GEORGIAN NATIONAL INVESTMENT AGENCY

Herbs and Medical Plants Sub-sector Overview

2011
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Collection of herbs and medicinal plants for home consumption and resale is a common practice in Georgia with over 40 varieties collected in mountainous regions of Guria, Adjara Imereti and Samtskhe-Javakheti.

However, as an industry the herb and medicinal plant sub-sector remains underdeveloped and unregulated in Georgia. Only a handful of companies and processors organize the collection of raw material and aggregate product for export.

In fact, under the current 2005 Forestry Law only collection of wild herbs and berries for personal use is permitted. For lack of legal sanction, regulation and certification options, the most lucrative markets – such as the European Union (EU) - remain closed to Georgian products, suppressing growth and investment in the sub-sector.

Even so, Georgian actors have managed to establish export channels in Ukraine and other countries in Eastern Europe who are not yet members of the EU.
The large and rapidly growing international market for herbs and medicinal plants presents an excellent opportunity to promote sub-sector development and rural economic growth.

According to the International Council for Medicinal and Aromatic Plants, herbs and medicinal plants constitute a US$60 billion industry globally.

According to the World Health Organization (WHO), 70 to 80% of the world’s population has used some form of alternative or complementary medicine of which herbal treatments are most popular.

WHO estimates that the size of the global market for herbs and medicinal plant products is $60 billion with the bulk of demand coming from Germany, Japan, France and the United States.

**Global Herbal Medicines Market**

Furthermore, the International Council for Medicinal and Aromatic plants estimates global demand is currently growing at 8-10% annually. Growth is attributable to increased consumer awareness of and demand for natural products and alternative medicines, in addition to the rapidly rising cost of pharmaceuticals.
Market Potential for Georgian Herbs and Medical Products

Environmental conditions in Georgia are ideally suited to the wild growth and cultivation of high value herbal products and nascent commercial activity in the sector indicates that organized herb collection and processing can provide supplemental income and employment to thousands of Georgian farmers/collectors in isolated rural communities.

- The most likely immediate opportunity for Georgian products is expansion into existing Eastern European markets due to the established business ties. In the longer term, EU markets provide the real growth opportunity due to their size, proximity and price premiums. The EU market alone for herbs and plants for medicinal use is estimated at $6-8 billion, more than half of which is in Germany.

- Interviews with Georgian businessmen indicate that final product manufacturers and importers of herbs and medicinal plant products are increasingly interested in establishing direct relationships with producers of raw materials, which presents an opportunity for Georgian suppliers.
Georgian Herb and Medicinal Plant Sector Overview

- Georgia has 45 varieties of medicinal herbs and berries growing wild in high mountainous regions.
- Based on informant interviews in the southwestern regions of Georgia, twenty-two of these herbs and medicinal plants are being collected.
- However, just four products account for 81% of the total tonnage collected: Eucalyptus, Bilberry, Dwarf Everlast Flower and Rosehip.
- High demand for these products – and others such as St. John’s Wort – has spurred commercial cultivation in Georgia, which is expected to be more profitable than traditional agricultural crops such as corn and potatoes.
Value Chain Actors

- The main actors in the Georgian herbs and medicinal plants sub-sectors are collectors, middlemen managing community collection centers, small processors and large processors.
- The following summarizes their functions:
  - **Collectors** are generally residents of high mountain villages where herbs naturally grow in abundance. They receive payment on delivery for collected wild herbs from local processor(s). Collectors themselves do very little, if any, value-added processing. The study estimates that at least 3,700 families partake in this activity.
  - **Middlemen/Village Collection Centers** are the middlemen between the collectors and (mainly) the large processors. They aggregate product from collectors and re-sell to large processors. They do little value-added processing, which is typically limited to washing and drying of select plants.
  - **Small processors** organize and train collectors and pay cash upon delivery for raw product. Using equipment or facilities, they clean and dry the product and package it in bulk for shipment. The majority of herbs collected and processed by these actors are sold to export markets in semi-finished form, due to the higher prices offered, but a small minority of product is directly marketed to local drug stores. A portion of their herbs are also sold to larger processors who add value and market through their own channels. The three main small processors are Ango Ltd., Farkoni Ltd. and Evkapharm.
  - **Large processors** are formal companies who distribute products domestically and internationally. The two largest are Batfarma and Natufarma. They source from smaller processors and from village collectors and press and re-package bulk herbs in larger parcels for export. They also produce finished products for the Georgian market requiring additional processing and packaging for the local retail market. These products are sold to PSP, Aversi and local drug stores. Rosehip, dwarf everlasting flower and bilberry account for almost 60% of the products sold in the local market. Due to their greater sophistication, these larger processors attract more interest from EU buyers.
Value Chain Actors

