Making the export competitive – Study of Embedded Taxes and Refund Mechanism for SHEFEXIL Products

Prepared by
Sudhakar Kasture
(Director)

Helpline Impex Pvt Ltd

A-203, Everest Chambers | Near Marol Metro Station | Near Marol Naka | Andheri Kurla Road | Andheri (East) | Mumbai – 400 059. Tel: 022-29252771/28507329/6576 9126 | Fax: 022-28506419 | E-mail: sk@helplineimpex.co.in

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I must also acknowledge the faith SHEFEXIL has shown in giving me this task. I hope this report will meet and if possible exceed the expectations. While working on this report, I had two primary things on my mind. One, passion for increasing India's exports and two, promoting products which have immense potential to grow. Most SHEFEXIL Products are not import intensive and hence they contribute to earnings of Foreign exchange in real sense.

The Refund of Embedded taxes is primarily suggested by way of Rebate of State Levies and should be exercised as cash refund along with drawback. This would help the exporters to enthusiastically look towards increasing their footprint in global market.

Last but not the least, response from exporters to questionnaire sent by us is deeply appreciated.

Sudhakar Kasture

Executive Summary

India is the fastest growing major economy in the world. It is the world's sixth-largest economy by nominal GDP at estimated $2.848 trillion and the third-largest by purchasing power parity (PPP) at estimated $10.385 trillion. It is believed to have a potential to achieve a $5 trillion economy by nominal GDP by 2025. The Government has several on-going initiatives across sectors focused on growth.

However, despite the high rate of economic growth, India's exports lag in global market competitiveness. One reason is due to inadequacy of refund of certain taxes. Taxes Embedded in costs due to petroleum, electricity, farm, etc. which are out of the purview of GST add to the selling price of the final export product as there does not exist a refund mechanism for such Embedded taxes.

Objective of this study was to determine the incidence of Embedded taxes in SHEFEXIL products so that they could be eliminated from cost by way of rebates to exporters leading to increased export competitiveness and growth in exports of SHEFEXIL products along with increase in investments and employment in the sector. These rebates would be provided as remission of State Levies in addition to the extant Duty Drawback Scheme, through the Scheme for Rebate of State Levies on Export of SHEFEXIL products on an average basis only.

The data on export quantity and values of 23 distinct 8-digit HS code tariff lines of SHEFEXIL products for FY 2017-18 was used for calculation of costs and Embedded taxes therein. These 23 products constitute over 80% of total value of export of SHEFEXIL products. A scenario-based approach with relevant assumptions and conservative estimates has been used to calculate the total cost of transportation, electricity and farm, and the incidence of Embedded taxes in these costs to arrive at an average percentage of Embedded tax in total value of export of these products.

Sample data used for calculations were requested from and validated by various sources including Department of Commerce – DGCI&S Kolkata, SHEFEXIL exporters, transporters and freight forwarders and from standard public references. Actual data was used wherever available and assumptions were made wherever data was incomplete. These assumptions were based on the discussions and inputs of various exporters, transporters and freight forwarders considering various important factors which impacts cost of transportation viz. rates, routes, distances, vehicle types, payload capacity, fill rates, number of distinct vehicles required, number of trips, toll, national permit, insurance and maintenance cost and those which impact cost of electricity and farm cost. A cluster of exporters was considered based on products and region to arrive at comparable costs and Embedded taxes therein, depicting reality.

Of the 23 distinct 8-digit HS code tariff lines for FY 2017-18 from data provided by Department of Commerce – DGCI&S Kolkata, there were a few products having selling price substantially higher than the average selling price range of SHEFEXIL products. The high price of these products was mainly due to high export value and low quantity. The percentage of Embedded taxes in the total export value of these products was extremely low despite the high cost of transport and electricity consumption for these products.

On the other hand, products with selling price close to the average selling price range of SHEFEXIL products showed a higher incidence of Embedded taxes despite their cost of transport and electricity consumption for these products being close to average of such costs. These products were chosen as data samples for calculation of cost of transport, electricity, farm and other related costs and incidence of Embedded taxes due to these costs. An average of percentages of Embedded taxes in total value of exports for all these products is taken as the representative value.

The seven products considered for study, account for roughly 47% of total exports of SHEFEXIL products by value. The calculation is done based on all parameters put together whereas, taxes are built in the prices but not anywhere refunded as they are either not covered by GST or not refunded by mechanism per say.

The embedded taxes primarily include taxes on Diesel (Central Tax & VAT), Electricity Duty, Mandi Tax, Insurance and other consumables used in maintenance of vehicles, Toll Charges, etc. The Average impact if taken into account works out between 3.19% and 5.45% of FOB value. The FOB values are based on statistics available on DGCIS Website.

The capacity utilization is taken into account as many types of vehicles are used in actual transportation. The Capacity utilization ranges from 40% to 100% based on the volume/weight of the product and small & big order size. Hence, the ideal rate should be 4.32% or say rounded off to 4.5% of FOB value.

This refund does not anyway contribute as export incentive with reference to WTO principles and regulations. These are primarily embedded taxes actually suffered in processing and transportation of the product to the port of shipment. Hence, these act at par with duty drawback on actual basis.

The Principle of export as universally accepted is, “We export Goods and Services, not Taxes”. Therefore, refund of embedded taxes cannot be considered as incentives.

We therefore strongly believe that, **4.5% of FOB value can be considered as normal rate for 7 HS Codes** and for other HS Code a residual rate of 5% should be considered. This is primarily because the above mentioned seven products constitute 47% of export in value terms and balance for 53% there are almost 140 products which automatically means products are exported but not volumes and big size. Naturally, when exports are in small quantity costs increases. Thereby payment of taxation also increases. Hence, **a residual rate of 5% for all other HS Code seems appropriate.**

1 Introduction

1.1 Background

Taxation in India is applicable at every point of sale (post-GST), may it be on sale of inputs, semi-processed goods, services or final product. Hence, we can state that taxation has direct correlation with value chain of any given product, which is being sold to industry, to intermediaries or to the final consumer.

A value chain of a product or service includes all the activities that a manufacturer or service provider performs in order to deliver value added product or service to the consumer. We have witnessed that in the last decade of Globalisation, products are not manufactured in one particular country alone. The production processes are dispersed across the globe and hence today most of the products are "Made in World" and not "Made in X country" in real terms.

Such phenomena evolved emergence of "Global Value Chain (GVC)", wherein the product may have been designed in one country, but the product may be produced in another, raw materials are procured from various countries and the final product is distributed all over the world.
GVC can be broadly categorised into two parts – Pre-Manufacturing Processes and Services and Post Manufacturing Processes and Services.

With respect to SHEFEXIL products, Pre-Manufacturing Processes and Services may include procurement of quality seeds/plants, processing, cleaning, assorting, quality check, storage and warehousing whereas Post Manufacturing Processes and Services may include product treatment like irradiation, packing and packaging, packaging treatment such as fumigation, inspection, grading, labelling, marketing, transportation and distribution. At each stage of value addition taxes are levied, especially if a process is outsourced and such tax incidences increases cost of manufacturing, if mechanism of Input Tax Credit (ITC) is not in place for various types of taxes, levies, duties Embedded in FOB value of exports.

For example, there are approximately about 24 SHEFEXIL products which attract Zero GST rate. In such cases, one has to claim refund of unutilised ITC, which is time-consuming and results in blockage of funds.

The scope of the study is to analyze Embedded taxes in the export supply chain of all tariff lines under SHEFEXIL's purview. Hence, it includes study of all indirect taxes applicable on SHEFEXIL products.

In this context, the following analysis and quantification of GST and non-GST taxes were planned to be considered, to the extent they are applicable.

TABLE 1 – SECTOR WISE GST AND NON GST TAXES

Sector	GST taxes	Non-GST taxes
Petroleum	**GST on inputs in the petroleum sector**	**Central excise duty and State Value Added Taxes (VAT) on petroleum products**
Electricity	**GST on inputs in the electricity sector**	**Electricity duties**
Farm	**GST on inputs in the farm sector**	**Mandi tax on farm output**
Real estate	**GST on inputs in the real estate sector**	**Stamp duties and registration charges**
Transport & Food sectors	**GST on inputs in the transport (tyres, tubes, spares etc.) and food (inputs into catering services etc.) sectors**	**Motor vehicle taxes**
Unregistered dealers	**GST on inputs purchased from the organized sector**	
Any other taxes if relevant		

Non GST taxes and duties are levies either by State or by Central Excise or Value Added Tax (VAT) levies which are outside the purview of GST.

For input tax in Farm Sector for SHEFEXIL products, we need to identify inputs which attract GST and which are not under GST purview (attract excise and state levies), applicability of Mandi tax etc. Accordingly, points of study could be percentage of taxation, exemptions applicable or not, average incidence of non-GST taxation in final product and whether any subsidies are provided by local or state government or not.

As far as Electricity duties with respect to input and output are concerned, most States exempt electricity duty consumed for pumps used for agriculture. However, electricity duty incidence in export products needs to be ascertained. Say for example, electricity consumption in simple processing like cutting, cleaning, assorting etc., in storage of goods in warehouses or cold storages, in further processing (for example, Guar Gum Powder obtained from "Guar" crop) along with taxation and cost of solar or other energy resources, if used, needs to be determined.

The Power sector currently enjoys many tax concessions and tax exemptions, but production of electricity is ineligible for claiming input tax credit for Engineering, Procurement, Construction (EPC) contracts which include purchase of equipment, installation, commissioning and transmission infrastructure required for generation and distribution of electricity for consumption. These input taxes thus remain embedded in the cost of production and distribution of electricity. They should, therefore, have been considered in the scope of this study.

However, including those taxes would enormously widen the scope of this study which is specific to SHEFEXIL products. It would also increase the complexity in calculation of embedded tax because the total electricity produced would be distributed for domestic, commercial and industrial sectors across the country. Due to lack of data and reliable

methodology to ascertain the quantity of electricity consumed for production and export of SHEFEXIL products alone out of the total electricity produced, these taxes are kept out of scope of this study. An approximate incidence of about 0.5% at the most, however, could be built into the total incidence of embedded taxes for SHEFEXIL products due to production and distribution of electricity.

For Embedded taxes due to Transportation of goods, taxes and duties on Fuel (Petrol, Diesel, etc.), toll taxes, road taxes, national permit, insurance and maintenance costs and taxes thereon need to be considered. For inputs incurring GST, but ineligible for tax credit, the GST component of total taxes paid has been factored in for embedded tax calculations.

In Real estate, costs due to stamp duty payment, property registration, payment of rent and maintenance need to be considered. The practical problem here was apportionment of costs where a single property viz. an office, a factory or a warehouse is being used for multiple products and activities, some of which may not be related to SHEFEXIL products. Also, for lack of availability of standards in duty rates and registration procedures for owned or rented properties in various regions in India, taxation and cost in real estate were excluded from the scope of this activity after due study and discussions. The impact of taxation and cost due to unregistered dealers was found to be negligible for SHEFEXIL products. Therefore, even this sector was excluded from the scope.

Thus, the following analysis and quantification of GST and non-GST taxes have actually been considered based on the data and inputs received.

TABLE 2 - GST AND NON-GST TAXES CONSIDERED FOR STUDY

Sector	GST taxes	Non-GST taxes
Petroleum	-	**Central excise duty and State VAT on petroleum products**
Electricity	-	**Electricity duties**
Farm	-	**Mandi tax on farm output**
Transport	**GST on inputs in the transport (Insurance, tyres, tubes, spares etc.)**	**Motor vehicle taxes, Toll taxes etc.**

1.1.1 About SHEFEXIL:

Shellac and Forest Products Export Promotion Council (SHEFEXIL) is a nodal Export Promotion Council (EPC) for non-Timber Forest Produce and their value-added variants. SHEFEXIL is a direct contributor to economically challenged sections of Society – tribal women, marginal cultivators, economically challenged population from the North East, arid areas, etc.

