Can intellectual property law help feed the world? Informed by C.W. Mills’ 1959 sociological classic, *The Sociological Imagination*, this chapter begins to answer the question of whether intellectual property law can help feed the world by directly relating and linking intellectual property law with the lives of those affected by food insecurity. In exploring the role of intellectual property law in hunger, malnutrition and food insecurity, this chapter begins by suggesting that justifying intellectual property based on advances in technology is compromised by the complexity of food insecurity, and ultimately results in a *technology trap*; a situation in which intellectual property specifies food security as technology at the expense of the relations in which food is produced, distributed and accessed. The chapter then examines Nutriset’s PlumpyField global supply network, an instance in which intellectual property is being used in the fight against hunger, malnutrition and food insecurity. In the context of food insecurity and intellectual property, then, the PlumpyField network provides a model in which intellectual property can be used as a vehicle for social change. More specifically, the PlumpyField network shows how intellectual property can be used to encourage and support local participation in the manufacture and distribution of food and nutritional products, and, thus, help create a local presence, help build local capacity, facilitate access to food and nutritional products, and ensure the quality of food and nutritional products (as well as broader health and safety standards) in developing countries.


The Technology Trap: How Intellectual Property Specifies Food Security as Technology

Proponents of robust intellectual property protection tend to rely on a direct connection between intellectual property and technological advancement to justify the grant of intellectual property in agricultural research and food production. More specifically, supporters of intellectual property law, particularly patents and plant variety rights, in agricultural research and food production argue that intellectual property is a catalyst for research investment and that they create a positive environment in which new, modified and improved technologies are developed. The traditional argument is: if researchers and companies can protect their innovations, and potentially recoup the costs of investment or even earn a profit, through the use of intellectual property rights, they are more likely to innovate and invent.3 The connection between intellectual property and technological advancement is reflected in Article 7 of the Agreement on Trade-related Aspects of Intellectual Property (the ‘TRIPs Agreement’) which sets out the objectives of the intellectual protection and enforcement as ‘contribut[ing] to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare’.4 The corollary of this argument is that, without intellectual property to incentivize agricultural research and food production, there would be less agricultural research, technological development and, ultimately, less food-related innovation.

But, in the context of food insecurity supporting intellectual property based on technological advancement in technology is compromised by the complexity of food insecurity, and by the fact that the link between intellectual property, technology and food security is based on a number of (often unstated) assumptions. One assumption that underpins the use of intellectual property in agricultural research and food production is that food insecurity is caused by a scarcity of food, as well as the related absence of high yielding, pest and climate resilient crops. If, however, we examine the rationale that technological advancement is necessary to overcome the problem of scarcity more closely, and with a sociological imagination, it becomes apparent that developing new technology and producing more food is not the panacea of food insecurity.5 Lappé and Collins, who have been at the forefront of food policy critiques since the 1970s, argue that the source of world hunger is not a lack of food or technology but rather it

---


4 Agreement on Trade-related Aspects of Intellectual Property, Article 7.

5 For an up-to-date and informative overview of the global agri-food system: see Carolan, M. 2012. The Sociology of Food and Agriculture. Oxon: Earthscan.
is colonialism and the subsequent exploitation of multinational companies that are the root causes of world hunger.⁶ Also, in his book *Poverty and Famines: An Essay on Entitlement and Deprivation*, Amartya Sen examines a number of famines including the Bengal Famine of 1943, the Ethiopian Famine of 1972-4 and the Famine of Bangladesh in 1974, and argues that it is a loss of capability or entitlement rather than a scarcity of food that leads to famine. At the time, Sen’s capabilities and entitlement approach challenged the Malthusian logic that there is simply too many people and not enough food, and shifted the focus of away from food production towards issues of ownership and exchange of food or other goods that provide the money to purchase food.⁷ Significantly, Sen argues that in many cases of famine food supplies are not, in absolute terms, insufficient and on this point he is worth quoting at length:

Sometimes famines have coincided with years of peak food availability, as in the Bangladesh famine of 1974. Even when a famine is, in fact, associated with a decline in food production, we still have to go beyond the output statistics to explain why it is that some parts of the population get wiped out, while the rest do just fine. Since food and other commodities are not distributed freely, people’s consumption depends on their ‘entitlements’, that is, on the bundles of goods over which they can establish ownership through production and trade, using their own means. Some people own the food they themselves grow, while other buy them in the market on the basis of incomes earned through employment, trade or business. Famines are initiated by a severe loss of entitlements of one or more occupation groups, depriving them of the opportunity to command and consume food. Famines survive by divide and rule. For example, a group of peasants may suffer entitlement loss when food output in their territory declines, perhaps due to a local drought, even when there is no general dearth of food in the country. The victims would not have the means to buy food from elsewhere, since they wouldn’t have anything much to sell to earn an income, given their own production loss. Others with more secure earnings in other occupations or in other locations may be able to get by well enough by purchasing food from elsewhere.⁸

---

That food insecurity is a problem of access, as well as production, is exemplified by the so-called ‘food crisis’ of 2007-8 that occurred around the world in countries such as Morocco, Egypt, Italy, Haiti, Jordan, the Philippines, Argentina and Mexico. In Mexico for example, tortillas (which have been a staple food in Mexico for thousands of years) became too expensive for much of the Mexican population. This was due to a range of complex, related factors. The North American Free Trade Agreement (NAFTA) entered into force in 1994 between the United States, Canada and Mexico to create the world’s largest free trade area. While the objectives of the NAFTA include reducing barriers to trade in North America, improving working conditions in North America and creating a safe market for goods and services produced in North America, the NAFTA also tied Mexican corn production to the North American market. In the early 2000s, climate change became a driving force in international, regional and national policy and numerous countries introduced laws and regulation encouraging the use of agro-fuels. In 2005, the United States Congress, for example, established various measures to help reduce greenhouse gas emissions by encouraging the development and use of renewable fuels; leading, in 2007, to the introduction of the Renewable Fuels Standards program which set an agro-fuel mandate that encouraged the use of corn as fuel.

Unsurprisingly, the demand for corn for use as a fuel increased substantially in the United States during the mid-2000s, leaving many farmers with little choice but to use their land for the production of corn for agro-fuel rather than for food. As McMichael summarizes the situation: “through rising demand for agro-fuels, and feed crops – to exacerbate food price inflation as their mutual competition for land has the perverse effect of rendering each crop more lucrative, as they also displace land used for food crops”. In Mexico, the effect of this was that corn production moved away from contributing to staple foods such as tortillas and towards agro-fuels for the high value United States market. As a consequence Mexico, a country defined by corn, had to import corn from the United States.

and, as a consequence, the price of tortillas doubled during 2006.\textsuperscript{13} So devastating has been the confluence of the NAFTA and the demand for agro-fuels on food supply that, on 9 August 2012 the Director General of the United Nations’ Food and Agriculture Organization (FAO), José Graziano da Silva, called on the United States to suspend its ethanol mandate so that more crops, particularly corn, could be diverted back to food production.\textsuperscript{14}

Another assumption that underpins and informs the use of intellectual property in agricultural research and food production is that intellectual property leads to crop improvement, and that ultimately this will lead to food security. Although the question of whether intellectual property law provides an incentive for technological development has been asked for decades, incentive-based rationales for intellectual property have proven difficult to substantiate.\textsuperscript{15} Robert Merges sums up the problem of demonstrating that intellectual property provides an incentive to innovate or create in the following way:

Estimating costs and benefits, modelling them over time, projecting what would happen under counterfactuals (such as how many novels or pop songs really would be written in the absence of copyright protection, and who would benefit from such a situation) – these are all overwhelmingly complicated tasks. And this problem poses a major problem for utilitarian theory. The sheer practical difficulty of measuring or approximately all the variables involved means that the utilitarian program will always be at best aspirational.\textsuperscript{16}

In addition to the broader questions about whether intellectual property provides an incentive for technological development, the impact of technology on food insecurity is unclear. Although there have been attempts empirically to assess

\begin{itemize}
\end{itemize}
the impact of technology on food security, this, in a similar way to proving that intellectual property law provides an incentive for technological advancement, has proven difficult. In keeping with a sociological imagination when thinking about the effect of technology on food security, it is helpful to consider the people affected by technological advances in agriculture and food production rather than merely focusing on the technological advances related to agriculture and food production. In this way the so-called Green Revolution is an ideal site to scrutinize the effect of technological advances and crop improvement on food security.

First used in 1968 by William Gaud, the Director of the United States Agency for International Development, the phrase ‘the Green Revolution’ refers to a period of technological advancement that began in the 1940s and lasted until the late 1970s. This period was characterized by the modernization of agriculture through a suite of measures including improved crop varieties, irrigation, fertilizers, pesticides, extension services and the availability of credit to farmers. There is no denying that the Green Revolution had a significant impact on agriculture, for example: wheat production in Pakistan increased by 60 per cent from 1967 to 1969; India achieved self-sufficiency in cereals in the mid-1970s; and Indonesia’s rice yields nearly doubled from 1965 to 1989. As one commentator noted: ‘history records no increase in food production that was remotely comparable in scale, speed and duration’. Despite the increases in food production, the impact of the Green Revolution on food security is less clear. Critics of the Green Revolution question whether technological advances – such as improved corn, wheat and rice varieties – resulted in a significant and lasting impact on food security. A review of 300 studies on the Green Revolution published between 1970 and 1989 shows that the effect of the Green Revolution’s improved crop varieties was inconsistent at best: in fact, 80 per cent of the articles reviewed concluded that the Green Revolution increased inequality. More specific condemnation of the Green Revolution has focused on the fact that to be effective the technology developed required considerable resources such as fertilizers, pesticides, irrigation and machinery; all of which


are not always readily available in developing countries. Furthermore, uptake of technology is dependent on policy, the availability of loans, credit or subsidies, and the availability of the necessary infrastructure such as roads, railways and ports. According to critics, the Green Revolution also assumes a one-size-fits-all approach, and, as a consequence, had little impact on developing countries such as Africa which had institutional and structural problems, political and economic instability, corruption and an absence of resolve to make meaningful, long-term change.

When thinking about the role that intellectual property law plays (or might play) in feeding the world it is important to keep in mind that food insecurity is a complex physical, economic, political and social problem. Too often, however, it is assumed that crop improvement is the panacea of food insecurity, and, thus, intellectual property is justified on the grounds that it provides the necessary incentives for crop improvement and food production. While this might be true in some circumstances – and there are a range of technological innovations such as transgenic crops, fertilizers and pesticides that can potentially increase agricultural productivity – merely focusing on the relationship between intellectual property and technological advancement leads to a technology trap: a situation in which food security is specified as technology at the expense of the relations in which food is produced, accessed and distributed. Avoiding the technology trap is particularly important because, despite advances in technology and food production, hundreds of millions of people are hungry not because of an absolute scarcity of food but because they lack the means to produce or purchase the food that they need for a healthy and productive life. With this in mind, the remainder of this chapter examines Nutriset’s PlumpyField global supply network of food and nutritional products, an example of intellectual property being used to encourage and support the participation of entities in developing countries in the manufacture of food and nutritional products.


The PLUMPYFIELD® Global Supply Network: Using Intellectual Property to Encourage and Support Local Participation

Established in 1986, Nutriset is a for-profit company based in France that specializes in developing food and nutritional products that are used to prevent and treat malnutrition and diarrhoea in developing countries. Nutriset is best known for developing, in partnership with the Institut de Recherché pour le Développement (IRD), the first peanut-based ready-to-use therapeutic food (RUTF) for the treatment of severe acute malnutrition known as Plumpy’Nut. Plumpy’Nut comes in a 92 gram foil packet, provides around 500 kcal and is enriched with vital vitamins and minerals. It does not need refrigeration, cooking or water, and lasts up to two years. So effective is Plumpy’Nut in treating acute malnutrition that it is one of the most widely used therapeutic solutions to fight child malnutrition and is used by a number of world health agencies including the United Nations Children’s Fund (UNICEF) and the World Food Programme (WFP). In addition to Plumpy’Nut, Nutriset have developed a wide range of food and nutritional products including Plumpy’Doz, Plumpy’Sup, Nutributter, QBmix and Plumpy’Soy.26

In response to an increase in demand for Plumpy’Nut, as well as pressure to permit local production of Plumpy’Nut, Nutriset’s food and nutritional products and services are distributed to developing countries largely through the PlumpyField network.27 Formalized in 2005, the PlumpyField supply network is a franchising scheme that provides developing countries with access to Nutriset’s products as well as information and know-how about technical matters such as production processes, quality control and management, and staff training. Importantly, the PlumpyField network, and the more recent ZincField network, have been established to allow Nutriset to monitor and control the production of its food and nutritional products.28 By having a high level of involvement and control over the manufacture of their products, Nutriset contend that they are able to do more than merely supply food and nutritional products to those in need. More specifically Nutriset argue that through the PlumpyField network they are able to exclude companies in developed countries from producing Nutriset’s products, and can instead, encourage and support local partners in the (developing) countries to produce their own food and nutritional products. In so doing, Nutriset argue that they are increasing the economic and social effect of their products in developing


28 Launched in 2010, the ZincField global supply network has been established by Nutriset to help treat acute diarrhoea; as of 21 November 2012, the ZincField network has two partners, one in Ethiopia and the other in Tanzania.
countries. In 2012, 12 of the 13 PlumpyField manufacturing partners were based in developing countries (see Table 8.1).