✓ Importers for Herbs and Medicinal Plants

In interviews, the processors mentioned that an importer from Germany is interested in Georgian products; however, the processors currently cannot meet their quantity requirements individually. The inability to break into EU markets causes them to sell to Ukraine and other smaller markets.

Currently, Ukraine is the major buyer of Georgian herb and medicinal plant products. Ukrainian companies, like Lako and Darnica, have the necessary certificates and trade relations to access markets not available to Georgian processors. Ukrainian processors purchases product from Georgia, complete the finish processing (cut, chop, grind) of the herbs, package and label the product for sale in the retail market. The Ukrainian companies export product these products to Russia and EU countries as a Ukrainian product. Some of these products are also re-imported into Georgia.

✓ Technical Service Providers

Based on trainings received and knowledge obtained from their own research and through sourcing to export customers, processors train collectors on how to properly gather product. For instance, most processors have received some training from their buyers for quality control. However, they would like to receive additional training focused on productivity and marketing, but both local expertise and the resources to pay for it are scarce. For lack of this expertise, they expressed interest in receiving further assistance from external sources through NGOs and international other organizations. They also require assistance on cultivating techniques for medicinal herbs and berries as they commence farming of high value products.
Markets

Domestic

✓ A relatively small portion of products from Samtskhe-Javakheti and Adjara remains in the domestic market due to the relatively low prices offered by large Georgian processors (e.g. Batfarma) and retail pharmacy companies (e.g. PSP and Aversi), making village middlemen and smaller processors reluctant to sign contracts with these buyers. Only if smaller processors are unable to sell their product to the export market or if the quantities collected are too small for external buyers, will they resort to selling to domestic large processors and local drug stores. Large processors catering to the local market press, re-package and label herbs and medicinal plants in a simple fashion, selling them to Georgian pharmacies and drug stores.

Export

✓ There are a limited number of markets open to Georgian exporters due to the lack of regulation/certification and marketing capacity.
✓ Even so, the export market is the major outlet of medicinal herbs and berries, mainly in the form of dried raw materials as opposed to semi-final products and finished goods.
✓ CHF has found that about 97% of tonnage goes to export markets in Ukraine, Azerbaijan, Armenia, and Latvia as semi-finished products.
✓ Much of this product is processed and re-packaged for export to the EU and Russia.
✓ Dwarf everlasting flower, eucalyptus, wild bilberry, and rosehip account for 81% of the product exported. Ukrainian companies purchase approximately 90% of the product collected from the interviewed processors.
Gaining Access to the EU Market

- Currently some of the large and small processors are exporting raw material with very little value added to importers who continue the processing abroad.

- In order to export just raw material to processors, the exporters need to have a phytosanitary lab test completed before the export process can take place. Usually the importers do this in the country they work. Since European markets require higher quality standards and traceability of organically produced products, Georgian processors/exporters will need to go through GLOBALGAP process.

- Exporters recognize the lucrative business opportunity of selling to EU markets as wholesale prices are as much as 50% higher and demand is substantial.

