

Third National Workshop on Measuring Illicit Financial Flows Associated with Drug Trafficking in Bangladesh

7 March 2022 – Padma Hall, Hotel Pan Pacific Sonargaon, Dhaka

Group Exercise 2 – Understanding the methodology to measure illicit drug market value and related IFFs (income generation)

Objective of this exercise: Understand the methodology to estimate illicit drugs flows and its corresponding IFFs. The focus of the exercise is on income generation IFFs emerging from cross-border operations for exchanging illicit drugs. The difference from other previous exercises is that this exercise aims to obtain country-level figures by applying a basic methodology to estimate the illicit drug markets value generated along different drug trafficking routes and in the domestic market. Simulated information on prices and quantities to estimate drugs demand and supply will be used.

Please read the scenario below and follow the guidelines at the end of the scenario to calculate the income generation figures and the total value generated by drugs markets (in terms of revenues and profits).

Please round the results to 2 decimals. You can use a calculator for this exercise.

You will be guided by UNODC to conduct this exercise.

Scenario

- *Trafficking routes*

From the analysis of Bangladesh seizures data in a given year, it emerges that **100% of the heroin trafficked in Bangladesh originates from India**. It is known that all the heroin coming from India is sourced from this country and that there is **no production of heroin in Bangladesh**. It is also known that **heroin from Bangladesh is exported to Sri Lanka only**.

- *Domestic consumption and seizures*

Some of the heroin flowing into Bangladesh is **consumed domestically**. A study reveals that **0.5% of the adult population** consumed the substance at least once in the past year. The size of the adult population (15-64 years old) is **11,02,00,000** (or 110,200,000 using international system of numeration). The average annual amount consumed per capita is **10.8 grams**.

It is also known that **323 kg of heroin is seized** in Bangladesh, in the same year.

- *Exports*

The rest of the heroin is re-exported to Sri Lanka, location of final consumption (e.g. no heroin is further exported to other countries). From an analysis of Sri Lanka data, it has been detected that **23% of Sri Lanka's heroin seizures come from Bangladesh**. The 15-64 years old **population of Sri Lanka is 1,41,00,000** (or 14,100,000 using international system

of numeration) and **0.61% of the adult population** consumed heroin at least once in the past year. The average annual quantity consumed per capita is also **10.8 grams**. **Sri Lanka seized 739 kg** of heroin.

- *Prices*

Bangladesh import price of heroin is 5,895 USD per kg. **Bangladesh domestic wholesale price is 11,788 USD per kg**. **The export price is 8,000 USD per kg**. **The retail price is 47 USD per gram**.

- *Actors*

For the purpose of this exercise, it is assumed that **95% of the persons** who were arrested while **importing heroin** into Bangladesh are **based in Bangladesh** and that **100% of the persons** arrested while **exporting** from Bangladesh are based in this country.

- *Intermediate costs*

Regarding intermediate costs, it is known that **every imported kg of heroin costs traffickers on average 20 USD**.

The table below summarizes the economic activities of the 3 countries involved in the heroin supply chain described above.

Country	Position in the supply chain	Activities
India	Country of departure	Production Wholesale and retail trade Export
Bangladesh	Country of transit and destination	Import Wholesale and retail trade Export
Sri Lanka	Country of destination	Import Wholesale and retail trade

Overview of the steps to resolve the exercise

Step 1: Review of known data (data collection)

Step 2: Estimate quantities and value

- 2.1 Quantity of heroin consumed in Bangladesh
- 2.2 Quantity of heroin exported from Bangladesh
- 2.3 Quantity of heroin imported in Bangladesh

Step 3: Estimate IFFs (the financial transactions corresponding to imports and exports)

- 3.1. Outward IFFs
- 3.2. Inward IFFs

Step 4. Estimate illicit gross output and illicit net income

- 4.1. Value of the heroin domestic market
- 4.2. Value of the heroin export market
- 4.3. Illicit gross output
- 4.4. Illicit intermediate expenditure
- 4.5. Illicit net income

Step 1: Review of known data (data collection)

Consumption	
Variable	Data
Bangladesh annual prevalence of heroin (15-64 years-old)	0.5%
Bangladesh population size (15-64 years-old)	11,02,00,000 (or 110,200,000 in international system of numeration)
Average annual quantity consumed per capita in Bangladesh	10.8 grams
Prices	
Variable	Data
Domestic wholesale price	11,788 USD per kg
Domestic retail price	47 USD per gram
Import price	5,895 USD per kg
Export price	8,000 USD per kg
Exports/Imports	
Variable	Data
Sri Lanka population size (15-64 years-old)	1,41,00,000 (or 14,100,000 in international system of numeration)
Annual prevalence of Sri Lanka (15-64 years-old)	0.61%
Average annual quantity consumed per capita in Sri Lanka	10.8 grams
Proportion of the drugs seized in Sri Lanka coming from Bangladesh	23%
Proportion of heroin exported from Bangladesh	100% destined to Sri Lanka
Seizures	
Variable	Data
Quantity of heroin seized in Bangladesh	323 kg
Quantity of heroin seized in Sri Lanka	739 kg
Proportion of resident international traffickers	
Variable	Data
Proportion of resident drug exporters in Bangladesh	100%
Proportion of resident drug importers in Bangladesh	95%
Intermediate costs	
Variable	Data
Drug storage cost per kg in Bangladesh	20 USD per kg

