

# Holographic excise adhesive label (HEAL)

*Securing tax revenue, protecting consumer and curbing illicit liquor trade*

by C S Jeena

“The liquor industry is a major source of excise revenue for all States in India. In fact, it is the second largest revenue contributor for many States after sales tax. More than two decade ago, Tamilnadu Government took the revolutionary step and introduce first holographic excise adhesive label (HEAL) in India. The step taken by Tamilnadu was appreciated and further adopted by many other States in India. Today, more than 17 States excise department are using HEAL. This has not only minimized the hooch tragedies and duplication, but has also substantially increased the excise revenue collection in States. This article highlights the role of HEAL as an effective anti-counterfeiting solution in securing tax revenue, protecting consumer and curbing illicit liquor trade.

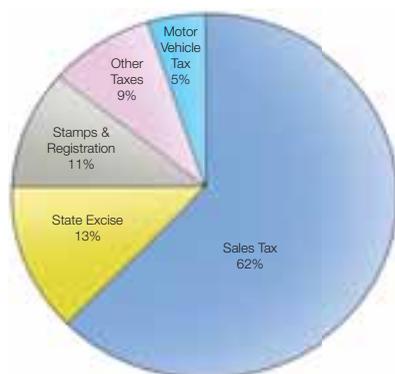


Figure 1: Composition of State tax revenues for 2010-11<sup>4</sup>

\*Other taxes include income from agricultural income, land revenue, electricity duties, entertainment taxes and other taxes duties

Globally, tax revenue from excise duties on the production and sale of beverage alcohol contribute an important source of Government revenue. The financial revenues for European governments arising from the production and sale of beer, i.e., taxes paid by breweries, beer consumers and employees together, total around € 38 billion a year, including € 19 billion in VAT and € 10.5 billion in excise duties. This represents more than total annual government expenditure of countries such as Finland or Poland (*estimated at around €34 billion*).<sup>1</sup> In the United States, the beverage alcohol industry pays over \$ 21 billion in directly to State and local revenue during 2008.<sup>2</sup>

## Scenario in India

Under the Indian constitution, liquor is one commodity which

the States are entitled to charge excise duty (*Article 246*)<sup>3</sup>. Revenue from excise duty is a significant contributor for many States in India accounting for more than 10 *per cent* of their own tax revenue. In fact, it is the second largest source of income for States after sales tax (*figure 1 and table 1*).<sup>4</sup>

The only state that does not depend on alcohol to generate revenue is Gujarat, which imposes prohibition in 2000-01. The major states in which liquor contributes a major chunk of their revenue kitty (F.Y. 2010-11) include Andhra Pradesh (₹ 9014 cr), Karnataka (₹ 8345 cr), Tamilnadu (₹ 8115 cr), Uttar Pradesh (₹ 6725 cr), Maharashtra (₹ 5800 cr), Madhya Pradesh (₹ 3604 cr), Punjab (₹ 2461 cr), Rajasthan (₹ 2859 cr), Haryana (₹ 2100 cr) & Bihar (₹ 1542 cr).<sup>5</sup>

1. Ernst & Young, 2005

2. Distilled Spirits Council of the United States, 2008

3. 'Article 246' The power of the state government to levy and collect the state excise duties is derived from Article 246 of the Constitution of India and entry 51 of list II – State list with seventh schedule thereto.

4. Reserve Bank of India, Study on State Finances Budget, 2010-11

5. Press releases, State excise department

Table 1: Budget estimates of States and Union Territories for period 2010-11<sup>4</sup>

State	a) Tax revenue (₹ lakh)	b) State own tax revenue (₹ lakh)	c) State excise revenue (₹ lakh)	d) Percentage of excise revenue in State own tax revenue
Andhra Pradesh	6150421	4699900	751200	16
Arunachal Pradesh	83037	14400	1700	12
Assam	1257041	497584	25946	5
Bihar	3424412	1064393	140000	13
Chhattisgarh	1231135	750548	132000	18
Goa	277506	221849	11967	5
Haryana	1866300	1646929	210000	13
Himachal Pradesh	459034	295552	54946	19
Jammu & Kashmir	641603	350528	28000	8
Jharkhand	1230700	596728	52500	9
Karnataka	4528841	3622832	742500	20
Kerala	2570999	2088423	183621	9
Madhya Pradesh	2971759	1867018	340000	18
Maharashtra	7472155	6383832	580000	9
Manipur	123281	28874	600	2
Meghalaya	131602	46181	10019	22
Mizoram	68132	11826	206	2
Nagaland	86040	20330	362	2
Orissa	2036418	1036001	95050	9
Punjab	1921563	1630800	252000	15
Rajasthan	3127307	1902086	245000	13
Sikkim	71162	21124	5550	26
Tamilnadu	5184001	4143832	750818	18
Tripura	173605	66705	7000	10
Uttarakhand	636890	402430	68693	17
Uttar Pradesh	6696669	3525489	569531	16
West Bengal	3521379	2000773	175978	9
Delhi NCR (UT)	1558250	1558250	168000	11
Puducherry (UT)	131715	131715	47500	36

