



## LEARNING ACTION BRIEF

A SOCIAL NETWORK ANALYSIS OF COUNTER TRAFFICKING IN PERSONS CSOs IN THE ASIA REGION





## **SOCIAL NETWORK ANALYSIS**

A social network analysis (SNA) is a method to study and observe social structures of a particular population. It can be applied to various disciplines and at various scales. A basic social network is made up of nodes, which are the subjects, and edges, which show the connectivity between the subjects. The purpose of a social network analysis is to understand the connections and communication among a community of interest. Such an analysis can highlight key "connectors", or individuals who play an important role within the community and find clusters of connections (see Figure 1 below as an example of an SNA).

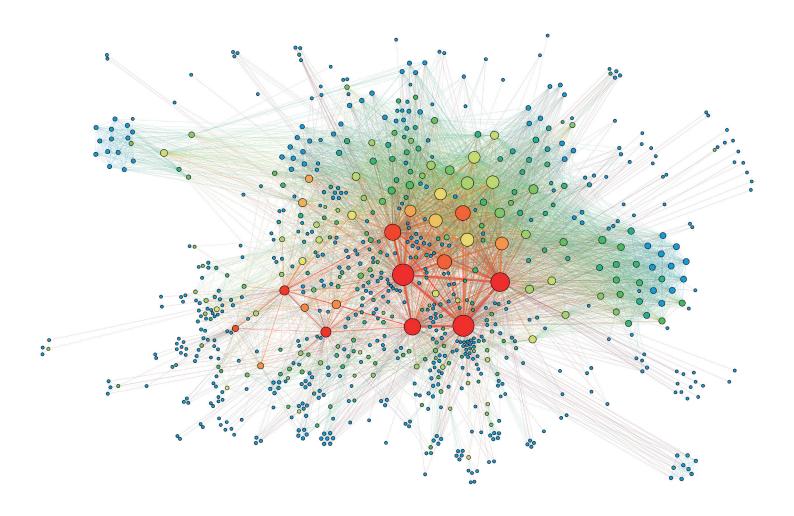


Figure 1: Example of SNA<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Centre for Development Innovation at Wageningen University and Research, "Social Network Analysis (SNA)", accessed 8 October 2020, http://www.managingforimpact.org/tool/social-network-analysis-sna

"Human trafficking involves the use of force, fraud, or coercion to obtain some type of labor..." and almost every country in the world is affected by trafficking in some way, whether as a country of origin, transit, or destination for victims. Due to the international, transborder nature of the crime, civil society organizations (CSOs) in the source, transit, and destination countries have a better chance to track cases and supply support services if they effectively and efficiently collaborate and share information with one another. It is particularly important to support smaller, local CSOs to ensure they can connect and work with their counterparts across the country or across borders. Enabling such CSOs to share data, including most used routes and known perpetrators, and coordinate on topics such as repatriation, access to justice, and reintegration, will help to strengthen responses.

To support and improve these connections and overall coordination, USAID Asia Counter Trafficking in Persons (CTIP) conducted an SNA to observe the networks and structures of CSOs that are working to combat trafficking in persons in the Asia region. The goal of this exercise was to identify networks, develop more practical connections, and support informational (and technical) exchanges between CSOs to support a more connected CTIP community in the region.



The USAID Asia CTIP team initiated this research in early 2020 as a combined effort between the research and the policy and coordination teams. To collect connection data, a survey<sup>4</sup> was designed and sent to CSOs for a representative to fill out.

The survey asked for details about the organization, including:

- Their location
- Type of organization; level of implementation
- Whether they only work specifically on CTIP
- Whether they work with victims
- Coordinate and communicate with the government
- What information sharing platforms they are using
- The methods and barriers to communicating with other organizations
- A list of organizations they have collaborated with in the last year.

The survey was translated to 16 Asian languages, including national and local languages from countries in Central Asia to Southeast Asia.

Please see Figure 2 for a visualization of methods.

