SIREN methodology

STRATEGIC INFORMATION RESPONSE NETWORK
United Nations Inter-Agency Project on Human Trafficking (UNIAP): Phase III

BANGKOK, THAILAND

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STATISTICAL METHODS FOR ESTIMATING NUMBERS OF TRAFFICKING VICTIMS

KEYWORD	▪ **Location:** Greater Mekong Sub-region ▪ **Topic:** Trafficking statistics ▪ **Analysis type:** Summary of innovative research methodologies / Process documentation
Synopsis	*Summary of winning proposals from a new global competitive initiative to find methods for estimating numbers of trafficking victims in a given geographic area and/or sector*

In 2007, UNIAP launched a competition in which NGOs, academics, and government and non-government research institutions were invited to submit proposals for innovative, rigorous methodologies to estimate the numbers of trafficking victims in a given geographic area and/or industry. The purpose of this initiative was two-fold:

- First, to address the need for accurate estimates of trafficking victims. This data is needed to understand the scale of the problem in different areas and industries, in order to inform intervention design and prioritization.
- Second, the competitive format aimed to attract quality statistical and research expertise to the field of human counter-trafficking – a field where the lack of reliable quantitative statistics has widely been acknowledged as an inhibiting factor in counter-trafficking programming.

The competition received many impressive entries, and after two rounds of review, a shortlist of six was selected to present and defend their methodologies before an audience of peers and judges in Bangkok. The judges reviewing the proposals were Dr. David Feingold (UNESCO),

Dr. Lisa Rende Taylor (UNIAP), and Professor Zhang Jie (Yunnan Academy of Social Sciences).

The methodological approaches of the proposals, as hoped, were diverse and innovative, and – most importantly – locally specific, practical, and feasible. As part of UNIAP's Trafficking Estimates Initiative, in 2008 UNIAP will provide direct funding and technical support to the top three selected methodologies, and support will also be sought for the three honorable mentions, recognizing the high standard of these as well. Publication and results sharing is also a high priority, hopefully leading to eventual replication of methodologies in other regions for piloting, modification, and – eventually, it is hoped – reliable systems for quantifying human trafficking over time, in many regions of the world.

This report outlines the process of the UNIAP Trafficking Estimates Initiative, then presents the top three methodologies in order of merit, with the three honorable mentions following in alphabetical order.

The UNIAP Trafficking Estimates Initiative

Process: This process documentation may be helpful for counter-trafficking communities in the world seeking to derive more accurate and feasible methods of scoping trafficking magnitude in their region:

► June 2007: UNIAP announced the Trafficking Estimates Competition, with proposal specifications and judging criteria available in English and the local languages of the Greater Mekong Sub-region (GMS).
► August 2007: UNIAP closed the Trafficking Estimates Competition and convened a judging panel from the pool of social science experts in the GMS counter-trafficking community. After initial review, twelve of the proposals were forwarded to the judges for independent review.
► August-September 2007: Using the judging criteria, the judges compiled a finalist shortlist of six from the pool of twelve, after a process of independent review and group discussion and debate.
► October 2007: UNIAP announced the finalist shortlist of six.
► 13 November 2007: UNIAP hosted the Trafficking Estimates Competition in Bangkok, Thailand.

► Next steps:
  • UNIAP will provide research funding to the top three finalists in early 2008, for research to be carried out through the year 2008.
  • UNIAP will also seek to mobilize support for the remaining three finalists, as well as seek support for replication of any of the finalist methodologies in the GMS or other parts of the world.
  • The finalists will convene again in late 2008 or early 2009 to review and present the results of their research and the trafficking estimates they derived.
  • All results will be published and globally disseminated.
  • UNIAP will use this process as a means of supporting networks and alliances among other agencies throughout the world who are interested in generating human trafficking statistics. It is our hope to work together to refine, test and use these new methodologies as a community.

Judging criteria. Entries were judged by the independent panel of judges according to the following criteria:

1. Comprehensiveness of the entry. Does it go into sufficient detail? Is all the information relevant and clear?
2. Relevance. How relevant is the entry to address real information priorities and gaps in anti-trafficking initiatives?
3. Technical strength. How strong is the entry's argument and logic? Does the entry look at both qualitative and quantitative aspects?
4. Practicality. How realistic is the entry (in terms of objectives, timeframe, logistics, funding, data sources)? How well does it address assumptions and risks?
5. Originality. Is the entry innovative and creative?
6. Replicability. How well would the entry adapt to other countries/areas/sectors (looking also at cost effectiveness, conditions and circumstances)?

