

The Vegetable Industry in Tropical Asia Data, Definitions, and Information Sources

Vegetable lists and resources

What are vegetables? Grubben et al. (1994) defined “a vegetable” as “usually succulent plant or portion of a plant which is consumed as a side dish, with a starchy staple (grain or tuber/root).” The FAO definition of vegetables (FAOSTAT, 2007) notes that “vegetables” are 70-95% water, are generally low in dry matter and nutrients, often contain minerals and vitamins that are partly lost in cooking, and often a large portion of the commodity (tops, peel, etc.) is discarded during preparation. The FAOSTAT (2007) definition does not do justice to the importance of vegetables in diets, and should be revised to emphasize the value of vegetables as sources of vitamins and fiber.

The definitive account of the vegetable genetic resources of Southeast Asia (with full descriptions) has been published in the Plant Resources of South East Asia (PROSEA) Series (Siemonsma and Piluek, 1994). In the PROSEA publication, Grubben et al. (1994) list 85 major “primary use” vegetables, and another 6 pulse vegetables, 3 fruits eaten green as vegetables, one forage plant, five vegetables that are mainly starch sources (taro, sweet potato, cassava, yam bean, and potato), as well as sweet and baby corn, one medicinal, two spices (coriander and mint), the edible fungi, and bamboos. Country-specific lists of popular vegetables are also included in some focal country chapters.

Plants for a Future (PFAF, 2005) is an online database of 7000 edible, medicinal, or useful plants, many of which can be classified as vegetables. Within the database, a short summary table for each plant listing ranks edibility, and notes if there are any risk factors associated with consumption (PFAF, 2005). This database, however, includes many “vegetables” that are suitable only for temperate climates.

Definitions

In this assessment, the general FAO classifications of vegetables as used in the FAO statistics (FAOSTAT, 2007) are followed (**Table 1**), with the additional inclusion of two spices, chili and ginger (“spices” under FAOSTAT), because they are eaten in large quantities in many countries in the region. FAOSTAT (2007) groups vegetables according to botanical

characteristics of the part consumed part: leafy or stem vegetables, fruit,vegetables, flower vegetables (cauliflower), root, bulb and tuber vegetables, leguminous vegetables, and other vegetables (baby corn, mushrooms).

FAOSTAT (2007) classifies gramineous and leguminous plants as “vegetables” if they are harvested green for green seed or pods (e.g. green peas, baby corn, “string” or yard-long beans). FAOSTAT (2007) also notes vegetables are principally for human consumption and the “vegetable” classifications exclude those grown for animal consumption or seed.

Exclusions

Root and tuber vegetables, which are mainly sources of carbohydrate (in FAOSTAT: potato, sweet potato, cassava, taro), seeds and kernels, including nuts, grains, and leguminous seeds; the dried leaves, roots, stems, and seeds of edible herbs and spices¹; and culinary tree fruits (such as avocado) not normally considered “vegetables” are not included in statistics compiled for this report.

Other classifications of vegetables

Some important vegetables of Asia are considered to be weeds in the US (e.g. *Ipomoea aquatica*). The Wikipedia list of culinary vegetables is categorized as brassicas, leafy and salad, fruiting and flowering vegetables, podded vegetables, bulb and stem vegetables, root and tuberous vegetables and sea vegetables (Wikipedia, 2007).

The Wikipedia list has been used as one classification reference for this study. However, those root and tuber vegetables that are primarily a source of carbohydrate, and those legumes that are prepared for consumption from the dried bean, are excluded from the vegetable production and trade statistics and analysis presented here.

¹ Fresh leafy herbs, fruits, or rhizomes are often considered to be “vegetables” or at least part of the “vegetable component” of the diet.

Table 1. The Food and Agriculture Organization (FAO) categories of vegetables, spices, pulses, and root and tuber crops. Categories included in the vegetable statistics compiled for this report are shown in *italics*.

