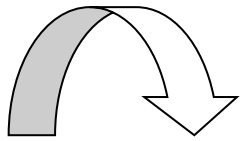
The Map in My Bottle: Learning Geography from Product Packaging

Jerry Jean Preston

Recently I happened to accompany my architect husband to the manufacturing province of Guangzhou in China. I was taken aback by the 'development' gleaming all around me. Looking at all the concrete and metal, I wondered about where their cultivation and agriculture happened. "Where do your cereals and food come from?" I asked a saleswoman in a high profile store. "From the departmental store!" she answered sheepishly, probably aware of her own geographical ignorance.

This raised quite a few questions in my mind— Do we, urban Indian, 'educated and informed' people, know about the origin of our packed, finished products? Where does our *Annapurna atta* come from – before it arrives at the departmental store? Where do the milk and cream for our ice creams come from? Where are our books printed? What is the journey to become a *Colgate* toothpaste or *Vicks*?



This article delves into the worlds that are printed on a packet - literally! Every packet contains a bit of geographical information in the form of the *'Made in . . .'* line. However, in today's world, the simple '*Made in . . .*' line may be slightly more complicated as '*Manufactured at . . . ,' 'Manufactured by . . . ,' 'Marketed by . . . ,'* and so on.

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The article examines how students can develop their geographical knowledge using the packets of their favourite brands and how geography teachers can use packets as teaching aids. The kind of geography that this activity/project unearths is called *industrial geography*, which is a sub-division of *economic geography*. ***Economic geography*** is the study of the spatial distribution of economic activities around the world.

Industrial geography can be defined as *a branch of geography that deals with the location of industries, the geographic factors that influence their location and development, the raw materials used in them, and the distribution of their finished products.* So, why are industries located in certain places and not others? As the definition suggests, this choice is determined by the presence of raw materials and the ease of distribution of the finished products.

The packets that we throw away on a daily basis can be captivating entry points into this highly specialized form of geography. Students can be asked to collect the labels of a few of their favourite products and locate the places of manufacture on a map.

Usually students know geography as the study of rivers, places of cultivation, climatic patterns, etc. So the teacher will have to ask students to connect the manufacturing information on packets to other geographical information such as climate, land, cultivation, minerals, metals and so on.

The manufacturing information (secondary sector information) can point to the places of cultivation, the areas where minerals are mined and the places from where other raw materials are sourced (primary sector information). The ***primary sector of the economy*** is involved in extracting raw materials from the earth through processes such as mining and agriculture. The ***secondary sector*** transforms the raw materials into finished products. Finally, the ***tertiary sector*** provides services.

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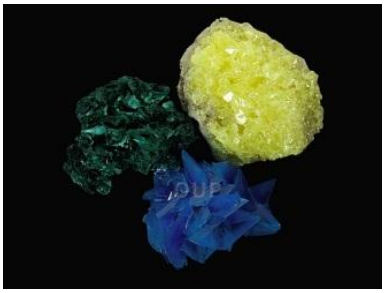
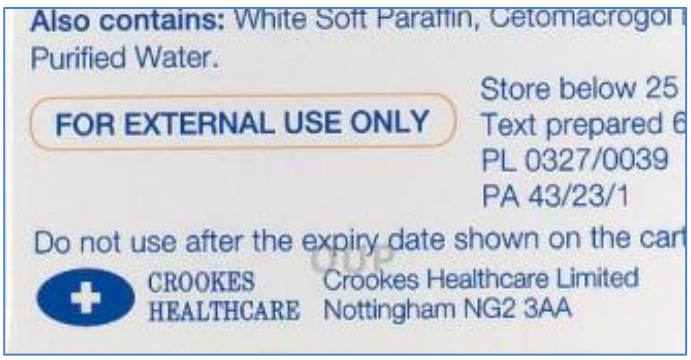



The places of processing *atta* (flour) on the packet can *point to* the various regions of cereal cultivation. Tea and coffee processing information on the packet can *point to* the location of their plantations, and the attendant climate and land relief patterns required for their adequate nurture. The possible sources of raw materials will have to be *imagined* based on their proximity to the places of manufacture.