### Prominent Sectors

Based on beverage type the Indian alcohol industry has three prominent sectors; a) *the IMFL / Beer / Wine sector*, b) *the country liquor sector*, and c) *the illicit liquor sector*.

#### a) IMFL / Beer:

Among these the IMFL is organized & centralized in India and constituted 34 per cent of alcohol market in India. In 2010, sales volumes of the IMFL industry were approximately 1,985 million liters or 221 million cases.

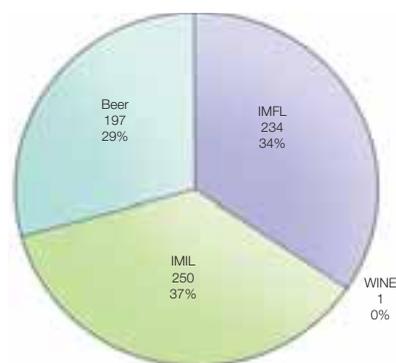
#### b) Country Liquor:

In contrast, to the IMFL and beer sector, the country liquor industry is more decentralized. It is regionalised and fragmented due to high state entry barriers requiring presence of a distillery in the state and constituted 37 per cent of market with volumes of 250 million cases in 2010.

#### c) Illicit liquor industry:

Parallel to this, the illicit liquor industry has also seen an increase in India. A significant proportion of the alcoholic drink

Industry Breakup Mn cases (2010)<sup>6</sup>



Segment	Volume (Mn cases)	% of IMFL
Whisky	137.5	59
Brandy	43.4	19
Rum	43.8	19
Gin	2.2	1
Vodka	7.3	3
Others	0.2	0

Source: IWSR, Industry & Company Estimates

in India, is produced illicitly by the informal sector or consists of “Second or D Market” (tax evaded beverages) and therefore remain undocumented. It has been speculated that such unrecorded consumption may be as much as 45 per cent of all use, although there is very little recent data available.<sup>7</sup>

Reports of excise raids on illegal distilleries and confiscation of illicit alcohol are also regularly featured in the media. Alone in Karnataka (2010-11), the department conducted 59,124 illicit distillation centres in State, registered 10,924 cases and arrested 4,597 persons. The department has seized 69,984 boxes of IMFL, 116,903 boxes of beer, 106,071 boxes of molasses and 107,058 boxes of arrack.<sup>8</sup>

In 2011, Maharashtra State excise department has seized counterfeit and illegal liquor amounted ₹16 crore. It was 25 per cent higher than the previous rate seized amount equivalent to ₹12.8 crore in 2010. The trend continues in 2012, as ₹1.5 crore illicit liquor have been seized by State excise department till February 2012. The problem is such severe that State excise officer in Maharashtra has demanded gun for protection of their enforcement officer.<sup>9</sup>

### Challenges for State Excise

There are various reasons due to which illicit liquor / smuggling increases. It can be prohibition policy of the state, inter-state smuggling of alcohol products, tax duties and lack of proper anti-counterfeiting strategy.

For example Gujarat is adopting a complete prohibition policy in state. Ironically this step increases the consumption of illicit liquor and loss of excise revenue amounted ₹3000 crore per annum.<sup>10</sup>

Rajasthan State excise department stopped using HEAL from November 2010 which again resulted in increased number of illicit liquor. Recently a factory has been seized in *Bhanipura (Rajasthan)* seizing 1050 litres illicit spirits.<sup>11</sup>

The State Government and Departments faces various challenges i.e.