### Table 8.1 PlumpyField Members

<table>
<thead>
<tr>
<th>Manufacturing Partner</th>
<th>Country</th>
<th>Year in which the Manufacturing Partner Joined the PlumpyField Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Société de Transformation Alimentaire (STA)</td>
<td>Niger</td>
<td>2005</td>
</tr>
<tr>
<td>Hilina Enriched Foods</td>
<td>Ethiopia</td>
<td>2006</td>
</tr>
<tr>
<td>Joint Aid Management (JAM)</td>
<td>Mozambique</td>
<td>2007</td>
</tr>
<tr>
<td>Vitaset</td>
<td>Dominican Republic</td>
<td>2008</td>
</tr>
<tr>
<td>Tankjaka Food</td>
<td>Madagascar</td>
<td>2009</td>
</tr>
<tr>
<td>Power Foods</td>
<td>Tanzania</td>
<td>2009</td>
</tr>
<tr>
<td>Edesia</td>
<td>United States of America</td>
<td>2009</td>
</tr>
<tr>
<td>Meds &amp; Foods for Kids</td>
<td>Haiti</td>
<td>2010</td>
</tr>
<tr>
<td>NutriVita Food</td>
<td>India</td>
<td>2010</td>
</tr>
<tr>
<td>InnoFaso</td>
<td>Burkino Faso</td>
<td>2011</td>
</tr>
<tr>
<td>Reco Industries</td>
<td>Uganda</td>
<td>2011</td>
</tr>
<tr>
<td>Samil Industrial Co</td>
<td>Sudan</td>
<td>2011</td>
</tr>
</tbody>
</table>


In addition to the PlumpyField and ZincField networks, Nutristet uses online *Patents Usage Agreements* to grant non-exclusive licences to entities in developing countries.29 The aim of the *Patents Usage Agreements* is to ‘allow.

---

29 Nutriset. 2012. *Patents Usage Agreement*. A copy of the *Patents Usage Agreement* is included in the Appendix (permission to include the Patents Usage Agreement was
companies in developing nations to benefit from [Nutriset’s] common patents and, for this purpose, enter into Usage Agreement via a simplified internet-based system’. To be eligible for the Patents Usage Agreement entities must be local non-government organizations, and must ‘have its production and business site, activity, headquarters, and main shareholders (at least 51% of the share capital) based’ in one of the developing countries in which Nutriset has valid patent rights. According to Nutriset, these countries include Benin, Burkina Faso, Cameroon, Cote d’Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, Kenya, Lesotho, Malawi, Mali, Mauritania, Uganda, Central African Republic, Republic of the Congo, Senegal, Sierra Leone, Sudan, Swaziland, Tanzania, Chad, Togo and Zimbabwe. While the ‘beneficiaries’ of the Patents Usage Agreement are granted non-exclusive authorization to use Nutriset’s patents, they do not receive the associated benefits of joining the Plumpy’Field network. More specifically, in return for being permitted to use the processes and methods needed to prepare (similar) products to those developed by Nutriset the licensee must ‘develop its own formulae, recipes and Products, without assistance from Nutriset and the IRD’, undertake to develop and implement its own quality system and not ‘reproduce and/or imitate the brands, logos, packaging, graphic identity or any other distinctive signs used by Nutriset for its own products, packaging and communication media’. Whilst it is not compulsory for the patent licensee to pay a licence fee they are ‘invited’ to make a 1 per cent contribution of the turnover earned by the sales of the products included in the Usage Agreement to fund the IRD’s research and development. As of 10 December 2012 six entities have signed up to the Patents Usage Agreement (see Table 8.2).

One of the reasons why Nutriset is able to adopt a franchise and licensing system is because they hold intellectual property over some of their products, names and brands. The most well-known of Nutriset’s intellectual property is

---

34 The co-creators of the Plumpy’nut are listed as André Briand (a scientist at the Institut de Recherché pour le Développement (IRD)) and Michel Lescanne (the Chief Executive Officer of Nutriset), although Nutriset is the sole assignee, and administers the patents.
35 In 2010, Nutriset were also involved in a successful domain name dispute over the use of the term ‘plumpynut’ in the domain name <plumpynutinthefild.com>: WIPO
Table 8.2  Parties to Nutriset’s Patents Usage Agreement

<table>
<thead>
<tr>
<th>Parties to Nutriset’s Patents Usage Agreement</th>
<th>Country</th>
<th>Year in which Party Agreed to the Patents Usage Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Les Moulins du Sahel</td>
<td>Mali</td>
<td>2010</td>
</tr>
<tr>
<td>Project Peanut Butte</td>
<td>Sierra Leone</td>
<td>2011</td>
</tr>
<tr>
<td>Kamili Packers LTD</td>
<td>Kenya</td>
<td>2011</td>
</tr>
<tr>
<td>ETS Agrisol</td>
<td>Chad</td>
<td>2011</td>
</tr>
<tr>
<td>INSTA Products (EPZ) LTD</td>
<td>Kenya</td>
<td>2011</td>
</tr>
<tr>
<td>Project Peanut Butter</td>
<td>Malawi</td>
<td>2012</td>
</tr>
<tr>
<td>Nkhoma Hospital</td>
<td>Malawi</td>
<td>2012</td>
</tr>
<tr>
<td>Valdafrique Laboratories</td>
<td>Senegal</td>
<td>2012</td>
</tr>
<tr>
<td>Canonne</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


the Plumpy’Nut patent which is registered with the World Intellectual Property Organization (WIPO) with the title *High Energy Complete Food or Nutritional Supplement, Method for Preparing Same and Uses Thereof.* 36 The Plumpy’Nut patent has been registered with the French patent office, the Canadian Intellectual Property Office, the European Patent Office and the United States Patent and Trademark Office. Perhaps most importantly, however, Nutriset has strategically sought, and been granted, patents in a number of developing countries including Benin, Burkina Faso, Cameroon, Cote d’Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, Kenya, Lesotho, Malawi, Mali, Mauritania, Uganda, Central African Republic, Republic of the Congo, Senegal, Sierra Leone, Sudan, Swaziland, Tanzania, Chad, Togo and Zimbabwe. 37 Somewhat contentiously, the Plumpy’nut patent is broadly written and covers a number of


37 These countries are listed by Nutriset on their website, and are included in the *Patents Usage Agreement.* See, Nutriset. 2012. *Nutriset/IRD’s patents usage agreement.*
products as well as processes for making Plump’nut. The Plumy’nut patent has 23 claims that include, for example, a:

[c]omplete food or nutritional supplement which contains at most 10\% by weight of water, develops an osmolality of less than 100 mOsm/kg after immersion in four times its own volume of water and is stable to oxidation, comprising a mixture of food-grade products, said mixture being coated with at least one lipid-rich substance derived from oleaginous seeds and being enriched in vitamins, soluble or insoluble mineral salts, enzymes or mixtures thereof; [and a]

[p]rocess for the preparation of a complete food or food complement according to claim 1, wherein all or part of the products which provide carbohydrates, the products which provide proteins, and the vitamins, minerals, enzymes and additives is mixed, the products which provide lipids and the coating substance are then added to this mixture, the ingredients are mixed again and the resulting product is then poured into the pack.\textsuperscript{38}

In addition to holding patent rights in both developed and developing countries Nutriset have several registered trade marks. The names PlumpyField, ZincField, Plumpy’Nut, Plumpy’Doz and Nutributter are registered trade marks in a range of jurisdictions world-wide, including the United States and some developing countries. The word PlumpyField, for example, is registered under International Classification 35 (for goods and services related to business management and consultancy, particularly for a franchisor in the field of food production and preparation intended for the prevention and the fight against malnutrition) and the word Plumpy’Nut is registered under International Classification 5 (for food and substances adapted for medical uses, and dietary supplements for human consumption).

