

Suriname: Innovative Economic Opportunities Study

Medicinal Products

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Introduction

Suriname has become increasingly dependent on extractives over the years. However, the continuation of current practices and levels of exploitation is not sustainable due to both dwindling reserves, and excessive damage to the country's rainforests. At present, sales of gold and oil account for around 80% of export revenue and small-scale gold mining supports the livelihoods of many individuals living in largely ostracised interior communities. Consequently, any plans made to diversify the economy need to find a way to supplement funds lost from scaled down extraction and alternative means to support the livelihoods of interior communities. Plans that overlook these issues are unlikely to succeed.

Medicinal plants offer one such avenue to help the diversification process. Plants with rare medicinal properties can often fetch exorbitant fees and their organic cultivation can help support the livelihoods of interior communities. Incorporation of traditional medicinal practices in conventional health regimes can also offer an additional source of revenue for traditional healers and possibly even entire communities through royalties – if medicines/plants are found to be very effective.

There is a caveat here. Open-access traditional medicine (TM), sometimes called complementary medicine (CM), and patent protected allopathic medicine, hereafter referred to as modern medicine (MM), have proven to be uneasy bedfellows. Definitions of different medicines are included in the appendix. Numerous cases exist where unprotected traditional resources have been plundered in acts known as biopiracy. One such example is a 1995 patent on an antifungal neem derivative commonly used in Indian traditional remedies. The European Patent Office (EPO) granted a patent to the US Department of Agriculture and the multinational WR Grace and Company, which took the Indian government five years and millions of dollars to revoke on the basis of prior use.¹

More recent examples show that things are improving. For example, in 2014, the San and Khoi communities of southern Africa entered an agreement with the firm Cape Kingdom to ensure that they received a share of the revenue from sales of health products based on the *Agathosma betulina* plant; known locally as buchu. Similarly, in southern India, an agreement by the Kani tribe entitles them to a share of the income arising from research by the Tropical Botanical Garden and Research Institute (TBGRI) on the arogyapacha plant (*Trichopus zeylanicus travancoricus*). Traditionally used to revitalise, it is now licensed and sold as 'Jeevani'.²

These improvements come off the back of the Nagoya Protocol; an international legal tool providing some protection for traditional knowledge of medicines. "The

¹ SciDev.Net – Andrea Rinaldi and Priya Shetty, "Traditional medicine for modern times: Facts and figures", June 2015

<http://www.scidev.net/global/medicine/feature/traditional-medicine-modern-times-facts-figures.html>

² See previous footnote; Rachel Wynberg and others (eds) "*Indigenous peoples, consent and benefit sharing: lessons from the San-Hoodia case*", Springer, 2009

protocol came in to force on 12 October 2014 as a supplement to the Convention for Biological Diversity (CBD), and was ratified by 59 countries and the EU. Its main objective is to equitably share the benefits gained from using genetic resources and it clearly addresses the associated rights of indigenous communities. It forces countries to ensure that anyone under their jurisdiction who benefits from traditional knowledge has obtained prior informed consent and negotiated a fair and equitable deal to [share those benefits](#).³

Potential

Boosted by an ageing global population and concomitant ailments, perennial demand for medicine means the pharmaceutical market, and healthcare in general, is set to expand. This offers a great opportunity for a country like Suriname that boasts the 24th most biodiversity in the world alongside a variety of interior communities, each with their own traditional medical knowledge.

In Africa, Asia, Latin America and the Middle East, TM is still used for primary healthcare by 70-95 per cent of the population. And some 100 million people are believed to use traditional, complementary or herbal medicine in the EU alone – comprising up to 90 per cent of the population in some countries.⁴

As one might expect, this translates into big money. For example ‘in 2012, global [sales of Chinese herbal medicine reached US\\$83 billion](#), up more than 20 per cent from 2011.⁵ The [global market for all herbal supplements and remedies could reach US\\$115 billion by 2020](#), with Europe the largest and the Asia-Pacific the fastest growing markets. Demand is mainly driven by: women, the main consumers of dietary supplements; growing emphasis on healthy living; and concerns over the side effects of mainstream drugs.⁶

Staying closer to MM, Suriname’s biodiversity can also reap rewards. 25% of modern medicines are made from plants first used traditionally.⁷ Furthermore, 25% of Western pharmaceuticals are derived from rainforest materials despite only 1% of rainforest materials having been tested.⁸

Currently, 120 drugs come from plant-derived sources; a situation that leads to interesting numbers:⁹

³ See footnote 1.