Products can be manufactured by small companies with local markets or by big, international companies that have branches in India. The small companies usually have only one line of geographical information. For instance, *Bioline White Petroleum Jelly* is described as a "*Quality Product from the House of Biopharm Laboratories . . . Bangalore.*" Some products are manufactured or processed at various locations in India instead of a single place. The packet will ask the consumer to look at the code letter next to the batch number and date of manufacture. There will be a key comprising multiple code letters, each corresponding to a different place of manufacture. This is found on *Wheel* and *Rin* detergent powders, chowmein packets, *Aashirwaad* atta, and so on.



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The manufacturing information on *Huggies* baby diapers is another example of this:

MADE IN INDIA: For Mfg. Unit address, read the first character of the code.

A) Kimberly - Clark Lever Pvt. Ltd. . . . Pune, Maharashtra – 412208.
C) Mann Feeds Pvt. Ltd. . . . Faridabad, Haryana – 121004.
E) Anadya Baby Products, . . . North Guwahati, Dist: Kamrup, Assam – 781031.

Marketed by: Kimberly-Clark Lever Pvt. Ltd.

Regd. Off: Kimberly -Clark Lever Pvt. Ltd. . . . Pune, Maharashtra – 412208.

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So *Huggies* is manufactured at many places around India to reduce the cost of distribution to the surrounding areas. If it was manufactured at a single place, the cost of transportation to remote places in a vast country like India would have been very high.

This brings us to the concept of ***channel of distribution***. Finished products often have to pass through the hands of many middlemen before reaching the consumer. This concept can be defined as:

It is the chain of businesses or intermediaries through which a good or service passes until it reaches the end consumer. A distribution channel can include wholesalers, retailers, distributors and even the internet. Channels are broken into direct and indirect forms, with a "direct" channel allowing the consumer to buy the good from the manufacturer and an "indirect" channel allowing the consumer to buy the good from a wholesaler. Direct channels are considered "shorter" than "indirect" ones.

The information on *Huggies* packaging also gives details about certain industrial business processes. Though not related to geography, these can be interesting trivia that the teacher can share in her class, when she shows samples of product packages.

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Certain questions that can be taken up during class discussion before moving onto a project:

Q 1. What is the difference between *manufacturing* **and** *marketing***?**

Ans: A product may be manufactured at a particular location. However, its marketing may be done at another office or location. The marketing division focuses on the consumers – their needs and satisfaction. It can look into whether the consumers are satisfied with the pricing and features of the product or not. It may run a customer survey to listen to consumer problems and answer their queries. It will be in charge of advertising and brand management. In other words, manufacturing unit supplies the goods and marketing department creates the demand.
In today's world, supply is not simply based on the demand. Quite frequently, a need is artificially created through mass advertising campaigns. For instance, in earlier times, a simple porridge of ragi and wheat powder was regarded as sufficient baby food. However, mothers today are discarding the cost-effective and healthy traditional ware, for the more attractively marketed and processed baby foods. So marketing is a very important aspect of the consumer industry.

Q 2. What is a *trademark***? What do the symbols ® and © mean?**

Ans: *Trademarks* are signs or designs used to claim exclusivity of a service or product. ™ stands for *unregistered trademark*, ® stands for *registered trademark* and © stands for *copyright*. Copyright is the legal right of a creator to use their work exclusively. The *Huggies* logo is a registered trademark and is subject to copyright laws, which means that the design and name cannot be used by other companies. Using these slightly difficult terms, the teacher can introduce students to the concept of intellectual property rights.

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Q 3. The short forms, *Pvt.* and *Ltd.* obviously stand for *private* and *limited*. We have heard of the short form *Inc.* in the animated movie *Monsters, Inc.* (2001). What do these short forms actually mean?

