Noodle watch

Countrywide probes into the presence of contaminants and flavour enhancers in various noodle brands have placed the popular snack under the microscope.

By **RAMESH CHAKRAPANI**

For thirty years instant noodles remained a popular snack in India, where it had grown into a market worth around Rs.4,300 crore as of 2013, but the latest controversy surrounding Nestle's Maggi brand has dented the popularity of the processed food product. Extremely high levels of lead were found in the brand, which has enjoyed a dominant position in the Indian instant noodle landscape.

The probes and bans that followed in various States have brought into focus the state of food testing and safety in India, the economics of instant noodles (in India and in other markets), the growth in sales volume and value of processed foods, the enormity of the market and the extent of its untapped potential in the country.

GLOBAL POPULARITY

Data from the Japan-based World Instant Noodles Association show that India was the fourth largest consumer in 2014, with 534 crore packets/cups, behind Japan with 550 crore, Indonesia with 1,343 crore and China, the world leader with a whopping 4,440 crore. Vietnam, the United States and South Korea were other major consumers.

But in terms of per capita consumption, countries with much lower populations such as South Korea, Thailand, Malaysia and even Nepal rank much higher than India, which is an indicator of the untapped market that exists in the country. The data also demonstrate the mercurial growth of and the huge global demand for instant noodles.

FSSAI ROLE

The ban on Maggi chiefly rests on the high levels of lead found in samples collected in Uttar Pradesh, which had 17.2 parts per million (ppm) of lead, almost seven times higher than the permitted level. The maximum lead allowed in packaged food products is 2.5 ppm, according to the standards prescribed by India's regulatory authority, the Food Safety and Standards Authority of India (FSSAI).

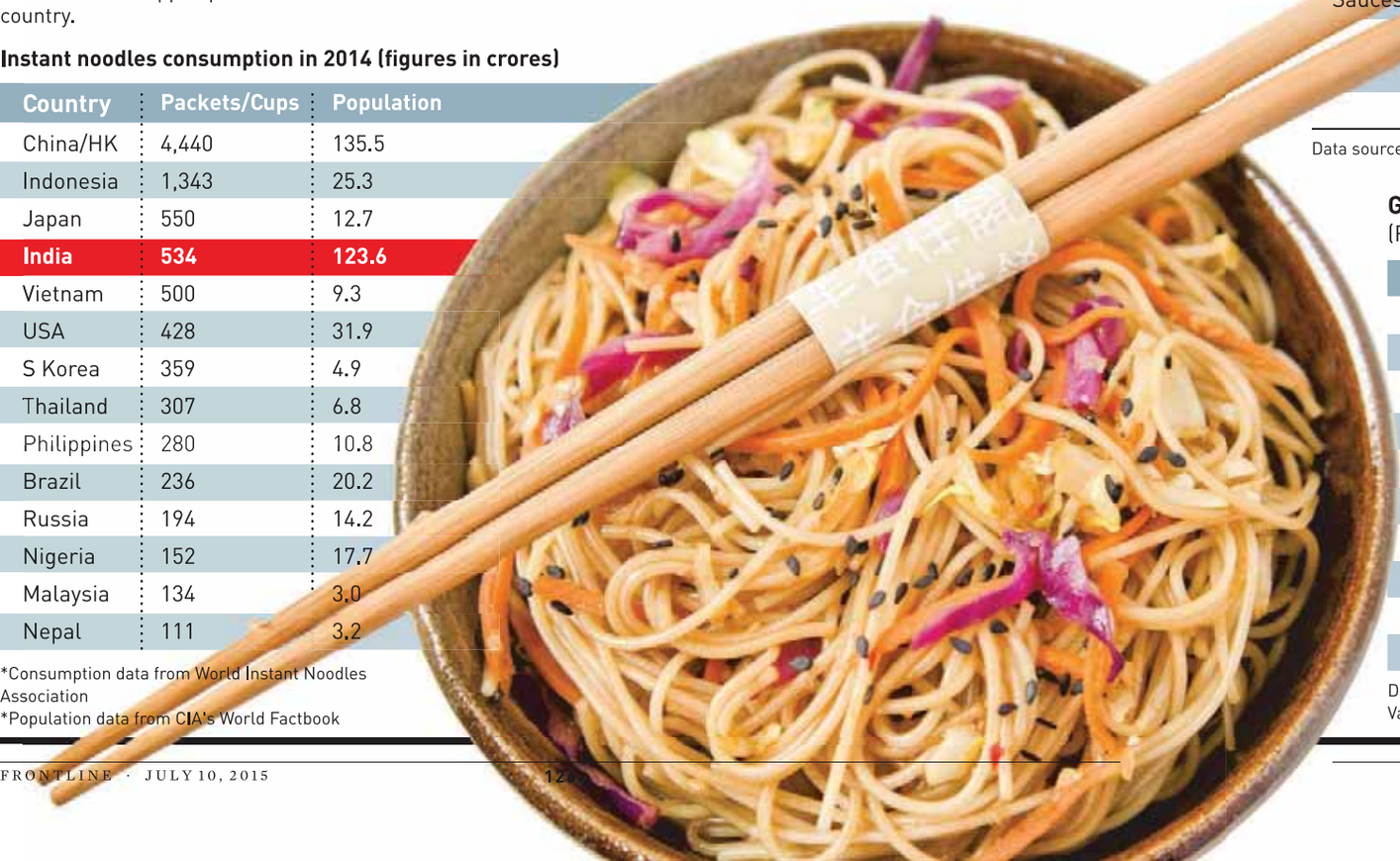
Set up in 2011, the authority has been conducting sample examinations and detecting adulterations across food products over the past five years. The findings are distressing. In 2011-12, 64,593 samples were tested of which 8,247 were found to be not conforming to the standards. A year later, the number of cases of adulteration rose to 10,380 out of 69,949 samples, followed by 13,571 out of 72,200 in 2013-14.