There are total 6 product panels under SHEFEXIL viz. Fixed Vegetable Oil Cake & Others, Guar Gum, Other Vegetable Materials, Plant and Plant Portion, Shellac and Lac Based Products and Vegetable Saps & Extracts. The major exporting panels are; Guar Gum,

Vegetable Saps & Extracts and plant and plant portion. Total export of products falling under the domain of SHEFEXIL in the year 2017 is USD 2828.72 Million. Top exported products of SHEFEXIL are; Guar Gum treated and pulverised, Psyllium husk (Isobgul husk), Extracts of plants, Menthol crystal, Guar Meal, Oil of peppermint, Shellac and hydrolysed lac etc.

1.1.2 What are Embedded Taxes?

All manufacturers and service providers in India have to pay various kinds of direct and indirect taxes. These taxes are levied by both Central Government and State Governments. Those who import raw materials, inputs and capital equipment pay import duties. They pay Excise duties, Sales tax, Goods and Services Tax (GST), various surcharges and Cesses. They have to pay several other taxes that may apply to their business as well viz. sales taxes, property taxes, value added taxes, etc.

These taxes are included in the price of the product or service when it is sold. This is because; these taxes are not refunded by Government. Therefore, they add to costs which need to be recovered by the seller from the consumer for maintaining the profit margin.

For instance, exporter of any forest product needs electricity and transportation to produce and export his product. He pays taxes for consumption of both electricity and transportation services. However, both being out of the purview of Goods and Services Tax (GST) regime, do not offer any credit or refund to the exporter of the taxes paid. Therefore, the exporter has to include these taxes in the final price he charges to the buyer outside India.

So, the final customer who is the importer outside India is paying for part or all of these taxes levied on the Indian exporter. These are called Embedded taxes. They are not directly visible on the bill, but they are present as an integral part of the total cost which determines the price charged to the buyer. Thus, they are Embedded and are paid by the final consumer of every product and service produced in this country. An Embedded tax, thus, raises the base price of a product or service.

The scope of this study included only the indirect taxes and duties levied by State Government. So, income taxes, professional taxes and property taxes are not considered for this study.

1.2 Objective:

1.2.1 Why refund Embedded Taxes?

Goods and services are exported, taxes are not. Therefore, GST is not applicable in India for exports. Export supplies of a taxpayer registered under GST are classified as zero-rated supply. Zero rated supply under GST is eligible for refund. Similarly, Embedded taxes which are outside the purview of GST should also be eligible for refund.

Since Embedded taxes raise the base price of a product or service, they bring down price competitiveness. It is evident from the reduced export competitiveness of India. India had earlier set a target of exporting $900 billion worth of goods and services by 2020. There are

reports that this target may now have to be reduced, as the current growth rate does not support it. With global trade growth forecasts still slow at 2.4 per cent, the expected compounded growth may just be about 15 per cent annually for India's exports. This may take the total exports to reach a maximum cumulative $700-750 billion by 2020.

There are several causes identified for this growth slowdown. Along with continued appreciation of the rupee, simultaneous continued depreciation of currencies of major competitors, working capital issues due to delayed refunds and interest payments thereon after GST rollout and increasing cost of credit to manage this liquidity crisis especially for small exporters, inadequacy of current incentive schemes is recognized to be one of these several causes of rising exports costs and slowing growth. Due to these problems, Indian exports fall behind competitors in the global market.

Textile sector is an example. The Economic Survey 2017-18 highlighted that India has not been able to leverage the opportunity arising from China's share of global apparel exports coming down in recent years, due to high logistics cost, high domestic taxes on manmade fabrics vis-à-vis cotton fabrics and stringent labour laws. India is lagging behind various competitors viz. Bangladesh, Vietnam, Ethiopia who have been successful in gaining duty free access to markets of EU and USA.

As per the recommendation of the Survey, "A policy implication is that the GST Council should conduct a comprehensive review of Embedded taxes arising from products left outside the goods and services tax (petroleum and electricity) and those that arise from the GST itself."

"This review should lead to an expeditious elimination of these Embedded export taxes, which could provide an important boost to India's manufacturing exports," said the Survey.

The Government of India has decided to adopt a mechanism wherein the rebate of State levies on garment exports is provided based on a budgetary allocation of the Ministry of Textiles under a scheme for Rebate of State Levies (ROSL) on Export of Garments, 2016 in which the Department of Revenue/Central Board of Excise and Customs (CBEC) [now Central Board of Indirect taxes and Customs (CBIC)] handles disbursement along with the extant Duty Drawback. Embedded taxes can be refunded to exporters of SHEFEXIL products under a similar scheme.

1.3 Methodology

1.3.1 How to calculate Embedded Taxes?

There could be several ways of calculating Embedded taxes. One of them could be a statistical method of applying standard arithmetic or weighted averages of rates of incidence of tax as percentage of per unit cost in each of the identified expense overheads viz. Petroleum, Electricity, Transportation and Farm. Another could be the total amount of taxes paid in each of these expense overheads calculated as a percentage of total value of exports. However, any of such methods would demand sourcing of accurate data which is a challenge. Also, applying averages across all the relevant data could only mean an approximation of tax incidence based on overall amount of taxes paid and value of exports.

Therefore, an analytical approach based on operational data from various exporters, freight forwarders and transportation service providers has been adopted for estimating the impact of Embedded taxes on the final price of the export product. Major sectors for cost heads considered are Petroleum, Electricity, Farm and Transportation. This approach is based on actual data from respective entities. Data on quantity and value of exports by products (HS codes) has been sourced from Department of Commerce – DGCI&S Kolkata. Data on transportation has been sourced from exporters, wherever they could provide them, as well as from transporter or freight forwarder. These data sets were analysed and validated with the transporters and exporters through series of discussions, interviews and meetings. These interactions not only helped correct the inaccuracies in data to the maximum possible extent, but also helped to understand the problems exporters face in collecting and analysing data. This exercise brought about an alignment of various perspectives of different entities concerned and provided important insights which act as guidelines on correcting the data, using relevant assumptions and applying appropriate averages wherever required. The calculations so made can now be considered to be representative of the practical situation in case of exporters of SHEFEXIL products.

2 Field Survey

A questionnaire was prepared and sent to SHEFEXIL with a request to arrange for required data from exporters by filling in the questionnaire. A sample blank questionnaire sent to exporters is shown in the table below.

2.1 Questionnaire sent to exporters:

*****

TABLE 3 - QUESTIONNAIRE:

Name of Company/Firm:									
Registered Office Address:									
Address of Manufacturing Unit:									
Type of Exporter:	☐ Manufacturer Exporter								
If Exporter is Status Holder:	☐ One Star Export House								
Name of the Respondent:									
Contact Details of the Respondent:									
Turnover of the company:									
Particulars	2016-17 in Rs. Lakh		2017-18 in Rs. Lakh						
Total Turnover									
Export Turnover									
Domestic Turnover									
** Turnover is net of Excise Duty*									
Export Product Details:									
Sl. No.	HS Code	Description of the product	Major Export Markets	FOB value of Exports		FOB Value of Exports (in Rs.		Quantity (in MT)	
				2016-17	2017-18	2016-17	2017-18	2016-17	2017-18
I	II	III	IV	V	VI	VII	VIII	IX	X
1									
2									
3									
4									
5									

[If required, attach a separate sheet]

Questionnaire:

1. What mode of transport is used for exports?

Ans:

☐ Road	☐ Rail
☐ Sea	☐ Air
☐ Courier	☐ Post

[multiple selection allowed]

2. Which types of containers are majorly used by you?

Ans:

☐ Less than Container Load (LCL)	☐ Reefer Containerised cargo
☐ Full Container Load – 20 feet container	☐Full Container Load – 40 feet container
☐ Any other please specify _____	

[multiple selection allowed]

3. What is the distance between port of import to your premise (factory or warehouse) and transportation cost per month? – (Applicable if you are importing inputs, if not applicable please mention)

Ans:

Sl. No.	HS Code	Description	Name of Port of Import	Factory or Warehouse Location	Distance in kms	Transportation Cost, per month, in Rs.
1						
2						
3						
4						
5						

Factory or warehouse location may include City and State, for example, Nagpur, Maharashtra

[If required, attach a separate sheet]

4. What is the distance between domestic supplier's factory/warehouse to your premises (factory or warehouse) and transportation cost per month?

Ans:

Sl. No.	HS Code	Description	Domestic Supplier's Factory/ Warehouse Location	Exporter's Factory or Warehouse Location	Distance in kms	Transportation Cost, per month, in Rs.
1						
2						
3						
4						
5						

5. What is the distance between your factory/warehouse to port of export?

Ans:

Sl. No.	HS Code	Description	Factory or Warehouse Location	Port of Export	Distance in kms	Transportation Cost, per month, in Rs.
1						
2						
3						
4						
5						

Factory or warehouse location may include City and State, for example, Nagpur, Maharashtra

[If required, attach a separate sheet]

6. What is your average electricity bill per month?

Ans: Rs.

7. What is average monthly rent?

Ans:

For Manufacturing premise	
For Warehouse	
For any other facilities like cold storage	
Any other rent – please specify with amount	

8. What is the rate and amount of Mandi tax paid by you?

Ans:

Sl. No.	HS Code	Description	Rate of Mandi	Average Amount of Mandi tax paid per month (in Rs.)
1				
2				
3				
4				

	5				

[If required, attach a separate sheet]

9.	If you are not paying Mandi tax, are your inputs (basically farm produce, for example, Guar, Sesame Seeds, Fenugreek Seeds, and Garlic etc.) subject to Mandi tax? If yes, please mention Mandi tax Rate and Amount of Mandi tax.
Ans:	Please provide details here –
10.	What is the rate and amount of Road Tax paid by you?

Ans:

Sl. No.	HS Code	Description	Rate of Road Tax	Average Amount of Road tax paid per month (in Rs.)
1				
2				
3				
4				
5				

ROAD TAX (ONE TIME) IS PAID AT THE TIME OF PURCHASE OF NEW VEHICLES

[If required, attach a separate sheet]

11.	Total running of road vehicles per month (kms)
Ans:	_____ kms, per month
12.	Types of Vehicles used for transportation
Ans:	_____
13.	Any other State tax/Cess paid by you which is not being refunded? If yes please provide details like Tax Rate and Amount of tax paid per month.
Ans:	

*****

Data requested from exporters:

1. Name and address of exporter
2. Manufacturing and warehousing locations
3. Type of exporter
4. Status Holder details
5. FOB Value of export per financial year
6. MT Quantity of export per financial year
7. Value of domestic sales per financial year
8. Quantity of domestic sales per financial year
9. Number of products with HS codes and description
10. Major export markets
11. Modes of transportation
12. Types of containers and vehicles
13. Number of ports per product (HS code)
14. Distance between port of import and manufacturing location
15. Distance between manufacturing or warehousing location and port of export
16. Number of trips per port
17. Per km or per trip rate per vehicle type for every port
18. Number of kms or number of trips made per year for every port
19. Toll per year for every port
20. Total fuel cost per year
21. Total amount of road tax per year
22. Total transportation cost per year
23. Total electricity cost per year
24. Total real estate cost per year
25. Total Mandi tax per year
26. Any other State tax/Cess paid but not refunded

Data requested from transporters and freight forwarders

1. Types of vehicles and payload capacity for each
2. Mileage in average kms per litre of fuel
3. Cost of fuel per litre
4. Per km or per trip rate per vehicle type for every port
5. Fuel cost per km per vehicle type
6. Toll cost per trip for every port
7. Distances between manufacturing or warehouse locations and ports of export
8. Total insurance cost per vehicle
9. Total maintenance cost per vehicle
10. Total road tax per year
11. Total National Permit Cost per year