Lessons learned to date. While the entire process of the Trafficking Estimates Initiative has been a learning experience, there have been three key lessons learned to date:

1. <u>Competitions lead to excellent quality proposals, and camaraderie</u>. The spirit of competition motivated participants to apply extra efforts and strengthen their team in order to generate a quality product. It also built bonds between members of a nascent global network of counter-trafficking researchers.

2. <u>Ethics should be included in the judging criteria and discussed in proposals</u>. During the finalist competition, ethical discussions were raised for several proposals, particularly regarding how to handle (a) data collection from people still in the harm environment and vulnerable to reprisals from their exploiters, and (b) information collected that implicates the respondent, their family members, their neighbors, or others.

3. <u>More than thirty minutes is needed to adequately explain most research methodologies</u>. During the finalist competition, contestants were granted thirty minutes to give a PowerPoint presentation of their methodological approach, and to field questions from the audience, judges, and fellow competitors. This was not enough time to allow the audience to fully absorb the logic and details of each approach, especially since they had not thoroughly reviewed the proposals as the judges had.

Audience members observe at the 13 November event (right) while the Macro International – Green Goal Cambodia team presents their methodological approach (left).

The six finalist teams of the UNIAP Trafficking Estimates Competition, along with judges, UNIAP staff, and other supporters.

The UNIAP Trafficking Estimates Initiative Finalists

FIRST PRIZE
Communication-Based Method of Measuring Human Trafficking
University of Miami, School of Communication

This methodology targets women and children who are trafficked within or into Cambodia for commercial sexual purposes. This proposal assumes that, first, the existence of any sex trade venue requires a sizeable, replenishing, stable male population. Second, the sex trade, which is run as a retail commercial enterprise, requires advertising to maximize profits by obtaining new customers. Advertising involves local informants who will provide location information of the venues to potential customers and in return receive a financial kickback from the venues. Based on these assumptions, this methodology seeks to locate sex trade venues through local informants, with particular emphasis on moto-taxi drivers. In addition to the information obtained through moto-taxi drivers, GPS mapping of venue locations will be supplemented by information obtained from Municipal Tourism Department and the police. A small-scale intensive study of randomly selected areas will be conducted to validate the accuracy of information provided by the sources.

After GPS mapping of venue locations is complete, a data collector who has the demographic characteristics of a typical customer of that venue (i.e., 'mystery client') will visit each identified venue and estimate the proportion of girls and women who are underage and/or seeming to lack freedom of movement. This process will be repeated by a different research team and data collector, and may be repeated a third time if necessary. It is expected that they will get the required information from visual survey and informal discussion with brothel owners and workers.

SECOND PRIZE
Estimating Labour Trafficking in Thailand: Case Study of Samut Sakhon
Labour Rights Promotion Network (LPN), Thailand and
Johns Hopkins Bloomberg School of Public Health, USA

This study focuses on Burmese migrant workers in the seafood processing industry in the province of Samut Sakhon, Thailand. As a large concentration of exploited migrant labor exists in this locality, thought to be in the hundreds of thousands, this study seeks to understand what proportion of these are truly victims of trafficking for labor exploitation.

The proposed estimation method is a phased approach: first, a review of existing literature and data from NGOs and Thai government sources; second, qualitative fieldwork, including ethnographic mapping, and third, quantitative data collection and analysis using the Respondent-Driven Sampling (RDS) approach. While RDS is a method widely used to derive valid population estimates from "chain-referral samples" of hidden populations[1], the basic idea is that respondents are selected from the friendship network of existing members of a non-random sample. An initial small number of "seeds" (individuals from the target population who are non-randomly selected) are recruited by researchers and interviewed about their work, and then encouraged to recruit others in their personal network to participate in the interview.

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[1] Heckathorn DD. Respondent Driven Sampling II: Deriving Valid Population Estimates from Chain-Referral Samples of Hidden Populations. *Social Problems*. 2002; 49(1):11-34.