⁴ WHO – Molly Meri Robinson and Xiaorui Zhang, [“The world medicines situation 2011”](#), 2011

⁵ WHO – [“Traditional medicine strategy 2014-2023”](#), 2013

⁶ See footnote 1.

⁷ WHO – [“Fact sheet no. 134: Traditional Medicine”](#)
[http://www.who.int/mediacentre/factsheets/2003/fs134/en/](http://www.who.int/mediacentre/factsheets/fs134/en/)

⁸ [Medicine Hunter](#) – [“Amazon Rainforest Facts”](#)
<http://www.medicinehunter.com/amazon-rainforest-facts>

⁹ See previous footnote.

- One acre of rainforest timber yields an owner US\$60
- One acre for grazing yields an owner US\$400
- One acre of renewable medicinal plants and fruits yields an estimated US\$2400.

The possibilities are staggering, but there are reasons why these have yet to be exploited. The growing T&CM market and its commercial attraction increase the risk that biodiversity could be diminished by over harvesting. Such practices, if not controlled, could lead to the extinction of endangered species and destruction of natural habitats.¹⁰

The story of the Madagascar Rosy Periwinkle (*Catharanthus Roseus*) provides a stern warning of these dangers. The plant has a variety of medicinal properties, but is most famous for its derived compounds, such as vincristine, which has been credited with raising the survival rate in childhood leukaemia from less than 10% in 1960 to over 90% today.¹¹ The plants soaring valuation pushed it to the brink of extinction in the wild but was dampened by high adaptivity that meant it could be naturalised elsewhere and was amenable to commercial production.

Another obstacle in the way of realising the potential of Suriname's biodiversity is cost. The drug development process is notoriously risky and costly. According to the Merk Company, "for every 1000 substances that are evaluated in biological assays, 20 are selected for animal testing. Of these 20, 10 will be evaluated in humans and only one will be approved by the Food and Drug Administration (FDA) in the United States for sales as a drug" (Ciba, 42). This process requires 12 years and is estimated to cost US\$231 million.¹²

Strategy

Broadly speaking there are three strategies for the development of the medicinal product sector in Suriname:

- Export T&CM medicine directly (e.g. wellness tourism)
- Promote agroforestry to supply raw material for MM and TM abroad (Brazil generics large market)
- Incorporate TM in mainstream healthcare and produce value chains to export excess medicine

These options can be pursued in isolation, but will likely be most beneficial if combined into one comprehensive plan. This would allow easy to implement stages to support more involved options that may offer a higher payoff in the long-term.

¹⁰ See footnote 7. WHO factsheet

¹¹ Kew, Royal Botanical Gardens – "Catharanthus roseus (Madagascar periwinkle)"
<http://www.kew.org/science-conservation/plants-fungi/catharanthus-roseus-madagascar-periwinkle>

¹² University of Delaware – "Medicines from the Rainforest: Biodiversity and Biologically Active Natural Products"
<http://www1.udel.edu/chem/C465/senior/fall00/DrugDiscovery/MedicinesfromtheRainforest.html>

- **Wellness Tourism**

Aging populations, soaring medical costs for waning medical systems, the stress associated with the modern lifestyle, and increasing prevalence of chronic disease and unhealthy lifestyles are driving a mounting global health crisis.

According to the Global Wellness Institute, Wellness Tourism is defined as *“travel associated with the pursuit of maintaining or enhancing one’s personal well-being.”* This covers both primary and secondary wellness travellers. The former for whom wellness is the sole/motivating purpose of their trip and the latter for whom maintaining wellness is an important part of any trip.

