**Illicit Tracking- Field Briefing Note**

**Pack Collection (Garbage) Methodology**

**SEPTEMBER, 2012**

**BACKGROUND**

Illicit Trade is the supply, distribution and sale of smuggled and/or counterfeit tobacco products, or tobacco products on which applicable duties and taxes in the country of consumption have not been paid. Illicit trade can happen in different forms like

* Importation without duty/taxes of trademarks which are not sold legally
* Importation without duty/taxes of trademarks which are also sold legally
* Undeclared local production of trademarks which are not sold legally
* Undeclared local production of trademarks which are sold legally
* Counterfeit of trademarks sold legally

This kind of illicit trading in cigarette products represents a significant and growing threat to the industry’s organic growth strategy. Thus it is absolutely critical to monitor the growth of illicit category on a continuous basis.

This document outlines the guidelines for estimation of illicit trade in terms of incidence and volumes via pack collection (garbage) methodology which involves collection of disposed packs.

**OUTLINE OF THE APPROACH**

Under this approach, cigarette packs which are disposed-off by consumers are collected from several places within a country/region/city. Some of these places could be garbage bins on the roads, busy pavement, places of public congregation like bus stops, etc.

These collected packs would then be examined to determine if they are illicit/ legal packs. Based on the count of illicit packs collected, the proportion of illicit trade both in terms of incidence and volume shares would be obtained. However, estimating the share of brands within illicit packs would depend on the incidence of illicit trade.

**Sampling Procedure**

The sampling procedure should ensure a nationally representative sample size. However, if the study is to be done within a smaller universe like a regional frame or covering only urban areas or a cluster of cities, then the sample size (referring to the number of disposed packs which are to be collected) should proportionately reflect each of the areas covered within the smaller universe. Also, an over-indexing and under-indexing of the packs collected vs. GCS representation can be allowed within a range of 0.75 to 1.20.

To ensure this all market/ representative sampling frame, first of all the country would be divided into regions. For a volume share split from GCS, the smoker share would be multiplied by corresponding ADC within the respective regions. These regions would be further subdivided into areas according to the (region X pop-strata X ADC) representation in GCS, so that each area corresponds to a particular ‘cell’ in the below table. The sum of the contributions in terms of volumes of each of the individual ‘cells’ is the entire volume for the geography covered in the study.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **POPULATION STRATA** |  | **REGIONS** | | | |
| **R1** | **R2** | **...** | **Rn** |
| **P1** | **R1P1** | **R2P1** | **…** | **RnP1** |
| **P2** | **R1P2** | **R2P2** | **…** | **RnP2** |
| **…** | **…** | **…** | **…** | **…** |
| **…** | **…** | **…** | **…** | **…** |
| **Pn** | **R1Pn** | **R2Pn** | **…** | **RnPn** |

\**Each area will be represented by a* ***“Cell”*** *where* ***“Cell”*** *means* ***region X pop-strata X ADC***

Each area would be further divided into sub areas. Each sub-area will be assigned with starting points and the number of starting points for a sub-area will be based on the fact that approximately 10-20 packs can be collected from each starting point. In case, enough number of packs is not available in the designated block, the adjoining blocks can then be covered to achieve the desired number of packs. A schematic view of the entire framework can be similar to the following flow-diagram.

*While carrying out the illicit tracking module, areas having proximity to neighboring countries i.e. the areas adjoining the border regions have to be extensively covered as these are likely to be the places with higher prominence of illicit trade. This deliberate over sampling of such areas would then be corrected through weighting to reflect the representative national picture.*

**Sample Size**

Sample size refers to the number of packs to be collected

A minimum of 3000 sample size is to be done for any country-wise reporting.

If data\* is required by any sub-group\*\* a minimum sample size of 600 is recommended.

Also, for each ‘Cell’ [please refer to the Region X Pop Strata X ADC grid above] which is covered in the study - the minimum number of packs collected from each cell would be as shown below

|  |  |
| --- | --- |
| For each ‘*cell’* that is represented, which corresponds to | Minimum packs to be collected |
| Less than 3% of market | 150 |
| 3-10% of market | 300 |
| More than 10% of market | 450 |

\*Data: Incidence of illicit, volume of illicit, etc.

\*\* Sub-group: region, area, city, etc.