The number of prosecutions launched has been rising every year, as have convictions, painting a grim picture of food safety in the country. The FSSAI would do well to release more details on the nature of adulteration and the food products involved.

Instant noodles consumption in 2014 (figures in crores)

Country	Packets/Cups	Population
China/HK	4,440	135.5
Indonesia	1,343	25.3
Japan	550	12.7
India	**534**	**123.6**
Vietnam	500	9.3
USA	428	31.9
S Korea	359	4.9
Thailand	307	6.8
Philippines	280	10.8
Brazil	236	20.2
Russia	194	14.2
Nigeria	152	17.7
Malaysia	134	3.0
Nepal	111	3.2

*Consumption data from World Instant Noodles Association
*Population data from CIA's World Factbook



FSSAI data on sample examination and adulterations found

Year	Samples examined	Samples not conforming to standards	Prosecutions launched	Convictions/ Penalties
2011-12	64,593	8,247	6,845	764
2012-13	69,949	10,380	5,840	3,175
2013-14	72,200	13,571	10,235	3,845
2014-15	49,290	8,469	7,098	2,701

2014-15 data for first six months

Growth in sales volume of select processed foods in 2008-2013
(thousand tonnes)

Item	2008	2013	Growth (%)
Noodles	178	388	118
Dried processed food	673	1,289	91
Frozen processed food	13	27	105
Canned food	26	43	64
Confectionery	209	416	99
Sauces, dressings, condiments	202	335	66
Spreads	17	25	47
Meal solutions	258	433	68
Oils and fats	2,248	3,383	51

Data source: USDA Foreign Agricultural Service GAIN Report

Growth in sales value of select processed foods in 2008-2013
(Rs crore)

Item	2008	2013	Growth (%)
Total packaged food market	57,072	1,77,774	211
Noodles	1,087	4,337	299
Dried processed food	3,089	10,372	236
Frozen processed food	131	469	258
Canned food	218	527	142
Confectionery	3,741	15,001	301
Sauces, dressings, condiments	2,480	6,739	172
Spreads	261	762	192
Meal solutions	3,089	8,497	175
Oils and fats	12,311	39,555	221

Data source: USDA Foreign Agricultural Service GAIN Report
Value converted from dollars using an average exchange rate of 43.5 for 2008 and 58.6 for 2013

LEAD EFFECTS

So, what exactly does lead do? According to the United States' Environmental Protection Agency and that country's Centers for Disease Control and Prevention, lead toxicity can affect every organ system, and blood lead levels above permissible limits result in a host of harmful effects on health, especially in children, who are more vulnerable as they tend to absorb a higher amount of ingested lead from the gastrointestinal tract than adults.

In children, lead poisoning can damage the brain and the nervous system and lead to behavioural problems, anaemia, liver and kidney damage, hearing loss, hyperactivity and developmental delays.

Children are also more susceptible to the adverse neurological and developmental effects of lead. Iron or calcium deficiencies, commonly found in them, may facilitate lead absorption and worsen its toxic effects.

Excessive lead intake in childhood can lead to health effects later in life, including kidney trouble, hypertension and reproductive problems. There is no gainsaying how many children in India have been adversely affected by the presence of abnormally high levels of lead in noodles. Indian makers of foods such as instant noodles target children, often through misleading advertisements claiming nutritional benefits. In adults, lead poisoning can cause persistent fatigue, irritability, loss of appetite, nerve damage, high blood pressure, hearing and vision impairment and reproductive problems such as decreased sperm count.

The entire controversy is a reminder to civil society of the need for stronger food safety measures, a stronger regulatory authority and a proactive government that keeps corporates in check by holding them to high standards.