These recruits, in turn, recruit others. After six or seven waves of recruitment with a fixed number of referrals from each recruit (most likely three to five), the sample may approach a normal distribution even absent randomness. Burmese migrant workers in Samut Sakhon will provide an opportunity to pilot this sampling methodology in estimating the point prevalence of trafficking into labor exploitation in factories in Samut Sahkon.

LPN staff will conduct primary data collection, including ethnographic fieldwork and RDS interviewing.   Johns Hopkins University will provide on-site training in implementation of the RDS methodology and, in collaboration with LPN, the cleaning and analysis of data.

THIRD PRIZE
Measuring Human Trafficking in the Mekong Delta
An Giang Dong Thap Alliance for the Prevention of Trafficking (ADAPT)

An Giang province is increasingly reported as a place of origin for Vietnamese women trafficked into Cambodia, partly due to its close proximity to the border with Cambodia.   This proposal seeks to estimate the number of Vietnamese women trafficked from An Giang Province to Cambodia over the past 5 years through a simple four-question survey and a stratified random sampling scheme that takes advantage of Vietnam's reliable census survey data and small local administrative units. An Giang province is divided into 11 districts, and from there into communes, hamlets and then approximately 16,000 *Tổ*s, with each *Tổ* consisting of approximately 25 households. 1,000 *Tổ*s will be selected at random among the districts, followed by a selection of 3 households in each *Tổ* for survey. The survey, in essence, asks about known or probable cases of trafficking or migration gone wrong from the *Tổ* in the last five years.

Important assumptions in this methodology are that, first, in the small and close-knit *Tổ* unit, everyone has reliable knowledge of their neighbours' status, and they are willing to speak about it. Also, it is assumed that all of those surveyed will have a similar and informed understanding of trafficking, which will be checked by further follow up questions.

To ensure the overall quality of the implementation, one statistician will design and oversee the process, while a local university will conduct the local data collection.

HONORABLE MENTION
Application of Mark Recapture Method to Estimating Street Children Working in Phnom Penh, Cambodia, Involved in Worst Forms of Child Labor, Including Trafficking
MACRO International and Green Goal Cambodia

This study will use a mark-recapture methodology to estimate a) the number of street children in Phnom Penh, Cambodia, and b) the subset of those children who are engaged in worst forms of child labor, including trafficking. The target population is children under the age of 14 engaged in activities such as begging, selling items in marketplaces, and picking garbage in the dumps. Much of this work is defined as

'worst forms of child labor'[2], and this will be further refined to identify the subset of children who are victims of trafficking.

This methodology requires a listing of the areas where the target behaviors occur, which will be a sampling frame of all locations in Phnom Penh where children engage in relatively 'open' activities of worst forms of child labor. Greengoal, the in-country team partner, will identify the sites where children are commonly known to work. Presence of street children will be verified at these locations, and three to four children will be asked if there are other locations where they or their associates work. This will be continued until all locations are exhausted and mapped using GIS.

From the GIS map, several teams will be assigned a schedule of sampling points to visit at different times in the day. They will interview a defined number of children in each location, including questions to understand whether the children had previously been interviewed, or, "marked."

This process will continue at randomly selected locations over a period of one or two weeks, with a rolling (repeated mark-recapture) approach (rather than the two-phase methodology that the name may suggest) to improve the randomness of the selection process.

HONORABLE MENTION
A simple method for estimating trafficking victims in China
China Center for Labor Study, Beijing Normal University

This method attempts to estimate the number of trafficked victims in China in recent years, building mathematical models using government statistics (Ministry of Public Security) and surveys. The key statistics used include the number of reported trafficking cases, the sub-set of reported cases that were registered by MPS, and the sub-set of registered cases that led to victim rescues. A linear exponential function is used to model changing ratios of these statistics over time (for example, ratio of rescued victims among those cases that were registered), based on the observation that the number of criminal cases as a whole in China has continuously increased in a linear exponential fashion in the last ten years, and human trafficking is hypothesized to be increasing in a similar way. The number of trafficking victims in recent years is thus calculated using the function $Y_t' = Y_{t0}'(1+r)^{(t+1)}$, where 'Y' is the number of trafficking victims in the year 't', and 'r' is the rate of change.