FIGURE 1 – DATA FROM FREIGHT FORWARDERS

ROYAL FORWARDERS PVT. LTD.,

VEHICLE MOVEMENT FROM NHAVA SHEVA TO VASAI, MAHARASHTRA

SR.NO	PARTICULARS	VEHICLE TYPE									
		CANTER	LPT	OPEN TRUCK	20 FT SIDE OPEN	TRAILER 1 X20	TRAILER 1 X20	TRAILER 1 X20	TRAILER 1 X20 - ISO TANK	TRAILER 1 X40	TRAILER 1 X40
A	**CARGO LOAD**										
1	CARGO WEIGHT IN MT	3.2	4.5	9	9	7	12	20	20	20	24
2	CONTAINER WEIGHT IN MT	0		0	0	2.5	2.5	2.5	3.5	3.5	3.5
3	**GROSS WEIGHT IN MT**	**3.2**	**4.5**	**9**	**9**	**9.5**	**14.5**	**22.5**	**23.5**	**23.5**	**27.5**
	RETRUN DISTANCE IN KM	**186**	**186**	**186**	**186**	**186**	**186**	**186**	**186**	**186**	**186**
	AVERAGE KILO METER PER LTR OF FUEL	**8**	**6.5**	**4.5**	**4.5**	**4.5**	**3.5**	**3**	**2.75**	**3**	**2.5**
	FUEL COST AS ON 26.10.2018	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**
B	**EXPENSES PER KM**										
1	DIESEL	9.80	12.06	17.424	17.42	17.42	22.40	26.14	28.51	26.14	31.36
2	TOLL	0.86	0.86	1.51	1.51	4.19	4.19	4.19	4.19	5.05	5.05
4	**TOTAL COST PER KM**	**10.66**	**12.92**	**18.930**	**18.93**	**21.62**	**26.60**	**30.33**	**32.71**	**31.19**	**36.42**
	Note:										
1	Nhava Sheva to Vasai - Toll charges	160	160	280	280	780	780	780	780	940	940
	Other expenses Approx.										
2	Driver Salary/Month	13000	15000	15000	15000	15000	15000	15000	15000	18000	18000
3	Insurance/Year	21795	25331	46817	39447	39447	39447	39447	39447	48590	48590
4	Road Tax/Year	37800	43385	13800	13800	13800	13800	13800	13800	29250	29250
5	National Permit/Year	0	0	20000	20000	20000	20000	20000	20000	28000	28000
6	Spares/Lube/Maintance etc.,/Month	5000	5000	6000	7000	7000	7000	7000	8000	9000	9000
7	Drivers allowance - extra as per trip and distance										

Data received from:

1. **Exporters:**
   i. Aromatic & Allied Chemicals
   ii. CHIMIQUE (INDIA) LIMITED
   iii. Hind Suter Shellac Pvt. Ltd.
   iv. PIONEER EXTRACTS PVT.LTD.
   v. P.S.S. EXPORTS
   vi. SARDA UDHYOG
   vii. SHREE KUMARASAMY POLYCHEM
   viii. Shree Ram Colloids Pvt Ltd
   ix. Vikas WSP Ltd
   x. India Glycols Limited

2. **Freight Forwarder and Transporter: (** Refer Annexure - i)

   i. Royal Forwarders Pvt. Ltd.

2.2 Data challenges

The data received from exports were incomplete and insufficient to determine the impact of Embedded taxes on the final price of their export product. Therefore, various assumptions had to be made to calculate the costs and Embedded taxes therein. However, as mentioned earlier, data received were analysed and validated with the transporters and exporters through series of discussions, interviews and meetings. Based on these interactions, appropriate corrections were made in data, apportionment of costs were made under respective expense overheads and appropriate averages were applied to respective categories of products and expense overheads.

Here are some of the examples of data incompleteness and inaccuracies.

1. Some exporters sent total value of sales in domestic and export markets separately, but transportation and electricity costs were not sent separately for domestic sales and export, but sent as a consolidated total value.
2. For transportation costs, even inbound movements were considered, but in most cases, there were no data sent for imports as well as for domestic supplies.
3. There would be mainly 4 scenarios to be considered, either discrete or in combination, as shown in the chart below.

Cost → **Supply ↓**	Buyer	Seller
Imported	(a)	(b)
Domestic	(c)	(d)

   a. Inputs imported cost to buyer
   b. Inputs imported cost to seller
   c. Inputs domestic cost to buyer
   d. Inputs domestic cost to seller

4. Transportation Cost of Imports and even Exports were either missing in many cases or were specified in different units viz. per kms in some cases and per kg in other cases.
5. Transportation Cost for Exports was not given for each product per exporter.
6. There were multiple modes of transportation mentioned without any basis for apportionment of costs.
7. Electricity costs missing in many cases and wherever given, were not separated for domestic and exports. However, there were more or less comparable to each other with respect to total turnover value and quantity shipped.
8. Substantial amount was shown against Gram Panchayat Land tax and Khajna Land Revenue tax to be paid by exporters in West Bengal.
9. Data on total number of trips and total running of road vehicles in kms was missing from most exporters.

10. None of the costs were available by HS codes.
11. Total quantity of export was not available by HS codes.
12. Data on clubbing different products (HS codes) for transport was not available.
13. Mode and vehicle types were not available by HS codes.
14. Transport data for both inbound and outbound legs was not available.
15. Transport data was not available for all exporters.
16. Distance data was not available for all exporters.
17. Numbers of trips were not available for all exporters.

We have however discussed these issues with transporters and arrived at commonly acceptable parameters.

3 Embedded Taxes considered for study

3.1 Electricity Duty:

Data on Electricity cost consists of the total cost of electricity consumed either per month or per year. However, the consumption of electricity includes that for factory, production, pre-production and post-production treatment, wherever applicable as well as office. Also, it includes consumption for domestic sales as well as exports. Therefore, as far as apportionment of these costs is concerned, they could be considered by proportion of exports as a percentage of total sales. However, there is no fixed method of apportioning these costs over the various assets and establishments, unless in cases where the billing was separate.

Electricity charges consist of Energy Charges, Fixed Charges, Connected Load, Electricity Duty or Tax and Fuel Adjustment Charges. Of these, only Electricity Duty or Tax is considered for calculation of Embedded tax due to electricity.

Electricity cost depends on consumption, state and distribution companies. The amount of tax applicable is as mentioned in Tariff Policy made by Power Ministry of Government of India but it goes to State Government. This is because Tariff Policy allows the State Government to raise resources through electricity duty for the sake of giving direct benefits of subsidy to needy consumers. The duty is charged on consumption and is mostly a rate that is applicable per unit of electricity consumed in a particular State. In some States, it is also applied as percentage of total charges (electricity usage + fixed charges) and in some states both are applicable. The Rate of Electricity Duties in some of the states are as under:

TABLE 4 – RATE OF ELECTRICITY DUTY

State	Rate of Electricity Duty
Rajasthan	40 paisa per unit
Haryana	15%
UP	7.5%
Gujarat	15%
Maharashtra	9.30%

3.2 Taxes on Farm produce:

Mandi tax is levied on the sale and purchase of agricultural produce. It is governed by the Agricultural Produce Market Committee (APMC) Act, enacted by State Governments. There are APMC Markets (Mandi) established at different places within the State. The Mandi tax is levied to defray the costs of running an APMC Markets, where farmers get

good prices from buyers. Farmers sell their produce via auction at the Mandi in their region and traders require a license to operate within a Mandi.

It is pertinent to note that Mandi tax or Market fee is levied on notified agricultural commodities.

Mandi tax is paid either by the Buyer (Traders) or the Sellers (Farmers) or by both. The APMCs charge a licensing fee from the commissioning agents who mediate between buyers and farmers. The commissioning agents charge commission fees on transactions between buyers and farmers. The market charges imposed by states vary widely according to the State's APMC Act.

i. **MAHARASHTRA:**

a. **Market service charge** shall be collected on sale of the agriculture produce by the seller and shall be remitted to the proprietor of the farmer-consumer market. [Sec. 5D (2) (b) of Maharashtra APMC Act]
b. **No market fee** shall be levied on the sale or purchase of the agricultural produce in the **farmer-consumer market**. [Sec. 5D (2) (b) of Maharashtra APMC Act]
c. **Direct marketing** licence holder shall pay the market fee to the Maharashtra State Agricultural Marketing Board, who, in turn shall disburse the same to the concerned Market Committee. [Sec. 5D (6) (b) of Maharashtra APMC Act]
d. The agricultural produce covered under the Contract Farming Agreement may be sold to the Contract Farming Sponsor outside the market yard and in such a case; no market fee shall be leviable. [Sec. 5E (8) of Maharashtra APMC Act]
e. Any agricultural produce brought in any market area for the exclusive purpose of **export** shall be **exempted** from the payment of fees and supervision cost, if such exporter or his duly authorised agent presents the letter of credit or confirmed order of export or confirmed export order consignment. [Sec. 31 of Maharashtra APMC Act]

[Source: Sec. 5D – Direct marketing, establishment of private market and farmer consumer market and redressal of disputes, Sec. 5E - Procedure and form of Contract Farming Agreement and Sec. 31 - Power of Market Committee to levy fees and rates of commission]

ii. **GUJARAT:**

a. The market fee shall be payable by the buyer of the agricultural produce and shall not be deducted from the price payable to the agriculturist seller. Provided where the buyer cannot be identified, all the fees shall be payable

by the person who may have sold or brought the produce for sale in the market area. [Sec. 28 (2) (c) of the Gujarat APMC Act, 1963]

b. Commercial transaction between traders in market area, the market fee shall be collected and paid by the seller. [Sec. 28 (2) (c) of the Gujarat APMC Act, 1963]

c. In case of e-market, the market fee shall be paid by the buyer on the purchase of goods. Out of the fees collected, percentage of fees shall be contributed to the development fund.

[Source- Section 28, Gujarat APMC Act]

iii. RAJASTHAN:

a. The market committee shall collect market fees from the Licences on agricultural produce bought or sold by in the market area at such rate subject to a maximum of Rs 2/- per hundred rupees worth of agricultural produce.

[Source- Section 17, the Rajasthan agricultural produce markets act, 1961]

iv. PUNJAB:

a. Basic fee levied on Agricultural Produce bought or sold for processing by dealers at a Rate not exceeding Rs. 3/- for every Rs.100

[Source- Section 23, the Punjab Agricultural Produce Markets Act, 1961]

v. MADHYA PRADESH:

a. The market committee shall levy market fee at minimum of 50paisa and maximum of Rs. 2 for every 100 rupees of the price. [Sec 19(1)]

b. The market fees shall be payable by the buyer and not be deducted from the price payable to the seller. [Sec 19(2)]

c. In case of commercial transaction between traders in the market area, the fees shall be collected and paid by the seller. [Sec 19(2)]

[Source- Section 19, The Madhya Pradesh Krishi Upaj Mandi Adhiniyam, 1972]

vi. UTTAR PRADESH:

a. The market fee shall be payable on transaction of sale of agricultural produce of not less than 1% and not more than 2.5% of the price. [Sec 17(iii)(b)]

b. Development cess payable on sale at a rate of 0.5% of the price of the agricultural produce.

c. If the produce:

i. Is sold through a commission agent, the commission agent shall collect the market fee from the purchaser and shall be liable to pay (market fee + development cess) to the committee.

ii. Is purchased directly by the trader from a producer, the trader shall be liable to pay (market fee + development cess) to the committee.

iii. Is purchased by a trader from another trader, the trader selling the produce may realise it from the purchaser and shall be liable to pay (market fee + development cess) to the committee.

iv. In any other case of sale, the purchaser shall be liable to pay (market fee + development cess) to the committee

[Source- [Section 17(iii)(b)(2), The Uttar Pradesh Krishi Utpadan Mandi Adhiniyam, 1964]

vii. <u>WEST BENGAL:</u>

a. The Market committee shall levy fees on agricultural produce at a rate not more than Rs. 2 per Rs 100 of the amount for which the agricultural produce is sold.

b. When a licenced trader is the buyer of any agricultural produce, he shall pay the fees to the market committee

[Source- Section 17(1), The West Bengal Agricultural Produce Marketing (Regulation) Act, 1972]

viii. <u>HARYANA:</u>

Market fee levied on SHEFEXIL products:

- Linseed - 2%
- Sunflower Seeds - 1%
- Cotton (Ginned and Unginned)- 2%
- Cluster Bean (Guar) - 1%

Statutory levies/Mandi tax is a major source of market distortion. Such high level of taxes at the first level of trading have significant cascading effects on the prices as the commodity passes through the supply chain.