Already, the attraction of this segment to Suriname should be clear. Most of Suriname’s current tourism offerings cater to individuals who want to get in touch with ‘untainted’ nature and are willing to compromise on comfort to do so. Major tourist attractions include:

- Creeks with cola coloured fresh-water
- Turtle and dolphin watching
- Amazon tours
- Visits to culturally distinct interior communities

All of these have an element that could be considered wellness tourism. People often enjoy swimming in the Sulas (rapids) of the country’s many waterways and amazon tours often involve a large hiking component, especially in the mountainous regions further in the interior. If the wellness component of these offerings could be enhanced and marketed there will likely be a big pay-off. Measures need not be overly dramatic: high-end resorts could include acupuncture and yoga classes to existing spa offerings, while low cost alternatives could include more challenging hike routes or activity parks – outdoor workout facilities.

However, the biggest opportunity comes from the possibility of offering the experience to live like interior communities, with the inherent health benefits of getting reacquainted with nature. Again this comes with a word of caution. Tourism has the potential to ruin fragile cultures and ecosystems.¹³ It is therefore imperative that it is limited to a few villages, each of who have given their free and informed prior consent. Better yet, it could be beneficial to construct new tourist villages run by indigenous and tribal communities, to offer a similar experience while shielding interior communities.

Within all these different offerings, TM practitioners could be employed to prepare medicines and advise tourists on ways to improve their well-being. The elaborate set-up of a wellness tourism industry is a necessary step to attract the individuals

¹³ *The Guardian* – Robin McKie, “Inuit fear they will be overwhelmed as ‘extinction tourism’ descends on Arctic”, August 2016
<https://www.theguardian.com/world/2016/aug/20/inuit-arctic-ecosystem-extinction-tourism-crystal-serenity>

most open to TM and also to facilitate the long consultations necessary for the highly tailored remedies it typically prescribes.¹⁴

Potential payoffs of this niche segment are great. Wellness tourism is a US\$494 billion industry that has grown 12.7% since 2012.¹⁵ Although less than the 9.1% annual growth predicted by the global wellness institute, the industry still far outstrips other sectors and the average growth of the tourism industry.¹⁶ Wellness tourists are also “high-yield” tourists, spending on average 130% more than the average global tourist; accepting the premium for the opportunity to experience a different culture, immersed in an organic setting that boosts their physical and mental wellbeing. The treasures Suriname has to offer align so closely with this description it is hard to see why the country has not already taken advantage of this. A fact enhanced further still by the segment’s high compatibility with medical tourism – itself a US\$50-\$60 billion industry.¹⁷ See figure 1 (appendix) for a visual representation of various tourism sectors.

It is also worth noting that domestic wellness tourism is much larger than international, representing 84% of wellness tourism trips and 68% of expenditures.¹⁸ While not necessarily a problem in a developed or highly populated country, Suriname’s poor infrastructure, low disposable income, and small population will likely be unable to sustain a budding industry. This is where the nation’s great biodiversity should pay dividends, as few countries will be able to offer quality wellness and medical tourism options alongside a first-rate eco-tourist’s backdrop.

The focus on wellness and medical tourism would help differentiate the country from its many competitors in the region offering eco-tourism. This would allow Suriname to build up its own brand of tourism – in a similar vein to the feats of Costa Rica in its eco-tourism expansion.

- **Agroforestry**

Agroforestry has been on Suriname’s radar for a while now. The non-profit Amazon Conservation Team leads a number of studies looking at the feasibility of cultivating various items: pepper in Tepu and Apetina, Brazil nuts in Alalapadu, honey in Kwamalasamutu etc. All represent promising options that should be explored but also illustrate a conspicuous oversight of medicinal products. While organic peppers and honey can be grown in many other places, numerous medicinal plants are exclusive to rainforests. Their relative neglect is all the more surprising when one

¹⁴ See footnote 1.

¹⁵ *International Business Times - Ismat Sarah Mangla, “Wellness Tourism Explodes Into \$500 Billion Industry”, January 2015*
<http://www.ibtimes.com/wellness-tourism-explodes-500-billion-industry-1799648>

¹⁶ *Global Wellness Institute – “The Global Wellness Tourism Economy 2013”*
http://www.esteswellness.com/assets/wellness_tourism_economy_exec_sum_final_10022013.pdf

¹⁷ See previous footnote.