**AN ILLUSTRATIVE EXAMPLE TO DECIDE SAMPLE SIZE**

Let us assume that Country X is divided into 3 regions (A, B and C) and 3 population strata (1million+, 1,000,000 – 100,000 and less than 100,000). The Smoker Share and the ADC of each area is as depicted in the table below-

ADC

Smoker Shares

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **POP- STRATA** |  | **REGIONS** | | |  |  | **REGIONS** | | |
| **A** | **B** | **C** |  |  | **A** | **B** | **C** |
| **1MILLION+** | **15.0%** | **14.0%** | **11.0%** |  |  | **11** | **10** | **9** |
| **1,000,000 – 100,000** | **11.0%** | **10.0%** | **10.0%** |  |  | **9** | **10** | **10** |
| **LESS THAN 100,000** | **10.0%** | **9.0%** | **10.0%** |  |  | **10** | **11** | **10** |

Multiplying the smoker shares to the corresponding ADC of smokers in these 9 areas (3 regions X 3 population-strata), each represented by a cell, gives us the volume share (Region X Pop Strata) X ADC of each of the areas

So, in the below table, **16.5%** is the volume shares of the area within Region A and having a population of more than 1million. **10%** is the volume shares of the area within Region B and having a population of 100,000-1million, etc. Based on this volume share of each area, the number of packs to be collected from respective areas out of a total sample size of 3000 packs to be collected from the entire country can be calculated.

Volume Shares

Number of packs to be collected as per Volume Shares

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **POP- STRATA** |  | **REGIONS** | | |  |  | **REGIONS** | | |
| **A** | **B** | **C** |  |  | **A** | **B** | **C** |
| **1MILLION+** | **16.5%** | **14.0%** | **9.9%** |  |  | **494** | **419** | **296** |
| **1,000,000 – 100,000** | **9.9%** | **10.0%** | **10.0%** |  |  | **296** | **299** | **299** |
| **LESS THAN 100,000** | **10.0%** | **9.9%** | **10.0%** |  |  | **299** | **296** | **299** |

However, as per the guidelines for minimum number of packs to be collected from each area, the number of packs actually collected is given in the table below

Actual number of packs collected

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **POPULATION STRATA** |  | **REGIONS** | | |
| **A** | **B** | **C** |
| **1MILLION+** | **450** | **450** | **300** |
| **100,000-1MILLION** | **300** | **300** | **300** |
| **LESS THAN 100,000** | **300** | **300** | **300** |

This difference in actual number of packs collected vs. GCS representation is ensures that the over/ under indexation is within the acceptable range (0.75-1.20).

Multipliers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **POPULATION STRATA** |  | **REGIONS** | | |
| **A** | **B** | **C** |
| **1MILLION+** | **1.10** | **0.93** | **0.99** |
| **100,000-1MILLION** | **0.99** | **1.00** | **1.00** |
| **LESS THAN 100,000** | **1.00** | **0.99** | **1.00** |

The achieved sample size (packs collected) is weighted back to the actual representation as per volume share by using the above multipliers for the corresponding cells.