Ans: *Pvt. Ltd.* stands for *private limited* and *Inc.* stands for *incorporation*. Both are suffixes added to company names. However, *Pvt. Ltd.* is used in India and *Inc.* is popularly used in USA. *Kimberly-Clark Worldwide, Inc.* has its headquarters in USA, hence the suffix *'Inc.'*. We should note that its branch in India, *Kimberly-Clark Lever Pvt. Ltd.* uses the other suffix. Private Limited companies can have 2–200 private shareholders and these shares cannot be offered to public.

Incorporation refers to forming a corporation. A corporation is an entity that is recognized by law. Although it may consist of a group of people, it is considered as a single person or unit under the law. The corporation may be a business, a non-profit organization or other things.

Q 4. We are familiar with the name *Hindustan Unilever (HUL)* in companies. We also see the term *Lever* attached to *Kimberly-Clark* in the address line for the '*Regd. Off*'. Is there a relation between *HUL* and *Kimberly-Clark*?

Ans: A joint venture was formed between the India-based *Hindustan Unilever (HUL)* and the US-based *Kimberly-Clark* in 1994. *HUL* is one of the largest *Fast Moving Consumer Goods (FMCG)* companies in India. It was formed in 1956 and the multinational *Unilever* has 67.25% shareholding in HUL. This can lead to further discussions on various business terms such as multinational corporation (MNC), subsidiary, joint venture, public sector undertaking (PSU), etc.

Jerry Jean Preston *is a teacher based in Coimbatore, who has taught in various colleges like Jain University – Centre for Management Studies, Bangalore (CMS); Sree Sankaracharya University of Sanskrit, Kerala; St Xavier's College for Women, Aluva, Kerala, etc. She has a PhD in English and is currently teaching in PSG College of Arts and Sciences, Coimbatore. She is interested in creative writing and developing methods that will make the teaching-learning process a more interesting one.*

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Lesson Plan: *Project on Industrial Geography from Product Labels*

Jerry Jean Preston

For classes 8-9

Objectives:

- To observe the world around and link one's observations to school subjects
- To discover a 'treasure box' of geographical knowledge from the 'clues' on product packages

Time: 1 period for introduction, 1 month for students to work on the project

Method: Students will research and submit a write-up about their findings

Materials Required:

- Labels of various products, preferably some local products and some by MNCs
- Maps of India and the world
- Atlases

Introductory Class:

The teacher can conduct a quiz to jog student awareness about MNCs and their products. (*See Appendix 2*) Then they can distribute the various product labels in class and draw students' attention to the geographical information on the labels.

They can skim through topics which are hinted by the information on packets: *marketing, manufacturing, channels of distribution, intellectual property rights, types of industries*, etc. They can then highlight the differences between the manufacturing information printed on locally-produced and MNC-produced products.

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The Project:

There can be many imaginative ways to design a student project to animate the geographical information on packets. While the teacher can come up with their own ways, the following method will help students gain geographical focus and depth. After students complete the project in the given way, they will have a feeling that something substantial was actually completed using inane packets as clues.

However, not all the information will be readily available on the packets. Like a map in a bottle that leads to a treasure, the information on the packet is to be regarded as a clue to a treasure of geographical knowledge. Much of the success of the project will depend on imagination, deduction and research on the part of the students.

Procedure:

1. ***5 Brands of the Same Product****:* Choose a product with manufacturing information printed on the labels. There can be a very wide array to choose from – packaged foods, cosmetics, toiletries, medicines, electrical goods, books, etc. Each of these very broad categories can be further divided. Food can include chowmein, pickles, spice mixes, juices, carbonated drinks, chocolates, biscuits, dairy products, baby foods. Cosmetics can include deodorants, toothpastes, bath soaps, shaving creams, moisturisers, shampoos, etc. Toiletries can include diapers, detergents, tissue papers, etc. Medicines, electrical goods and books need not be further divided.

But, whatever the product, the teacher has to ensure that at least 5 brands of them are chosen. So, if spice mixes are chosen, choose 5 brands of it or select 5 brands of juices or bathing soaps.