- There are five basic rules and regulations governing access to the EU markets are as follows:

  1. **Hygiene Regulations** - Possibly the most difficult requirement for processors to satisfy, since they typically do not have adequate facilities, equipment or systems to ensure proper hygiene standards.

  2. **Labeling Rules** - to ensure that the product label meets all the specific requirements (product treatment, perishable dates, place of origin, etc.), is accurate and does not mislead the consumer.

  3. **Marketing Standards** - a certificate of conformity to various EU market standards governing: quality (moisture, free from pests, cleanliness, and classification), sizing, presentation and marketing.

  4. **Plant Health Control** - this regulation protects against the spread of plant pests; a certificate must accompany imports of plants and plant products.

  5. **Import License** - a license allowing to import agricultural products into the EU markets.
Products

There are approximately forty medicinal herbs and medicinal plants growing wild in Georgia. Based on the people interviewed in the southwestern regions of Georgia, twenty-two of these herbs and medicinal plants are being collected. However, four products account for 81% of the total tonnage collected. St. John’s Wort is worth mentioning, due to the demand from importers.

- **Eucalyptus (Gum Tree Leaves)**
  More than 180 tons are collected by at least 400 families in the Adjara region. Collectors harvest these leaves almost year round except when the trees are producing new leaves. Georgian Eucalyptus leaves are in high demand because of their high concentration of nutrients. For example, Indonesia’s Eucalyptus leaves contain half the nutrients of Georgian leaves, which is reflected in the price ($0.60/kg for Indonesian versus $1.20 for Georgian).

- **Bilberry**
  Bilberries are collected between the months of September and November, weather permitting. There is an estimated 700 tons of (raw) bilberry available in Adjara and based on the interviews conducted, only about 300 tons is being collected. Ukraine is currently paying $14/kg (down from $16/kg in 2008); however, other markets are paying between $28 and $30 per kilogram and Japan is offering an astonishing $80/kg. France, Poland, Russia, and Serbia are also interested in Georgia’s bilberry and are currently testing the product. On average, a person collects between 10 and 30 kg per day and will earn about $20.
Products

- **Dwarf Everlast Flower**
  This is the third most collected product and accounts for 12% of the total kilograms collected. Furthermore, several of the processors claimed that this is there most profitable product. According to the collectors in Gordze, Dwarf Everlast Flower grows everywhere.

- **Rosehip**
  There is an abundance of rosehip available in Adjara, Guria, and Samstkhe-Javakheti regions and there is a high market demand for this product. Additionally, collectors favor this product because it is easy to collect. However, much of the rosehip is not collected due to snow fall and because processors lack the proper drying equipment. This product will dry in six hours, but requires an enclosed system like a convection or adiabatic dryer.

- **St. John’s Wort**
  The last product worth mention - though quantities collected are small compared to the other products - is St. John’s Wort. Many of the producers want to begin cultivating this product due to strong market demand. Miriani 2008, a middleman in Gordze, Samtstke- Javakheti said that an inquiring client requested 50 tons of St. John’s Wort. Miriani 2008 rejected the offer due to its size.. But it has caused him to seek seed from Ukraine and he intends to have his collectors cultivate this product.
Market Opportunities for Georgia

Major Opportunities:

- A growing EU and international markets with unmet demand for herbs and medicinal plants already available in Georgia.

- Unmet demand for Ukraine Market for wild harvested herbs and medicinal plants – receive a higher price if the product is certified. Ukraine purchases product and certifies it as Ukrainian product.

- Unmet demand to cultivate and sell St. John’s Wort. One processor mentioned that there is an unmet demand for 50 tons which he can not fill.

- Unmet demand for cultivated fresh Bilberries by local markets and abroad. The USAID financed Agvantage project has implemented a blueberry project in West Georgia and has determined that cultivated blueberry has better quality and high yield than those picked in the wild. Local markets pay as much as three times the amount for fresh cultivated product than for wild-harvested product.