One of the defining features of intellectual property is that they enable the owner to control who has access to the products, processes or brands that are protected. Indeed, Nutriset’s franchise and licensing strategy is largely made possible by the fact that they have sought, and been granted, intellectual property in both developed and developing countries. By proactively using and defending its intellectual property, Nutriset is able to exert control over whom, and under what circumstances, their products and services are used. Generally speaking, manufacturers only obtain permission to use Nutriset’s registered patents and trade marks once they have joined the PlumpyField network. Take, for example, the Indian-based company NutriVita Food which was formed in 2010 to ‘eradicate under-nourishment and create a healthy and well nourished younger generation’

Can Intellectual Property Help Feed the World?

in India. NutriVita Food became a PlumpyField member in 2010 and in so doing obtained permission from Nutriset to manufacture and distribute Nutriset’s patented products – including Plumpy’Nut, Plumpy’Sup and Plumpy’Doz. As a PlumpyField member, NutriVita Food can also use the associated PlumpyField, Plumpy’Nut, Plumpy’Sup and Plumpy’Doz trade marks, packaging and branding (see Figures 8.1 and 8.2).

Figure 8.1 Plumpy’Nut

![Plumpy’Nut](image1)

Figure 8.2 Plumpy’Doz

![Plumpy’Doz](image2)

© Nutriset – all rights reserved.
Building Nutritional Autonomy by Creating a Local Presence, Increasing Local Capacity, Facilitating Access and Ensuring the Quality Food Products

By using their patent and trade mark rights to control access to their products, processes and brands Nutriset hopes to encourage and support local participation in the production and distribution of its food and nutritional products. Indeed, one of the underlying principles of the PlumpyField global network, as well as Nutriset’s Patents Usage Agreement, is nutritional autonomy. Defined by Nutriset as ‘[t]he capacity of a country or community to set up a sustainable system to identify and make accessible the nutrients required for the development and good health of its population’,39 nutritional autonomy is similar to the more commonly used concept of food sovereignty. First proposed by the international farmers’ advocacy, Via Campesina in the mid-1990s at the World Food Summit, food sovereignty – which was defined in 2007 at an international forum on food sovereignty as ‘the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self-reliant; to restrict the dumping of products in their markets’40 – has come to be a rallying call that is in part a response to the dominance of large corporate-driven food production and the proliferation of free trade policies. With its emphasis on local food systems, putting control and knowledge in the hands of local farmers and local manufacturers, food sovereignty movements are seen as long-term solutions to alleviate hunger, malnutrition and food insecurity.41

The significance of locally oriented solutions to the long-term alleviation of hunger, malnutrition and food insecurity is underlined by criticisms of alternative forms of assistance that are provided to developing countries. One form of assistance, food aid, is a multifaceted approach that is largely driven by international donors and international organizations such as the United Nations’ WFP and FAO. Food aid is often provided in the form of in-kind or subsidized deliveries of food and nutritional products. Traditionally, one of the main strategies of international food aid has been to export food and nutritional products from developed countries.


to those countries in need. Another form of assistance increasingly being used to respond to hunger, malnutrition and poverty is the social business model known as ‘buy one give one’. The ‘buy one give one’ model is an approach in which companies donate products or services to countries or individuals in need every time a customer buys one of their products. One of the largest and most well-known ‘buy one give one’ businesses is Toms shoes; a United States based company founded in 2006 that, for every pair of shoes that someone buys, gives a pair shoes to a child in need. An example of a food-based ‘buy one give one’ business is Two Degrees of Food. Based in the United States, Two Degrees of Food has the slogan ‘Buy a Bar: Give a Meal’, and, have, according to their own website, ‘committed’ over 500,000 meals to those in need.

While food aid and donation programs such as ‘buy one give one’ assist with easing the immediate problem of hunger and the treatment of acute malnutrition, they are less likely to provide long-term, sustainable solutions to food insecurity. These approaches have a tendency to focus on the short-term supply of life-saving energy and nutrients, but are seldom customized to the underlying causes of the problems facing the people being aided. This means that food aid and donation programs can impose ill-fitting solutions on communities. Furthermore, food aid and donation programs are often tied to conditions stipulated by the donor that, rather than support food sovereignty or nutritional autonomy, promote the domestic interests of donor countries, organizations or businesses. The United States, the biggest donor of food aid, for example, commonly ties its food aid to the interests of United States farmers, United States agribusiness and the United States transport industry. Generally speaking, this means that the food and nutritional products donated by the United States are purchased in the United States, packaged in the United States and shipped to the country in need – often to the advantage of United States businesses. By favouring the interests of the

---


43 Other ‘well-known’ buy one give one businesses are Warby Parker (who give a pair of prescription glasses every time a customer buys a pair) and the Human Time Project (in which for every watch sold another is given to a health care worker that ‘needs one’).


The Intellectual Property and Food Project

Donors, food aid and donation programs can undermine local producers, and can cause local markets to be uncompetitive. Ultimately, then, there is minimal long-term improvement in food security by giving away free or cheap imported food and nutritional products. Significantly, some of the aid and donation programs have acknowledged that there are problems associated with free, cheap and/or subsidized food, with many food aid programs shifting their attention to growing the participation of local communities and peoples. In so doing some of the aid and donation programs are purchasing local food and nutritional products from local communities, while others are becoming more focused on local capacity building.48

In light of the criticisms of food aid and donation programs, the advantages of using intellectual property to support locally oriented solutions becomes evident. One benefit of using intellectual property to support local participation is that it creates a presence in the local community. By creating a local presence, farmers, producers and consumers are brought together in a way that benefits the whole community, and in a way that is more likely to lead to the long-term alleviation of hunger, malnutrition and food insecurity. Under the Plumpy’Field network: local farmers benefit by selling produce such as peanuts, oil and sugar to the local manufacturers; local manufacturers benefit from gaining access to Nutriset’s knowledge, skills and practices, and, as a result, are able to produce products that are of a consistently high quality; local people benefit from increased employment, fair wages and good working conditions; local consumers benefit from having access to locally produced food and nutritional products. Nutriset estimate that the PlumpyField network has contributed to the employment of over 500 individuals in developing countries such as Haiti, Ethiopia and India.49 Nutriset also estimate that PlumpyField members have purchased over 800 tons of peanuts, over 870 tons of edible oils and over 970 tons of sugar, all from local farmers.50

Another advantage of creating a local presence is that it helps to build and strengthen local capacity, or to use Sen’s terminology, ‘entitlements’. Building local capacity is perhaps the most important aspect of Nutriset’s use of intellectual property rights: according to the FAO, improving local production by small-scale farmers is one of the best ways of ensuring food security because it provides income and employment for local people.51 Under Nutriset’s franchise model, the PlumpyField members in developing countries act as franchisees to produce

50 Ibid.
and distribute Nutriset products and they also ‘benefit from the enhancements and innovation to these same types of products’. PlumpyField members also benefit from having access to Nutiset’s information and know-how, and by being trained in technical matters such as production processes, quality control and pest management.

Together, the local presence and capacity building strengthen local markets and discourage non-local companies from importing similar products into developing countries. The experience with food aid suggests that the existence of handouts, or cheap imported food and nutritional products, may distort local markets and prevent local industry from flourishing. This means that if Nutriset’s products are manufactured without restriction in developing countries and are then shipped to other developing countries, then to the extent there are local producers and manufacturers, they face greater (often subsidized) competition before they can have successful businesses that contribute to the local economy and create local employment. Furthermore, if companies in the developed world are able to drive down the price of products such as Plumpy’Nut, this may create disincentives for longer term investments, discourage domestic food production, hurt local peanut growers, workers and manufacturers, and ultimately cause long-term harm to developing countries. Referring to Nutriset’s much sought after Plumpy’Nut, Adeline Lescanne, Deputy General Manager of Nutriset, states:

Some may pretend they are able to produce the equivalent of Plumpy’Nut at a cheaper price, but we fear that those solutions may not be [long lasting]. What should be the goal: to have companies manufacturing an RUTF in the North or to have them helping to develop local nutrition capacities, working with local health authorities, transferring competences to the South?