2. ***Mark on Map***: Looking at the labels, note down the manufacturing information. Mark the places of manufacturing on a map. For local products, a map of India will usually suffice. MNC products

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can have multiple places of manufacture within India. Its headquarters will usually be in another country, and for this, a world map will be required.

The next 3 steps will involve imagination, deduction and research.

3. ***Why this Place?***: Explore the reasons for the various locations that have been marked on the map. Is it due to availability of raw materials, or due to connectivity to important places by road, rail or air? Is it the ease of distribution of finished products? This is the juncture at which students will have to brush up their geographical knowledge on land, climate, rivers, roads and rail, etc. Much of this will involve looking at the map, and imagining the reasons.

Sometimes an industry will be located in a place, simply because the state government supported it. In 2004-05, when *Nokia* was planning to set up a manufacturing unit in India, it chose *Sriperumbudur, Tamil Nadu* instead of *Haryana, Andhra Pradesh, Uttarakhand, Karnataka* and *Maharashtra*. This is because the state government of Tamil Nadu rallied round the company for it to set up shop in the state.

4. ***The States***: Explore the states where such manufacturing units are located in more numbers. What other industries flourish there? Why do they flourish there? The marketing offices will usually be located in urban areas like metropolitan cities.

The student can also research the concepts of industrial parks, *Small Industries Development Corporations (SIDCO)* and *Special Economic Zones (SEZ)* in India. SEZs are zones demarcated for manufacturing and service industries to produce for the purpose of export.

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5. ***The Industry***: Explore the industrial distribution of the product that has been chosen. Which are the other places in India where it is produced? Write about four paragraphs on it.

The students can write long essays/make scrapbooks based on the above points and raise questions. They will understand the significance of the important roadways, railway stations, airports and seaports, when studying the connectivity of the places of manufacture.

Appendix 1: A Brief Sample Project

Product chosen: Medicines

5 Brands:

1. ***P - 125*** (Paracetamol oral suspension IP)
   Mfd. By Apex Laboratories Pvt. Ltd., Sriperumbudur, Kancheepuram, TN.
2. ***Becadexamin*** (Multivitamin multimineral capsules)
   Mfd. By GlaxoSmithKline Pharmaceuticals Ltd., Attibele - Hobli, Bangalore, Karnataka.
   Regd. Off.: Worli, Mumbai.
3. ***Shelcal – 500*** (Calcium with Vit D3 tablets)
   Mfd. By Akum Drugs and Pharmaceuticals Ltd., SIDCUL, Ranipur, Haridwar.
   Marketed by Torrent Pharmaceuticals Ltd., Mehsana.
4. ***Odomos*** (Mosquito repellent cream)

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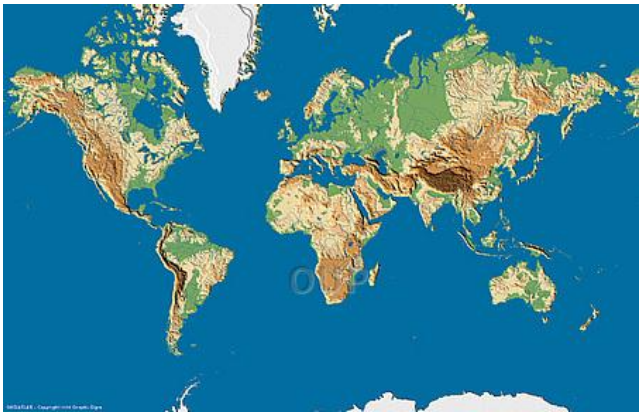
Mfd. By Dabur India Ltd., SIDCO Industrial Complex, Bari Brahmna, Jammu.
Regd. Off. New Delhi.

5. ***Moov*** (Ayurvedic pain relief)
   Mfd. By Paras Pharmaceuticals Ltd., Solan, HP.
   Regd. Off. Paras House, Ahmedabad.