<sup>&</sup>lt;sup>2</sup> Department of Homeland Security, "What is Human Trafficking?", accessed 28 September 2020, https://www.dhs.gov/blue-campaign/what-human-trafficking

<sup>&</sup>lt;sup>3</sup> United Nations Office on Drugs and Crime (UNODC), "Human Trafficking", accessed 28 September 2020, https://www.unodc.org/unodc/en/human-trafficking/what-is-human-trafficking.html

<sup>&</sup>lt;sup>4</sup> For a copy of the survey or more information, please contact: CTIPMEL@winrock.org



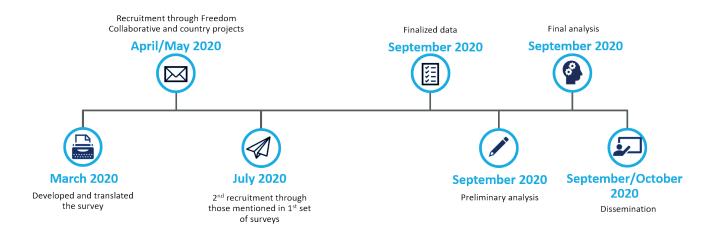


Figure 2: Timeline of the research



To recruit for participation in the research, the USAID Asia CTIP team worked closely with project partner **Liberty Shared** and bilateral country projects to disseminate the survey to their networks in the region. Liberty Shared distributed the survey through their **Freedom Collaborative** newsletter platform, inviting subscribers to participate. We received 26 completed surveys. To increase participation, we reached out to organizations that were mentioned as connections and recommendations in the 26 surveys initially received. Fifty-five invitations were individually sent to these organizations and generated 28 responses. In total we received 54 completed surveys.

It must be noted that the main limitation of this research is representativeness. We had trouble reaching many organizations and therefore were not able to do multiple rounds of recruitment in order to reach equilibrium, which would have reduced bias. Many (64%) organizations, for example, reported just one connection, and it is unlikely that they would only have one. We can safely assume that many connections are still missing from the network analysis.



The data provided two sets of information: organization details and the connections of these organizations. Two types of analyses were performed: descriptive analysis and social network analysis. Descriptive analysis was carried out on the data received from the organizations that participated in the survey, using R<sup>5</sup>, a statistical computing software. To maintain focus on the coordination between organizations, we decided to direct the analysis on the information sharing platforms as can be seen below. The social network analysis on the connection data was carried out using an open-source software specialized in network analysis and visualization, Gephi<sup>6</sup>.



#### Descriptive Analysis of Coordination

Fifty-four surveys were completed and validated from nine countries. The highest number of participating organizations were from Thailand and Nepal. Figure 3 below shows the location distribution of the surveyed organizations.

#### Surveyed organizations by country (n=54)

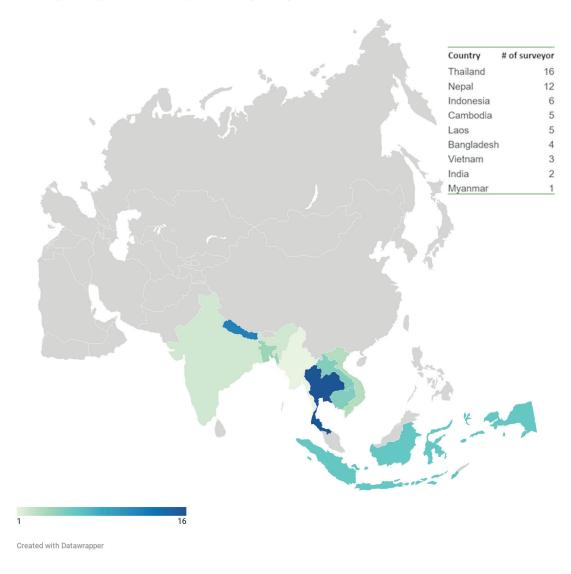


Figure 3: Mapped distribution of surveyed organizations by country

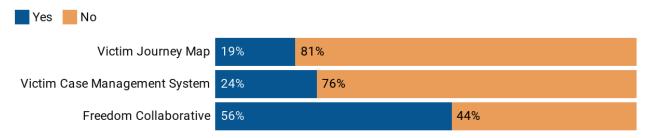
<sup>&</sup>lt;sup>5</sup> R Core Team, "R: A Language and Environment for Statistical Computing", 2020, https://www.R-project.org
<sup>6</sup> Bastian M., Heymann S., Jacomy M., "Gephi: an open source software for exploring and manipulating networks.", 2009, International AAAI Conference on Weblogs and Social Media.



To assess the current level of coordination and information sharing, the survey asked about three information sharing platforms hosted by Liberty Shared. The platforms include Freedom Collaborative (FC), the Victim Journey Map, and the Victim Case Management System (VCMS). The other two include Freedom Fund and the Counter Trafficking Data Collaborative.