Property taxes are not included in the scope of this exercise as they are related to direct taxes.

3.3 Taxes in Transportation

Transportation is arguably the most complex area as far as gathering and analysing data for calculation of Embedded taxes is concerned. One important reason is that this sector itself is largely unorganized with very low penetration of Information and Communication Technology (ICT). Another reason is that exporters of SHEFEXIL products lack the required

capacity and resources to manage transportation on their own. Therefore, they are dependent on transporters for movement of goods as well as availability of data. Thus, due to lack of sophisticated tools or skilled resources, neither do they seem to be capable of optimizing transport operations nor capable of providing all the information essential for calculating Embedded taxes in transportation.

Optimization of transport operations essentially involves maximizing movement of goods at minimum possible costs. There are a lot of factors which influence transportation. Bad road conditions, heavy traffic, distance between manufacturing or warehouse location and port of export, long waits at toll booths, long wait at ports, vehicle capacity and availability, fill rates, loading and unloading times, number of trips, number of vehicles, return trip load, safety and insurance of drivers, vehicles and goods, maintenance costs, etc. Even availability of raw materials, production schedules and post-production treatment affect transportation. These and many more factors have a direct impact on optimization hence cost of transportation. Lesser the optimization, more the transportation costs and higher the price of the export product. Since exporters need to maintain their profit margins to sustain business, high transportation costs force them to set high price of their product which adversely affects their export competitiveness in various markets globally.

For example, an exporter who needs to order two vehicles to ship a quantity which can be shipped in a single vehicle ends up paying higher cost of transportation per unit quantity of export. The need for two vehicles may arise due to various reasons viz. unavailability of vehicles of appropriate capacity, limited production capacity, mismatch in production and shipping schedules, urgent orders, monthly closing pressure, documentation delays, etc.

This is illustrated below through a few scenarios with numerical values.

Scenario 1: Exporter A has to ship 3 MT of goods from Pune to Nhava Sheva port in Navi Mumbai, Maharashtra. Refer to the chart in Figure 2 below. Among the various vehicles, a Canter with payload capacity of 3.2 MT is the least or optimum rate vehicle at Rs. 13.09 per km. However, if a Canter cannot be made available when exporter needs to ship or if exporter cannot afford to wait till such time as a Canter is made available by the transporter or freight forwarder, then the exporter is forced to go in for a vehicle available at that time at the next best rate. This could be an LPT (Long Platform Truck) or an Open Truck or a Trailer with much higher cargo carrying capacities than the required quantity of 3 MT to be shipped. In such cases, the cost of transport per MT export quantity is higher than optimized cost due to underutilization of vehicle capacity.

FIGURE 2 – TAXES IN TRANSPORTATION – SCENARIO 1

ROYAL FORWARDERS PVT. LTD.,											
VEHICLE MOVEMENT FROM NHAVA SHEVA TO PUNE, MAHARSHTRA											
SR.NO	PARTICULARS		VEHICLE TYPE								
		CANTER	LPT	OPEN TRUCK	20 FT SIDE OPEN	TRAILER 1 X20	TRAILER 1 X20	TRAILER 1 X20	TRAILER 1 X20 - ISO TANK	TRAILER 1 X40	TRAILER 1 X40
A	**CARGO LOAD**										
1	CARGO WEIGHT IN MT	3.2	4.5	9	9	7	12	20	20	20	24
2	CONTAINER WEIGHT IN MT	0		0	0	2.5	2.5	2.5	3.5	3.5	3.5
3	**GROSS WEIGHT IN MT**	**3.2**	**4.5**	**9**	**9**	**9.5**	**14.5**	**22.5**	**23.5**	**23.5**	**27.5**
	RETRUN DISTANCE IN KM	**320**	**320**	**320**	**320**	**320**	**320**	**320**	**320**	**320**	**320**
	AVERAGE KILO METER PER LTR OF FUEL	**8**	**6.5**	**4.5**	**4.5**	**4.5**	**3.5**	**3**	**2.75**	**3**	**2.5**
	FUEL COST AS ON 26.10.2018	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**	**78.41**
B	**EXPENSES PER KM**										
1	DIESEL	9.80	12.06	17.424	17.42	17.42	22.40	26.14	28.51	26.14	31.36
2	TOLL	3.29	3.29	5.63	5.63	5.63	5.63	5.63	5.63	7.50	7.50
4	**TOTAL COST PER KM**	**13.09**	**15.35**	**23.049**	**23.05**	**23.05**	**28.03**	**31.76**	**34.14**	**33.64**	**38.86**

Scenario 2: Exporter A has to ship 30 MT of goods from Pune to Nhava Sheva port in Navi Mumbai, Maharashtra. In this case, exporter would need minimum two vehicles to ship the goods. One option could be to use two Trailers, one with 20 MT payload capacity at the rate of Rs. 31.76 per km and the other with 12 MT payload capacity at the rate of Rs. 28.03 per km. This option would cost the exporter a total rate of Rs. 59.79 per km. Another option could be to use two Trailers, one with 24 MT payload capacity at the rate of Rs. 38.86 per km and the other with 7 MT payload capacity at the rate of Rs. 23.05 per km. This option would cost the exporter a total rate of Rs. 61.91 per km. The latter option costs Rs. 2.12 per km more than the former.

Now, as in Scenario 1, if any of these vehicles in either of the options listed above cannot be made available when exporter needs to ship or if exporter cannot afford to wait till such time any of these vehicles is made available by the transporter or freight forwarder, then the exporter is forced to go in for options different than either of these options. Not only would these different options cost more than either of the two options listed above, but they may also mean calling for more than just two vehicles. This may further lower the degree of optimization pushing costs up. More the number of vehicles, more the number of trips and higher the transportation cost. Additionally, more underutilized the vehicles, further higher the transportation cost.

Scenario 3: Exporter A has to ship 5000 MT of goods from Pune to Nhava Sheva port in Navi Mumbai, Maharashtra through the entire year. In this case, even if the exporter uses only Trailers with 24 MT payload capacity, the number of Trailers required would be 208, value rounded down by dividing total quantity to be shipped, which is 5000 MT, by payload capacity of a Trailer, which is 24 MT.

Now, if it is assumed that return trip distance between the manufacturing or warehouse location of the exporter in Pune and port of export Nhava Sheva in Navi Mumbai is 320 kms

and a vehicle takes at least 2 days to complete a return trip. This means one particular vehicle, like a 24 MT Trailer, would be able to complete a maximum of 182 trips per year, a value obtained by considering that the vehicle is in use 365 days a year without any holidays or breaks. The exporter is thus forced to use more than one distinct vehicle for shipping this quantity. This increases the costs of insurance, road tax and maintenance which are costs per vehicle, thereby pushing up the total cost of transportation. More the number of days required to complete a return trip per vehicle, more the number of distinct vehicles required and higher the transportation cost.

The sample illustration below in Figure 3 shows the impact of change in number of distinct vehicles used on total transportation costs for given tonnages, rates and distances.

FIGURE 3- TAXES IN TRANSPORTATION – SCENARIO 3

Days per trip per vehicle	Vehicles per year	Distance kms	Fuel Cost INR	Insurance Cost INR	Road Tax INR	Maintenance Cost INR	Total Transport Cost INR
2	88	5150780	163588788	1922282	3333896	5291898	174136863
4	176	5150780	163588788	3844564	6667791	10583796	184684938
6	265	5150780	163588788	5766846	10001687	15875693	195233014
8	353	5150780	163588788	7689127	13335582	21167591	205781089
10	441	5150780	163588788	9611409	16669478	26459489	216329164

All the above three scenarios were described with an assumption that all the quantity of a single product has to be shipped by a single exporter from a single location to a single port. However, in real life, the situation is quite different. There are multiple exporters, multiple products, multiple locations, multiple ports, multiple transporters, multiple vehicles, multiple routes and multiple rates, all adding up to increased transportation costs. The situation is something similar to the one described in the scenario below.

Scenario 4: Exporters A, B, C and D have to ship 5000 MT of goods in total. Of these, manufacturing location of Exporter A is Pune, Maharashtra and port of export is Nhava Sheva, Navi Mumbai, Maharashtra. Warehouse location of Exporter B is Siwani, Haryana and port of export is Mundra, Gujarat. Warehouse location of Exporter C is Dhulagarh, Howrah, West Bengal and port of export is Kolkata, West Bengal. Manufacturing location of Exporter D is Panruti, Tamil Nadu and port of export is Chennai, Tamil Nadu. The number of distinct products (HS codes) to be shipped per exporter is 5. Not all 5 products of an exporter may be destined towards the same port. In that case, the number of vehicles is likely to increase in multiples and so is the transportation cost.

The sample illustration below in Figure 4 shows the impact of change in number of factors viz. days required by a vehicle to complete a return trip, number of distinct vehicles required, distance between manufacturing location and port of export, etc. affecting total transportation costs for given total value of export on the percentage of transportation costs in total value of export.

FIGURE 4- TAXES IN TRANSPORTATION - SCENARIO 4

Total Export Value INR	Days per trip per vehicle	Vehicles per year	Return trip distance between plant and port kms	Total Distance travelled kms	Fuel Cost INR	Insurance Cost INR	Road Tax INR	Maintenance Cost INR	Total Transport Cost INR	Transport Cost in Total Export Value %
32611950000	2	88	320	5150780	163588788	1922282	3333896	5291898	174136863	1%
32611950000	4	1764	1200	193154268	6134579552	38445637	66677912	105837955	6345541056	19%
32611950000	6	2646	1840	296169878	9406355313	57668456	100016868	158756933	9722797568	30%
32611950000	8	3528	2400	386308536	12269159103	76891274	133355823	211675910	12691082111	39%

This is how level of optimization has a direct impact on transportation costs. It is obvious; therefore, that level of optimization is an important factor for accurate calculation of transportation costs. While taxes Embedded in transportation costs will more or less be a fixed percentage of total transportation costs, their net impact will depend on the percentage of transportation costs in total value of export. Higher the percentage of transportation costs in total value of export, higher the impact of Embedded taxes due to transportation and lower the percentage of transportation costs in total value of export, lower the impact of Embedded taxes due to transportation.

The sample illustration below in Figure 5 shows the impact of change in total value of export on impact of Embedded taxes due to transportation for given total transportation cost and percentage of taxes Embedded in transportation cost.

FIGURE 5- TAXES IN TRANSPORTATION SCENARIO 4

Total Export Value INR	Total Transport Cost INR	Impact of Transport Cost on Export Value %	Embedded Taxes in Transport Cost %	Net impact of Embedded Taxes due to Transport
32611950000	696547453	2%	30%	1%
5435325000	696547453	13%	30%	4%
3019625000	696547453	23%	30%	7%
2156875000	696547453	32%	30%	10%
1797395833	696547453	39%	30%	12%

SHEFEXIL products, being high value export products, the cost of their transportation as a percentage of total value of export is quite low, even if the actual costs are very high due to less degree of optimization for reasons explained through the scenarios above. Therefore, the percentage of Embedded taxes due to transportation as a percentage of total value of export is even lower.

For calculation of Embedded taxes in transportation, the following categories of operating expenses are relevant because the taxes or charges Embedded in these costs are not refunded. Therefore, they get passed onto from the transporter to the exporter and finally into the export price reducing competitiveness.

3.3.1 Components of Transportation Costs:

3.3.1.1 *Fuel costs*:

Fuel costs are cost of diesel, petrol or CNG (Compressed Natural Gas) consumption. These costs depend on the vehicle type, the distance travelled, conditions of roads and most importantly, the retail price of fuel at the fuel station where the tank is filled. The retail price varies depending upon the retailer and the location (state, union territory, district, city, etc.). Fuel consumption, in general, depends on the vehicle type as well. Different vehicles have different mileages in that the distances they can cover per unit consumption of fuel. Lighter of small size vehicles tend to have higher mileages than heavier of big size vehicles. The age of the vehicle also determines the mileage efficiency. Newer vehicles have higher mileages than older ones. Condition of roads including traffic density is another important factor affecting cost of fuel consumption. Bad roads, potholes, speed breakers, sharp curves and heavy traffic increase consumption of fuel. Distance directly affects fuel consumption. Larger the distance covered, more the fuel consumption. Speed of vehicle also affects fuel consumption. Fuel consumption is high at extremely low or extremely high speed of vehicles.