¹⁸ See previous footnote.

considers the numbers. For example, of the 3000 plants identified by the US National Cancer Institute as active against cancer cells, 70% come from rainforests.¹⁹

While research has allowed pharmaceutical companies to isolate and artificially produce the active ingredient in many of these plants, a number have proven hard to recreate. Once again, the Madagascan periwinkle serves as good illustration. “Vinblastine and Vincristine (its derived products) are of such complex molecular architecture that dependence on their laboratory chemical synthesis would make them prohibitively expensive for patient use. So even today, drug manufacturers rely on cultivation of the Madagascar periwinkle to provide these key medicinals.”²⁰

Commercial production of such plants could prove lucrative, taking advantage of Suriname’s climate as a natural deterrent to potential competitors who would need to incur great costs to imitate the same conditions. Advantages are heavily dependent on the plant in question. In the case of the periwinkle, high resilience means it is now widely cultivated and naturalised in subtropical and tropical regions of the world.²¹ While this plant can still yield a 10-20% profit, cultivation of plants not so easily transplanted will likely generate more.²²

Trees are a particularly good example of this. Bark from the Cinchona tree, native to South America, and best known as the source of the antimalarial drug Quinine is once such case.²³ While technological advances mean most quinine drugs sold today are manufactured chemically without the use of any tree bark, another chemical in the tree called *quinidine* (found to be useful for various heart conditions) could not be completely copied in the laboratory. The tree bark is thus still harvested for this plant chemical.²⁴ Growing such trees could provide Suriname with a lucrative foothold to participate in a growing sector that would be sustainable.

At this point it should also be noted that Intellectual Property laws are becoming more and more restrictive, expanding items covered and length of coverage; as

¹⁹ *Medicine Hunter – “Amazon Rainforest Facts”*
<http://www.medicinehunter.com/amazon-rainforest-facts>

²⁰ *Rainforest Trust – Paul Torrence, “Owed to Nature: Medicines from Tropical Forests”, January 2013*

²¹ A. Huxley – “*New RHS Dictionary of Gardening*”, ed. (1992). Macmillan [ISBN 0-333-47494-5](https://www.mill.org/ISBN-0-333-47494-5).

²² *UGA extension – P. Thomas, J. Woodward, F. Stegelin, B. Pennisi, “A Guide for Commercial Production of Vinca (B 1219)”, Published: March 2006, Reviewed: February 2012*

<http://extension.uga.edu/publications/detail.cfm?number=B1219#1>

²³ *SciDev.Net – Andrea Rinaldi and Priya Shetty, “Traditional medicine for modern times: Facts and figures”, June 2015*

<http://www.scidev.net/global/medicine/feature/traditional-medicine-modern-times-facts-figures.html>

²⁴ *Leslie Taylor, RainTree – “Plant Based Drugs and Medicines”, October 2000*

<http://www.rain-tree.com/plantdrugs.htm#.V7NDPJMRYU>

illustrated by recent trade agreements like the Trans-Atlantic Trade and Investment Partnership (TTIP) Trans-Pacific Partnership (TPP). Although the ethical concerns of medicine mean there is room to navigate IP when it comes to health concerns, past experiences paint a clear picture that wide provision of medical products is seldom the chief concern of most pharmaceuticals. Thus, if the TPP and TTIP are indication of what is to come, production of low cost generics by large developing nations like India and Brazil may prove vital to the provision of good healthcare at affordable prices.²⁵ Such generics are more likely to consider sourcing natural ingredients a viable alternative to complex chemical manufacture of active agents, and thereby offer a boost to medical agroforestry.

An exhaustive list of all plants with cultivation potential is impractical due to the diversity of both Suriname's flora and the drug market. Nonetheless, an extensive manual of indigenous and introduced plant species with scientific names, synonyms, vernacular (common) names, medicinal utilization, chemical notes, and literature references exists on the website of the Smithsonian Biological Diversity of the Guianas Program.²⁶ While only a limited amount of these plants will be viable as products for the MM industry, many can be cultivated to supply the growing herbal/TM industry mentioned earlier. This latter segment offers the benefit of less stringent regulations in some regions.