Map-work: World map is required because *GlaxoSmithKline* (for *Becadexamin*) is an MNC.



Why these places?: How suitable are the following places for setting up pharmaceutical manufacturing units? What are the raw materials required for the pharmaceutical industry?

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Are there any chemical industries around? Research how the following places are connected (by road, rail and air) and using the atlas, deduce where the manufacturing units will get their raw materials from.

- Kancheepuram, TN
- Attibele - Hobli, Bangalore, Karnataka
- SIDCUL, Ranipur, Haridwar (What is *SIDCUL*?)
- SIDCO Industrial Complex, Bari Brahmna, Jammu (What is *SIDCO*?)
- Solan, HP

Why are the registered offices and places of manufacture different in four of the above instances? Are the manufacturing units for each company scattered in other places also? Visit the websites of the companies and find out. What makes the following places ideal for locating the marketing divisions?

- Mumbai
- Mehsana
- New Delhi
- Ahmedabad

The States: Are Tamil Nadu, Karnataka, Uttarakhand, Jammu and Himachal Pradesh industry-friendly? Which other industries are located there? Write about SIDCUL in Uttarakhand and SIDCO in Jammu.

3-4 paragraphs on the pharmaceutical industry in India: Which are the main centres in India? What is the role of MNCs in the Indian pharmaceutical industry? Any other interesting information that you want to add?

Appendix 2: Quiz on MNCs and Products

The teacher can design a quiz of about 10 questions based on MNCs in India, their corporate office locations and their famous brands, which can be conducted as a warm-up activity. It sets the atmosphere for learning about companies, MNCs, mergers and acquisitions and multiple brands by a parent company.

The product packets can be distributed after the quiz. The teacher will have to research the major MNCs in India such as *Nestle, Coca Cola, Pepsi, Amway, P&G, Reckitt Benckiser, Sony* and so on to set the questions for the quiz. Since it is an introductory activity, it should not seem too otherworldly. It should bank upon the students' general awareness of brands and companies. Either the answers or questions should contain familiar and interesting elements that students will want to know. It should

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serve as a spark for the upcoming 'geography from packets' project. It can also start a discussion on mergers, acquisitions and MNCs. Most of the answers should be available from product packaging.

Sample Quiz

1. *Lays, Cheetos* and *Kurkure* are produced by Frito-Lay. Frito-Lay itself, is a company owned by which very famous MNC? (*Hint: It is known for its soft drinks.*)
2. Who owns the *Dettol* brand?
3. Name the British confectionery MNC that was acquired by the Chicago-based *Mondolez International* (earlier *Kraft*) in 2010.
4. Nokia has its headquarters in _____.

   (*Trivia 1: Judging from the name, people often imagine Nokia to be a Japanese company. But, it is not.*

   Trivia 2: Microsoft has only acquired Nokia's phone segment. Nokia still maintains its telecommunications and computer software division.)
5. Name the famous Gurgaon-based Indian pharmaceutical MNC which was acquired by Gujarat-based *Sun Pharma* in 2014. The new combination of the two companies makes it the fifth-largest specialty generics company in the world and the largest pharmaceutical company in India.
6. Which snack based on Indian flavours, is being manufactured and sold in Canada, UAE and the Gulf region by *Pepsico*?
7. *Tide* and *Ariel* may seem to be rival detergent brands. However, they are owned by a single company. Which one? Where is its headquarters?
8. *Pepsi*: *Aquafina* :: *Coca Cola*: _____?
9. *Garnier* is a hugely advertised hair and skin care brand. There is another equally well advertised hair care brand *X*, which seems to be a rival to *Garnier*. However, *X* actually owns *Garnier*. Name the parent company *X*.
10. Which famous food processing MNC has its headquarters in Vevey, Switzerland?