Yet another benefit of Nutriset’s locally-oriented approach is that it facilitates access to important and necessary food and nutritional products. The idea that Nutriset’s use of intellectual property may improve access to life-saving food and nutritional products is inconsistent with the sentiments of opponents to Nutriset’s approach. Critics of the Plumpy’Nut patent argue that intellectual property restricts access to life-saving products because they grant a monopoly over vital products and processes that reduces competition for those products and processes. In 2009,


two United States based not-for-profit companies, Breedlove Foods and Mama Cares Foundation, sought a declaration that, by producing their own peanut-based RUTF called Re:Vive, they were not infringing Nutriset’s United States patent Food or Nutritional Supplement, Preparation Method and Uses (Patent Number 6,346,284). The plaintiffs also claimed that Nutriset’s patent is invalid because it is not novel or non-obvious. To be successful in such a claim the Breedlove Foods and Mama Cares Foundation had to satisfy the court that there was a ‘substantial controversy’. In this case the plaintiffs claimed that Nutriset had declined to licence the Plumpy’Nut patent to third parties and that they had also ‘warned’ other companies that they would not tolerate infringement of the Plumpy’Nut patent.

In finding for Nutriset, the United States District Court concluded that Breedlove Foods and Mama Cares did not show a ‘substantial controversy’ required by the relevant law, because the ‘plaintiff’s complaint fails to allege any contact between plaintiffs and defendant prior to litigation, informal or otherwise’ and because ‘these facts are insufficient to establish an actual controversy’. While the dispute between Mama Cares, Breedlove Foods and Nutriset was decided on a technical legal issue, and, therefore, the United States District Court did not comment on the appropriateness of Nutriset’s use of its patent rights, it does raise the question about whether intellectual property hinders access to necessary food and nutritional products. On the one hand, media and commentary on the dispute portray it as one between two charities and a money-driven corporation, where intellectual property is being used by the corporation to hinder the production of the life-saving Plumpy’Nut. In a similar way, Breedlove and Mama Cares were quick to claim that Nutriset was limiting access to life-saving peanut-based nutritional supplements, and that Nutriset is more concerned with avoiding competition and enhancing its profits than humanitarian needs. On the other hand, it can be argued that using intellectual property to support the local production and manufacture of food and nutritional products facilitates, rather than hinders, access to food and nutritional products, and in the long term this will have a bigger impact on hunger, malnutrition and food insecurity. While the bulk

55 Cooper, above n 46.
56 The claim was made under the Declaratory Judgment Act 28 U.S.C., § 2201(a).
58 Mama Cares Foundation v Nutriset Société Par Actions Simplifiée, United States District Court for the District of Columbia (18 November 2012).
of Plumpy’Nut is still being produced in France, in 2011, according to Nutriset, 11,676 metric tons (out of a total of 46,000 metric tons) of Plumpy’Nut were made in developing countries such as Haiti (by Meds & Food for Kids), Ethiopia (by Hilina Enriched Foods), India (by NutriVita Foods) and Sudan (by Samil Industrial Company).60

A locally oriented approach can help overcome the difficulty of reaching the target population in nations with poor infrastructures, political instability and conflict that characterize many food insecure countries. Locally sourced and produced products are more accessible for a number of reasons. First, the food and nutritional products produced by PlumpyField members do not have far to travel in order to reach its destination. This means that there are fewer delays between the production and distribution of the products, as well as lower transportation and administration costs. It also means that the local manufacturer can be an integral part of local public health programs. In addition to the logistical advantages of locally-oriented production and distribution of food and nutritional products there are also broader political and social reasons why access to food and nutritional products might be improved through local production. Predictably, in countries suffering from famine and malnutrition, food is a valuable commodity that is often fought over. This means that access to imported food aid and food supplies is sometimes disrupted by militia groups and political leaders in order to exert control, gain a financial advantage or even to show their abhorrence of developed countries such as the United States. Alarming, a number of humanitarian aid workers, from organizations such as Doctors Without Borders and the World Food Programme, have been attacked and killed by militia groups, armed soldiers or individuals in countries suffering the worst famines such as Sudan, Ethiopia, Iraq and Somalia.61 In Somalia, in 2012, the International Committee of the Red Cross was forced to suspend its food aid due to the dangers presented by the Islamish Shebab insurgency. Militia groups and political leaders have also affected shipments of Nutriset’s Plumpy’Nut: in July 2011, for example, an aid flight carrying enough Plumpy’Nut to feed 3,500 children for a month arrived in Somalia but its distribution was unreliable because of the influence of the Islamish Shebab and their belief that food and nutritional aid is supplied largely by the United States, a country viewed by the Somalia Militia as anti-Muslim.62

Yet another benefit of Nutriset’s locally oriented approach is that Nutriset is able to ensure that the processes used and products produced are of a high standard. Indeed, Nutriset supplies PlumpyField members with the essential minerals and vitamins used in the form of a premix so that local manufacturers can produce

---

60   Key Figures, above n 49.
62   See ibid.
food and nutritional products that are of a consistent, reliable and effective quality. By providing the necessary vitamins and minerals, as well as information, know-how and guidance on quality assurance, food handling, food safety and pest management, Nutriset has a direct, positive impact on local manufacturers. While a patent right does not guarantee the quality of the patented product or process, there is a body of research showing that Plumpy’Nut is effective in treating severe acute malnutrition; with a success rate of over 80 per cent.63 As a consequence of the direct involvement of Nutriset in the manufacturing process, many of the local manufacturers sell their locally sourced and produced products to international, regional and national aid agencies, as well as to local clinics and suppliers. Furthermore, the associated trade marks act as a ‘badge of origin’ so that aid agencies, and ultimately end-users, are assured that they are using ‘real’ Nutriset products that meet their expectations and that have been scientifically shown to be effective. In 2012, for example, Haitian-based Meds & Food for Kids entered into a long-term agreement with the UNICEF so that its version of Plumpy’Nut, Medika Mamba, will be purchased by UNICEF and used to treat child malnutrition in Haiti. In order to reach this agreement with UNICEF, Meds & Foods for Kids had to meet various quality standards and targets, Meds & Food for Kids acknowledge that becoming a PlumpyField member made this process easier.

In addition to directly ensuring the quality of the products produced by local manufacturers, Nutriset’s involvement with local manufacturers has a secondary benefit for local manufacturers as they are better placed to be involved in other projects. This is achieved in part because the manufacturing partners, and their employees, develop a broader set of knowledge and skills around production processes, quality control, and health and safety procedures. In 2011, for example, Meds & Food for Kids were awarded a competitive United States Department of Agriculture grant to develop and implement a school snack program through Haiti’s National School Lunch Program. Meds & Food for Kids believe that this program will decrease the incidence of anaemia, and as a consequence, will improve Haitian children’s school attendance and educational outcomes.