Step 2: Estimate quantities

2.1. Quantities of heroin consumed in Bangladesh

- **Number of heroin users in Bangladesh:**

= Bangladesh population x Annual prevalence rate in Bangladesh

= 11,02,00,000 (or 110,200,000) x 0.005

= 551,000 users

○ **Consumed quantity in Bangladesh:**

= Number of users x quantity consumed per capita

= 551,000 x 10.8 grams

= 59,50,800 grams (or 5,950,800 grams) = 5,950.8 kg

2.2. Quantity of heroin exported from Bangladesh

Recalling that Sri Lanka is the only country where heroin crossing Bangladesh is exported, it follows that:

○ **Number of heroin users in Sri Lanka:**

= Sri Lanka population x annual prevalence rate in Sri Lanka

= 14,100,000 x 0.0061

= 86,010 users

○ **Quantity of heroin consumed in Sri Lanka**

= Number of users x quantity per capita

= 86,010 x 10.8 g

= 928,908 grams = 928.91 kg

○ **Quantity of heroin outflowing from Bangladesh to Sri Lanka**

Bearing in mind that there are no other heroin exports from Sri Lanka to other countries, Sri Lanka total demand is given by:

(Sri Lanka consumption + Sri Lanka seizures) x Proportion coming from Bangladesh

= (928.91 kg + 739 kg) x 0.23

= 1,667.91 kg x 0.23

= 383.62 kg

○ **Quantity of heroin exported from Bangladesh**

Heroin exports = Quantity of heroin outflowing x proportion of resident exporters

= 383.62 kg x 100% = 383.62 kg

2.3. Quantity of heroin imported in Bangladesh

Bearing in mind that there are no other heroin exports from Bangladesh to countries other than Sri Lanka, and that no heroin is produced in Bangladesh, the total imports of heroin in Bangladesh are calculated as:

Heroin inflow = Consumption + Seizures + Exports

$$= 5,950.8 \text{ kg} + 323 \text{ kg} + 383.62 \text{ kg}$$

$$= 6,657.42 \text{ kg}$$

Heroin imports = heroin inflow x proportion of resident drug importers in Bangladesh

$$= 6,657.42 \text{ kg} \times 95\% = 6,324.55 \text{ kg}$$

Step 3: Estimate IFFs

3.1. Outward IFFs

Outward IFFs = Heroin imports x import price

$$\text{Outward IFFs} = 6,324.55 \text{ kg} \times 5,895 \text{ USD}$$

$$= 3,72,83,209.9 \text{ USD (or } \mathbf{37,283,209.9 \text{ USD)})}$$

3.2. Inward IFFs

Inward IFFs = Heroin exports x export price

$$\text{Inward IFFs} = 383.62 \text{ kg} \times 8,000 \text{ USD per kg}$$

$$= 3,068,950.7 \text{ USD (or } \mathbf{3,068,950.7 \text{ USD)})}$$

Step 4. Estimate of illicit gross output and illicit net income

4.1. Value of the heroin domestic market

Value of the domestic market = Quantity consumed in Bangladesh x retail price

$$= 59,50,800 \text{ (or } 5,950,800) \text{ grams} \times 47 \text{ USD/gram}$$

$$= 27,96,87,600 \text{ USD (or } \mathbf{279,687,600 \text{ USD)})}$$

4.2. Value of the heroin export market

Value of export market = Inward IFFs = 30,68,950.7 USD (or 3,068,950.7 USD)

4.3. Illicit gross output

illicit gross output = Value of the domestic market + value of the export market

$$= 27,96,87,600 \text{ (or } 279,687,600) \text{ USD} + 30,68,950 \text{ (or } 3,068,950) \text{ USD}$$

$$= 28,27,56,550.7 \text{ (or } 282,756,550.7) \text{ USD}$$

4.4. Illicit intermediate expenditure

Intermediate costs = Heroin inflows x storage per kg
= 6,657.42 kg x 20 USD per kg
= 1,33,148.4 USD (or 133,148.4 USD)

4.5. Illicit net income

Illicit net income = illicit gross output – intermediate costs

Illicit net income = 28,27,56,550.7 (or 282,756,550.7) USD - 1,33,148.4 (or 133,148.4) USD
= **282,623,402.3 USD**