The percentage incidence of tax on fuel cost at different locations is calculated and the average of all such values is considered for Embedded tax calculations. Locations considered are those where presence of exporters of SHEFEXIL products is high.

Petroleum Duties:

Petroleum products which are used in case of transportation are:

1. Petrol
2. Petrol (branded)
3. High Speed Diesel
4. High Speed Diesel (branded)
5. Aviation Turbine Fuel
6. Natural Gas [Compressed]

Although these are common names we use for fuels in transportation, there are varieties of Petrol and HSD. For example, 5% or 10% ethanol blended petrol, High Speed Diesel oil blended with alkyl esters of long chain fatty acids obtained from vegetable oils, commonly known as bio-diesels.
Duty structure of all of these varies and the same is complex in nature. Various central and state levies are imposed on mithese products which form a major cost component in the value chain of any product, whether it is processed or not, mainly because transportation is involved throughout the production, distribution and sales cycles.

At the time of GST implementation, five petroleum products were kept out of GST ambit. Due to this, incidence of State and Central taxes in the final product has increased. This is so because products which are required to produce petroleum products attract GST (Raw Materials (other than Crude Oil), Capital Goods etc.), but final products like Petrol, HSD, ATF, Natural Gas etc. are not under the GST purview. Due to this, producers of Petrol, HSD, ATF, Natural Gas etc. cannot take Input Tax Credit on raw materials or capital goods which

are subject to GST. Petrol and HSD also attract State VAT, Cess, Additional tax and surcharge, which are recoverable in price as taxes (excluding Central Taxes and CST).

In other words, burden of taxation is ultimately passed on to the final consumer. In case of export, incidence of such taxes gets Embedded in the final product costing. Since these taxes neither get refunded nor become eligible for input tax credit claim.

If exemption, refund or credit is not available against these taxes for the purposes of export, sustaining against international trade competition becomes difficult. Taking burden on margins to adjust loss on account of Embedded taxes results in lower foreign exchange realization. On wider scale, it impacts balance of payments and thus, the entire economy.

TABLE 5 – CUSTOMS DUTIES ON PETROLEUM PRODUCTS NOT UNDER GST:

Particulars	CUSTOMS (applicable in case of Import)		
	Basic	Additional	Additional
Crude Petroleum	NIL + Rs. 50/MT	Nil	-
Petrol	2.50%	Rs.2,98/ltr. +	Rs.8.00/ltr.
Petrol (branded)	2.50%	Rs.4.16/ltr. +	Rs.8.00/ltr.
High Speed Diesel	2.50%	Rs.4.83/ltr+	Rs.8.00/ltr.
High Speed Diesel	2.50%	Rs.7.19/ltr+	Rs.8.00/ltr.
Aviation Turbine Fuel	5.00%	11%	-
Liquefied Natural Gas	2.50%	Nil	-
Natural Gas [Gaseous	5.00%	Nil	-
Natural Gas	5.00%	14.00%	-

[Source: Petroleum Planning and Analysis Cell- Rates as on 01.11.2018 http://ppac.org.in/content/149_1_PricesPetroleum.aspx]

Notes to Table 5:

1. In case of ATF, Basic Excise Duty /Additional Customs Duty (CVD) is 2% in place of 11%, for supply to schedule commuter airlines (SCA) from the regional connectivity scheme (RCS) airports.
2. In addition to the above, 10% Social Welfare Surcharge (3% in case of petrol and diesel) is also applicable on the total duties of Customs (excluding CVD).

TABLE 6 – CENTRAL EXCISE DUTIES (W.E.F 11.10.2018) ON PETROLEUM PRODUCTS NOT UNDER GST:

Particulars	CENTRAL EXCISE (Applicable in case of Indigenous Sale)		
	Basic	Special Additional	Additional Excise
Crude Petroleum	Nil+ Cess @ 20% +Rs.50/ MT as NCCD	-	-
Petrol	Rs.2.98/ltr	Rs.7.00/ltr	Rs.8.00/ltr.
Petrol (branded)	Rs.4.16/ltr	Rs.7.00/ltr	Rs.8.00/ltr.
High Speed Diesel	Rs.4.83/ltr	Rs.1.00/ltr	Rs.8.00/ltr.
High Speed Diesel	Rs.7.19/Ltr	Rs.1.00/ltr	Rs.8.00/ltr.
Aviation Turbine	11%	-	-
Liquefied Natural	Nil	-	-
Natural Gas	Nil	-	-
Natural Gas	14.0%	-	-

[Source: Extracted from Petroleum Planning and Analysis Cell- Rates as on 01.11.2018 - http://ppac.org.in/content/149_1_PricesPetroleum.aspx]

In addition to above, Central Taxes, Petrol and Diesel attract State Levies such as VAT, Additional Tax or Cess as imposed by the State Government under respective State VAT Legislations, summary of effective rates of State taxes is given in Table C (explanation on 'effective rates' is given in Note No. 1 to Table C):

TABLE 7 - STATEMENT SHOWING THE EFFECTIVE RATES OF STATE TAXES:

States/Union Territories	Sales Tax/VAT Rates	
	Petrol	Diesel
Andhra Pradesh	32.54%	24.64%
Arunachal Pradesh	16.20%	8.60%
Assam	26.91%	18.84%
Bihar	21.11%	14.50%
Chattisgarh	23.08%	21.84%
Delhi	27.00%	17.21%
Goa	12.86%	15.03%
Gujarat	22.19%	22.28%
Haryana	23.37%	13.90%
Himachal Pradesh	21.71%	11.14%
Jammu & Kashmir	23.54%	13.19%
Jharkhand	21.52%	19.20%
Karnataka	27.23%	17.11%
Kerala	30.37%	23.77%
Madhya Pradesh	31.70%	19.18%
Maharashtra – Mumbai, Thane & Navi Mumbai	36.01%	23.15%
Maharashtra (Rest of State)	35.01%	20.26%
Manipur	20.09%	10.23%
Meghalaya	18.56%	9.91%
Mizoram	18.88%	11.55%
Nagaland	20.13%	10.09%
Odisha	24.63%	25.08%
Punjab	35.08%	16.65%
Rajasthan	27.01%	20.13%
Sikkim	27.83%	15.55%
Tamil Nadu	32.17%	24.11%
Telangana	33.32%	26.05%
Tripura	19.78%	12.54%
Uttarakhand	22.97%	13.22%
Uttar Pradesh	22.97%	13.56%
West Bengal	23.73%	15.98%
Andaman & Nicobar Islands	6.00%	6.00%
Chandigarh	17.47%	9.04%
Dadra & Nagar Haveli	20.00%	15.00%
Daman & Diu	20.00%	15.00%
Lakshadweep	-	-
Puducherry	21.15%	17.15%

(As per details provided by OMCs) - Rates as on 01.11.2018

Source: Extracted from Petroleum Planning and Analysis Cell- http://ppac.org.in/content/149_1_PricesPetroleum.aspx

Notes to Table 7:
1. For Petrol and Diesel, taxes considered for computing effective tax rate includes Sales tax, VAT, Cess, Additional tax & Surcharge etc. which are recoverable in price as taxes excluding Central levies & CST.
2. For Petrol and Diesel, in addition to the above taxes, State Government of Bihar and West Bengal, levies additional tax/surcharge on VAT @ 30%/20% respectively which is irrecoverable in nature.
3. Effective rate of tax has been worked out based on the % of total taxes (taxes as per note 1 above) to retail selling prices excluding these total taxes.
4. For Petrol & Diesel, VAT/Sales Tax at applicable rates is also levied on Dealer's commission in Arunachal Pradesh, Delhi, Gujarat, Haryana, Madhya Pradesh, Punjab, Chandigarh, Puducherry, Andaman & Nicobar, Meghalaya, Dadar Nagar Haveli and Daman & Diu.

From the list of Central and/or State taxes/duties, we can understand the quantum of taxes in the given product's export costing. Out of these taxes, actual costs are State Levies as set off is not available and these are not refunded under any of the Export Promotion Schemes.

3.3.1.2 Insurance Costs:

Every vehicle carrying cargo needs to be insured against damages due to accidents, breakdown, etc. Insurance costs increase with number of vehicles used for transporting goods from point of manufacture or storage to port of export. Insurance costs incur 18% GST (Goods and Services Tax). This tax on insurance is ineligible for input tax credit. Transporters recover it from export through cost of transportation and exporters in turn recover it through price of final product. Thus, it adds to Embedded taxes. Furthermore, exporters pay 5% GST on insurance service cost under Reverse Charge Mechanism (RCM) for which they may or may not avail themselves of input tax credit. If they do not, then even this tax adds to Embedded taxes. However, the percentage of insurance cost in total cost of transportation is so low, that Embedded tax due to 18% GST on insurance cost itself is quite low (less than 0.05%) and that due to 5% GST is too negligible to be considered in the calculation of total Embedded tax.

3.3.1.3 Road Taxes:

Road tax is levied on all private and commercial vehicles, except an exempt category of vehicles. It is a state level tax and the percentage of taxes varies in different states. It is paid just once at the time of registration of the vehicle and not on an annual basis. Other than national highways which are constructed and maintained by the Central Government, about 80% of the roads in all the states of India are constructed by the respective state government. Since the cost of construction of these roads is borne by each state, the road tax is essentially imposed by the respective state government.

The road tax is imposed by

i. The State Government who levies yearly or lifetime motor vehicles tax, passenger and goods tax, state VAT and toll tax

ii. The Central Government which levies customs duty, central excise, central sales tax, GST and other additional Cess based on the model and type of the vehicle

3.3.1.4 National Permit Charges:

National permit is a permit granted to a transporter to operate throughout India. Single permit for all states was introduced in May 2010 with the objective to ensure seamless travel for commercial trucks across the country and to reduce the wastage of time. The fees levied for this permit vary by categories of vehicles and states.

3.3.1.5 Maintenance Costs:

Costs for maintenance of vehicles mainly include costs against repairs and replacement of tyres, lube, etc. These costs depend on size of vehicle, age of vehicle, road conditions and driving quality. Maintenance costs are costs per vehicle costs. The tax paid on purchase of spares, by way of GST, is not refunded. Therefore, it adds to the total cost of transportation and is an important constituent of Embedded taxes due to transportation.

4 Calculation of Embedded Taxes

4.1 Approach:

The data on quantity and values of 23 distinct 8-digit HS code tariff lines for FY 2017-18 was used for calculation of costs and Embedded taxes therein. These 23 products constitute over 80% of total value of export of SHEFEXIL products (refer sample illustration given in figure 6 below). Scenario-based approaches with relevant assumptions and conservative estimates have been used.