As yet, the full impact of Nutriset’s locally oriented approach is unknown.64 That said, Nutriset is quick to declare the success of its approach by publishing


64 In 2011, Plantéte D’Entrepreneurs, a French non-governmental organization, conducted a social impact assessment of the PlumpyField Network at Hilina Enriched Foods in Ethiopia. The Plantéte D’Entrepreneurs examined how the PlumpField network affected the transfer of skills, capacity and know-how, imported technology, the local economy, job creation and standards of living. Unfortunately the results of the Plantéte D’Entrepreneurs study are not yet publicly available. It also appears that the study was commissioned by Nutriset. Personal communication with Hilina Enriched Foods, 22 November 2012.
various figures on employment (over 500 jobs in developing countries) and benefits to local farmers (with, as already noted, over 800 tons of peanuts; over 870 tons of edible oils; and over 970 tons of sugar purchased from local farmers). PlumpyField members also proclaim the success of the PlumpyField network. The first local factory was opened in Malawi in 2005 and since then a number of PlumpyField members have shown positive signs from their involvement in the PlumpyField network. Established in 1998 to manufacture a range of food products specifically designed to alleviate malnutrition and other micronutrient deficiencies in Ethiopia, Hilina Enriched Foods became a PlumpyField member in 2006. In this time, and through the use of Nutriset’s patented products (particularly Plumpy’Nut) Hilina claims that ‘70% of the raw materials required for the production of Plumpy nut are produced locally’ and that this ‘translates into many positive spin-off effects for the local economy’. Since becoming a PlumpyField member, Hilina has opened a new distribution centre, has increased its production capacity and become the first Ethiopian company to gain the ISO 22000: 2005 food safety certification by demonstrating that they have the ability to control food safety hazards in order to ensure that their food and nutritional products are safe. Furthermore, UNICEF signed a long-term agreement with Hilina for the supply of Plumpy’Nut. Another local manufacturer, Haitian-based Meds & Food for Kids (whose mission is to improve access to innovative nutritional solutions meeting international quality standards through local production, close to the populations requiring them), has also benefited from becoming a PlumpyField member. Recently, on 26 October 2012, Meds & Food for Kids opened a new 18,000 square foot facility in Cap Haitian, Haiti. Prior to this Meds & Food for Kids operated out of the second floor of a converted home. Significantly, the new factory employed up to 60 people during the construction process and has the capacity to produce ten times more of the Meds & Foods for Kids’ version of Plumpy’nut, known as Medika Mamba. Meds & Food for Kids employ 22 people to run the factory and three more in agricultural programs to boost agricultural capacity and who source peanuts from 300 local farmers. Finally, as we saw earlier, Meds & Foods for Kids have been awarded a competitive United States Department of Agriculture grant to develop and implement a school snack program through Haiti’s National School Lunch Program.

65 Key Figures, above n 49.
68 Hilina Enriched Foods, above n 66.
Concluding Thoughts … Thinking about Intellectual Property and Food Sociologically

This chapter began with the question of whether intellectual property law can help feed the world. In the preceding pages I have explored some of the assumptions that underpin the justification of extending intellectual property law to agricultural research and food production. While it is an exaggeration to say that technology is not important in achieving food security, when thinking about the role that intellectual property plays in food security it is vital to not single-and-narrow-mindedly associate intellectual property with stimulating agricultural research and food production. Doing so, I have argued, results in a technology trap; a predicament in which intellectual property specifies food security as technology at the expense of the relations in which food is produced, accessed and distributed.

In the context of food insecurity, technology-based justifications are complicated by the fact that food insecurity is a physical, economic, political and social problem. More to the point: food insecurity is not about food per se but about the relations within which food is produced, distributed and accessed. Informed by a sociological imagination, this chapter has shown how intellectual property is being used by a French company, Nutriset, as a vehicle for social change to encourage and support the local production of their food and nutritional products. While more needs to be done to assess intellectual property’s role in feeding the world, the PlumpyField supply network suggests that intellectual property can play a pivotal role in encouraging and supporting local participation in the production and distribution of food and nutritional products. Indeed, the PlumpyField network, and its associated patents and trade marks, allow Nutriset to control the circumstances in which their products, processes and names and logos are used. In this way, Nutriset’s intellectual property is being used to create a local presence, help build local capacity, facilitate access to food and nutritional products, and ensure the quality of food and nutritional available in developing countries.

Finally, a word of warning. This chapter should not be read as promoting, in all situations, the use of intellectual property over agricultural research and food production. Using intellectual property to help alleviate hunger, malnutrition and food insecurity is not a one-size-fits-all solution as results produced by intellectual property are contingent upon the relations between law, science, technology, politics, attitudes, practices and individuals. To answer my original question – can intellectual property law can help feed the world? – with anything but caution, circumspection and qualification (over)-simplifies a complex problem. This means that the question of whether intellectual property law can play a meaningful role in alleviating hunger, malnutrition and food insecurity must be answered on a case-by-case basis, taking into account the particular mixture of physical, economic, political and social problems facing those people affected. This, according to C.W. Mills, necessitates a capacity to shift from one perspective to another, and in the process to build up an
Can Intellectual Property Help Feed the World?

adequate view of a total society and its components’.70 Only then can we begin to answer the question of whether intellectual property can help feed the world.

Appendix

This Agreement is concluded by and between:

BENEFICIARY, a TYPE OF BUSINESS, registered in COUNTRY under number REGISTRATION NUMBER, with its registered headquarters at HEAD OFFICES, COUNTRY, and represented by TITLE FIRST NAME SURNAME, acting in HIS/HER capacity as JOB POSITION, duly designated for this purpose,

Hereafter referred to as the "Beneficiary",

On the one hand,

AND

NUTRISET S.A.S. Société par actions simplifiée, registered with the "Registre du Commerce et des Sociétés" (Trade Register) of Rouen, France, under number B 337 986 796, with its registered headquarters at Le Bois Ricard, BP 35, 76770 Malaunay, France, and represented by Mrs. Adeline Lescanne-Gautier, acting in her capacity as General Manager, duly designated for this purpose,

Hereafter referred to as "Nutriset",

On the other hand,

Hereafter referred to individually as the "Party" or jointly as the "Parties", depending on the context.

WHEREAS THE FOLLOWING HAS BEEN PRESENTED:

Nutriset is entirely dedicated to the research, development, production, marketing and distribution of products to improve the nutritional status of children and other vulnerable persons in developing countries.

In 1996, Nutriset and the IRD (French public Institute for Research and Development) invented and patented a technological process consisting of a method for preparing and using food supplements which enabled the development of the product Plumpy'nut®, an alternative to products used until then for the treatment of severe malnutrition.

The product Plumpy'nut® and other products of this type since developed by Nutriset, are widely used in humanitarian aid programs for the prevention and treatment of different forms of acute malnutrition affecting vulnerable groups in developing countries.

In an effort to facilitate access to and the availability of this type of product for populations suffering from the affliction of malnutrition, Nutriset, in agreement with the IRD, has initiated and developed a network of producers united around a common project: the fight against malnutrition. This network, named PlumpyField, has more than ten members in 2011, producing, marketing and distributing Nutriset products using Nutriset know-how.