Freedom Collaborative (FC) is a centralized online community focused on fighting exploitation, human trafficking and slavery. The Victim Journey Map and VCMS track and share information of human trafficking victims and survivors. Through tools and services for data and information sharing, these platforms support collaboration(s) between a wide range of civil society, government, and private sector stakeholders from around the world, Figure 4 below shows that 30 (56%) organizations surveyed use FC, but only 13 (24%) and 10 (19%) use VCMS or the Victim Journey Map, respectively. Not enough organizations are utilizing these platforms to their full potential. If organizations in the source, transit, and destination countries share information on these platforms, it can help them access accurate and consistent data, therefore making countering human trafficking work potentially more effective.

### Info Sharing Platform Usage



Created with Datawrapper

Figure 4: Organization's usage of information sharing platforms



### THE SOCIAL NETWORK ANALYSIS

The full social network is gathered through the connection data from the 54 surveyed organizations and the 130 organizations that they have collaborated with, adding up to 184 organizations from eleven countries. The map below (Figure 5) shows the organizations' geographical distribution. Figure 5 shows that Nepal and Thailand have the top two highest number of mentions and are therefore most represented. As can be seen from Figure 3 above, more Thai organizations (16) have completed the survey than Nepali organizations (12). Nepal, however, cited 15% more organizations in their network. This demonstrates that Nepalese organizations are extremely collaborative.

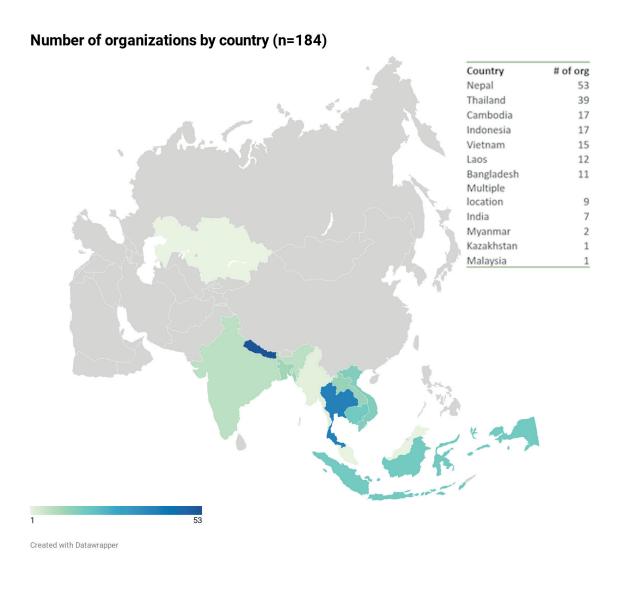


Figure 5: Map distribution of organizations of the full network by country

Figure 6 shows the overview of the network data available, disaggregating countries by color. As expected, most organizations are clustered by countries as they are geographically closer and operating around the same population and governmental policies. Looking closely, we can observe that the Thai cluster, in green, is connected to all the other country clusters: Nepal, Indonesia, Laos, Bangladesh, Cambodia, and Vietnam. The Nepal clusters present interesting results. In Figure 6, you can find two separate Nepal clusters, as can be seen in the left and bottom right. There are 53 Nepali organizations represented, which is the most represented country; however, these organizations are separated into two network clusters. Many of the organizations working in Nepal are local NGOs working on a national or subnational level. It is probable that if further recruitment and surveys were carried out, we may see the two clusters eventually merging. However, this disconnect provides evidence that local Nepali organizations are not well connected or that there are possible barriers restricting collaborations among these two groups.