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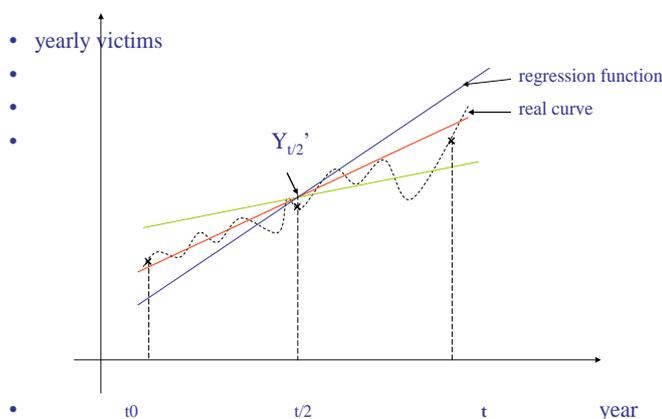
[2] See "How and Why We Work: Child Workers in the Informal Economy in Phnom Penh and Battanmbang", prepared by Holly Te for World Vision, 2005.

As the basis of this study starts with government information on the annual number of rescued victims, it is necessary to determine the relationship between rescued and actual trafficked persons, to derive an estimate at any given point in time. Three groups will be surveyed to gain this information: rescued victims and/or their relatives; possible victims and/or their relatives who have sought help through hotlines and other organizations; and police, village leaders, specialists and professional organizations. The data collected from these surveys will be used to determine the ratio of reported, rescued and registered victims, to the real number of victims. The questionnaire and government data can then be modeled with the equation $Y_t = C_t / (c_t * b_t * a_t)$, where a_t is the ratio of reported to all victims in the year t, b_t is the ratio of registered to reported victims, and c_t is the ratio of rescued to registered victims in the year t.

Developing this further to gain a regressive value for the average trafficked victims ($Y_{t/2}'$), the equation $Y_{t/2}' = C_t' / (c_t' * b_t' * a_t')$, derives the average number of trafficked victims in (t+1) years. Setting these functions together, we get the function $Y_t' = C_t' * (1+r)^{(t+1)/2} / (c_t' * b_t' * a_t') \approx Y_t$.

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HONORABLE MENTION
Singing Sad Songs Under Bright Shadows
PSI Cambodia, Sok Serey, and Ly Cheaty

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Seeking to estimate the number of trafficked women working in the karaoke establishments in Phnom Penh, this methodology will use a 'mystery client' survey to gather information. Considering the sensitive nature of this survey, this methodology considers it appropriate to have data collectors approach the targeted women as ordinary customers in the worksite to gather more accurate information.

PSI's work in 2006 counted 83 karaoke establishments in Phnom Penh, with a total of 1,721 women working at the venues. This proposal seeks to collect data from 20% of the target population within this sampling frame: thus, a total of around 350 of the 1,721 women will be surveyed by 'mystery clients'. The major assumption of the study, the null hypothesis, is that 10 percent (170) out of 1,721 women has been trafficked to work in this industry. The null hypothesis was based on observation and discussion with men who frequent karaokes.

Data collection in the karaokes will involve five teams of four data collectors, visiting karaoke and engaging in conversation with the women, whiles also singing karaoke as regular customers would. From the conversation they will try to gain information that will then feed into a more detailed follow-up questionnaire, to be completed after the initial visit. Further in-depth interviews will be conducted if it is possible to obtain contact information from those initially surveyed, which will also to verify the information previously acquired. An independent consultant will be hired to follow up with 20% of interviewees, using select questions from the questionnaires for validation. Content analysis will be used for qualitative data, and SPSS will be used to analyze quantitative data.

For questions, comments, and feedback on this SIREN report, please contact Paul Buckley at <u>Paul.Buckley@undp.org</u>.

SIREN

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- ▸ **GMS-01 – Introduction to SIREN: The Strategic Information Response Network**
- ▸ **GMS-02 – Targeting Endemic Vulnerability Factors to Human Trafficking**
- ▸ **GMS-03 – Statistical Methods for Estimating Numbers of Trafficking Victims**

- ▸ **CB-01 – Counter-Trafficking Databases in Cambodia**
- ▸ **CB-02 – Case Study: Exploitation of Cambodian Men at Sea**

- ▸ **TH-01 – From Facilitation to Trafficking: Brokers and Agents in Samut Sakhon, Thailand**

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- ▸ **The State of Human Counter-Trafficking: A Tool for Donors**

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