**APPROACH OF DAILY PACK COLLECTION:**

**The daily collection process will take place in the following order**

* The entire process of collecting disposed-off empty packs from garbage bins, streets, pavements, etc. shall only be done by garbage collectors who will be recruited after doing a joint arrangement with the local municipality in order to allocate them to the respective starting points within each sub-area.
* An interviewer will accompany each garbage collector throughout the pack collection (garbage) process.
* The garbage collector will meet the interviewer at the assigned Starting Point location at a fixed time every day of the fieldwork process. The daily collection process will take place at a fixed time of the day (say 11am to 5pm). Pack collection process should not take place in the absence of the interviewer under any circumstances.
* Once at the Starting Point, the garbage collectors would be instructed to pick up empty packs lying on the road on busy pavements, in places of public congregation e.g. parks, fairs, market places; in garbage bins/disposal areas in public areas within the designated subareas. Especially for stick markets, focus of pack collection (garbage) should be from in and around tobacco retail outlets (and not only garbage bins) for disposed-off empty packs.
* The order of street selection throughout the entire fieldwork process will be based on the right hand rule with a different street every day for each starting point.
* Interviewers should fulfill their quota by collecting *at-least* the minimum number of packs specified for that sub-area.
* Supervisors should continuously accompany the interviewers in their team throughout the collection process to monitor the fieldwork. For this purpose, supervisors should be present with *each interviewer* for at least 20% of the interviewer’s fieldwork time.
* Each fieldwork area would have small storage facility rented, to keep a count and examine the packs collected throughout the day. At the end of each fieldwork day, packs collected will be brought to this location.
* Every day, the packs collected will be examined noting down all the details of the pack, as per the below grid. This grid can be customized by the local agency as per country specific guidelines shared by BAT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Unique ID of Pack** | **Brand (With SKU)** | **Price Printed on Pack** | **Tax Stamp** | **Health Warnings** | **Manufacturing details** | **Tar and Nicotine Levels** |
|  |  |  |  |  | Name of Manufacturer- |  |
| Source of Manufacture- |
| Name of Importer- |
| Source of Importer- |
| **MENTION PACK ID (PACK ID SHOULD HAVE THE REGION AND AREA CODE)** | **MENTION BRAND NAME AND SKU SIZE** | **MENTION THE PRICE PRINTED ON PACK AFTER PACK EXAMINATION** | **MENTION IF TAX STAMP IS PRESENT OR NOT AND WHICH COUNTRY (IF PRESENT)** | **MENTION IF LOCALLY RELEVANT HEALTH WARNINGS ARE PRESENT OR NOT** | **MENTION THE ABOVE DETAILS AFTER PACK EXAMINATION** | **MENTION THE TAR AND NICOTINE LEVELS** |

* After examining the packs and writing down the details, these packs are classified as genuine or illicit packs. For this pack classification purpose, the “Pack Identification Guidelines” provided in the next section can be used. This procedure will also entail identifying the nature of illicit as DNP Genuine imports, DNP Genuine local, counterfeit packs, etc.
* After the packs are examined, the data obtained pertaining to the number of genuine and illicit packs collected, would be entered into an excel table by the supervisor/ senior supervisor. As an illustrative example, an excel table is provided which the fieldwork agency has to update on a daily basis-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pack Code** | **Brand Name and SKU** | **Local agency classification**  1=Genuine  2= DNP Imports  3= DNP Local  4 = Counterfeit | **BAT Technical Team Analysis based on visual inspection**  1=Genuine  2= DNP Imports  3= DNP Local  4 = Counterfeit | **Lab Analysis(if needed)**  1=Genuine  2= DNP Imports  3= DNP Local  4 = Counterfeit | **Fina1**  1=Genuine  2= DNP Imports  3= DNP Local  4 = Counterfeit |
| R1P1\_1 | ABC 20 KS |  |  |  |  |
| R1P2\_1 | XYZ 25 KS |  |  |  |  |
| ... | ... |  |  |  |  |
| RnPn\_n | PQR 20 KS |  |  |  |  |

* Next, an interviewer will be present at each storage location to receive/ label/ code/ count/ and store the packs under permanent supervision of the supervisor/ senior supervisor. For coding and labeling of packs, please refer to the “Coding and Labeling” guidelines provided below.
* After the counting is finished, the packs will be flattened, and stored in a plastic bag coded according to the center name, area, sub-area, and date of collection. Next for each area of the study, there shall be a box where the plastic bags pertaining to each sub-area within that particular “area”, shall be kept.
* Interviewers MUST share daily updates with their supervisors for the number of packs delivered to each storage area, which will be in turn shared by the supervisors with the central field office.
* At the end of each week, this box at the local storage facility containing the plastic bags of the sub-areas, will be sent to the main storage facility rented in the central region.
* Packs will be recounted and segregated at the central field office premises in the presence of the researchers and the senior field executive. At this place, researchers from BAT will identify illicit packs from those which couldn’t be classified earlier at the local offices.

**PACK IDENTIFICATION GUIDELINES**

BAT will provide each end market with a set of market specific guidelines that would specify the genuine pack identifiers for that market. This would enable identification of illicit packs at a preliminary level at local offices. For example, BAT may provide guidelines on-

* Tax stamp
* Specific health warnings
* Name of manufacturer and source of manufacturing; name and address of importer
* The SKU sizes of the legal packs and the Trademark names
* Specifications about Tar and Nicotine levels

The role of the fieldwork agency would be to classify all packs which do not match at-least one of the above set of BAT guidelines for that market, as illicit packs. Non illicit packs *MUST* contain all of the above information on them. Any pack that can’t be identified as genuine/ illicit will be sent to the BAT’s local agency office for further visual inspection/ laboratory analysis if needed.