Group	Code	Name	Included as “vegetable” in this study
Vegetables	0703.20	Garlic	Yes
Vegetables	0703.90	Leeks and other alliaceous vegetables	Yes
Vegetables	0704.10	Cauliflowers and broccoli	Yes
Vegetables	0704.90_a	Cabbages and other brassicas	Yes
Vegetables	0705	Lettuce and chicory	Yes
Vegetables	0706.10	Carrots and turnips	Yes
Vegetables	0707.00	Cucumbers and gherkins	Yes
Vegetables	0709.90_b	Pumpkins, squash, and gourds	Yes
Vegetables	0708.10	Peas, green	Yes
Vegetables	0708.20 Beans (incl. string beans), green	0708.20_a Beans, green 0708.20_b String beans (= yard long beans)	Yes
Vegetables	0708.90_a	Leguminous vegetables, n.e.c., green	Yes
Vegetables	0709.10	Artichokes	Yes
Vegetables	0709.20	Asparagus	Yes
Vegetables	0709.5	Mushrooms and truffles	Yes
Vegetables	0709.60	Chilies and peppers, green	Yes
Vegetables	0807.11	Watermelons	Yes
Vegetables	0807.19	Other melons (incl. cantaloupes)	Yes
Vegetables	0709.30	Eggplants (aubergines)	Yes
Vegetables	0709.70	Spinach	Yes
Vegetables	0709.90 Vegetables, n.e.c. (inc. okra) _c	0709.90ca Maize, green 0709.90cb Okra 709.90cc Cassava leaves 0709.90cd Chicory roots	Yes
Vegetables	0702.00	Tomatoes	Yes
Vegetables	0703.10	0703.10_a Onions (incl. shallots), green 0703.10_b Onions, dry	Yes
Spices	0904.11	Pepper (<i>Piper</i> spp.)	
Spices	0904.20	Chilies and peppers and allspice (<i>Note</i> : allspice data could not be separated from chili data, but generally its production is insignificant compared to chili)	Yes
Spices	0907.00	Cloves	No
Spices	0905.00	Vanilla	No
Spices	0906.10	Cinnamon (canella)	No
Spices	0908	Nutmeg, mace and cardamoms	No
Spices	0909	Anise, badian, fennel, corian.	No
Spices	0910.10	Ginger	Yes (for some countries)

Spices	0910.9_a	Spices, n.e.c.	No
Pulses	0713.3	Beans (incl. cow peas), dry	No
Pulses	0713.50	Broad beans and horse beans, dry	No
Pulses	0713.10	Peas, dry	No
Pulses	0713.20	Chick peas	No
Pulses	0713.40	Lentils	No
Pulses	0713.90_a	Pulses, n.e.c.	No
Roots and Tubers	0714.10	Cassava (fresh and dried)	No
Roots and Tubers	0701	Potatoes	No
Roots and Tubers	0714.20	Sweet potatoes	No
Roots and Tubers	0714.90_a	Yams	No
Roots and Tubers	0714.90_b	Starchy roots, n.e.c.	No

Note: n.e.c. = not elsewhere classified; n.e.s. = not elsewhere specified

Source: FAOSTAT (2007)

Data sources

Data for individual focal countries from international and local sources are considered in individual country chapters. In collecting and arranging the statistics, the FAO/UN statistics categories appear to display a European/North American bias in focus. Many tropical vegetables consumed in large quantity in some regions or in individual countries (such as water spinach, *Ipomoea aquatic*, kangkong), are either unreported, or relegated to the “vegetable n.e.c.² (including okra)” category, while other relatively minor temperate vegetables (e.g. artichokes) and spices are listed separately.

National production statistics

Some countries have systems of data collection of vegetable plantings and likely harvest levels via agricultural extension officers. Usually statistics collection for horticultural crops is undertaken as a subsidiary to collection of data on grain production monitoring for food security, but also can be collected within other agricultural systems not dominated by grain cropping. Data estimates also can come from predictive modeling based on small-scale intensive sampling, and data on land use acquired through on-ground surveys and GIS mapping. Most countries report broad category production, area, and other data on vegetables to the FAO.

² n.e.c. = not elsewhere classified; n.e.s = not elsewhere specified

In individual country reports, some other commodities included in the “vegetable” category data of the official statistics of a particular country or region (such as green papaya, cassava leaf) are sometimes included in data reported from local sources.

Trade data sources

Trade data is available to varying extents, and at a range of levels for domestic and foreign trade; the data can include daily market throughputs, prices from local retail and wholesale outlets, district level forecasts of supply and demand for a range of specific commodities, generalized “vegetable” categories, or summaries of national and foreign trade flows reported through a variety of media and outlets. In this study, the focus is on trade data at national or regional levels and country group levels sourced from official international sources or, where available, official government sources.

Comtrade

The United Nations Commodity Trade Statistics Database (UN Comtrade) contains detailed import and export statistics reported by statistical authorities of about 200 countries or areas, with annual trade data from 1962 to the latest available year in categories of a number of data classification systems: the Standard International Trade Classification (SITC) (versions SITC Rev.1, SITC Rev.2, SITC Rev.3) of the United Nations Statistics Division (UNSD, 1986), the Harmonized System (HS) (versions HS1992, HS1996, HS2002) and Broad Economic categories (BEC) (UN Comtrade, 2007b) (see below).

ITC data

The International Trade Centre (ITC) of the United Nations Commission for Trade and Development (UNCTAD)/World Trade Organization (WTO) (ITC, 2007) report comprehensive data on international trade (imports and exports) for product groups using the Standard International Trade Classification (SITC Rev. 3) and the Harmonized System (HS1996). ITC bases the vast majority of its statistical applications on Comtrade data (e.g. Trade statistics on CD-ROM (of the Personal Computer Trade Analysis System (PC-TAS) derived from Comtrade) are available from ITC in either SITC or HS.) Trade data for detailed products are available on a user-pays basis.