Nutriset and the IRD wish to go even further in their approach to ensuring access to products for the fight against malnutrition. It is in this spirit that the two partners have wished to allow companies in developing nations to benefit from their common patents and, for this purpose, enter into Usage Agreements via a simplified internet-based system.

70 Mills, n 1 above. 211.
In accordance with an agreement between the IRD and Nutriset, Nutriset is the exclusive user of their jointly filed patents and is fully authorized to conclude Usage Agreements.

BENEFICIARY, whose main business is: SECTORS OF ACTIVITY IN COUNTRY, wishes to contribute to the field of nutrition by producing nutritional products for consumption by vulnerable populations.

To this end, BENEFICIARY and Nutriset wish to enter into a non-exclusive and non-transferable Patents Usage Agreement, according to the terms and conditions defined in the present Agreement.

IN CONSEQUENCE, the Parties agree as follows:

**Article 1 : Definitions**
Each of the words and expressions mentioned below in the present Agreement will have the following meanings:

- **Agreement** : refers to the present Usage Agreement and its appendixes.
- **Patents** : refers to patents jointly held by Nutriset and the IRD in the Developing countries stipulated in Appendix A of the present Agreement.
- **Products** : refers to the nutritional products resulting from developments of the Beneficiary under the terms of the present Agreement and entering into the scope of the Patents.
- **Developing Countries** : refers to the countries listed as developing countries according to the HPI +1 (Human Poverty Index) classification of the United Nations Development Program (UNDP) with the exception of Niger and Mozambique, with which exclusive agreements have been concluded by Nutriset.
- **Contractual Year** : designates each period of 366 consecutive days, starting from the first day when the present Agreement enters into effect until the last day of this period.
- **Net turnover** : refers to the amount of Products sales invoiced by the Beneficiary during the Contractual Year, excluding taxes, discounts, rebates, reductions, returns and transportation costs.
- **Territory** : refers to the Developing Countries in which Nutriset and the IRD are joint holders of the Patents.
- **Working-days** : means the days really worked within Nutriset, except Saturdays and Sundays, bank holidays and Nutriset closing days.

**Article 2 : Usage Agreement**
2.1. Nutriset grants the Beneficiary, who accepts, a non-exclusive and non-transferable authorization of use of the Patents in the Territory (as defined in Article 3).

2.2. The Beneficiary certifies that it is a private or public profit or non-profit company, non-governmental organization or society which

- is real and legitimate,
- has its production and business site, headquarters and main shareholders (at least 51% of the capital) based IN COUNTRY.

2.3. The Beneficiary undertakes, within the framework of the use of the Patents in the Territory, to develop its own
formulae, recipes and Products, without assistance from Nutriset and the IRD. Nutriset will not in any way be held responsible for and/or associated with the Beneficiary’s Products, particularly in case of defectiveness of the Products which could cause prejudice to third parties.

2.4. The Beneficiary undertakes to develop and implement its own quality system. Nutriset will not in any way be held responsible for and/or associated with this quality system. The Beneficiary therefore agrees not to claim that its Products follow Nutriset quality assurance and quality control rules.

2.5. The Beneficiary is entirely responsible for obtaining any authorization required to manufacture and use the Products in the Territory.

2.6. The Usage Agreement is personal and non-transferable. In consequence, the Beneficiary may in no case transmit the present Agreement to a third party, nor authorize a third party directly or indirectly to use the Patents. The present Agreement may not be considered as part of the Beneficiary’s assets, nor used by an official receiver, nor be used as an asset brought into a business by the Beneficiary.

2.7. The Usage Agreement is non-exclusive. Nutriset therefore reserves the right to grant Patents use authorizations to third parties in the Territory.

2.8. The Beneficiary states and recognizes that the present Agreement does not violate its bylaws or contractual commitments, that it possesses the technical and financial means to execute the present Agreement and that, generally speaking, nothing prevents it from perfectly executing the present Agreement. Particularly, the Beneficiary declares and acknowledges that it is not nor in a situation in which it is liable to Nutriset for notably any liabilities incurred neither in dispute with Nutriset.

Article 3 : Geographic coverage of the Agreement
In the context of the Patents usage authorization granted to it, the Beneficiary undertakes to produce the Products solely in COUNTRY, for utilization within the Territory.

Article 4 : Compensation
4.1. In compensation for the authorization granted under the terms of the present Agreement, the Beneficiary undertakes to:
- recognize Nutriset and the IRD’s contribution to in the Nutrition sector through the development of innovative and high-quality nutritional products.
- to pay a “Contribution to the IRD’s research works” This contribution is to be 1% of the Net Turnover earned by the Beneficiary during the Contractual Year. It is understood that Nutriset does not expect any financial compensation under the terms of execution of the present Agreement.

4.2. Terms of payment of the Contribution. The Contribution due for the Contractual Year shall be paid directly to the IRD, within a maximum of thirty (30) days from the anniversary date of the present Agreement.

On the anniversary date of the present Agreement, the Beneficiary undertakes to complete an “online declaration form” stating its annual “Contribution to the IRD’s research works”. This web-based form is available at Nutriset’s internet site via the interface “My Space – Usage Agreement by simplified access”.

The Beneficiary undertakes to keep as detailed accounts as possible of all Product sales, so as to enable the IRD to confirm the accuracy of the “Contribution to the IRD’s research works” due from the Beneficiary.

Upon the request of the IRD, the Beneficiary agrees to permit an independent Certified Public Accountant to be appointed to examine said accounts at the Beneficiary’s offices, with reasonable notice and at reasonable times, solely
to check the calculation of the "Contribution to the IRD's research works" due by the Beneficiary. The IRD will bear the costs of these verifications within the limits of reasonable costs and fees.

Article 5: Names, Brands and distinctive signs
5.1. The Products manufactured, marketed and distributed by the Beneficiary, its packaging and means of communication must in no way, shape or form reproduce and/or imitate the brands, logos, packaging, graphic identity or any other distinctive signs used by Nutriset for its own products, packaging and communication media.

5.2. The Beneficiary undertakes to not register or have registered either directly or indirectly any brands, logos or distinctive signs identical and/or similar to those owned by Nutriset in the Territory or anywhere else in the world.

5.3. The Beneficiary undertakes to develop and use its own brands, logos, packaging and graphic identity for the marketing, promotion and distribution of its Products in the Territory.

5.4. The Beneficiary undertakes to clearly and legibly label "Manufactured under Usage Agreement No USAGENUMBER" on all primary and secondary packaging of the manufactured Products.

Article 6: Communication, promotion and information
6.1. The Beneficiary undertakes in all its communications, promotions and information to:
- provide information which reflects the reality of the present Agreement,
- communicate in its capacity as Beneficiary without ever evoking or seeking assimilation with Nutriset and/or Nutriset's partners within the network of local producers (the PlumpyField network) nor seeking or evoking any label of scientific approval from the IRD,
- nor associate its Products in any way whatsoever with those of Nutriset or of the PlumpyField network,
- nor refer to Nutriset products or brands in any way, shape or form whatsoever,
- nor make any defamatory and/or derogating remarks about this Agreement, Nutriset, the PlumpyField network or the IRD.