**CODING & LABELING**

EACH PACK MUST BE CODED WITH A UNIQUE ID WHICH SHALL CORRESPOND TO THE AREA FROM WHICH IT HAS BEEN COLLECTED. THIS IS PERTINENT TO THE WEIGHTING PROCEDURE WITHOUT THIS THE DATA CANNOT BE WEIGHTED.

The guidelines to the entire coding and labeling procedure has been provided below

There will be 3 coding processes done daily throughout the entire fieldwork process-

* Pack Coding
* Plastic Bag Coding
* Box Coding

***Pack Coding***

After counting the packs each day, every pack will be given a serial number **(4 digits)** according to the order of counting preceded by the regional and area code consisting of the region and area initials.

e.g.

R1P1 0026

R2P2 0007

This is based on the assumption, that there will be one local storage location for each area. If there were more than one storage locations in one area, an additional one digit number must be provided after the region and area initials.

e.g.

R1P1\_1\_ 0035 or R3P3\_02\_ 0014

In such case, the field office MUST provide a list of the storage locations and its equivalent codes.

***Plastic Bag Coding***

There shall be a plastic bag allocated to each sub-area of the study to store the disposed empty packs collected from that sub-area.

Each plastic bag, in which the packs will be collected, should have a 10 digit numerical code preceded by the region initials.

This code can be written as follows

* **Region initials**- The first part of the code must begin with the initials of the region where the study is being carried out.

e.g.

R1 (Region 1)

R2 (Region 2)

R3 (Region 3)…

* **Area code**- Prior to coding, a list is to be provided from the field with all the areas for each region and their equivalent codes (two digit number)

e.g.

P1 (pop stratum 1) = 01

P2 (pop stratum 2) = 02…

* **Sub Area Code**- Prior to coding, a list is to be provided from the field with all the sub- areas for each area and their equivalent codes (two digit number).

e.g.

Sub-area “XYZ” within pop stratum 1= 01

Sub-area “ABC” within pop stratum 1=02

* **Date Code**- Six digit formatted date in the following order DDMMYY (e.g. 010112 for 1st January, 2012)

**PRIOR TO CODING, A COMPREHENSIVE LIST OF CODES FOR ALL THE ADDRESSES IS TO BE SHARED BY THE FIELD OFFICE REGARDING THE FIRST 3 PARTS OF THE CODE (REGION, AREA & SUB-AREA)**

***Box Coding***

There shall be a box for each area in which the plastic bags belonging to each sub-area within that particular area shall be kept.

Each box in which the plastic bags will be collected should have a code. These boxes will be subsequently shared with the main storage facility in the central region on a weekly basis. For coding purposes, the full name of the area should be written followed by a 2 digit serial according to the number of the box, followed by a six digit format date in the following order **DDMMYY.**

This is based on the assumption, that there will be one local storage location for each area. If there were more than one storage locations in one area, an additional 1 digit number should be written on the box after the area’s name and prior to the date code.

e.g. R1P1\_010112 (for areas with 1 storage location)

Or R3P3\_01/02\_ 010112 (for areas with more than 1 storage location)

**SCORECARD**

Each local agency has to fill-in a scorecard for the market, which shall in a gist represent the overall scenario in that particular market regarding illicit trade. After the scorecard is prepared the fieldwork agency must send it across to BAT team.

The data which shall be incorporated in the scorecard for each market as well as the instructions on how to record them are mentioned in the *Template Scorecard excel*.

**OTHER POINTS TO BE CONSIDERED**

* There should be at least 1-2 quality control executives in each area, doing random surprise checks during the field work process.
* Regardless of the interviewer’s experience in the tobacco research sector, each interviewer must receive a thorough training prior to the commencement of the fieldwork just as any beginner interviewer, as this is an entirely new study for the market.
* Researchers and the field senior executives/ deputy managers/ field manager must oversee the entire field briefing and interview training.
* During the fieldwork, each interviewer will carry an exhaustive list of DNP (Duty Not Paid) brands while accompanying the garbage collector, including all brands from the latest GCS/ RA data, which he must be completely familiarized with during his/ her training.