FAOSTAT

The FAO on-line statistics (FAOSTAT, 2007) database contains agricultural trade data as the detailed official data provided annually in

digital formats by over 100 countries or territories. Data is standardized and validated by the FAO Statistics Division.

Data classification

Standard International Trade Classification (SITC) for vegetable data analysis. Fresh and processed vegetable, melon (including watermelon) and spice (chili, ginger) trade statistics are mainly included under the SITC (Rev. 3.) under categories [054](#) (Vegetables, fresh, chilled, frozen or simply preserved (including dried leguminous vegetables); roots, tubers and other edible vegetable products, n.e.s.); and [056](#) (Vegetables, roots and tubers, prepared or preserved, n.e.s). Some additional listings for vegetables occur (along with some fruit categories) under [057](#) (Fruit and nuts (not including oil nuts), fresh or dried), [059](#) (Fruit juices (including grape must)) and vegetable juices, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter), 075 (Spices) and 098 (edible products, n.e.s.: “homogenized vegetables” and “tomato ketchup and other tomato sauces” are under this group). **Appendix 1** shows the breakdown of these categories, and highlights in italics those included in the vegetable trade and country statistics of this report.

Harmonized System (HS1996) Classification for vegetable data analysis. Trade statistics for fresh and processed vegetable, melon (including watermelon) and spice (chili, ginger) are mainly included under the HS1996 categories 07 (edible vegetables and certain roots and tubers, fresh, chilled, frozen or simply preserved, dried) and 20 (vegetable, fruit, nut, food preparations). Some additional listings occur under 08 (edible fruit, nuts, peel of citrus fruit, melons), 09 (coffee, tea, mate and spices), 12 (oil seed, oleagic fruits, grain, seed, fruit, etc., n.e.s.) and 21 (miscellaneous edible preparations). **Appendix 2** covers the classification system HS1996.

FAOSTAT. Data categories included in export and trade statistics for vegetables are listed in **Appendix 3**.

Discussion

Some impressions of using FAOSTAT, Comtrade and ITC data sources for vegetables trade statistic compilation are summarized in **Table 2**. In this study, the UN Comtrade internet site and data access were found to be more comprehensive and user-friendly than those of the International Trade Centre. For the “guest user” detailed commodity data is not available in ITC; only trade information by product group is available. For those

wishing to study trade performance in certain product groups (classified under the SITC or HS systems), ITC is probably the best source to use. The HS1996 classification is more appropriate for analysis of vegetable trade data, than the SITC Rev.3 system because the HS1996 classifications allows separation out of additional non-vegetable commodities (See ** in **Appendix 2**).

Table 2. Comparison of trade data access from different sources for vegetable sector studies: (based on free access / availability)

	FAOSTAT	UN Comtrade	ITC
Commodity classification method	Converted mainly from the harmonized system (HS)	SITC, HS, BEC	HS1996, SITC Rev.3
Commodity name or detail			
Vegetables Fresh (Veg. fresh)	Better than SITC Rev.3, but similar or a little better than HS1996	HS1996 data is better than SITC Rev.3 data	Trade performance by country and by commodity group is available for both HS and SITC classification systems, but detailed commodity data is not available
Vegetables processed (Veg. processed)	Less detailed than HS1996, but similar to SITC Rev.3	More detailed in the HS1996 version	
Data quality	Standardized, processed, and validated	Standardized	
Data release or update timing	Slower updating (about one year behind ITC and Comtrade)	Faster	
User friendliness			
Trade data	Moderately better (Some bulky data downloads are available) Total vegetable aggregate is available, but sometimes off-line in 2007.	Cannot download data (can only copy and paste data page by page) Total vegetable aggregate not available. Although some commodity groups are available, considerable effort is required to work out the aggregate in total vegetable. Guest users can get free data but cannot download data, create favorites or customized groups, save a query, execute elaborate data requests, or set an alert notification for batch processing.	

An added advantage of the Comtrade data is that where the data is available, it can be accessed using a number of data classification systems: SITC Rev.1, SITC Rev.2, SITC Rev.3, HS1992, HS1996, HS2002 and BEC (UN Comtrade, 2007b). For some countries, FAOSTAT (2007) trade data (as in this chapter) was more comprehensive and up-to-date than the data on ITC or Comtrade.