FIGURE 6- TOP 23 EXPORTED PRODUCT OF SHEFEXIL

Rank	Tariff Lines at 8-digit Code	Description	Values in USD Million	Quantity in Thousand	
			2017-18	UOM	2017-18
1	13023230	Guargum treated & pulverised	517.65	KGS	321923.78
2	12119032	Psyllium husk (isobgul husk)	226.20	KGS	39708.36
3	33012590	Others	221.95	KGS	6439.38
4	13021919	Other extracts	219.02	KGS	3797.30
5	30039021	Menthol crystal	110.34	KGS	4561.50
6	13023210	Guar meal	70.48	KGS	127437.10
7	33012400	Essntl oil of peppermint(mentha piperita)	70.39	KGS	2332.56
8	13023220	Guar gum refined split	58.81	KGS	44740.39
9	13019099	Shellac and Hydrolysed Lac	39.00	KGS	6360.32
10	13023290	Othr mucilages thicknrs w/n modifd,derivd from locust beans or locust bean seed	26.15	KGS	31968.80
11	14042000	Cotton linters	22.03	KGS	41185.55
12	12119099	Othr prts of plants usd in perfmry,pharma-cutical etc,frsh/drid	20.80	KGS	9951.69
13	13021918	Cambodge extract	20.39	KGS	1305.67
14	09109912	Fenugreek seed	16.44	KGS	27395.81
15	12119029	Other leaves, powder, flurs & pods fresh/dried w/n cut	15.71	KGS	5878.88
16	13021916	Extracts, neem	14.77	KGS	186.76
17	15159040	Fixed veg oils of edible grade viz. mango kernel, mahua, rice bran oil	14.74	KGS	10459.33
18	14049090	Othr crude vegetable matrls, inedible, nes	13.30	KGS	16057.05
19	15155091	Sesame oil & itsfractions other than crude of edible grade	11.76	KGS	4189.95
20	12119022	Senna leaves and pads	11.23	KGS	11636.19
21	09109915	Cassia torea seed	11.07	KGS	21218.50
22	12119045	Zedovary roots	10.99	KGS	3453.14
23	07129020	Dehydrated garlic powder	10.46	KGS	7430.17

Source: DGCIS - http://commerce-app.gov.in/eidb/default.asp

[Note:

- HS Code 13023210 (Guar Meal) is omitted by Finance Bill 2017 and HS code 11061010 is given for Guar meal. However, trade data as per DGCIS is available for HS code 13023210 only and hence we have considered trade data of HS code 13023210 for study.

- HS Code 13023220 (Guar Gum Refined Split) is omitted by Finance Bill 2017 & specific HS code for Guar Gum Refined Split is not given. As per drawback schedule published vide Customs Ntfn (N.T.) No. 95 Dated 06.12.2018, Guar Gum Refined Split will get classified under HS Heading 0713. However, trade data as per DGCIS is available for HS code 13023220 only and hence we have considered trade data of HS code 13023220 for study.]

Embedded taxes are calculated based on India's total export value and quantity of each product. Various costs associated with transportation such as; Fuel cost, Insurance charges, road tax, spare & maintenance, National permit, toll tax etc. are considered for calculation of Embedded taxes.

Based on the data on taxes and duties on petroleum and electricity and average amount of tax paid on; road tax, toll tax, national permit and Mandi tax etc.in a year, the total tax incidence on each of these was calculated and the tax incidence is used to derive its percentage in FOB value of exports as Embedded tax on SHEFEXIL products.

The below matrix format in the table illustrates the approach on calculations described above.

TABLE 8- MATRIX FOR CALCULATION OF EMBEDDED TAX

Matrix for calculation of Embedded Tax									
Route of Transport								XX	
Export Product								XX	
Vehicle type								XX	
Cargo carrying capacity(Tons)								XX	
Export Value USD								XX	
USD to INR rate								XX	
Export Value INR								XX	
Qty. MT								XX	
Cargo Wt. MT								XX	
Trips in a year								XX	
Insurance/Vehicle/Year in INR								XX	
Road Tax/Vehicle/Year in INR								XX	
Spares/Lube/Maintenance etc./Year/Vehicle in INR								XX	
National Permit/ Vehicle/Year in INR								XX	
Diesel Price/Liter in INR								XX	
Toll charges/Vehicle/Trip in INR								XX	
Total fuel req. in Liter								XX	
Average of Vehicle In Km								XX	
Return dist. – Km								XX	
Diesel Rate/km. in INR								XX	
Toll Rate/km. in INR								XX	
No. of Days for Return Trip	**No. of Distinct Vehicles required**	**Distance Travelled (kms)**	**Fuel cost (INR)**	**Toll Cost (INR)**	**Insurance (INR)**	**Road Tax (INR)**	**Spares/Lube/Maintenance (INR)**	**National Permit (INR)**	**Transportation. Cost (INR)**
XX	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
XX	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**

Total Embedded Tax		Rs.
1	Embedded tax on Diesel	
A	Retail Diesel price per litre	XX
B	Value for Vat Calculation	XX
C	VAT @ X % on B	XX
D	C. Ex. duty for branded HSD Rs. X/Litre	XX
E	Total Tax on HSD in Rs. (C+D)	XX
F	% of Tax in Retail price of Diesel	XX
G	Total Embedded tax on account of diesel in Rs.	XX
H	% of Embedded tax on account of fuel (HSD) in FOB value	XX
2	% of Embedded tax on account of Toll in FOB Value	XX
3	Embedded tax on account of Insurance services (GST)	XX
A	Total Insurance Cost	XX
B	GST Paid	XX
C	% of Embedded tax on account of Insurance in FOB value	XX
4	% of Embedded tax on account of Road Tax in FOB value	XX
5	Embedded tax on account of Spares/Lube/Maintenance etc. (GST)	XX
	Total cost	XX
	GST Paid	XX
	% of Embedded tax on account of spares/ lube/ maintenance.	XX
6	% of Embedded tax on account of National Permit in FOB value	XX
7	Embedded tax on account of Mandi tax	XX
A	Amount for calculation of Mandi tax	XX
B	Rate of Mandi tax (A x X%)	XX
C	% of Embedded Tax on account of Mandi tax	XX
8	Embedded tax on account of Electricity Duty	XX
	Total Embedded tax in value of export [1+2+3+4+5+6+7+8]	XXX

4.2 Assumptions for calculation of Embedded Taxes:

Various relevant assumptions were used to overcome the questionnaire data challenges listed in the earlier section. The assumptions were chosen to depict reality of the situation in every scenario in export of SHEFEXIL products. Some of the main guidelines and rationale for choosing the various assumptions are given below.

4.2.1 Transportation costs for Export:

While the exporters sent total value of sales in domestic and export markets separately, transportation costs were not sent separately for domestic sales and export, but sent as a consolidated total value. Therefore, in scenarios where transportation costs were directly picked from the data sent by exporters instead of calculating them based on the rate, vehicle and distance data sent by transporter, they have been apportioned based on the percentage of domestic sales and export in total value of sales. For transportation costs, even inbound movements were intended to considered, but in most cases, there were no data sent for imports as well as for domestic supplies. Exporters also confirmed that this sector is not import-intensive in that most SHEFEXIL products do not require inputs to be imported. Therefore, neither transport costs of import are considered, nor those of domestic supplies. Therefore, the actual cost of transportation and thereby the actual incidence of Embedded tax in transportation costs would be higher than that calculated values and percentage to the extent of inbound transportation costs.

4.2.2 Electricity costs for Export:

Similar to transportation costs, electricity costs were not sent separately for domestic sales and export. They were sent as the total monthly or annual bill amount. This amount actually represents the cost of electricity consumption across a particular location viz. office, factory or warehouse for all activities performed therein. Since there is no basis to allocate the consumption to processes and activities related to production, treatment and storage separately, these costs have also been apportioned based on the percentage of domestic sales and export in total value of sales.

4.2.3 Mandi tax:

Since purchase value of a product from Mandi is not available, we have considered 50% of FOB value for purpose of Mandi tax calculation.

Wherever specific rate of Mandi tax is available we have considered the same and wherever rate is not available or not provided by exporters we have considered average rate of Mandi tax. For example, rate of Mandi tax on Guar Gum in Rajasthan is 1.60%, so we have considered the same for calculation. Rate of Mandi tax which we have considered for calculation state/product wise are given in “Annexure - ii” therefore kindly refer the same,

4.2.4 Currency Exchange Rate:

Since total quantity and value of exports have been considered for Financial Year 2017-18, the currency exchange rate for conversion of values in USD to INR considered is the average of exchange rates from 3rd April 2017 to 31 March 2018 as published on the website of RBI (https://www.rbi.org.in/).

4.2.5 Level of transport optimization:

Efficiency of transport operations is determined by the extent of optimization of rates, routes and other resources viz. vehicles, drivers, turnover times, etc. All of these have a direct impact on cost of transportation and thereby the incidence of Embedded taxes due to transportation as a percentage of total export value. The level of optimization can be ascertained based on various metrics viz. vehicle fill rates, percentage utilization, number and type of distinct vehicles used per month of per year, number of return trips made by a vehicle in a particular interval, time taken for a return trip by a vehicle, etc. Various scenarios with various truck fill rates viz. 100%, 80%, 60%, 50% etc., various number and type of distinct vehicles used per year and various intervals of time taken for a return trip by a vehicle are considered for calculation of transportation cost in each scenario. These scenarios are selected based on the discussions with exporters to best depict reality. Since exporters lack the capacity to invest in optimization of transport operations, either through technology or skilled manpower or both, efficiency levels in transportation process are quite low. Also, export order being urgent to fulfil, often determining the future or even survival of business of the exporter, transport optimization is mostly viewed as a less important requirement unaffordable to invest in. The scenarios are selected considering this realistic situation and costs are calculated for each such scenario. An average of all such costs has been considered to arrive at incidence of Embedded taxes due to transportation as a percentage of total export value. A scenario-based model of transportation matrix has been developed for ready reference and calculation of costs for other variations.

4.2.6 Multiple modes:

There were multiple modes of transportation mentioned in questionnaire responses without any basis for apportionment of costs. Since transportation leg considered is only till port of export, majority of transportation is by road. For consignments sent to Inland Container Depots (ICD) or Container Freight Stations (CFS) with Customs Clearance facilities, further movement is by rail undertaken only by CONCOR, a Public Sector Undertaking (PSU) under the Ministry of Railways. These movements are out of scope as far as calculation of transportation costs is concerned. Only in exceptional urgent cases, shipments were sent by air obviously at costs way higher than any of the other modes of transport viz. road and rail. Therefore, it was assumed that the entire transportation is by road. Any additional cost would only add to the calculated values and percentage of total transportation costs and Embedded taxes thereof respectively.

4.2.7 Number of days to complete a return trip per vehicle:

The time required by a particular vehicle to complete a return trip depends mainly on the distance between the manufacturing or warehousing location and the port of export, the speed of vehicle and the time spent in transit at toll booths, in traffic jams, etc. The speed of vehicle, in turn depends on the type of vehicle and in many cases, the route and the driver as well. Poor condition of roads and congestion at ports lead to delays and increases the number of days to complete a return trip per vehicle. For a particular pair of manufacturing or warehousing location and port of export, depending on the distance and vehicle type, various scenarios are selected and assumptions are made for number of days to complete a return trip per vehicle. Based on this assumption and the constraint of 365 days a year, the number of distinct vehicles used to export a particular quantity of product is calculated. This number of distinct vehicles in an important factor affecting total cost of transport. More the number of distinct vehicles used or required to export a particular quantity of product, higher the total cost of transport and Embedded taxes thereof. Total costs of transport are calculated for various scenarios with assumptions of number of days to complete a return trip per vehicle. An average of all such costs has been considered to arrive at incidence of Embedded taxes due to transportation as a percentage of total export value. A scenario-based model of transportation matrix has been developed for ready reference and calculation of costs for other variations.

4.2.8 Number and type of distinct vehicles used and number of trips required per vehicle

This number of distinct vehicles is related to the number of days a vehicle requires to complete a return trip and explanation for this assumption is included in the point corresponding to that. Different types of vehicle viz. Canter Long Platform Truck (LPT), Open Truck, Trailers and Semi-trailers, Containers, etc. have different payload capacities which determine the quantity they can transport per trip for a particular fill rate. Data on number of trips was asked from exporters, but was not sent by all exporters. Therefore, numbers of trips were calculated for different exporters based on distances between manufacturing or warehouse location and port of export, routes taken to cover those distances, vehicle types, payload capacities, fill rates and quantity to be exported. Various scenarios for various vehicle types and fill rates are considered for calculation of number of distinct vehicles required, number of trips and total cost of transportation.

4.2.9 Distance and routes from manufacturing or warehouse location to port of export:

The number of days a vehicle requires to complete a return trip and number of distinct vehicles used or required depends, among other factors, on the distance from manufacturing or warehouse location to port of export and the route taken to cover that distance. The total costs of transport for a particular distance depends on the quantity to be exported, vehicle type and capacity and the number of days each vehicle takes to complete a return trip. Data on distances was asked from exporters, but was not sent by all exporters. Values of distances

and most preferred routes to cover those distances are picked up from both data sent by exporters and standard references wherever data was not sent by exporters.