In the United States for example, herbal substances and other organic products are often sold in health and food stores. The caveat is that these natural products cannot be marketed for a specific use/health benefit until they have obtained FDA approval.²⁷ Although restrictive, this may nonetheless be more appealing than the strict regulation of herbal products common in most European countries. In Germany for example, such products are sold in pharmacies, prepared by pharmaceutical companies (that often simply extract plant's active chemicals), and require a doctor's prescription to obtain.²⁸

- **Incorporating Traditional Medicine**

The most significant step Suriname could take in its perusal of medicinal products is the incorporation of T&CM to its mainstream health sector.

Given the challenges of developing new pharmaceutical products, T&CM is increasingly seen as an integral part of the healthcare sector that can no longer be

²⁵ *Generics – typically low cost drugs developed based on existing pharmaceutical drugs that have had their patents expire*

²⁶ Robert DeFilipps, Shirley Maina and Juliette Crepin – “Medicinal Plants of the Guianas(Guyana, Surinam, French Guiana)”, 2004
http://botany.si.edu/bdg/medicinal/Medicinal_plants_master.pdf

²⁷ Dr. Stephen Blythe, Rainforest Education – “An Introduction to Medicines from Plants”.
<http://www.rainforesteducation.com/medicines/PlantMedicines/rfmedicines.htm>

²⁸ Leslie Taylor, RainTree – “Plant Based Drugs and Medicines”, October 2000
<http://www.rain-tree.com/plantdrugs.htm#.V7NDPJMrKYU>

ignored. Consequently, a growing number of countries are taking steps to incorporate T&CM into their primary healthcare systems in order to reduce medical costs and combat evolving ailments that are building intolerance to prescription drugs from misuse or overuse. This is compounded further still by the fact that over a third of the population in developing countries lack access to essential medicine.²⁹ Such individuals thus already use the T&CM sector for their primary healthcare needs and stand to benefit from its structured development. Suriname is no exception and communities of the interior, in particular, are known to have sub-par medical provision.

Apart from improvements in the general quality of care, incorporation of traditional medicine has obvious economic benefits as well. The move offers an avenue to reduce medical costs and, especially in developing nations, improve a nation's balance of payments – as current MM predominantly relies on imported pharmaceuticals. The case of Tanzania warrants a mention here. WHO, in collaboration with China is providing technical support to the Tanzanian government for the production of antimalarials derived from the Chinese herb *Artemisia annua*. Local production of the medicine will bring the price of one dose down from US \$6 or \$7 to a more affordable \$2; an achievement made possible by the highly developed traditional medicine sector in China.

Despite a compelling case, to date only China, the Democratic People's Republic of Korea, the Republic of Korea and Vietnam have fully integrated traditional medicine into their health care systems.³⁰ Nonetheless, many nations are working to collect and integrate standardised evidence on this type of healthcare. As of 2003, 70 countries already have national regulations on herbal medicines, but different definitions mean that legislative control of medicinal plants has not evolved around a structured model. The aforementioned case of U.S. and German herbal substances serves to illustrate how differences in licencing, dispensing, manufacturing and trading come about.

Regulation and education arise as the most important factors for the mainstreaming of T&CM. While China offers an example of how integrated healthcare would work in practice, two countries offer lessons for steps that can be taken to realise such a system.

The first is South Africa, where [six out of the eight medical schools teach aspects of traditional and complementary medicine](#) at undergraduate and/or postgraduate level or both. This provides an obvious boon to the understanding of T&CM alongside ensuring that medical practitioners are familiar with alternative treatments that have an efficacy proven at tertiary education level. High-level education and training programmes on traditional medicine go a long way to

²⁹ WHO – “Fact sheet no. 134: Traditional Medicine”
<http://www.who.int/mediacentre/factsheets/2003/fs134/en/>

³⁰ See previous footnote

overcoming the knowledge deficit that is the cause of much scepticism surrounding T&CM, and is perhaps why such programmes now exist in some 39 countries.

Limited scientific evidence about T&CM's safety and efficacy as well as other considerations make it important for governments to:³¹

- Formulate national policy and regulation for the proper use of T&CM and its integration into national health care systems in line with the provisions of the WHO strategies on Traditional Medicines;
- Establish regulatory mechanisms to control the safety and quality of products and of T&CM practice;
- Create awareness about safe and effective T&CM therapies among the public and consumers;
- Cultivate and conserve medicinal plants to ensure their sustainable use.