References

- FAOSTAT. 2007. FAOSTAT On-line. Rome: United Nations Food and Agriculture Organization. <http://faostat.fao.org/default.aspx>.
- Grubben, G.J.H., J.S. Siemonsma, and K. Piluek. 1994. Introduction. In: J.S. Siemonsma and K. Piluek (eds.). Plant resources of South-East Asia. No. 8: Vegetables. Bogor, Indon.e.s.ia: PROSEA Foundation. pp. 17-54.
- ITC. 2007. International Trade Statistics by Country and Product Group. International Trade Centre. <http://www.intracen.org/tradstat/sitc3-3d/indexre.htm>. Retrieved 18/7/2007.
- PFAF. 2005. Plants For A Future. <http://www.pfaf.org/database/latin.php?LAT=A>.
- Siemonsma, J.S. and K. Piluek (eds.). 1994. Plant resources of South East Asia. No 8. Vegetables. Bogor, Indon.e.s.ia, PROSEA Foundation.
- UN Comtrade. 2007a. UN Comtrade Reference Tables - Commodity and Country. United Nations Commodity Trade Statistics Database. <http://comtrade.un.org/kb/article.aspx?id=10102>.
- UN Comtrade. 2007b. United Nations Commodity Trade Statistics Database. <http://comtrade.un.org/db/default.aspx>.
- UNSD. 1986. Standard International Trade Classification, Revision 3, (SITC, Rev.3). (ST/ESA/STAT/SER.M/34/Rev.3, E.86.XVII.12). United Nations Statistical Division (UNSD), International Trade Statistics Branch. <http://unstats.un.org/unsd/cr/family2.asp?Cl=14>.
- Wikipedia. 2007. Culinary vegetables. http://en.wikipedia.org/wiki/List_of_vegetables.

Appendixes

Appendix 1. Statistical classifications (SITC Rev.3) of the United Nations Statistical Division covering vegetables and spices

The categories included in the vegetable statistic data tabulated in this report are shown in *italics*. These categories are used in the International Trade Statistics of UNCTAD/WTO or UN Comtrade.

<i>Group: 054 - Vegetables, fresh, chilled, frozen or simply preserved (including dried leguminous vegetables); roots, tubers and other edible vegetable products, n.e.s., fresh or dried (selected categories in italics)</i>	
<u>054.1</u> - Potatoes, fresh or chilled (not including sweet potatoes)	
<u>054.2</u> - Leguminous vegetables, dried, shelled, whether or not skinned or split	<u>054.21</u> - Peas <u>054.22</u> - Chick-peas <u>054.23</u> - Beans, other than broad beans and horse beans <u>054.24</u> - Lentils <u>054.25</u> - Broad beans and horse beans <u>054.29</u> - Other
<u>054.4</u> - Tomatoes, fresh or chilled	
<u>054.5</u> - Other fresh or chilled vegetables	<u>054.51</u> - Onions and shallots, fresh or chilled <u>054.52</u> - Garlic, leeks and other alliaceous vegetables, fresh or chilled <u>054.53</u> - Cabbage and similar edible brassicas, fresh or chilled <u>054.54</u> - Lettuce and chicory (including endive), fresh or chilled <u>054.55</u> - Carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible roots, fresh or chilled <u>054.56</u> - Cucumbers and gherkins, fresh or chilled <u>054.57</u> - Leguminous vegetables, fresh or chilled <u>054.58</u> - Mushrooms and truffles, fresh or chilled <u>054.59</u> - Other vegetables, fresh or chilled
<u>054.6</u> - Vegetables (uncooked or cooked by steaming or boiling in water), frozen	<u>054.61</u> - Sweet corn <u>054.69</u> - Other vegetables and mixtures of vegetables
<u>054.7</u> - Vegetables provisionally preserved (e.g., by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions), but unsuitable in that state for immediate consumption	
<u>054.8</u> - Vegetable products, roots and tubers, chiefly for human food, n.e.s., fresh or dried	<u>054.81</u> - Manioc (cassava) fresh or dried, whether or not sliced or in the form of pellets <u>054.83</u> - Arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar roots and tubers (other than manioc) with high starch or inulin content, fresh

