

## **HUMAN TRAFFICKING – A COMPLEX CHALLENGE FOR FORENSIC SCIENCE.**

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The human cost of the status quo is simply unacceptable. Increased demographic and economic disparities, as well as migration flows, catalyze hidden and illicit trade e.g., human trafficking. Human trafficking encompasses diverse forms of human exploitation such as sex trafficking, labor exploitation, marriage, begging, child soldiers, and illegal organ transplantation. A trafficked person may be sold repeatedly, opposite to the drug trade, which makes the crime more flourishing for traffickers. The consequences of human trafficking affect all countries, are devastating for victims and society and impact social, economic, and global health costs.

A project led by UNTCHI is underway to assist Guatemala, El Salvador, Honduras, Costa Rica, and Panama to identify the missing and combat human trafficking by developing model legislation, an effective DNA forensic science capability, and humanitarian DNA database systems. The focus is on at-risk populations and the most vulnerable of society. This program based on the collective experiences from 60 countries engages the public and government in establishing policy and legislative models for DNA identification of missing persons that protects the privacy of individuals, such as family members who donate reference samples, maintains security of the databases, and properly limits database search parameters. Implemented regulations must follow international standards of privacy and human rights. Concomitantly, laboratory personnel must be trained, procedures validated, and work performed under quality assurance practices. The laboratory and the databases must be sustainable for long term use. A model system is underway in Guatemala and will be used to proceed in the other target countries. Lastly, the Humanitarian DNA Database is being established at UNTCHI to exchange DNA data with host countries to identify human remains within the US border.

The work described herein can be an example of transferring technology and humanitarian DNA database practices, establishing policy and legislation, engaging the public, and developing strategies for sustainability to other vulnerable countries. Proper approaches instill greater confidence in government by the public and provide much needed safety and security. The strategy can help combat human trafficking within the countries and promote a multi-national exchange of DNA data between the USA and neighboring countries to identify the missing. Importantly, the approach can bring some resolution to individuals and families from tragic events.