4.2.10 Number and region of exporters per product:

Data was received from 8 exporters spread across the north, south, east and west regions of the country. Data on total quantity and value of exports was received from most exporters, but for many exporters total quantity of export was not available by HS codes. None of the costs viz. transportation or electricity was available by HS codes. Data on clubbing different products (HS codes) for transport was not available. Mode and vehicle types were not available by HS codes. Ports of exports were mentioned for most exporters. Therefore, clusters of various exporters manufacturing similar or comparable products were considered based on the products exported and the regions in which those products are manufactured. This regional and product-based clustering helped in comparative analysis of costs mainly due to comparable distances between manufacturing or warehouse location and port of export, routes taken to cover those distances, fuel and electricity prices in the region, taxes and duties therein, Mandi tax, selling price and total value of export of those products.

4.2.11 Number of products:

Of the 23 distinct 8-digit HS code tariff lines for FY 2017-18 from data provided by Department of Commerce – DGCI&S Kolkata, which constitute over 80% of total value of export of SHEFEXIL products, there were a few products having selling price substantially higher than the average selling price range of SHEFEXIL products. The high price of these products was determined from the high export value and low quantity. The percentage of Embedded taxes in the total export value of these products was extremely low despite the high cost of transport and electricity consumption for these products. These products are highlighted in red in the chart below.

On the other hand, products with selling price close to the average selling price range of SHEFEXIL products showed a higher incidence of Embedded taxes despite their cost of transport and electricity consumption for these products being close to average of such costs. These products are highlighted in green in the chart below. These products were chosen as data samples for calculation of cost of transport, electricity, farm and other related costs and incidence of Embedded taxes due to these costs. These products constitute to 52.61% of the total exports of the 23 Products mentioned in Figure 6 above. An average of percentages of Embedded taxes in total value of exports for all these products is taken as the representative value.

FIGURE 7- NUMBER OF PRODUCTS

Rank	Tariff Lines at 8-digit Code	Description	Values in USD Million	Quantity in Thousand		Per Kg price in Actual INR (1 USD = 73 INR)
			2017-18	UOM	2017-18	
1	13023230	Guargum treated & pulverised	517.65	KGS	321923.78	117.38
2	12119032	Psyllium husk (isobgul husk)	226.20	KGS	39708.36	415.85
3	33012590	Others	221.95	KGS	6439.38	2516.14
4	13021919	Other extracts	219.02	KGS	3797.30	4210.48
5	30039021	Menthol crystal	110.34	KGS	4561.50	1765.83
6	13023210	Guar meal	70.48	KGS	127437.10	40.37
7	33012400	Essntl oil of peppermint(mentha piperita)	70.39	KGS	2332.56	2202.93
8	13023220	Guar gum refined split	58.81	KGS	44740.39	95.96
9	13019099	Shellac and Hydrolysed Lac	39.00	KGS	6360.32	447.62
10	13023290	Othr mucilages thicknrs w/n modifd,derivd from locust beans or locust bean seed	26.15	KGS	31968.80	59.71
11	14042000	Cotton linters	22.03	KGS	41185.55	39.05
12	12119099	Othr prts of plants usd in perfmry,pharma-cutical etc,frsh/drid	20.80	KGS	9951.69	152.58
13	13021918	Cambodge extract	20.39	KGS	1305.67	1140.00
14	09109912	Fenugreek seed	16.44	KGS	27395.81	43.81
15	12119029	Other leaves, powder, flurs & pods fresh/dried w/n cut crushed/powdered	15.71	KGS	5878.88	195.08
16	13021916	Extracts, neem	14.77	KGS	186.76	5773.24
17	15159040	Fixed veg oils of edible grade viz. mango kernel, mahua, rice bran oil	14.74	KGS	10459.33	102.88
18	14049090	0thr crude vegetable matrls, inedible, nes	13.30	KGS	16057.05	60.47
19	15155091	Sesame oil & itsfractions other than crude of edible grade	11.76	KGS	4189.95	204.89
20	12119022	Senna leaves and pads	11.23	KGS	11636.19	70.45
21	09109915	Cassia torea seed	11.07	KGS	21218.50	38.09
22	12119045	Zedovary roots	10.99	KGS	3453.14	232.33
23	07129020	Dehydrated garlic powder	10.46	KGS	7430.17	102.77

4.3 Calculation matrix of Embedded tax.

We had prepared matrix for calculation of Embedded tax in FOB value of exports in the format given in "Table 8" above. The matrix is explained with the help of an example as under.

4.3.1 Calculation of Embedded tax in export product Guar Meal

We have prepared following matrix for calculation of Embedded tax (refer Figure 8, 9 & 10):

FIGURE 8 - CALCULATION OF EMBEDDED TAX FOR GUAR MEAL

Calculation of Embedded taxes when container is 50% loaded		
Export Product - Guar meal	**Route of Transport- Jodhpur to Mundra**	
Vehicle type	ASHOKLEYLAND (3116-IL)	
Cargo carrying capacity(Tons)	22.5	
a	Export Value in USD	70480000.00
b	USD to INR rate	64.4
c	Export Value INR (a X b)	4538912000
d	Qty MT	127437.10
e	Cargo wt MT	11.25
f	No. of Round Trips (d/e)	11328
g	Insurance/Year/Vehicle - in INR	39447
h	Road Tax/Year/Vehicle - in INR	13800
i	Spares/Lube/Maintenance etc./ Year/ Vehicle - in INR	84000
j	National Permit/Year/Vehicle - in INR	20000
k	Average Diesel Price/Litre - in INR	64.74
l	Toll charges/vehicle/Trip - in INR	4560
m	Return dist. - Km	1274
n	Average of Veh. In Km	3
o	Total fuel req. in Litre (m/n)	424.67
p	Diesel rate/km. in INR (k/n)	21.58
q	Toll rate Rate/km. in INR (l/m)	3.58

FIGURE 9- CALCULATION OF TRANSPORTATION COST FOR GUAR MEAL

r	s	t	u	v	w	x	y	z	a1
No. of Days for Return Trip	No. of Distinct Vehicles required [f/(365/r)]	Distance Travelled (kms) [s X m X(365/r)]	Fuel cost (Rs) (t X p)	Toll Cost (Rs) (t X q)	Insurance (Rs) (s X g)	Road Tax (Rs) (s X h)	Spares/Lube/ Maintance (Rs) (s X i)	National Permit (Rs) (s X j)	Total Transportation Cost (Rs) (r+s+t+u+v+w+x+y+z)
7	217.24	14431543.59	311432710.70	51654504.53	8569638.72	2997972.33	18248527.20	4344887.43	397248241

FIGURE 10- INCIDENCE OF EMBEDDED TAX

Incidence of Embedded Tax if one round trip is completed in 7 days		Rs.
1	Embedded tax on Diesel	
A	Retail Diesel price per Litre	64.74
B	Value for VAT Calculation	53.89
C	VAT @ 20.13% on B	10.85
D	C. Ex. duty for branded HSD 16.19/Litre	16.19
E	Total Tax on HSD in Rs (C+D)	27.04
F	% of Tax in Retail price of Diesel ((E/A)*100)	41.76%
G	Total Embedded tax on account of diesel in Rs	130068532.31
H	% of Embedded tax on account of fuel (HSD) in FOB value	2.87
2	% of Embedded tax on account of Toll in FOB Value	1.14
3	Embedded tax on account of Insurance services (GST)	
A	Total Insurance Cost	8569638.72
B	GST Paid	1307233.02
C	% of Embedded tax on account of Insurance in FOB value	0.03
4	% of Embedded tax on account of Road Tax in FOB value	0.07
5	Embedded tax on account of Spares/Lube/Maintenance etc. (GST)	
	Total cost	18248527.20
	GST Paid	2783673.64
	% of Embedded tax on account of spares/lube/maintenance.	0.06
6	% of Embedded tax on account of National Permit in FOB value	0.10
7	Embedded tax on account of Mandi tax	
A	Amount for calculation of Mandi tax(50% of FOB value)	2269456000
B	Rate of Mandi tax @ 1.60% (AX1.60%)	36311296
C	% of Embedded Tax on account of Mandi tax	0.8
8	% of Embedded tax on account of Electricity Duty	0.044
	% of Total Embedded tax in value of export	5.10

Explanation:

1. Guar Gum is the top exported SHEFEXIL product largely produced in Rajasthan. Therefore, we have considered Rajasthan (Jodhpur) as exporting state. Mundra (Gujarat), being the nearest port from Rajasthan, is selected as port of export. (Refer to Figure 8).
2. Cargo carrying capacity of vehicle is 22.5 MT. In case of SHEFEXIL products export, most of the time container is not fully loaded due to low volume and urgency of order. Therefore, we have assumed that, container is 50% loaded with cargo. (Refer to Figure 8)
3. We have considered 7 days for completion of return trip from Jodhpur (Rajasthan) to Mundra (Gujarat). (Refer to Figure 9 – "r" column)
4. Numbers of vehicles are calculated based on trips required to export the product in a year divided by number of trips can be completed in a year considering the days required for completion of one trip. (Refer to Figure 9 – "s" column)

5. Total distance travelled in a year is calculated based on total distance travelled in a trip multiplied by number of vehicles required and divided by trips can be completed in year considering the days required for completion of one trip. (Refer to Figure 9 – "t" column)
6. Based on total distance travelled in a year and cost of fuel (for travelling 1 Kilometer), we have calculated total fuel cost incurred in a year. (Refer to Figure 9 – "u" column)
7. Toll charges paid in a year are calculated by multiplying toll charges per kilometer with total distance travelled in a year. (Refer to Figure 9 – "v" column)
8. Total cost incurred in a year on account of Insurance premium, Road Tax, Spares/ Lube/ Maintenance and National Permit is calculated by multiplying number of vehicles required in a year with cost incurred for each head (Insurance, Road Tax, Spares/ Lube/ Maintenance and National Permit) in a year per vehicle. (Refer to Figure 9 – column "w", "x", "y" & "z")
9. Based on the above details we have calculated Embedded taxes in each of the cost component viz. Embedded taxes on account of fuel, toll charges, GST paid for insurance/spares/lube/maintenance services as input where transporter does not claim input tax credit on output services, Road tax, National permit charges and Mandi tax as under: (Refer to Figure 10)

A. Calculation of Embedded tax on account of fuel required for transportation (Refer to Figure 10 – section 1):

1. We have considered high speed diesel (branded) for calculation of Embedded taxes, as, diesel is widely used in large vehicle for transportation of goods.
2. Average retail price of diesel per liter in the year 2017-18 in Jodhpur, Rajasthan is considered for calculation.
3. Vat rate in Rajasthan and rate of Central excise duty on high speed diesel (branded) is taken from the website of "Petroleum Planning and Analysis Cell" [http://ppac.org.in/content/149_1_PricesPetroleum.aspx] applicable as on 01.11.2018.
4. By applying arithmetic calculation we have calculated amount and % of VAT and Central Excise Duty paid in 1 of liter diesel consumed. Based on this we have calculated total Embedded tax on account of fuel in transportation.
5. Total Embedded tax on account of fuel as a percentage of FOB value of export for export product Guar Meal for transportation route Jodhpur to Mundra is 2.87%.

B. Calculation of Embedded tax on account of Toll charges paid (Refer to Figure 10 – section 2):

1. Toll charges applicable for return trip between Jodhpur, Rajasthan to Mundra, Gujarat for transportation of goods are considered for calculation of Embedded taxes.
2. Total Embedded tax on account of toll charges is 1.14%.