	<p>or dried, whether or not sliced or in the form of pellets; sago pith</p> <p><u>054.84</u> - Hop cones and lupulin</p> <p><u>054.85</u> - Apricot, peach or plum stones and kernels, fresh or dried, whether or not ground</p> <p><u>054.87</u> - Sugar beet, fresh or dried, whether or not ground</p> <p><u>054.88</u> - Sugar cane, fresh or dried, whether or not ground</p> <p><u>054.89</u> - <i>Vegetable products of a kind used chiefly for human foods, n.e.s.</i></p>
<p>056 - Vegetables, roots and tubers, prepared or preserved, n.e.s.</p>	
<p><u>056.1</u> - Vegetables, dried (excluding leguminous vegetables), whole, cut, sliced, broken or in powder, but not further prepared</p>	<p><u>056.11</u> - Potatoes, whether or not cut or sliced but not further prepared</p> <p><u>056.12</u> - <i>Onions</i></p> <p><u>056.13</u> - <i>Mushrooms and truffles</i></p> <p><u>056.19</u> - <i>Other vegetables; mixtures of vegetables</i></p>
<p><u>056.4</u> - Flour, meal, flakes, granules and pellets of potatoes, fruits and vegetables, n.e.s.</p>	<p><u>056.41</u> - Flour and meal of potatoes</p> <p><u>056.42</u> - Flakes, granules and pellets of potatoes</p> <p><u>056.45</u> - Tapioca and substitutes therefor prepared from starch, in the form of flakes, grains, pearls, siftings or in similar forms</p> <p><u>056.46</u> - Flour and meal of the dried leguminous vegetables of subgroup 054.2</p> <p><u>056.47</u> - Flour and meal of sago, roots or tubers of headings 054.81 and 054.83</p> <p><u>056.48</u> - Flour, meal and powder of the products of any heading of group 057</p>
<p><u>056.6</u> - Vegetables prepared or preserved otherwise than by vinegar or acetic acid, n.e.s., frozen</p>	<p><u>056.61</u> - Potatoes prepared or preserved otherwise than by vinegar or acetic acid, frozen</p> <p><u>056.69</u> - <i>Other vegetables and mixtures of vegetables prepared or preserved otherwise than by vinegar or acetic acid, frozen</i></p>
<p><u>056.7</u> - Vegetables, prepared or preserved, n.e.s.</p>	<p><u>056.71</u>* - <i>Vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar or acetic acid</i></p> <p><u>056.72</u> - <i>Tomatoes prepared or preserved otherwise than by vinegar or acetic acid, whole or in pieces</i></p> <p><u>056.73</u> - <i>Tomatoes, prepared or preserved otherwise than by vinegar or acetic acid, n.e.s.</i></p> <p><u>056.74</u> - <i>Mushrooms and truffles prepared or preserved otherwise than by vinegar or acetic acid</i></p> <p><u>056.75</u> - <i>Sauerkraut prepared or preserved otherwise than by vinegar or acetic acid, not frozen</i></p> <p><u>056.76</u> - Potatoes prepared or preserved otherwise than by vinegar or acetic acid, not frozen</p> <p><u>056.77</u> - <i>Sweet corn prepared or preserved otherwise than by vinegar or acetic acid</i></p> <p><u>056.79</u> - <i>Other vegetables prepared or preserved</i></p>

	<i>otherwise than by vinegar or acetic acid, not frozen</i>
057 - Fruit and nuts (not including oil nuts), fresh or dried (only melons from this category included in “vegetables” for this report.	
057.9 - Fruit, fresh or dried, n.e.s.	057.91* - <i>Melons (including water melons) and papaws (papayas), fresh</i> 057.92 - Pears and quinces, fresh 057.93 - Apricots, cherries, peaches (including nectarines), plums and sloes, fresh 057.94 - Berries, fresh 057.95 - Pineapples, fresh or dried 057.96 - Dates, fresh or dried 057.97 - Avocados, guavas, mangoes and mangosteens, fresh or dried 057.98 - Other fresh fruit 057.99 - Fruit, dried, n.e.s., and mixtures, n.e.s., of nuts or dried fruits of group 057
059 - Fruit juices (including grape must) and vegetable juices, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter	
059.1 - Orange juice	
059.2 - Grapefruit juice	
059.3 - Juice of any other single citrus fruit	
059.9 - Juice of any single fruit (other than citrus) or vegetable; mixtures of fruit or vegetable juices	059.91 - Pineapple juice 059.92 - <i>Tomato juice</i> 059.93 - Grape juice (including grape must) 059.94 - Apple juice 059.95 - Juice of any other single fruit or vegetable 059.96 - Mixtures of fruit or vegetable juices
075 - Spices	
075.1 - Pepper of the genus Piper; fruits of the genus Capsicum or of the genus Pimenta, dried or crushed or ground)	075.11 - Pepper of the genus Piper, neither crushed nor ground 075.12 - Pepper of the genus Piper, crushed or ground 075.13* - <i>Fruits of the genus Capsicum or of the genus Pimenta, dried or crushed or ground</i>
075.2 - Spices (except pepper and pimento	075.21 - Vanilla 075.22 - Cinnamon and cinnamon-tree flowers, neither crushed nor ground 075.23 - Cinnamon and cinnamon-tree flowers, crushed or ground 075.24 - Cloves (whole fruit, cloves and stems) 075.25 - Nutmeg, mace and cardamoms 075.26 - Seeds of anise, badian, fennel, coriander, cumin or caraway; juniper berries 075.27 - <i>Ginger (excluding ginger preserved in sugar or conserved in syrup)</i> 075.28 - Thyme, saffron and bay-leaves