The tailored nature of most traditional treatments and the scattered knowledge of traditional medicine adds a lot of complexity towards the steps listed above, even before the sensitive subject of trying to add new regulation to a sector that has existed for hundreds of years. The example of the 2006 National Policy on Integrative and Complementary Practices in Brazil, home to the world's genetically diverse plant population, is a good one to follow.

The policy "includes guidelines that go beyond the spheres of the health care sector and covers the entire production chain of medicinal plants and herbal products. Through the actions arising out of this policy the government in partnership with the company seeks to ensure access to the Brazilian population safe and rational use of medicinal plants and herbal medicines, promoting the sustainable use of biodiversity, the development of the productive chain and national industry."³²

The policy thus offers a comprehensive plan that includes ways to make the most of the aforementioned agroforestry opportunities. A similar policy in Suriname could go a long way to building a long-term sustainable development plan for the nation's healthcare sector and economy in general.

It is worth noting that a Alternative Medicine Hospital (HMA) was operational in Brazil since 1986 and has been running, maintained by the Goiás State Secretary of Health. Despite the name this institution as a hospital only has outpatient care, and started by offering a course in Ayurvedic Phytotherapy, before adding outpatient

³¹ See previous footnote

³² *Fundação de Atendimento Sócio-Educativo do Rio Grande do Sul – Caroline da Rosa (2012), "Traditional Medicine and Complementary/Alternative Medicine in Primary Health Care: The Brazilian Experience", Primary Care at a Glance - Hot Topics and New Insights, Dr. Oreste Capelli (Ed.), InTech, DOI: 10.5772/37012. Available from: <http://www.intechopen.com/books/primary-care-at-a-glance-hot-topics-and-new-insights/traditional-medicine-and-complementary-alternative-in-primary-health-care-the-brazilian-experience>*

services and a pharmaceutical laboratory to acquire its current form by 1988.³³ This enabled the country to pilot demand for T&CM and bolster its knowledge of it, and is included as a reminder of the time and research required to make integrated medicine a reality.

Much still needs to be done before a global standard for TM is agreed. Loose regulation means there are as many fake remedies and false practitioners as genuine ones, making it difficult to distinguish between traditional treatments backed by research and those with [unproven claims or even potentially harmful 'extras'](#). The prevalence of contaminated and adulterated products must also be addressed for mainstreaming of traditional medicines to be a success. Potential rewards are large, as seen in India after clinical trials on herbal products generated through reverse pharmacology led to wider acceptance of Ayurvedic traditional medicines and cheaper, faster and more effective drugs.