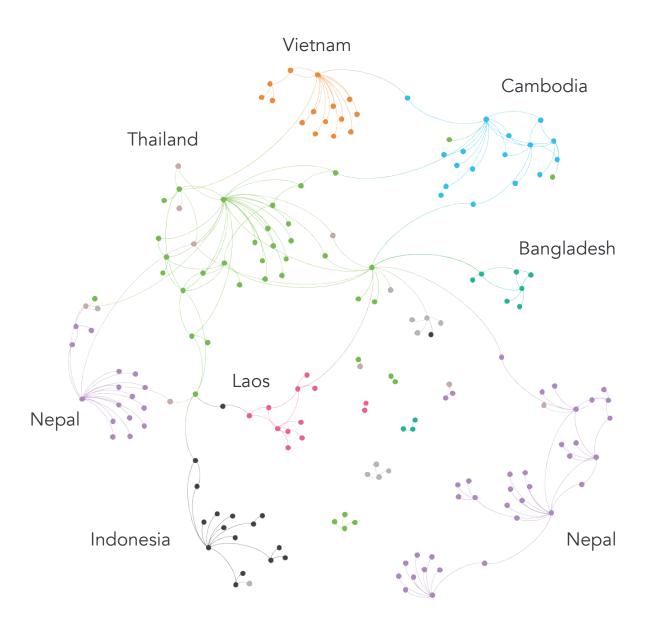


Figure 6: Full network visualization by country

# DEGREE CENTRALITY

Figure 7 shows the degree centrality of the network, a concept that assigns varied importance to organizations by how many connections they have. This is represented by the sizes of the labels and the nodes: the bigger they are, the more connections they have. The colors in this figure still demonstrates the country where the organization is located, as in Figure 6. USAID Thailand CTIP has the largest nodes and label, showing that they have the most connections and are the most connected player in the network. Degree is the number of connections a subject has. In this case, USAID Thailand CTIP has a degree of 24.

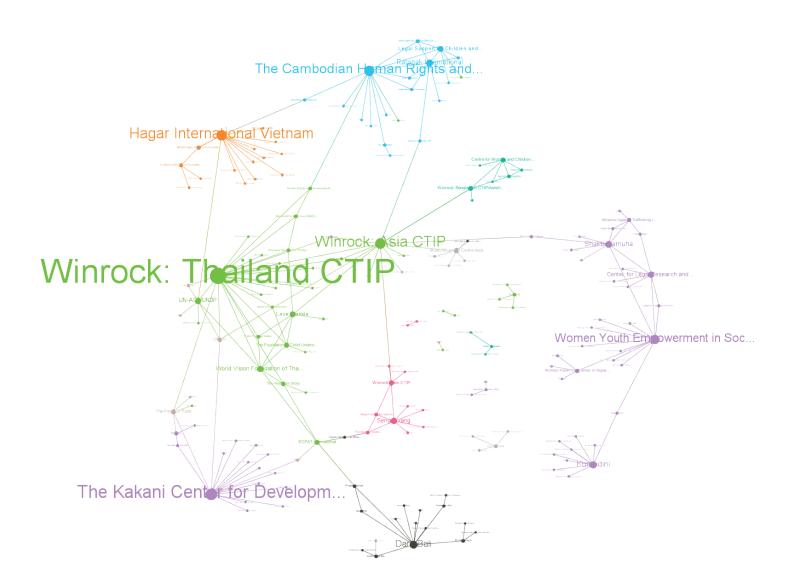


Figure 7: Visual of full network by country, size based on degree centrality



### **BETWEENNESS CENTRALITY**

Figure 8 provides a visual analysis on betweenness centrality. Betweenness centrality measures how often an organization is a bridge between other organizations, ensuring that they are a part of the network. This is an important characteristic, especially in the counter-trafficking in persons field, because the higher the betweenness centrality one has, the more influential one is considered to be. Essentially, the organizations with high betweenness centrality will have more control over information and how it spreads.

Figure 8 shows the full network colored by country, while the betweenness centrality is represented by the sizes of the labels and nodes. In this network, USAID Asia CTIP has the highest betweenness centrality, with USAID Thailand CTIP as the second highest. This mean that effective and quick dissemination of information in this network can be done successfully by USAID Asia CTIP. Without dissemination through USAID Asia CTIP, many organizations may take a longer time to access the information or may not receive it at all.