	<u>075.29</u> - Other spices; mixtures of two or more of the products of different headings of group 075
<u>098 - Edible products and preparations, n.e.s.</u>	
<u>098.1</u> - Homogenized food preparations.	<u>098.11</u> - Homogenized preparations from meat and edible meat offal <u>098.12</u> - <i>Homogenized vegetables</i> <u>098.13</u> - Cooked fruit preparations, homogenized <u>098.14</u> - Homogenized composite food preparations
<u>098.4</u> - Sauces and preparations therefor; mixed condiments and mixed seasonings; mustard flour and meal and prepared mustard; vinegar and substitutes for vinegar obtained from acetic acid	<u>098.41</u> - Soya sauce <u>098.42</u> - <i>Tomato ketchup and other tomato sauces</i> <u>098.43</u> - Mustard flour and meal and prepared mustard <u>098.44</u> - Vinegar and substitutes for vinegar obtained from acetic acid <u>098.49</u> - Other sauces and preparations therefor; mixed condiments and mixed seasonings

* Some non-vegetable commodities are unavoidably included.

Note: n.e.c. = not elsewhere classified; n.e.s. = not elsewhere specified

Source: UN Comtrade (2007a).

Appendix 2. Statistical classifications (HS 1996) of the United Nations Statistical Division covering vegetables and spices

The categories included in vegetable statistic data tabulated in this report are shown in *italics*. These categories are used in the International Trade Statistics of UNCTAD/WTO or UN Comtrade.

07 - Edible vegetables and certain roots and tubers	
<u>0701</u> - Potatoes, fresh or chilled	<u>070110</u> - Potatoes seed, fresh or chilled <u>070190</u> - Potatoes, fresh or chilled except seed
<u>0702</u> - <i>Tomatoes, fresh or chilled</i>	
<u>0703</u> - Onions, shallots, garlic, leeks, etc. fresh or chilled	<u>070310</u> - <i>Onions and shallots, fresh or chilled</i> <u>070320</u> - <i>Garlic, fresh or chilled</i> <u>070390</u> - <i>Leeks & other alliaceous vegetables, fresh or chilled</i>
<u>0704</u> - Cabbage, cauliflower, kohlrabi & kale, fresh, chilled	<u>070410</u> - <i>Cauliflowers and headed broccoli, fresh or chilled</i> <u>070420</u> - <i>Brussels sprouts, fresh or chilled</i> <u>070490</u> - <i>Edible brassicas n.e.s., fresh or chilled</i>
<u>0705</u> - Lettuce and chicory, fresh or chilled	<u>070511</u> - <i>Cabbage lettuce (head lettuce) fresh or chilled</i> <u>070519</u> - <i>Lettuce, fresh or chilled except cabbage lettuce</i> <u>070521</u> - <i>Witloof chicory, fresh or chilled</i> <u>070529</u> - <i>Chicory, fresh or chilled, except witloof</i>
<u>0706</u> - Carrots, turnips, beetroot, etc. fresh or chilled	<u>070610</u> - <i>Carrots and turnips, fresh or chilled</i> <u>070690</u> - <i>Beetroot, salsify, celeriac, radishes etc. fresh, chilled</i>
<u>0707</u> - Cucumbers and gherkins, fresh or chilled	<u>070700</u> - <i>Cucumbers and gherkins, fresh or chilled</i>
<u>0708</u> - Leguminous vegetables, fresh or chilled	<u>070810</u> - <i>Peas, shelled or unshelled, fresh or chilled</i> <u>070820</u> - <i>Beans, shelled or unshelled, fresh or chilled</i> <u>070890</u> - <i>Legumes except peas & beans, fresh or chilled</i>
<u>0709</u> - Vegetables n.e.s., fresh or chilled	<u>070910</u> - <i>Globe artichokes, fresh or chilled</i> <u>070920</u> - <i>Asparagus, fresh or chilled</i> <u>070930</u> - <i>Aubergines (egg-plants), fresh or chilled</i> <u>070940</u> - <i>Celery, other than celeriac, fresh or chilled</i> <u>070951</u> - <i>Mushrooms, fresh or chilled</i> <u>070952</u> - <i>Truffles, fresh or chilled</i> <u>070960</u> - <i>Peppers (Capsicum, Pimenta) fresh or chilled</i> <u>070970</u> - <i>Spinach fresh or chilled</i> <u>070990</u> - <i>Vegetables, fresh or chilled n.e.s.</i>