Conclusion

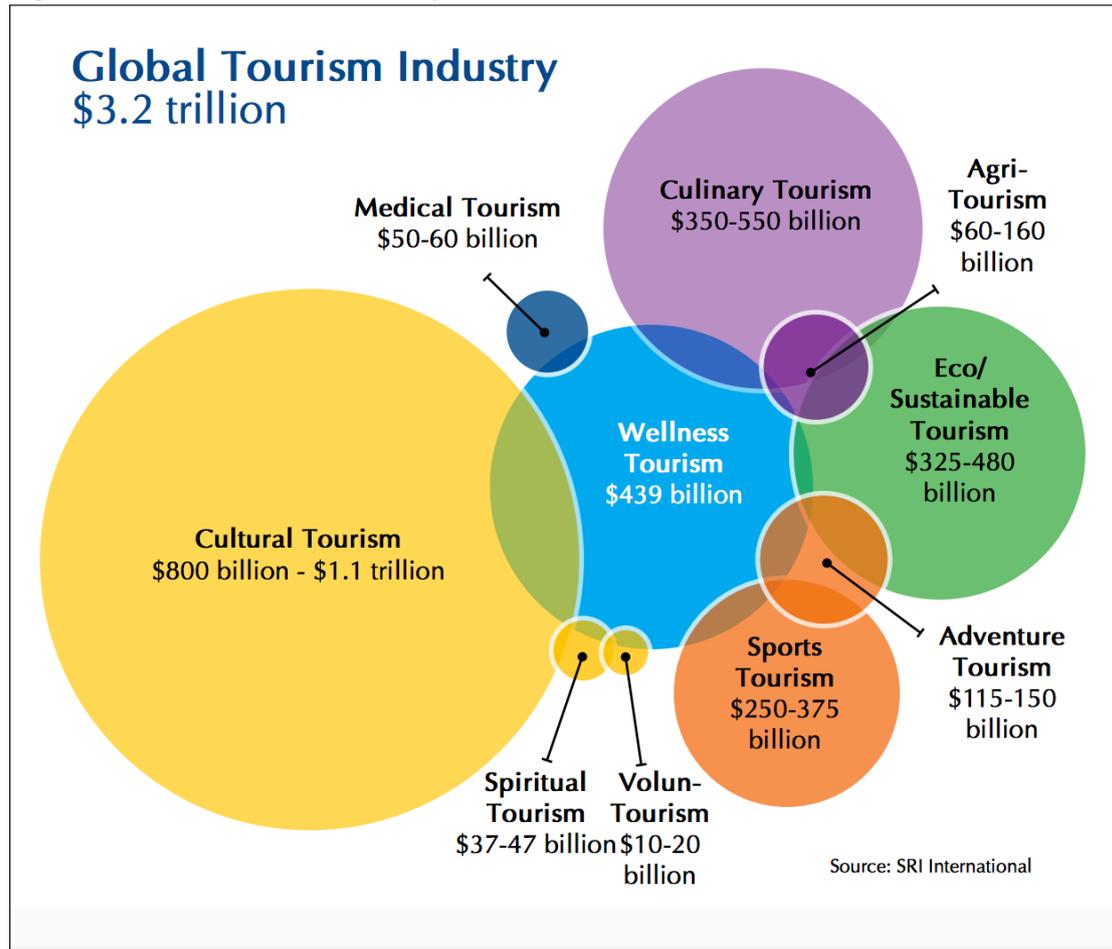
Opportunities abound for Suriname in the area of medicinal products. Depending on the nation's focus areas there are multiple strategies that the country could pursue to benefit from the sector, including investing in wellness tourism, agroforestry and integrated healthcare facilities. These are listed in order of increasing preparatory requirements, which loosely mirror their likely potential payoffs, but will need to be assessed according to Suriname's wider plans as they all present unique advantages and disadvantages.

It should also be noted that due to the location of natural resources and traditional medical knowledge in Suriname, all these options are contingent on resolution of the land rights issues and close cooperation with indigenous and maroon communities.

³³ *Ayurvedic Phytotherapy is an ancient therapeutic method of Indian origin*

Appendix

Figure 1: Global Tourism Industry



Source: Global Wellness Institute – “The Global Wellness Tourism Economy 2013”

http://www.esteswellness.com/assets/wellness_tourism_economy_exec_sum_final_10022013.pdf

Table 1: Medicine Classifications

Traditional medicine: Definitions	
Allopathic medicine	The modern, mainstream system of medical practice in Western countries. It targets disease with remedies that treat or suppress symptoms or the condition itself. It tends to produce effects different from those produced by the disease under treatment.
Complementary/alternative medicine	The terms complementary and alternative medicine are sometimes used interchangeably with the term traditional medicine. They refer to the healthcare practices that are not part of a country's own tradition and are not integrated into the dominant healthcare system.
Herbal medicines	These include herbs, herbal materials, preparations and products that contain plant materials or combinations of plants as active ingredients. Herbalism is the practice of making or prescribing plant-based herbal remedies for medical conditions and is considered a form of alternative medicine.
Integrative medicine	The term refers to the blending of conventional and natural/complementary medicines and/or therapies along with lifestyle interventions in a holistic approach, taking into account the physical, psychological, social and spiritual wellbeing of the person.
Traditional medicine	The overall body of knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether they can be explained or not. These might be used to maintain health as well as prevent, diagnose, improve or treat physical and mental illness.

Source: SciDev.Net – Andrea Rinaldi and Priya Shetty, "Traditional medicine for modern times: Facts and figures", June 2015

<http://www.scidev.net/global/medicine/feature/traditional-medicine-modern-times-facts-figures.html>