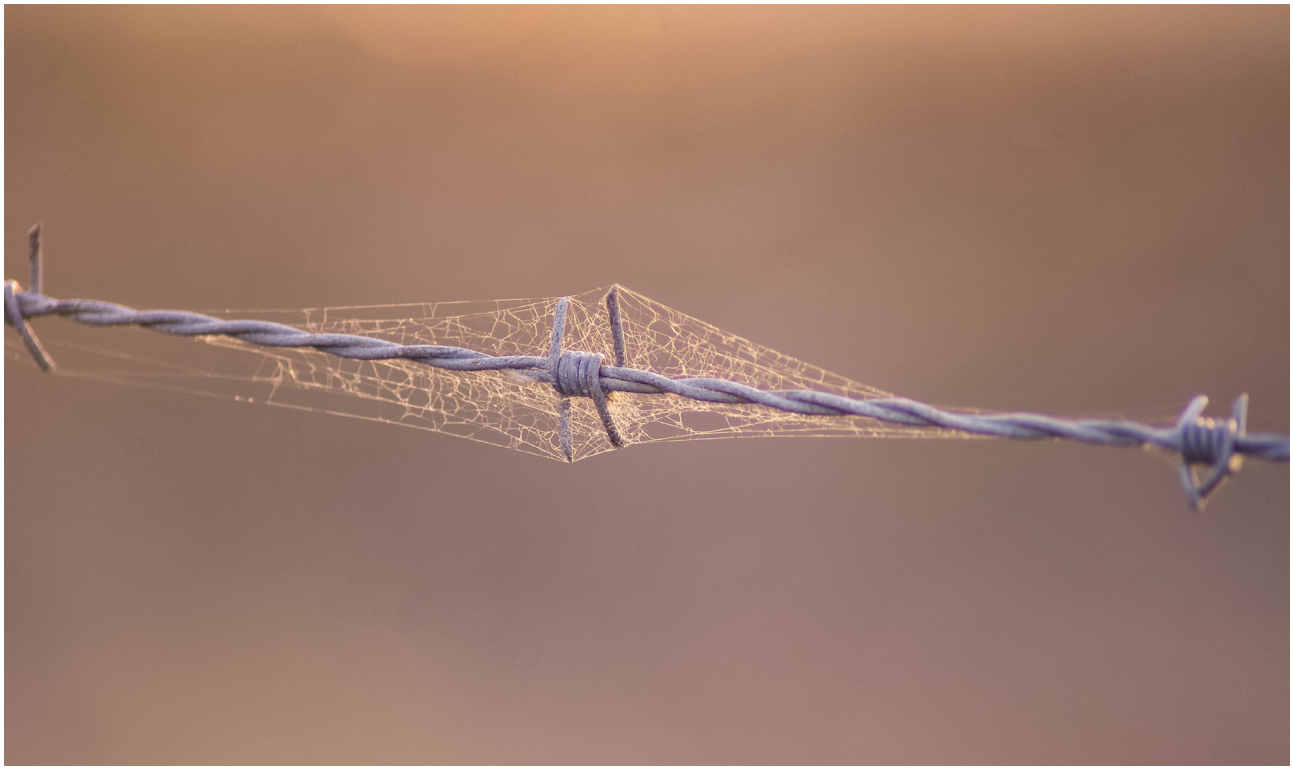

Social network analysis in combating organised crime and trafficking

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Social network analysis (SNA) can help us to better understand and tackle the transnational organised crime and dark networks that sustain corruption, money laundering and illicit trafficking.

In my work for the Basel Institute's Public Governance team, I am currently focused on using SNA to support research into the organised crime networks behind the multibillion-dollar global trade in illegal wildlife products. But the methodology and techniques are just as powerful when applied to any major trafficking network – people, drugs and weapons – as well as gambling, match-fixing and other organised crimes.

SNA is also useful to understand other types of social networks that are linked to many different patterns of corruption. For example, networks of political and business elites often collude to get away with grand corruption

schemes in procurement for public infrastructure projects. Social networks sustain and perpetuate practices of bribery and favouritism in the provision of public services.

What is it in a nutshell?

Social network analysis is a set of theories, methods, techniques and software to study social relational structures. In other words, networks created by social interactions between individuals and groups.

SNA allows us to capture the structural and functional characteristics of each network. This includes the role of each actor, the dynamics, mechanisms and rules behind the network's establishment and evolution, and how all the different elements – nodes – are linked together.

What can SNA tell us?

SNA can help us answer questions like this:

- How dense, or closely connected is the network?
- Is it highly centralised or is there a lot of activity at the periphery?
- What kind of clusters and sub-groups exist?
- Which are the most powerful nodes, or "hubs"?
- Which nodes are acting as "brokers", mediating between other elements?
- Which nodes are supplying information, advice or professional services to the illicit networks, staying mostly invisible on the periphery?
- How is the network evolving over time?
- And ultimately – which nodes must we target to disrupt the network and break it down permanently?

It's also valuable to look at how criminal networks interact with each other. The image above, for example, depicts overlapping networks of gambling rings and individuals linked to recent corruption scandals in Italy.

What goes into the analysis?

Social network analysts and researchers use publicly available information such as judicial documents, institutional reports and newspaper articles, along with interviews, questionnaires and focus groups. The more information we have, the more clearly we can highlight the main structural characteristics of the criminal and dark networks.

Applying different models also deepens the analytical potential. An exponential random graph model, for example, identifies sociometric determinants – age, place of birth, nationality, profession, ethnic group, religion, etc. – that affect the probability of a link existing between two nodes. This is because, as the English saying goes, *birds of a feather flock together* – people with similar social characteristics are more likely to develop a connection. This and other specific models can illuminate how a criminal

network functions while at the same time supplying useful insights into the nature and origin of the criminal links.

How can SNA help law enforcement authorities and policymakers?

Traffickers necessarily operate across borders, exploiting transnational criminal organisations, global dark markets and the growing possibilities offered by technology. Understanding how these networks of traffickers and criminals work, and how the networks interact with other networks, is essential to planning how to target the key players and act efficiently to dismember the networks.

More importantly, SNA is essential to planning how to prevent criminal networks and trafficking rings from – like snakes or worms – re-growing and regaining their strength even after they are dismembered.

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