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<p><u>0710</u> - Vegetables (uncooked, steamed, boiled) frozen</p>	<p><u>071010</u> - Potatoes, frozen, uncooked steamed or boiled** <u>071021</u> - Peas, frozen, uncooked steamed or boiled <u>071022</u> - Beans, frozen, uncooked steamed or boiled <u>071029</u> - Legumes, except peas and beans, frozen <u>071030</u> - Spinach, frozen, uncooked steamed or boiled <u>071040</u> - Sweet corn, frozen, uncooked steamed or boiled <u>071080</u> - Vegetables, frozen n.e.s., uncooked steamed or boiled <u>071090</u> - Frozen vegetable mixtures, uncooked, boiled or steamed</p>
<p><u>0711</u> - Vegetables provisionally preserved, not ready to eat</p>	<p><u>071110</u> - Onions, provisionally preserved <u>071120</u> - Olives, provisionally preserved** <u>071130</u> - Capers, provisionally preserved <u>071140</u> - Cucumbers and gherkins provisionally preserved <u>071190</u> - Vegetables n.e.s. and mixtures provisionally preserved</p>
<p><u>0712</u> - Vegetables, dried, not further prepared</p>	<p><u>071220</u> - Onions, dried, not further prepared <u>071230</u> - Mushrooms and truffles, dried, not further prepared <u>071290</u> - Vegetables n.e.s. & mixtures, dried, not further prepared</p>
<p><u>0713</u> - Vegetables, leguminous dried, shelled</p>	<p><u>071310</u> - Peas dried, shelled <u>071320</u> - Chickpeas, dried, shelled <u>071331</u> - Urd,mung,black or green gram beans dried shelled <u>071332</u> - Beans, small red (Adzuki) dried, shelled <u>071333</u> - Kidney beans and white pea beans dried shelled <u>071339</u> - Beans dried, shelled, n.e.s. <u>071340</u> - Lentils dried, shelled <u>071350</u> - Broad beans and horse beans dried, shelled <u>071390</u> - Leguminous vegetables dried, shelled</p>
<p><u>0714</u> - Manioc, arrowroot, salep etc, fresh, dried, sago pith</p>	<p><u>071410</u> - Manioc (cassava), fresh or dried <u>071420</u> - Sweet potatoes, fresh or dried <u>071490</u> - Arrowroot, salep, etc fresh or dried and sago pith</p>
<p><u>08</u> - Edible fruit, nuts, peel of citrus fruit, melons</p>	
<p><u>0807</u> - Melons, watermelons and papaws (papayas), fresh</p>	<p><u>080711</u> - Watermelons, fresh <u>080719</u> - Melons, fresh <u>080720</u> - Papaws (papayas), fresh**</p>
<p><u>09</u> - Coffee, tea, mate and spices</p>	
<p><u>0904</u> - Pepper (Piper), crushed or ground Capsicum, Pimenta</p>	<p><u>090411</u> - Pepper of the genus Piper, whole <u>090412</u> - Pepper of the genus Piper, crushed or ground <u>090420</u> - Capsicum or Pimenta, dried, crushed or ground</p>
<p><u>0910</u> - Other spices</p>	<p><u>091010</u> - Ginger <u>091020</u> - Saffron <u>091030</u> - Turmeric (curcuma) <u>091040</u> - Thyme and bay leaves <u>091050</u> - Curry <u>091091</u> - Mixtures of spices <u>091099</u> - Spices n.e.s.</p>

12 - Oil seed, oleagic fruits, grain, seed, fruit, etc, n.e.s.	
<u>1212</u> - Locust beans, seaweed, sugar beet, cane, for food	<u>121210</u> - Locust beans, locust seeds** <u>121220</u> - Seaweeds and other algae, <u>121230</u> - Apricot, peach and plum stones & kernels, human food <u>121291</u> - Sugar beet <u>121292</u> - Sugar cane <u>121299</u> - Vegetable products n.e.s. for human consumption
20 - Vegetable, fruit, nut, etc food preparations	
<u>2001</u> - Vegetables, fruit, nuts, etc, preserved in vinegar	<u>200110</u> - Cucumbers, gherkins, prepared or preserved by vinegar <u>200120</u> - Onions prepared or preserved by vinegar <u>200190*</u> - Veg, fruit, nuts n.e.s. prepared or preserved by vinegar
<u>2002</u> - Tomatoes prepared, preserved, not in vinegar	<u>200210</u> - Tomatoes, whole/pieces, prepared/preserved, no vinegar <u>200290</u> - Tomatoes n.e.s., prepared or preserved, not in vinegar
<u>2003</u> - Mushroom, truffle, prepared or preserved, not vinegar	<u>200310</u> - Mushrooms, prepared or preserved, not in vinegar <u>200320</u> - Truffles, prepared or preserved, not in vinegar
<u>2004</u> - Vegetables n.e.s., prepared, frozen	<u>200410</u> - Potatoes, prepared, frozen <u>200490</u> - Vegetables n.e.s. and mixtures, prepared, frozen
<u>2005</u> - Vegetables n.e.s., prepared/preserved, not frozen/vinegar	<u>200510</u> - Homogenized vegetable preparations, not frozen/vinegar <u>200520</u> - Potatoes, prepared or preserved, not frozen/vinegar <u>200540</u> - Peas, prepared or preserved, not frozen/vinegar <u>200551</u> - Beans, shelled, prepared/preserved, not frozen/vinegar <u>200559</u> - Beans n.e.s., prepared or preserved, not frozen/vinegar <u>200560</u> - Asparagus, prepared or preserved, not frozen/vinegar <u>200570</u> - Olives, prepared or preserved, not frozen/vinegar** <u>200580</u> - Sweet corn, prepared or preserved, not frozen/vinegar <u>200590</u> - Veg n.e.s., mixes, prepared/preserved, not frozen/vinegar