- Uninvestigated market for additional herb and medicinal plant opportunity.
Appendix A:
Value Chain Actors
Appendix B: Main Locations of Wild Herb and Medicinal Plant Collection
### Appendix C: Table of Principal Georgian Herbs

<table>
<thead>
<tr>
<th>Latin Description</th>
<th>English Description</th>
<th>Georgian Description</th>
<th>Medicinal Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Rosa canina</em></td>
<td>Rose hips</td>
<td>Askili</td>
<td>Herbal tea; Vitamin C, D, E, essential fatty acids; treat rheumatoid arthritis</td>
</tr>
<tr>
<td><em>Helichrysum arenarium</em></td>
<td>Dwarf everlasting flower</td>
<td>Ukvdava</td>
<td>Used for gall bladder disorders and as a diuretic in treating rheumatism and cystitis</td>
</tr>
<tr>
<td><em>Tussilago</em></td>
<td>Coltsfoot</td>
<td>Viristerpa</td>
<td>Cough suppressant; treats asthma; crushed flower used to cure skin conditions</td>
</tr>
<tr>
<td><em>Artemisia absinthium</em></td>
<td>Wormwood</td>
<td>Abzinda</td>
<td>Remedies indigestion &amp; gastric pain; make a tea for helping pregnant women during pain of labor; oil from plant used to improve blood circulation; a dried encapsulated form is used to expel parasitic worms from the body</td>
</tr>
<tr>
<td><em>Chelidonium majus</em></td>
<td>Greater celandine</td>
<td>Qristesiskhla</td>
<td>Treat asthma, bronchitis, and whooping cough; treats gallstones and gallbladder pain; a useful detoxifying agent; the root has been chewed to relieve toothache</td>
</tr>
<tr>
<td><em>Plantago</em></td>
<td>Plantain leaf</td>
<td>Mravaldzarghva</td>
<td>The herb is astringent, anti-toxic, antimicrobial, anti-inflammatory, anti-histamine, demulcent, expectorant, styptic and diuretic. Externally, a poultice of the leaves is useful for insect bites, poison-ivy rashes, minor sores, and boils. Internally, it is used for coughs and bronchitis, as a tea, tincture, or syrup. The seed is useful for constipation, irritable bowel syndrome, dietary fiber supplementation, and diverticular disease. Promising in lowering cholesterol and controlling diabetes.</td>
</tr>
<tr>
<td><em>Origani vulgaris</em></td>
<td>Oregano</td>
<td>Tavshava</td>
<td>Used for difficulties of the respiratory tract, coughing, bronchial catarrh; disturbances of the gastrointestinal tract, bloating, stimulation of gall excretion and digestion; used for painful menstruation, arthritis, scrofulosis</td>
</tr>
<tr>
<td><em>Herba leonuri</em></td>
<td>Motherwort</td>
<td>Shavbalakha</td>
<td>used as a cardiac tonic, nervine, and an Among other biochemical constituents, it also contains bitter iridoid glycosides, diterpenoids, flavonoids (including rutin and quercetin), tannins, volatile oils, and vitamin A. Midwives use it for a variety of purposes, including uterine tonic and prevention of uterine infection. Combats stress and promotes relaxation during pregnancy; used to ease stomach gas and cramping, menopausal problems, and insomnia.</td>
</tr>
<tr>
<td><em>Hypericum perforatum</em></td>
<td>St. John’s wort</td>
<td>Krazana</td>
<td>herbal treatment for depression; useful for treatment of alcoholism; have antibacterial properties against gram-negative bacteria; might alleviate the symptoms of attention-deficit hyperactivity disorder (ADHD).</td>
</tr>
<tr>
<td><em>Fructus crataegi</em></td>
<td>Hawthorn fruit</td>
<td>Kuneli</td>