The Beneficiary further undertakes to clearly indicate in any commercial quotation or reply to a call for bids concerning the Products that it is authorized under a Usage Agreement with Nutriset.

6.2. Nutriset undertakes in all its communications to provide information which reflects the reality of the present Agreement.

Article 7: Intellectual property rights and counterfeiting
7.1. Nutriset certifies that the Patents jointly held with the IRD in the Territory are in force.

7.2. Nutriset reserves all Patents rights in the Territory. To this end, Nutriset will be solely responsible for any procedures concerning the granting or defense or maintenance in force of the Patents. In case of nonpayment of a Patent annuity in the Territory, Nutriset will inform the Beneficiary. The Parties agree that nonpayment of a Patent annuity is not a reason for terminating the Agreement.

7.3. The Beneficiary recognizes Nutriset's Patents rights and undertakes, for the duration of the present Agreement and thereafter not to directly or indirectly dispute Nutriset's Patents rights nor question their validity.

7.4. Should the Beneficiary becomes aware of any act of counterfeiting or unauthorized use of the Patents by a third party in the Territory, the Beneficiary will inform Nutriset as quickly as possible.
Article 8: Guaranties
The Beneficiary assumes any and all risks associated with the present Agreement. Nutriset makes no guarantee in any way, shape or form whatsoever with regard to the utilization of the Patents and shall not be held liable in any way to the Beneficiary concerning but not limited to the design, manufacture, safety, quality, efficacy or use of the Products.

Article 9: Waiver of recourse
9.1. Should a third party take legal action against the Beneficiary with regard to the use of the Patents, the Beneficiary undertakes not to take action against Nutriset but to immediately inform the latter of said action and provide it with a copy. Nutriset undertakes to provide the Beneficiary with any data, record or proof (including Patent ownership), testimony or cooperation reasonably necessary to facilitate the Beneficiary's defense.

9.2. The Beneficiary definitively and irrevocably waives any recourse, legal proceedings or extrajudicial action, as well as any claim against Nutriset and the IRD, regarding Patents and the present Agreement.

Article 10: Relations between the Parties
No terms of this Agreement may be construed or reputed to consider any partnership, mandate, employer–employee relation or association between the Parties.

Article 11: Severability clause
Should one or more clauses of this Agreement be declared invalid, illegal or inapplicable for any reason, by a court or by any authority having due jurisdiction, the clause or clauses shall be amended by Nutriset to fit the Parties' intentions as closely as possible; nevertheless, the rest of the Agreement shall not be affected.

Article 12: Duration
This Agreement shall enter into force within a maximum of seven (7) Working-days from the date of receipt by Nutriset (Date of entry into force) of two originals of the present Agreement signed and initialed on each page by the Beneficiary, and shall be valid in the Territory for three (3) years, tacitly renewable, until the date of expiration of the last Patent in the Territory.

On expiration of this three-year (3yr) period, unless one of the Parties has given notice of cancelation by registered express mail with return receipt respecting a notice period of at least six (6) months, this Agreement shall be renewed for successive three-year (3yr) periods, unless notice has been given six (6) months prior to the expiration of each period as stated above, until expiration of the last Patent in the Territory.

Article 13: Termination
This Agreement may be terminated under the following conditions:
- In case of non-execution by one or the other of the Parties of one or more significant obligations incumbent upon them in virtue of the present Agreement, the adversely affected Party shall send a formal letter by registered express mail with return receipt to the other Party specifically outlining where or how the Party has failed in its obligations. The present Agreement shall then be rightfully terminated in a period of thirty (30) days from reception of said letter if the receiving Party has not remedied the cited failure.
- In case of liquidation, cessation of business or change of ownership of the Beneficiary,
- By mutual written consent of the Parties.

Termination of this Agreement for any reason shall not affect any rights, obligations and responsibilities accumulated up to the date of termination of this Agreement.

Termination of this Agreement either partially or totally shall not free the Beneficiary of its obligations to pay any
"Contribution to the IRD's research works" previously due to the IRD at the effective date of termination.

In case of termination, the Beneficiary shall stop all production, sales and distribution of the Products in the Territory. Nonetheless, Nutriset will allow the Beneficiary to continue to sell and distribute remaining stocks of the Products (but not to manufacture the Products) for a period of six (6) months from the date of termination of this Agreement. During this period, the Beneficiary will continue to sell and distribute the Products in accordance with the terms and conditions of this Agreement and pay the IRD the corresponding "Contribution to the IRD's research works".

**Article 14 : Communication of the Agreement**

14.1. The Beneficiary accepts Nutriset's right to communicate the Beneficiary's contact details publically on the Nutriset website on any other medium.

14.2. Nutriset will remove the Beneficiary's contact details from the Nutriset website in case of termination of this Agreement and may give information on this in its communications.

**Article 15 : Applicable law**
The present Agreement is governed by the French laws and regulations.

**Article 16 : Settlement of dispute**
The Parties agree to bring any disputes that cannot be solved amicably with regard to interpretation, validity, execution or termination of the present Agreement to the competent courts of Paris, France.

EXCLUSION OF GUARANTEE: unless otherwise explicitly stated in the Present Agreement, the Parties expressly agree that they decline any express or implicit guarantee including, without limitation, commercial value, suitability for a specific use, and non-counterfeiting.

IN WITNESS WHEREOF, the Beneficiary and Nutriset execute the present Agreement, by their respective duly designated representatives, as from the Date of entry into force of the present Agreement.

Date of receipt of this Agreement by Nutriset:

**BENEFICIARY**
By: 

**NUTRISET S.A.S**
By: 

Name: FIRST NAME SURNAME
Title: JOB POSITION

Name: Adeline Lescanne-Gautier
Title: General Manager
### Patent 1

<table>
<thead>
<tr>
<th>Title</th>
<th>Country</th>
<th>Filling Date</th>
<th>Patent Application No.</th>
<th>Date of Patent</th>
<th>Patent No.</th>
<th>Date of Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food or nutritional supplement, preparation method and uses</td>
<td>Ghana</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Gambia</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Kenya</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Lesotho</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Malawi</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Sudan</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Swaziland</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Uganda</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
<tr>
<td></td>
<td>Zimbabwe</td>
<td>19/11/1998</td>
<td>AP P 00 01827</td>
<td>06/10/2003</td>
<td>AP 1211</td>
<td>19/11/2018</td>
</tr>
</tbody>
</table>

### Patent 2

<table>
<thead>
<tr>
<th>Title</th>
<th>Country</th>
<th>Filling Date</th>
<th>Patent Application No.</th>
<th>Date of Patent</th>
<th>Patent No.</th>
<th>Date of Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>High energy complete food or nutritional supplement, method for preparing same and uses thereof</td>
<td>Gambia</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
<tr>
<td></td>
<td>Malawi</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
<tr>
<td></td>
<td>Sierra Leone</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
<tr>
<td></td>
<td>Sudan</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
<tr>
<td></td>
<td>Swaziland</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
<tr>
<td></td>
<td>Tanzania</td>
<td>23/10/2001</td>
<td>AP/P/2003/002789</td>
<td>31/07/2006</td>
<td>AP 1647</td>
<td>23/10/2021</td>
</tr>
</tbody>
</table>

© Copyrighted material