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Answers:

1. Pepsico
2. Reckitt Benckiser (headquarters in Slough, near London, UK)
3. Cadbury
4. Espoo, Finland
5. Ranbaxy
6. Kurkure
7. P&G (Procter and Gamble) - Cincinnati, Ohio, USA
8. Kinley
9. L'Oreal, Paris (headquartered in Paris, obviously!)
10. Nestle

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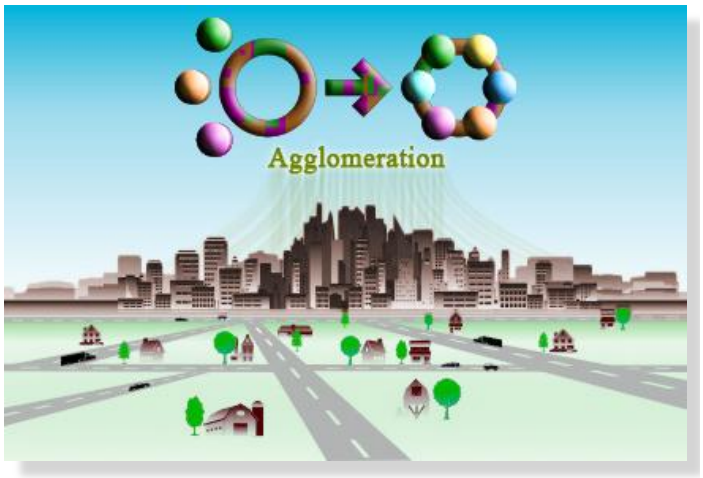

Agglomeration (noun)

- A mass or collection of things; an assemblage. In economic geography, it is the concentration of economic activity in a single location rather than being uniformly spread throughout space. *(Oxforddictionaries.com)*

Origin (and additional information) ~ The term's first known use was sometime around *1774*. It originated from the Latin term *agglomerationem*, from the past participle stem of *agglomerare (*which means *to form into a ball)*.

In the study of human settlements, an urban agglomeration is an extended city or town area comprising the built-up area of a central place (usually a municipality) and any suburbs linked by continuous urban area. ***INSEE***, the ***French Statistical Institute***, uses the term *unité urbaine*, which means *continuous urbanized area*. However, because of differences in definitions of what does and does not constitute an *agglomeration*, as well as variations and limitations in statistical or geographical methodology, it can be problematic to compare different agglomerations around the world. It may not be clear, for instance, whether an area should be considered to be a satellite and part of an agglomeration, or a distinct entity in itself.

The term *agglomeration* is also linked to *conurbation*, which is a more specific term for large urban clusters where the built-up zones of influence of distinct cities or towns are connected by continuous built-up development (e.g., *Essen-Dortmund* and others in the *Rhine-Ruhr* district), even in different regions, states or countries, (e.g. *Lille-Kortrijk* in France and Belgium). Each city or town in a conurbation may nevertheless continue to act as an independent focus for a substantial part of the area.

In urban economics, economies of agglomeration are the benefits that firms obtain by locating near each other (i.e. *agglomerating*). This concept relates to the idea of economies of scale and network effects. As more firms in related fields of business cluster together, their costs of production may decline significantly. Even when competing firms are in the same sector cluster, there may be advantages because the cluster would attract more suppliers and customers than a single firm could achieve alone. Cities form and grow to exploit economies of agglomeration.

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Words Section

The existence of agglomeration economies is central to the explanation of how cities increase in size and population, which places this phenomenon on a larger scale. This concentration of economic activities in cities is the reason for their existence, and they can persist and grow throughout time only if their advantages outweigh the disadvantages.

Agglomeration economies are closely associated with economies of scale and the network effects mentioned above. A positive outcome, agglomeration economies will only be achieved if the benefits outweigh the disadvantages. The ultimate result of agglomeration economies is the formation and growth of a city.

Usage ~

i. *A democracy erected on the foundations of social choice theory will see the role of politics as a stage on which different agglomerations of self-interest bargain and reach workable compromises.*
ii. *The arts centre is an agglomeration of theatres, galleries, shops and restaurants.*
iii. *You should look at the statistics for the most populated agglomerations, which include a central city and neighbouring communities linked to it.*

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