- How to protect consumer from ill effects of illicit liquor?
- How to differentiate fake liquor bottles from genuine?
- How to combat smuggling of IMFL & Country liquor? How to ensure fool proof labeling and supply chain?
- How to avoid refilling / reusing of genuine liquor bottle with illicit liquor?
- How to increase excise revenue?

### Global practices to fight against illicit liquor/ counterfeiting

A solution can be excise adhesive labels (EALs) or tax stamp which applied to bottles as self-adhesive labels. Known by a variety of names (*excise stamps, excise adhesive label, tax stamps, tax seals, banderols*), these are the weapon of choice for many government around the world to secure the valuable revenue

6. IWSR, Industry & Company Estimates

7. Lal Chand Report

8. Business standard, 29/06/2011

9. Mid Day, 27/11/2011 [excise department demands guns] / CNN, IBN Live, 16/12/2011

10. Rediff.com, Dec 11, 2002[Prohibition- Gujarat worst keep secret] & The Times of India, June 19, 2009 [Gujarat seeks Rs 3000 cr for liquor ban]

11. Rajasthan Patrika, 19/01/2012 [Fake illicit liquor factory seized]

Table 2: HEAL used by some countries<sup>12</sup>

Country	Usage of HEAL on	Effect in Revenue
Ukraine	Alcohol	Tax revenue double in 4 years equivalent to USD 3 billion
Latvia	Alcohol	Increase of USD 21 million in 2 years
Serbia	Alcohol & Cigarettes	10 times increase in cigarette revenue / 5 times increase in spirits revenue
Hungary	Alcohol and Cigarettes	NA

derived from customs and excise duty on alcohol, acting as proof of originality and authentication and a barrier to the distribution of counterfeited products.

Hungary & Latvia has been using HEAL since 1994-95 and have resulted in phenomenal increases in tax receipts.<sup>12</sup> (See table 2) As of 2007, 59 countries are using HEAL for spirits. It is estimated that 33 billion holographic stamps were produced in 2007, making them the highest secure product produced after bank notes.<sup>13</sup> Although, all these countries are keep upgrading their tax stamp with advanced overt & covert features to be ahead against counterfeiters.

#### Practices in India

The revolution of first EALs was introduced by Tamilnadu Government in early eighties. These were on a thin glassine based paper with a strong adhesive. Each label was serial numbered and was given by Tamilnadu Govt. to companies that filled IMFL against payment of tax.<sup>14</sup> Then in 1999-2000, Tamilnadu again take the initiative and started using India first HEAL<sup>15</sup>, which was followed by Uttar Pradesh in 2001 & Kerala in 2002. Today, more than 17 states are using approximately 15 billion HEAL. 75 per cent of

these are used in form of full Polyester holographic labels and 25 per cent paper based, with holographic element.

#### Integration of digital and non-digital (Importance of visual authentication)

Recently, Andhra Pradesh has become first state to start using a combination of authentication and digital technology as it is going to use advanced HEAL comprising hologram for authentication and bar code for track & trace. However, track and trace technology itself have vulnerabilities. Physical and sensory authentication tools will still be needed both during and after the development of track and trace systems around the world. If we do not integrate both digital and non-digital (physical and sensory) authentication methods into our approach, then we risk wasting the major investments that are about to be made in track and trace.

Examiner may need to verify the liquor bottle visually due to lack of availability of reader, power failure, network failures or simple time constraints at crowded control sites. An electronic authentication is not possible everywhere especially in remote areas so it generate a

12. Reconnaissance international

13. Reconnaissance international

14. PRS Permacel Ltd

15. Holostik India Limited

**Table 3: State and Union Territory (UT) using HEAL with annual capacity (in 2011)<sup>16</sup>**

State/Union Territory	Year of Introduction*	Annual Volume (crore)
Andhra Pradesh*	2012	2,64
Chattisgarh	2005	72
Haryana*	2009	90
Himachal Pradesh**	2011	7
Jharkand (in process)****	2012-13	54
Karnataka**	2002	240
Kerala	2002	70
Madhya Pradesh	2007	72
Meghalaya	2009	NA
Orissa	2007	48
Punjab**	2011	50
Rajasthan***	2005	72
Sikkim	2010	NA
Tamil Nadu	1999	300
Uttarakhand	NA	15
Uttar Pradesh	2001	180
Delhi (UT)	2009	36
Puducherry (UT)	2006	12

\* State using paper based EAL earlier, now decided to use HEAL;

\*\* State using paper based EAL with or without holographic component;

\*\*\* State excise department stopped the usage of HEAL since November 2010;

\*\*\*\* Figure of Jharkhand are for year 2012.