<td>relieves stagnant food, strengthening the spleen and inducing appetite, the herb is good at digesting accumulated fatty food and meat as well as stagnated milk in children. Acting on the liver channel and blood for promoting blood circulation and removing blood stasis, the herb is used to treat pains due to blood stasis.</td>
</tr>
<tr>
<td><em>Folia urticae dioica</em></td>
<td>Nettle leaves</td>
<td>Jinchari</td>
<td>therapeutic in rheumatoid arthritis</td>
</tr>
</tbody>
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</thead>
<tbody>
<tr>
<td>Eucalyptus</td>
<td>Gum tree leaf</td>
<td>Matitela</td>
<td>helps relieve symptoms of colds, flu, chest congestion, sore throat, bronchitis, pneumonia, and respiratory infections. Externally, the antiseptic, slightly anesthetic, anti-bacterial, and warming properties of Eucalyptus make it a valuable resource for treatment of burns, sores, ulcers, scrapes, boils, and wounds. Applied topically as an oil or ointment, it also helps relieve the pain of rheumatism, aching, pains, stiffness, and neuralgia. Eucalyptus rubbed into the skin works well as an insect repellent, especially for mosquitoes and fleas. Rubbed into the chest, it relieves congestion and cough.</td>
</tr>
<tr>
<td>Mint</td>
<td>Mint</td>
<td>Pitna</td>
<td>treats aches and pains in the section of stomach and bowel, e.g. nausea, acute vomiting, flatulences and cramps. Supports the functioning of the gall bladder.</td>
</tr>
<tr>
<td>Achillea millefolium</td>
<td>Yarrow</td>
<td>Parsmanduki</td>
<td>used to treat inflammations such as piles (hemorrhoids), and also headaches.</td>
</tr>
<tr>
<td>Vaccinium myrtillus</td>
<td>Wild bilberries leaves</td>
<td>Motsvi Potoli</td>
<td>sometimes used for coughs, and stomach and skin problems</td>
</tr>
<tr>
<td>Hippophae rhamnoides</td>
<td>Sea buckthorn</td>
<td>Qatsvi</td>
<td>treatment of cardiac disorders</td>
</tr>
<tr>
<td>Laurocerasus officinalis</td>
<td>Cherry laurel</td>
<td>Tzavi</td>
<td>The fresh leaves are antispasmodic, narcotic and sedative[4, 7]. They are of value in the treatment of coughs, whooping cough, asthma, dyspepsia and indigestion</td>
</tr>
<tr>
<td>Laurus</td>
<td>Bay leaf</td>
<td>Dapna</td>
<td>Useful treating high blood sugar, migraines, bacterial infections and fungal infections, rheumatism, amenorrhea, and colic. The leaf and oil are used for their astringent, carminative, diaphoretic, digestive, diuretic, emetic and stomachic properties. Its oil is used externally for bruising and sprains.</td>
</tr>
<tr>
<td>Herba bidentis tripartita</td>
<td>Bur beggarticks</td>
<td>Orkbila</td>
<td>anti-dysenteric, anti-hemorrhagic, anti-scorbutic, anti-Septic, aperient, astringent, diuretic, diaphoretic, emmenagogue, febrifuge, narcotic, sedative, styptic, sudorific</td>
</tr>
<tr>
<td>Valeriana</td>
<td>Garden valerian</td>
<td>Katabalabha</td>
<td>used against sleeping disorders, restlessness and anxiety, and as a muscle relaxant; used traditionally to treat gastrointestinal pain and irritable bowel syndrome</td>
</tr>
<tr>
<td>Aerva lanata</td>
<td>Polpala</td>
<td>Polpala</td>
<td>prepared as a gargle for treating sore-throat and used against guinea-worm</td>
</tr>
<tr>
<td>wormFlores chamomillae</td>
<td>Chamomile</td>
<td>Gvirili</td>
<td>cardiovascular conditions, common cold, diarrhea in children, eczema, gastrointestinal conditions, hemorrhagic cystitis (bladder irritation with bleeding), hemorrhoids, infantile colic, mucositis from cancer treatment (mouth ulcers/irritation), quality of life in cancer patients, skin inflammation, sleep aid, vaginitis</td>
</tr>
</tbody>
</table>
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