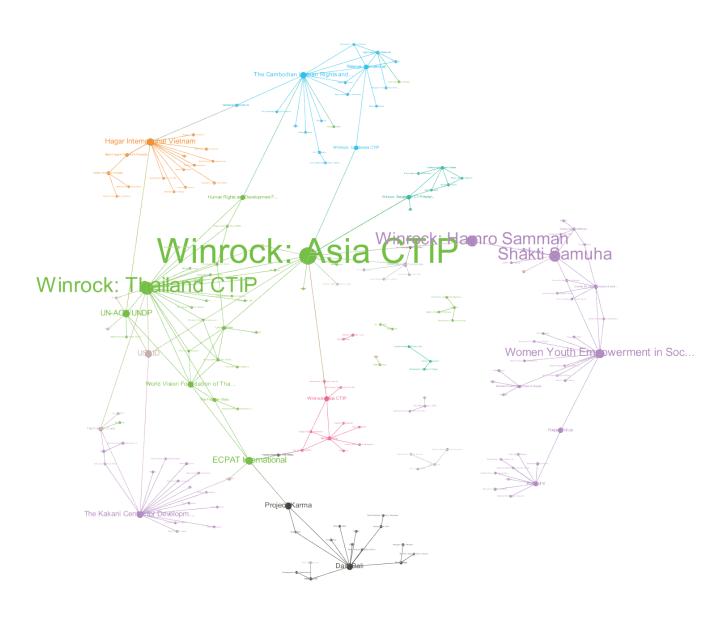


Figure 8: Visual of full network by country, size based on betweenness centrality

## COMMUNITY DETECTION

Community detection is another important analysis. The analysis visualized in Figure 9 shows colored clusters of nodes, which are communities, that are more connected to each other than other organizations. This figure shows eight communities, which is around 84% of the full network. Because these organizations are less connected with other organizations outside their community, these groupings can act as a bottleneck or diffusion of information; they can keep information in or keep information out. We can expect organizations with similar interests or characteristics to be more frequently collaborating and in proximity and exploring these communities to understand the unique characteristics that separate them or group them together would be worthwhile.

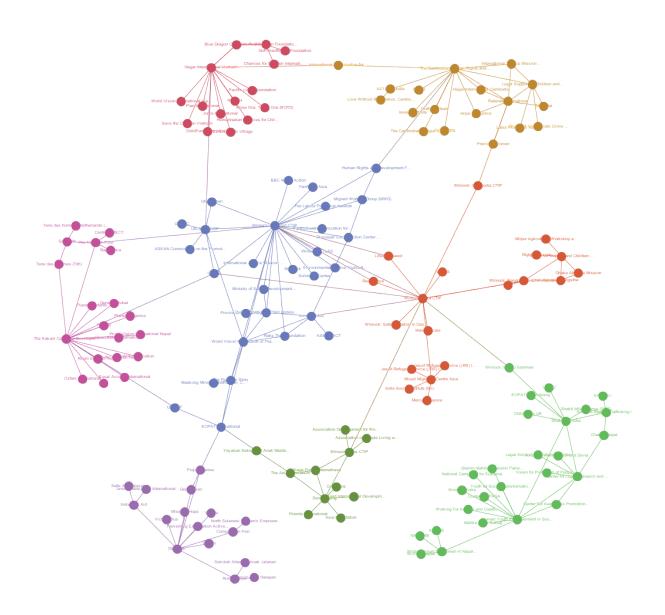


Figure 9: Visual of full network by community detection



### INDIVIDUAL COUNTRY ANALYSIS: THAILAND

#### Degree and Betweenness Centrality

As opposed to the full regional network analysis, data from Thailand can be deemed to be representative. Data from Thailand are from 16 organizations that completed the survey and includes their connections with 23 other Thai organizations and 13 international organizations. This is illustrated in Figure 10, blue nodes being Thai organizations and other colored nodes as non-Thai organizations. The size of the nodes in this figure shows both the degree and betweenness centrality. From the full network analysis, we can expect to see USAID Thailand CTIP being the main player in the Thai network and Figure 11 confirms this. USAID Thailand CTIP and USAID Asia CTIP are the first and second organizations with the highest degree and betweenness centrality, respectively; unsurprisingly, USAID Thailand CTIP is more connected and central among Thai organizations while USAID Asia CTIP is more connected with organizations outside of Thailand.