<p><u>2009</u> - Fruit and vegetable juices, not fermented or spirited</p>	<p><u>200911</u> - Orange juice, frozen, not fermented or spirited <u>200919</u> - Orange juice, not fermented, spirited, or frozen <u>200920</u> - Grapefruit juice, not fermented or spirited <u>200930</u> - Citrus juice n.e.s. (one fruit) not fermented or spirited <u>200940</u> - Pineapple juice, not fermented or spirited <u>200950</u> - <i>Tomato juice not fermented or spirited</i> <u>200960</u> - Grape juice or must not fermented or spirited <u>200970</u> - Apple juice not fermented or spirited <u>200980</u> - Single fruit, veg juice n.e.s., not fermented or spirited <u>200990</u> - Mixtures of juices not fermented or spirited</p>
<p>21 - Miscellaneous edible preparations</p>	
<p><u>2103</u> - Sauce, condiments, mixed seasoning and mustard</p>	<p><u>210310</u> - Soya sauce <u>210320</u> - <i>Tomato ketchup and other tomato sauces</i> <u>210330</u> - Mustard flour or meal and prepared mustard <u>210390</u> - Sauces n.e.s., mixed condiments, mixed seasoning</p>

** By contrast, using the SITC Rev.3 system, these non-vegetable commodities could not be excluded from total vegetables.

Note: n.e.c. = not elsewhere classified; n.e.s. = not elsewhere specified

Source: UN Comtrade (2007a).

Appendix 3. Classification categories for FAOSTAT Trade Statistics for vegetables

The categories included in vegetable statistic data tabulated in this report are shown in *italics*.

Vegetables including melons	
<i>Artichokes</i> <i>Asparagus</i> <i>Beans, green</i> <i>Cabbages and other brassicas</i> <i>Canned mushrooms</i> <i>Carrots and turnips</i> <i>Cauliflowers and broccoli</i> <i>Chicory roots</i> <i>Chilies and peppers, green</i> <i>Cucumbers and gherkins</i> <i>Dried mushrooms</i> <i>Eggplants (aubergin.e.s.)</i> <i>Garlic</i> <i>Homogen. Veget. Prep</i> <i>Juice of Tomatoes</i> <i>Juice of Vegetables N.e.s.</i> <i>Leeks, other alliaceous veg</i> <i>Leguminous vegetables, n.e.c.</i> <i>Lettuce and chicory</i> <i>Maize, green</i> <i>Mushrooms and truffles</i>	<i>Onions (including shallots), green onions, dry</i> <i>Other vegetables, otherwise prep., not frozen</i> <i>Other melons (including cantaloupes)</i> <i>Other vegetables, dry</i> <i>Paste of Tomatoes</i> <i>Peas, green</i> <i>Pumpkins, squash and gourds</i> <i>Spinach</i> <i>String (Yard-Long) Beans</i> <i>Sweet Corn, Frozen</i> <i>Sweet Corn, Prep. or Preserved</i> <i>Tomato, Peeled</i> <i>Tomatoes</i> <i>Tomato juice, Concentrated</i> <i>Veg.in Tem. Preservatives</i> <i>Veg.Prep. Or Pres.Frozen</i> <i>Veg.Prod.Fresh Or Dried</i> <i>Vegetable Frozen</i> <i>Vegetables in Vinegar</i> <i>Vegetables, n.e.c.</i> <i>Watermelons</i>
Spices	
<i>Anise, badian, fennel, coriander</i> <i>Chilies and peppers, dry</i> <i>Cinnamon (canella)</i> <i>Cloves</i> <i>Ginger</i> <i>Hops</i>	<i>Nutmeg, mace and cardamoms</i> <i>Pepper (Piper spp.)</i> <i>Peppermint</i> <i>Spices, n.e.c.</i> <i>Vanilla</i>

Note: n.e.c. = not elsewhere classified; n.e.s. = not elsewhere specified

Source: FAOSTAT (2007)