C. Calculation of Embedded tax on account of Insurance services incurred by transporter (Refer to Figure 10 – section 3):

1. Every vehicle carrying cargo needs to be insured against damages due to accidents, breakdown, etc. Insurance costs increase with number of vehicles used for transporting goods from point of manufacture or storage to port of export. Insurance costs incur 18% GST (Goods and Services Tax). This tax on insurance is ineligible for input tax credit. Transporters recover it from exporters through cost of transportation and exporters in turn recover it through price of final product. Thus, it adds to Embedded taxes. Furthermore, exporters pay 5% GST on insurance service cost under Reverse Charge Mechanism (RCM) for which they may or may not avail themselves of input tax credit. If they do not, then even this tax adds to Embedded taxes. However, the percentage of insurance cost in total cost of transportation is so low, that Embedded tax due to 18% GST on insurance cost itself is quite low (less than 0.05%) and that due to 5% GST is too negligible to be considered in the calculation of total Embedded tax.
2. Based on Average insurance charges incurred in year and number of vehicles required, we have calculated total insurance cost incurred by transporter for providing transportation services in a year and this cost is used to arrive at GST paid by transporter in a year on account of insurance services.
3. Total Embedded tax on account of Insurance is 0.03%.

D. Calculation of Embedded tax on account of road tax and national permit (Refer to Figure 10 – section 4 & 6):

1. Transporter pays national permit fee and road tax for providing transportation services. This cost also gets built up in the final export product of exporter and refund of the same is not available to the exporter.
2. For calculation of Embedded taxes on account of road tax and national permit fee we have considered average amount of road tax and national permit fee paid by transporter in a year.
3. An Embedded tax on account of road tax and national permit is 0.17% for export product Guar Meal for the transportation route Jodhpur, Rajasthan to Mundra, Gujarat.

E. Calculation of Embedded tax on account of Spares/ Lube/ Maintenance etc. charges incurred by transporter (Refer to Figure 10 – section 5):

1. There are some costs related to vehicle maintenance, purchase of spare parts, Lubrication of vehicle parts or components etc. which transporter bears for providing transportation services and such costs incur GST.
2. The average rate of GST on account of spares/lube and maintenance in transport sector is @18%. Therefore, we have considered the same for calculation of Embedded taxes.
3. For calculation, we have considered average cost incurred by the transporter on account of spares/lube and maintenance in a year.
4. The % of Embedded tax on account of spares/lube/maintenance is 0.06%.

F. Calculation of Embedded tax on account of Mandi tax (Refer to Figure 10 – section 7):

1. Since purchase value of a product from Mandi is not available, we have considered 50% of FOB value for purpose of calculation of Mandi tax.
2. Mandi tax in Rajasthan for Guar or Guar seed is 1.60%.
3. Based on the above two we have calculated % of Embedded tax on account of Mandi tax and the rate of Embedded tax works out to 0.80%.

G. Calculation of Embedded tax on account of electricity duty (Refer to Figure 10 section 8):

1. As per the data received in questionnaire from exporters, we have calculated Embedded tax on account of electricity duty.
2. One exporter "Shree Ram Colloids Pvt Ltd" has provided average amount of electricity duty paid by them per month for manufacturing Guar Gum Powder. Based on this, we have worked out total electricity duty paid by them in a year and % of the said duty amount in total FOB value of exports made by them in a year 2017-18. The total Embedded tax works out to 0.33% for Guar Gum Powder.
3. Since, the above calculation is for Guar Gum Powder, for calculation of Embedded tax in Guar Meal we have bifurcated the above Embedded tax (i.e. 0.33%) in proportion of export value in USD and arrived at Embedded tax in Guar Meal. The sample calculation is given in "Annexure - iii", kindly refer the same.
4. The amount of Embedded tax on account of electricity duty works out to 0.044% for Guar Meal.

H. The total amount of Embedded tax on account of fuel/toll charges/insurance/road tax/spares/lube/maintenance/national permit/Mandi tax/electricity duty is works out to 5.10% for the route and product mentioned above. (For Detailed calculation refer "Annexure – O")

I. The above mentioned total Embedded tax is based on container fill rate, time required to complete the return trip between the routes mentioned above. In above calculation we have assumed that container is 50% loaded and one trip between Jodhpur to Mundra is completed within 7 days. However, in case of SHEFEXIL products export, most of the time container is not fully loaded due to low volume and urgency of order. Also, trip time of 7 days can increase (8 days or 9 days or 10 days etc.) due to traffic, accidents, unexpected situations etc. The % of Embedded taxes changes if above two parameters changes. Based on different container fill rate and time required to complete the trip we have calculated the Embedded taxes for export product Guar Meal as under:

TABLE 9- EMBEDDED TAX FOR GUAR MEAL

State	City	Destination Port	Fill rate	No of days required to complete the trip	% of Embedded taxes
Rajasthan	Jodhpur	Mundra, Gujarat	100%	7	2.97
Rajasthan	Jodhpur	Mundra, Gujarat	100%	10	3.03
Rajasthan	Jodhpur	Mundra, Gujarat	100%	13	3.08
Rajasthan	Jodhpur	Mundra, Gujarat	100%	16	3.13
Rajasthan	Jodhpur	Mundra, Gujarat	80%	7	3.50
Rajasthan	Jodhpur	Mundra, Gujarat	80%	10	3.57
Rajasthan	Jodhpur	Mundra, Gujarat	80%	13	3.64
Rajasthan	Jodhpur	Mundra, Gujarat	80%	16	3.71
Rajasthan	Jodhpur	Mundra, Gujarat	60%	7	4.39
Rajasthan	Jodhpur	Mundra, Gujarat	60%	10	4.48
Rajasthan	Jodhpur	Mundra, Gujarat	60%	13	4.57
Rajasthan	Jodhpur	Mundra, Gujarat	60%	16	4.66
Rajasthan	Jodhpur	Mundra, Gujarat	50%	7	5.10
Rajasthan	Jodhpur	Mundra, Gujarat	50%	10	5.21
Rajasthan	Jodhpur	Mundra, Gujarat	50%	13	5.32
Rajasthan	Jodhpur	Mundra, Gujarat	50%	16	5.42
Rajasthan	Jodhpur	Mundra, Gujarat	40%	7	6.16
Rajasthan	Jodhpur	Mundra, Gujarat	40%	10	6.30
Rajasthan	Jodhpur	Mundra, Gujarat	40%	13	6.43
Rajasthan	Jodhpur	Mundra, Gujarat	40%	16	6.57

4.4 Matrix Calculation Annexures

We have calculated Embedded taxes for different routes with different fill rates and products by using the same methodology as explained in Section 4.3.1 above. For detailed calculation refer to following annexures:

TABLE 10 – LIST OF ANNEXURES FOR MATRIX CALCULATIONS

Sr. No	Product	Sr. No	Route	Annexure
1	Fenugreek Seed	**1**	Bareilly (UP) to Haldia (West Bengal)	Annexure "A"
		2	Bareilly (UP) to Mundra (Gujarat)	Annexure "B"
		3	Bareilly (UP) to Nhava Sheva (Mumbai)	Annexure "C"
		4	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "D"
		5	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "E"
2	Cotton Linters	**6**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "F"
		7	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "G"
		8	Siwani (Haryana) to Mundra (Gujarat)	Annexure "H"
3	Guar Gum Refined Split	**9**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "I"
		10	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "J"
		11	Siwani (Haryana) to Mundra (Gujarat)	Annexure "K"
4	Guar Gum Treated & Pulverized	**12**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "L"
		13	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "M"
		14	Siwani (Haryana) to Mundra (Gujarat)	Annexure "N"
5	Guar Meal	**15**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "O"
		16	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "P"
		17	Siwani (Haryana) to Mundra (Gujarat)	Annexure "Q"
6	Psyllium Husk	**18**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "R"
		19	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "S"
		20	Siwani (Haryana) to Mundra (Gujarat)	Annexure "T"
7	Cassia Torea Seed	**21**	Jodhpur (Rajasthan) to Mundra (Gujarat)	Annexure "U"
		22	Jodhpur (Rajasthan) to Nhava Sheva (Mumbai)	Annexure "V"

5 Product wise summary of Embedded taxes:

TABLE 11 - PRODUCT WISE SUMMARY OF EMBEDDED TAX

HS Code	Product	Average Embedded tax (%)	
		At 100% Container Capacity	At 50% Container Capacity
09109912	Fenugreek Seed	4.75%	8.53%
14042000	Cotton Linters	4.15%	7.32%
13023220	Guar Gum Refined Split	2.02%	3.31%
13023230	Guar Gum Treated & Pulverized	2.08%	3.14%
13023210	Guar Meal	3.80%	6.87%
12119032	Psyllium Husk	1.40%	1.70%
09109915	Cassia Torea Seed	4.13%	7.30%
Average		**3.19%**	**5.45%**

6 Observations & Findings

The seven products selection of which is done on above mentioned facts are considered for study, account for roughly 47% of total exports of SHEFEXIL products by value.

The calculation is done based on all parameters put together whereas, taxes are built in the prices but not anywhere refunded as they are either not covered by GST or not refunded by mechanism per say.

The embedded taxes primarily include taxes on Diesel (Central Tax & VAT), Electricity Duty, Mandi Tax, Insurance and other consumables used in maintenance of vehicles, Toll Charges, etc.

The Average impact if taken into account works out between 3.19% and 5.45% of FOB value. The FOB values are based on statistics available on DGCIS Website.

The capacity utilization is taken into account as many types of vehicles are used in actual transportation. The Capacity utilization ranges from 40% to 100% based on the volume/weight of the product and small & big order size. Hence, the ideal rate should be 4.32% or say rounded off to 4.5% of FOB value.

This refund does not anyway contribute as export incentive with reference to WTO principles and regulations. These are primarily embedded taxes actually suffered in processing and transportation of the product to the port of shipment. Hence, these act at par with duty drawback on actual basis.

The Principle of export as universally accepted is, “We export Goods and Services, not Taxes”. Therefore, refund of embedded taxes cannot be considered as incentives.

We therefore strongly believe that, **4.5% of FOB value can be considered as normal rate for 7 HS Code**s and for other HS Code a residual rate of 5% should be considered. This is primarily because the above mentioned seven products constitute 47% of export in value terms and for balance 53% there are almost 140 products which automatically means products are exported but not in volumes and big size. Naturally, when exports are in small quantity costs increases. Thereby payment of taxation also increases. Hence, a **residual rate of 5% for all other HS Code seems appropriate**.

Submitted on: 25.01.2019

For Helpline Impex Pvt. Ltd.

Sudhakar Kasture
(Director)

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Abbreviations

APMC	**Agricultural Produce Market Committee**
ATF	**Aviation Turbine Fuel**
CBIC	**Central Board of Indirect Taxes & Customs**
CFS	**Container Freight Station**
CNG	**Compressed Natural Gas**
CONCOR	**Container Corporation of India Ltd**
CVD	**Countervailing Duty**
FOB	**Free on Board**
GST	**Goods and Service Tax**
HSD	**High Speed Diesel**
ICD	**Inland Container Depots**
ICT	**Information and Communication Technology**
ITC	**Input Tax Credit**
LPT	**Long Platform Truck**
OMC	**Oil Marketing Companies**
PSU	**Public Sector Undertaking**
RCS	**Regional Connectivity Scheme**
ROSL	**Rebate of States Levies**
SCA	**Schedule Commuter Airlines**
SHEFEXIL	**Shellac & Forest Products Export Promotion Council**
UP	**Uttar Pradesh**
VAT	**Value Added Tax**

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References

1	Exchange rate USD/INR	RBI - www.rbi.org.in
2	Export Value USD	Ministry of Commerce, DGCIS - http://commerce-app.gov.in/eidb/default.asp
3	Average cost of Insurance/ Repairs/ Maintenance/ National Permit/ Road Tax	Royal Forwarders Private Limited
4	Average Diesel Cost Per Litre	Mypetrol price - https://www.mypetrolprice.com
5	Toll Charges	https://www.truckbhada.com
6	Central excise duty and VAT on sale of diesel	Petroleum Planning and analysis cell - http://www.ppac.org.in/
7	GST rate on Insurance/Spares/Lube/Maintenance cost	CBIC - GST rate Notifications - http://www.cbic.gov.in/htdocs-cbec/gst/index

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