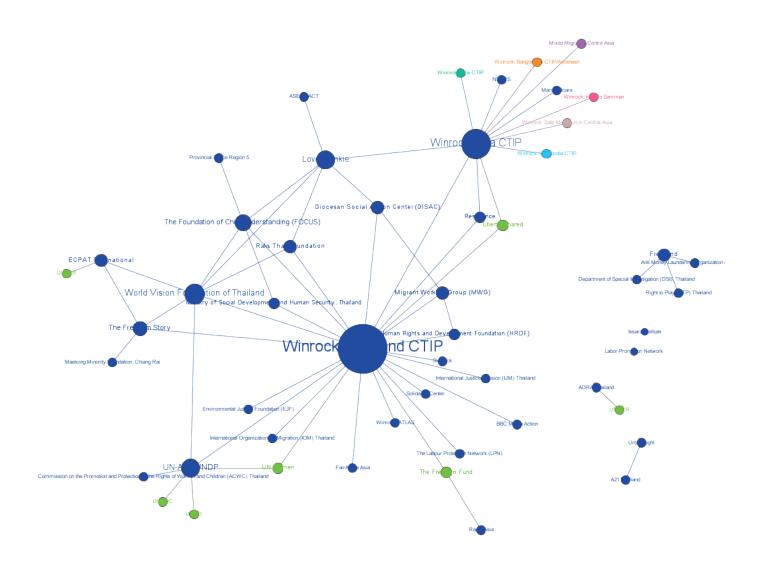


Figure 10: Thailand network by country and sized by degree/betweenness centrality

# COMMUNITY DETECTION: THAILAND

Lastly, Figure 11 shows the Thailand network colored by community detection. As expected, we see the red cluster with USAID Asia CTIP and their connections outside of Thailand. We also see three other clusters in the main part of the network, with USAID Thailand CTIP being the center of the biggest cluster. There are also five small communities that are not connected to the main network. A more accurate country-specific analysis like this can bring useful information in supporting the connections and collaborations in this country's network. Efforts should be made to 1) connect these small communities to the main network, and 2) maintain and strengthen these connections within the central network for more effective and impactful work.

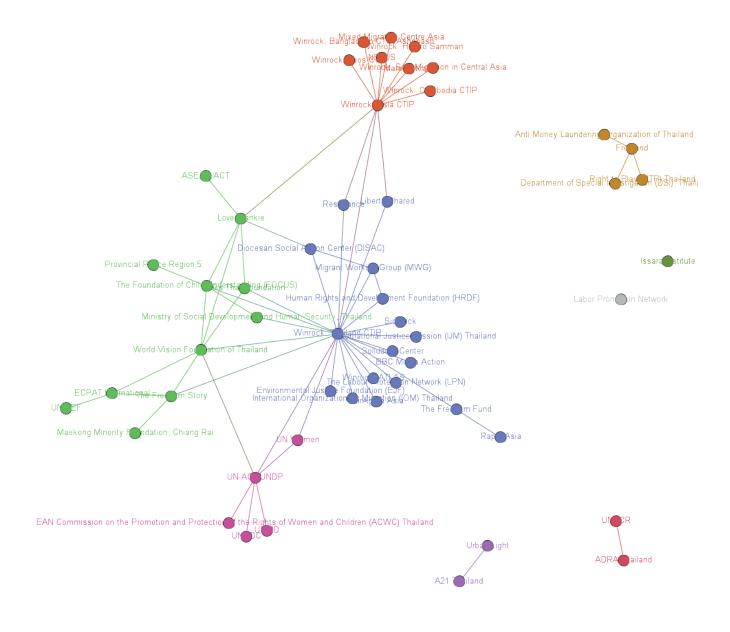


Figure 11: Thailand network by community detection



## LIMITATIONS AND LESSONS LEARNED

Key lessons learned involve survey design. First, several of the organizations who participated in the survey provided only a partial list of their collaboration or cited "too many to list". This refers to the response bias mentioned in the introduction, and one of the reasons why the network is not better represented. Second, the survey focused heavily on the surveyor's organizational structure and areas of focus and less on the connections. We were able to gather a lot of information about the surveyed organizations, but, because those same questions were not asked about the organizations they are connected to, the full network analysis does not have this information to map out. For example, one of the questions asked the surveyed organization whether they work with victims directly. However, this characteristic was not asked of the connections they listed. If an organization was mentioned but did not complete the survey, for example, this information was missing.

As mentioned in the Recruitment section, the limitation of our data is representativeness. Due to time constraints and lack of engagement from some organizations, we were not able to perform multiple rounds of recruitments to reach representativeness. However, with further studies and improved data collection, this network can be strengthened and expanded and would result in a more in-depth and detailed understanding.

Future studies should make sure to list what information is needed to form a map of connections and procure this information from both the surveyed organization and the organizations they listed. Finally, the survey was too long, and should have been carried out over the phone to ensure participation and rapid response rates.

This Social Network Analysis shows us that while there is a large number of organizations in the region working to counter human trafficking, the connections, collaboration, and coordination between them should be strengthened to share data and work together to achieve common goals.