NA Not Available

requirement of an instant visual authentication like a hologram with advanced levels of security features for authentication.

#### **Benefit of using HEAL**

The usage of HEAL by these States has proved the acceptance and effectiveness of hologram as authentication device. It has helped the department in combating various challenges such as;

#### **1. Provide visual authentication:**

HEAL plays an important role for visual authentication to differentiate fake liquor bottle from genuine, for both enforcement authorities and for individual consumer. These HEAL are customized with overt and covert features, being overt for

a lay man consumer and covert & forensic feature for enforcement authorities which can be proof of the authenticity of bottle. Further, holograms are best overt authentication feature available, as an electronic authentication is not possible everywhere especially in remote areas (India).

#### **2. Increased tax revenue:**

According to various reports and HoMAI,<sup>17</sup> the mandated usage of security HEAL in States such as Uttar Pradesh, Tamil Nadu, Uttarakhand, Madhya Pradesh, Puducherry, Chhattisgarh etc. have increase revenue collection. For example Tamil Nadu and Uttar Pradesh, excise revenues were ₹8116

16. Approximate quantity calculated on based of State excise tender document

17. Hologram Manufacturers Association of India

Table 4: Comparison of key State with population more than 6 crores<sup>18</sup>

## a) State using excise adhesive labels

State	Revenue 2005-06 ₹ Crore	Revenue 2010-11 ₹ Crore	Inc in turnover over last 6 years	Population (2011) in Crore <sup>19</sup>
Andhra Pradesh	2685	9014	6329	8.46
Tamilnadu	3177	8116	4939	7.21
Karnataka	3397	8345	4948	6.11
Uttar Pradesh	3089	6726	3637	19.95
Madhya Pradesh	1370	3604	2234	7.25
Rajasthan*	1276	2859	1583	6.86

\*State excise department stopped the usage of HEAL since November 2010;

## b) State not using any type of excise adhesive labels

State	Revenue 2005-06 ₹ Crore	Revenue 2010-11 ₹ Crore	Inc in turnover over last 6 years	Population (2011) in Crore <sup>19</sup>
Maharashtra	2824	5800	2976	11.23
West Bengal	743	1770	1026	9.13
Bihar	319	1542	1224	10.3

crores and ₹6725 crores respectively in 2010/11. By contrast, in states similar in size and population such as Maharashtra and West Bengal, excise revenue was much lower at ₹5800 crores and ₹1769 crores respectively (see table 4 a & b).

- 3. Prevent Funding of criminal enterprises:**  
The people that benefit most from counterfeiting are criminals who then use their proceeds to fund other criminal activity of to further their own enterprises.
- 4. Further the usage of HEAL enhance the State image/goodwill, as it create consumer confidence.**

**Conclusion**

HEALs have become the main tool now used by the government and the enforcement to authenticate sealed IMFL and Beer bottles sold in the State. Hence the efficacy of this excise adhesive labels, as an advanced and true tamper evident seal, has great

value. This is true regarding other Indian States also. Counterfeiting can be curb to a great extent with proper combination of high security HEAL and digital system with proper enforcement methodology.

**Definitions**

- 'Alcohol' means ethyl alcohol of any strength and purity having the chemical composition of (C<sub>2</sub>H<sub>5</sub>OH<sub>2</sub>).
- Help in combating smuggling as it ensure full proof labelling.
- 'foreign liquor' means-
  - all liquor (other than country liquor, rectified spirit, denatured spirit and perfumed spirit), imported into India, on which customs duty is leviable under the Indian Tariff Act, 1934 (XXXII of 1934) or the Customs Act, 1962 (52 of 1962);
  - all liquor manufactured in India (other than rectified spirit, denatured spirit, and perfumed spirit), on which duty at a rate higher than levied on Country liquor is leviable;
  - all beer (including ale, porter and stout) manufactured in India or abroad, and
  - all sacramental wine prepared from pure dire grapes by a process or fermentation only without the addition of alcohol or any other ingredient.
- 'Liquor' means intoxicating liquor and includes lahan and all liquid consisting of or containing alcohol; also any substance which the State government may by notification declare to be liquor for the purposes of this Act.

18. State excise department

19. Census 2011